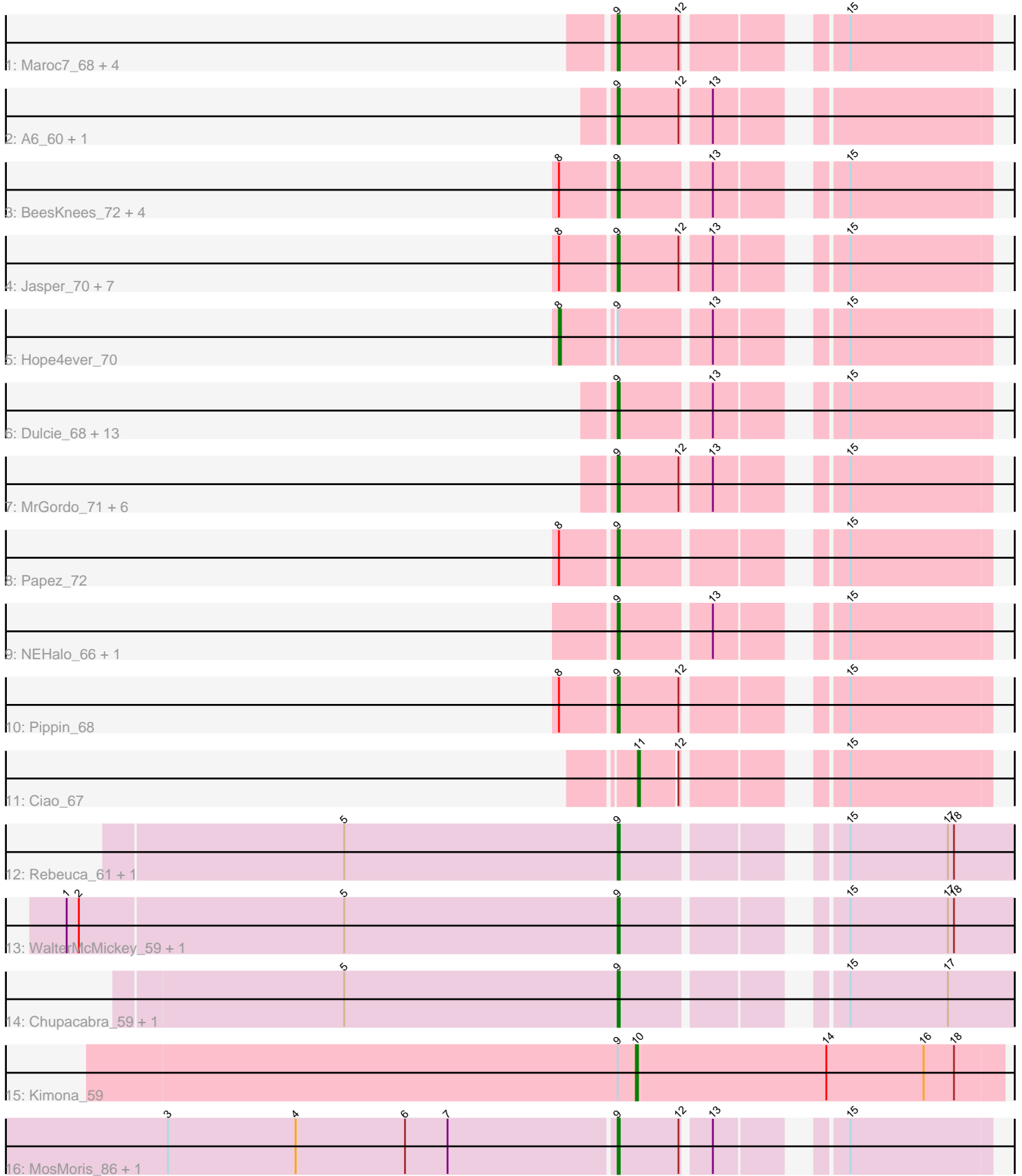


Pham 171499



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 171499 Report

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

Pham number 171499 has 56 members, 3 are drafts.

Phages represented in each track:

- Track 1 : Maroc7\_68, Fascinus\_64, Graduation\_74, CactusRose\_70, Bigfoot\_62
- Track 2 : A6\_60, BK1\_60
- Track 3 : BeesKnees\_72, Molly\_70, Killigrew\_67, Fushigi\_64, SpikeBT\_67
- Track 4 : Jasper\_70, ShortQueendom\_60, SarFire\_68, Thor\_68, Applejack\_69, Dreamboat\_71, PherrisBueller\_70, Sanya\_65
- Track 5 : Hope4ever\_70
- Track 6 : Dulcie\_68, Zeuska\_73, Traft412\_71, Anglerfish\_69, Kugel\_73, Rhynn\_64, Kykar\_70, Rutherford\_69, BigPaolini\_65, Wilkins\_68, Topgun\_67, Seanderson\_70, TwoPeat\_70, Dynamix\_71
- Track 7 : MrGordo\_71, Atkinbua\_72, Slagathor\_71, Gwendoluna\_73, Arcanine\_71, Abrogate\_680, Big3\_69
- Track 8 : Papez\_72
- Track 9 : NEHalo\_66, Rajelicia\_69
- Track 10 : Pippin\_68
- Track 11 : Ciao\_67
- Track 12 : Rebeuca\_61, Kristoff\_60
- Track 13 : WalterMcMickey\_59, Twister\_59
- Track 14 : Chupacabra\_59, Goose\_61
- Track 15 : Kimona\_59
- Track 16 : MosMoris\_86, Gattaca\_89

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

The start number called the most often in the published annotations is 9, it was called in 50 of the 53 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- A6\_60, Abrogate\_680, Anglerfish\_69, Applejack\_69, Arcanine\_71, Atkinbua\_72, BK1\_60, BeesKnees\_72, Big3\_69, BigPaolini\_65, Bigfoot\_62, CactusRose\_70, Chupacabra\_59, Dreamboat\_71, Dulcie\_68, Dynamix\_71, Fascinus\_64, Fushigi\_64, Gattaca\_89, Goose\_61, Graduation\_74, Gwendoluna\_73, Jasper\_70, Killigrew\_67, Kristoff\_60, Kugel\_73, Kykar\_70, Maroc7\_68, Molly\_70, MosMoris\_86, MrGordo\_71, NEHalo\_66, Papez\_72, PherrisBueller\_70, Pippin\_68, Rajelicia\_69, Rebeuca\_61, Rhynn\_64, Rutherford\_69, Sanya\_65, SarFire\_68, Seanderson\_70,

ShortQueendom\_60, Slagathor\_71, SpikeBT\_67, Thor\_68, Topgun\_67, Traft412\_71, Twister\_59, TwoPeat\_70, WalterMcMickey\_59, Wilkins\_68, Zeuska\_73,

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

- Hope4ever\_70, Kimona\_59,

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

- Ciao\_67,

### Summary by start number:

Start 8:

- Found in 16 of 56 ( 28.6% ) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 6.2% of time when present
- Phage (with cluster) where this start called: Hope4ever\_70 (A1),

Start 9:

- Found in 55 of 56 ( 98.2% ) of genes in pham
- Manual Annotations of this start: 50 of 53
- Called 96.4% of time when present
- Phage (with cluster) where this start called: A6\_60 (A1), Abrogate\_680 (A1), Anglerfish\_69 (A1), Applejack\_69 (A1), Arcanine\_71 (A1), Atkinbua\_72 (A1), BK1\_60 (A1), BeesKnees\_72 (A1), Big3\_69 (A1), BigPaolini\_65 (A1), Bigfoot\_62 (A1), CactusRose\_70 (A1), Chupacabra\_59 (A10), Dreamboat\_71 (A1), Dulcie\_68 (A1), Dynamix\_71 (A1), Fascinus\_64 (A1), Fushigi\_64 (A1), Gattaca\_89 (S), Goose\_61 (A10), Graduation\_74 (A1), Gwendoluna\_73 (A1), Jasper\_70 (A1), Killigrew\_67 (A1), Kristoff\_60 (A10), Kugel\_73 (A1), Kykar\_70 (A1), Maroc7\_68 (A1), Molly\_70 (A1), MosMoris\_86 (S), MrGordo\_71 (A1), NEHalo\_66 (A1), Papez\_72 (A1), PherrisBueller\_70 (A1), Pippin\_68 (A1), Rajelicia\_69 (A1), Rebeuca\_61 (A10), Rhynn\_64 (A1), Rutherford\_69 (A1), Sanya\_65 (A1), SarFire\_68 (A1), Seanderson\_70 (A1), ShortQueendom\_60 (A1), Slagathor\_71 (A1), SpikeBT\_67 (A1), Thor\_68 (A1), Topgun\_67 (A1), Traft412\_71 (A1), Twister\_59 (A10), TwoPeat\_70 (A1), WalterMcMickey\_59 (A10), Wilkins\_68 (A1), Zeuska\_73 (A1),

Start 10:

- Found in 1 of 56 ( 1.8% ) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kimona\_59 (A19),

Start 11:

- Found in 1 of 56 ( 1.8% ) of genes in pham
- Manual Annotations of this start: 1 of 53
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ciao\_67 (A1),

### Summary by clusters:

There are 4 clusters represented in this pham: A1, S, A19, A10,

Info for manual annotations of cluster A1:

- Start number 8 was manually annotated 1 time for cluster A1.

- Start number 9 was manually annotated 42 times for cluster A1.
- Start number 11 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster A10:

- Start number 9 was manually annotated 6 times for cluster A10.

Info for manual annotations of cluster A19:

- Start number 10 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster S:

- Start number 9 was manually annotated 2 times for cluster S.

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

Gene: A6\_60 Start: 40654, Stop: 40496, Start Num: 9

Candidate Starts for A6\_60:

(Start: 9 @40654 has 50 MA's), (12, 40624), (13, 40612),

Gene: Abrogate\_680 Start: 44702, Stop: 44544, Start Num: 9

Candidate Starts for Abrogate\_680:

(Start: 9 @44702 has 50 MA's), (12, 44672), (13, 44660), (15, 44612),

Gene: Anglerfish\_69 Start: 43633, Stop: 43475, Start Num: 9

Candidate Starts for Anglerfish\_69:

(Start: 9 @43633 has 50 MA's), (13, 43591), (15, 43543),

Gene: Applejack\_69 Start: 42031, Stop: 41873, Start Num: 9

Candidate Starts for Applejack\_69:

(Start: 8 @42055 has 1 MA's), (Start: 9 @42031 has 50 MA's), (12, 42001), (13, 41989), (15, 41941),

Gene: Arcanine\_71 Start: 44357, Stop: 44199, Start Num: 9

Candidate Starts for Arcanine\_71:

(Start: 9 @44357 has 50 MA's), (12, 44327), (13, 44315), (15, 44267),

Gene: Atkinbua\_72 Start: 43308, Stop: 43150, Start Num: 9

Candidate Starts for Atkinbua\_72:

(Start: 9 @43308 has 50 MA's), (12, 43278), (13, 43266), (15, 43218),

Gene: BK1\_60 Start: 40654, Stop: 40496, Start Num: 9

Candidate Starts for BK1\_60:

(Start: 9 @40654 has 50 MA's), (12, 40624), (13, 40612),

Gene: BeesKnees\_72 Start: 43271, Stop: 43113, Start Num: 9

Candidate Starts for BeesKnees\_72:

(Start: 8 @43295 has 1 MA's), (Start: 9 @43271 has 50 MA's), (13, 43229), (15, 43181),

Gene: Big3\_69 Start: 45192, Stop: 45034, Start Num: 9

Candidate Starts for Big3\_69:

(Start: 9 @45192 has 50 MA's), (12, 45162), (13, 45150), (15, 45102),

Gene: BigPaolini\_65 Start: 41391, Stop: 41233, Start Num: 9

Candidate Starts for BigPaolini\_65:  
(Start: 9 @41391 has 50 MA's), (13, 41349), (15, 41301),

Gene: Bigfoot\_62 Start: 42484, Stop: 42326, Start Num: 9  
Candidate Starts for Bigfoot\_62:  
(Start: 9 @42484 has 50 MA's), (12, 42454), (15, 42394),

Gene: CactusRose\_70 Start: 43504, Stop: 43346, Start Num: 9  
Candidate Starts for CactusRose\_70:  
(Start: 9 @43504 has 50 MA's), (12, 43474), (15, 43414),

Gene: Chupacabra\_59 Start: 39866, Stop: 39669, Start Num: 9  
Candidate Starts for Chupacabra\_59:  
(5, 40001), (Start: 9 @39866 has 50 MA's), (15, 39776), (17, 39728),

Gene: Ciao\_67 Start: 42669, Stop: 42523, Start Num: 11  
Candidate Starts for Ciao\_67:  
(Start: 11 @42669 has 1 MA's), (12, 42651), (15, 42591),

Gene: Dreamboat\_71 Start: 42731, Stop: 42573, Start Num: 9  
Candidate Starts for Dreamboat\_71:  
(Start: 8 @42755 has 1 MA's), (Start: 9 @42731 has 50 MA's), (12, 42701), (13, 42689), (15, 42641),

Gene: Dulcie\_68 Start: 44649, Stop: 44491, Start Num: 9  
Candidate Starts for Dulcie\_68:  
(Start: 9 @44649 has 50 MA's), (13, 44607), (15, 44559),

Gene: Dynamix\_71 Start: 43175, Stop: 43017, Start Num: 9  
Candidate Starts for Dynamix\_71:  
(Start: 9 @43175 has 50 MA's), (13, 43133), (15, 43085),

Gene: Fascinus\_64 Start: 42998, Stop: 42840, Start Num: 9  
Candidate Starts for Fascinus\_64:  
(Start: 9 @42998 has 50 MA's), (12, 42968), (15, 42908),

Gene: Fushigi\_64 Start: 41064, Stop: 40906, Start Num: 9  
Candidate Starts for Fushigi\_64:  
(Start: 8 @41088 has 1 MA's), (Start: 9 @41064 has 50 MA's), (13, 41022), (15, 40974),

Gene: Gattaca\_89 Start: 48602, Stop: 48760, Start Num: 9  
Candidate Starts for Gattaca\_89:  
(3, 48383), (4, 48446), (6, 48500), (7, 48521), (Start: 9 @48602 has 50 MA's), (12, 48632), (13, 48644), (15, 48692),

Gene: Goose\_61 Start: 39682, Stop: 39485, Start Num: 9  
Candidate Starts for Goose\_61:  
(5, 39817), (Start: 9 @39682 has 50 MA's), (15, 39592), (17, 39544),

Gene: Graduation\_74 Start: 44809, Stop: 44651, Start Num: 9  
Candidate Starts for Graduation\_74:  
(Start: 9 @44809 has 50 MA's), (12, 44779), (15, 44719),

Gene: Gwendoluna\_73 Start: 45287, Stop: 45129, Start Num: 9

Candidate Starts for Gwendoluna\_73:  
(Start: 9 @45287 has 50 MA's), (12, 45257), (13, 45245), (15, 45197),

Gene: Hope4ever\_70 Start: 43364, Stop: 43182, Start Num: 8  
Candidate Starts for Hope4ever\_70:  
(Start: 8 @43364 has 1 MA's), (Start: 9 @43340 has 50 MA's), (13, 43298), (15, 43250),

Gene: Jasper\_70 Start: 42617, Stop: 42459, Start Num: 9  
Candidate Starts for Jasper\_70:  
(Start: 8 @42641 has 1 MA's), (Start: 9 @42617 has 50 MA's), (12, 42587), (13, 42575), (15, 42527),

Gene: Killigrew\_67 Start: 43283, Stop: 43125, Start Num: 9  
Candidate Starts for Killigrew\_67:  
(Start: 8 @43307 has 1 MA's), (Start: 9 @43283 has 50 MA's), (13, 43241), (15, 43193),

Gene: Kimona\_59 Start: 38835, Stop: 38656, Start Num: 10  
Candidate Starts for Kimona\_59:  
(Start: 9 @38844 has 50 MA's), (Start: 10 @38835 has 1 MA's), (14, 38742), (16, 38694), (18, 38679),

Gene: Kristoff\_60 Start: 40258, Stop: 40082, Start Num: 9  
Candidate Starts for Kristoff\_60:  
(5, 40393), (Start: 9 @40258 has 50 MA's), (15, 40168), (17, 40120), (18, 40117),

Gene: Kugel\_73 Start: 45096, Stop: 44938, Start Num: 9  
Candidate Starts for Kugel\_73:  
(Start: 9 @45096 has 50 MA's), (13, 45054), (15, 45006),

Gene: Kykar\_70 Start: 44029, Stop: 43871, Start Num: 9  
Candidate Starts for Kykar\_70:  
(Start: 9 @44029 has 50 MA's), (13, 43987), (15, 43939),

Gene: Maroc7\_68 Start: 43988, Stop: 43830, Start Num: 9  
Candidate Starts for Maroc7\_68:  
(Start: 9 @43988 has 50 MA's), (12, 43958), (15, 43898),

Gene: Molly\_70 Start: 43621, Stop: 43463, Start Num: 9  
Candidate Starts for Molly\_70:  
(Start: 8 @43645 has 1 MA's), (Start: 9 @43621 has 50 MA's), (13, 43579), (15, 43531),

Gene: MosMoris\_86 Start: 48608, Stop: 48766, Start Num: 9  
Candidate Starts for MosMoris\_86:  
(3, 48389), (4, 48452), (6, 48506), (7, 48527), (Start: 9 @48608 has 50 MA's), (12, 48638), (13, 48650), (15, 48698),

Gene: MrGordo\_71 Start: 43543, Stop: 43385, Start Num: 9  
Candidate Starts for MrGordo\_71:  
(Start: 9 @43543 has 50 MA's), (12, 43513), (13, 43501), (15, 43453),

Gene: NEHalo\_66 Start: 43494, Stop: 43336, Start Num: 9  
Candidate Starts for NEHalo\_66:  
(Start: 9 @43494 has 50 MA's), (13, 43452), (15, 43404),

Gene: Papez\_72 Start: 45006, Stop: 44848, Start Num: 9

Candidate Starts for Papez\_72:

(Start: 8 @45030 has 1 MA's), (Start: 9 @45006 has 50 MA's), (15, 44916),

Gene: PherrisBueller\_70 Start: 42268, Stop: 42110, Start Num: 9

Candidate Starts for PherrisBueller\_70:

(Start: 8 @42292 has 1 MA's), (Start: 9 @42268 has 50 MA's), (12, 42238), (13, 42226), (15, 42178),

Gene: Pippin\_68 Start: 42464, Stop: 42306, Start Num: 9

Candidate Starts for Pippin\_68:

(Start: 8 @42488 has 1 MA's), (Start: 9 @42464 has 50 MA's), (12, 42434), (15, 42374),

Gene: Rajelicia\_69 Start: 44867, Stop: 44709, Start Num: 9

Candidate Starts for Rajelicia\_69:

(Start: 9 @44867 has 50 MA's), (13, 44825), (15, 44777),

Gene: Rebeuca\_61 Start: 40259, Stop: 40083, Start Num: 9

Candidate Starts for Rebeuca\_61:

(5, 40394), (Start: 9 @40259 has 50 MA's), (15, 40169), (17, 40121), (18, 40118),

Gene: Rhynn\_64 Start: 42450, Stop: 42292, Start Num: 9

Candidate Starts for Rhynn\_64:

(Start: 9 @42450 has 50 MA's), (13, 42408), (15, 42360),

Gene: Rutherferd\_69 Start: 44266, Stop: 44108, Start Num: 9

Candidate Starts for Rutherferd\_69:

(Start: 9 @44266 has 50 MA's), (13, 44224), (15, 44176),

Gene: Sanya\_65 Start: 44121, Stop: 43963, Start Num: 9

Candidate Starts for Sanya\_65:

(Start: 8 @44145 has 1 MA's), (Start: 9 @44121 has 50 MA's), (12, 44091), (13, 44079), (15, 44031),

Gene: SarFire\_68 Start: 43203, Stop: 43045, Start Num: 9

Candidate Starts for SarFire\_68:

(Start: 8 @43227 has 1 MA's), (Start: 9 @43203 has 50 MA's), (12, 43173), (13, 43161), (15, 43113),

Gene: Seanderson\_70 Start: 45615, Stop: 45457, Start Num: 9

Candidate Starts for Seanderson\_70:

(Start: 9 @45615 has 50 MA's), (13, 45573), (15, 45525),

Gene: ShortQueendom\_60 Start: 40573, Stop: 40415, Start Num: 9

Candidate Starts for ShortQueendom\_60:

(Start: 8 @40597 has 1 MA's), (Start: 9 @40573 has 50 MA's), (12, 40543), (13, 40531), (15, 40483),

Gene: Slagathor\_71 Start: 45253, Stop: 45095, Start Num: 9

Candidate Starts for Slagathor\_71:

(Start: 9 @45253 has 50 MA's), (12, 45223), (13, 45211), (15, 45163),

Gene: SpikeBT\_67 Start: 43351, Stop: 43193, Start Num: 9

Candidate Starts for SpikeBT\_67:

(Start: 8 @43375 has 1 MA's), (Start: 9 @43351 has 50 MA's), (13, 43309), (15, 43261),

Gene: Thor\_68 Start: 42561, Stop: 42403, Start Num: 9

Candidate Starts for Thor\_68:

(Start: 8 @42585 has 1 MA's), (Start: 9 @42561 has 50 MA's), (12, 42531), (13, 42519), (15, 42471),

Gene: Topgun\_67 Start: 42804, Stop: 42646, Start Num: 9

Candidate Starts for Topgun\_67:

(Start: 9 @42804 has 50 MA's), (13, 42762), (15, 42714),

Gene: Traft412\_71 Start: 43883, Stop: 43725, Start Num: 9

Candidate Starts for Traft412\_71:

(Start: 9 @43883 has 50 MA's), (13, 43841), (15, 43793),

Gene: Twister\_59 Start: 39820, Stop: 39644, Start Num: 9

Candidate Starts for Twister\_59:

(1, 40090), (2, 40084), (5, 39955), (Start: 9 @39820 has 50 MA's), (15, 39730), (17, 39682), (18, 39679),

Gene: TwoPeat\_70 Start: 43976, Stop: 43818, Start Num: 9

Candidate Starts for TwoPeat\_70:

(Start: 9 @43976 has 50 MA's), (13, 43934), (15, 43886),

Gene: WalterMcMickey\_59 Start: 39820, Stop: 39644, Start Num: 9

Candidate Starts for WalterMcMickey\_59:

(1, 40090), (2, 40084), (5, 39955), (Start: 9 @39820 has 50 MA's), (15, 39730), (17, 39682), (18, 39679),

Gene: Wilkins\_68 Start: 42734, Stop: 42576, Start Num: 9

Candidate Starts for Wilkins\_68:

(Start: 9 @42734 has 50 MA's), (13, 42692), (15, 42644),

Gene: Zeuska\_73 Start: 45732, Stop: 45574, Start Num: 9

Candidate Starts for Zeuska\_73:

(Start: 9 @45732 has 50 MA's), (13, 45690), (15, 45642),