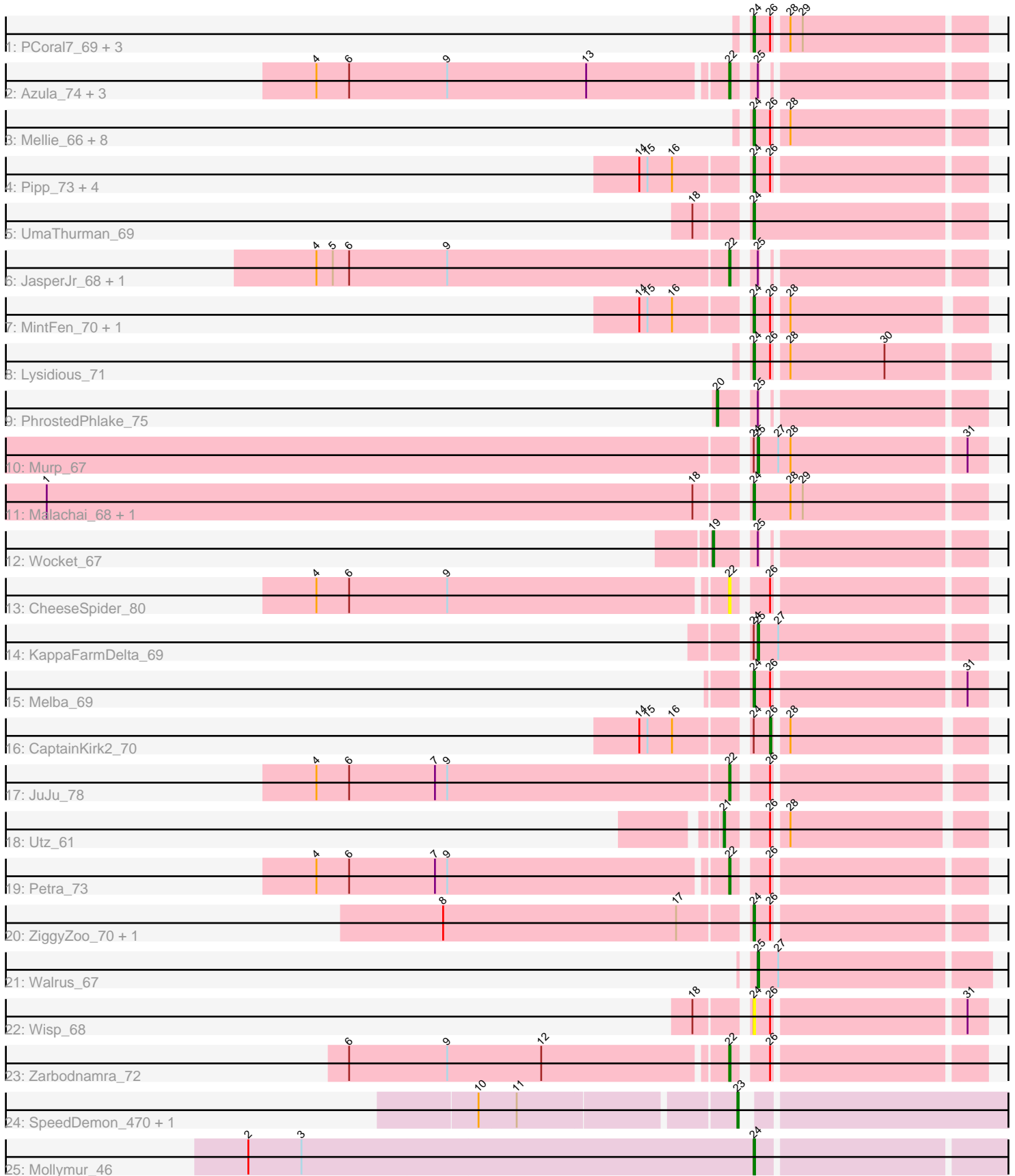


Pham 311712



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 311712 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311712 has 48 members, 3 are drafts.

Phages represented in each track:

- Track 1 : PCoral7\_69, PrincePatrick\_70, William\_72, Toast\_69
- Track 2 : Azula\_74, MissRona\_74, Gambino\_76, Blueberry\_73
- Track 3 : Mellie\_66, Jalammah\_72, Soilmate\_73, Fenry\_68, Hitter\_69, Blino\_71, Samba\_69, Fairfaxidum\_72, CarolAnn\_70
- Track 4 : Pipp\_73, Obliviate\_68, Barco\_66, BlingBling\_65, Zilla\_66
- Track 5 : UmaThurman\_69
- Track 6 : JasperJr\_68, Guacamole\_68
- Track 7 : MintFen\_70, Delian\_73
- Track 8 : Lysidious\_71
- Track 9 : PhrostedPhlake\_75
- Track 10 : Murp\_67
- Track 11 : Malachai\_68, Begonia\_68
- Track 12 : Wocket\_67
- Track 13 : CheeseSpider\_80
- Track 14 : KappaFarmDelta\_69
- Track 15 : Melba\_69
- Track 16 : CaptainKirk2\_70
- Track 17 : JuJu\_78
- Track 18 : Utz\_61
- Track 19 : Petra\_73
- Track 20 : ZiggyZoo\_70, Archis\_71
- Track 21 : Walrus\_67
- Track 22 : Wisp\_68
- Track 23 : Zarbodnamra\_72
- Track 24 : SpeedDemon\_470, Bantam\_46
- Track 25 : Mollymur\_46

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

The start number called the most often in the published annotations is 24, it was called in 27 of the 45 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Archis\_71, Barco\_66, Begonia\_68, BlingBling\_65, Blino\_71, CarolAnn\_70, Delian\_73, Fairfaxidum\_72, Ferry\_68, Hitter\_69, Jalammah\_72, Lysidious\_71, Malachai\_68, Melba\_69, Mellie\_66, MintFen\_70, Mollymur\_46, Obliviate\_68, PCoral7\_69, Pipp\_73, PrincePatrick\_70, Samba\_69, Soilmate\_73, Toast\_69, UmaThurman\_69, William\_72, Wisp\_68, ZiggyZoo\_70, Zilla\_66,

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

- CaptainKirk2\_70, KappaFarmDelta\_69, Murp\_67,

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

- Azula\_74, Bantam\_46, Blueberry\_73, CheeseSpider\_80, Gambino\_76, Guacamole\_68, JasperJr\_68, JuJu\_78, MissRona\_74, Petra\_73, PhrostedPhlake\_75, SpeedDemon\_470, Utz\_61, Walrus\_67, Wocket\_67, Zarbodnamra\_72,

### Summary by start number:

Start 19:

- Found in 1 of 48 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 1 of 45
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Wocket\_67 (CV),

Start 20:

- Found in 1 of 48 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 1 of 45
- Called 100.0% of time when present
- Phage (with cluster) where this start called: PhrostedPhlake\_75 (CV),

Start 21:

- Found in 1 of 48 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 1 of 45
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Utz\_61 (CV),

Start 22:

- Found in 10 of 48 ( 20.8% ) of genes in pham
- Manual Annotations of this start: 9 of 45
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Azula\_74 (CV), Blueberry\_73 (CV), CheeseSpider\_80 (CV), Gambino\_76 (CV), Guacamole\_68 (CV), JasperJr\_68 (CV), JuJu\_78 (CV), MissRona\_74 (CV), Petra\_73 (CV), Zarbodnamra\_72 (CV),

Start 23:

- Found in 2 of 48 ( 4.2% ) of genes in pham
- Manual Annotations of this start: 2 of 45
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bantam\_46 (DL), SpeedDemon\_470 (DL),

Start 24:

- Found in 32 of 48 ( 66.7% ) of genes in pham
- Manual Annotations of this start: 27 of 45
- Called 90.6% of time when present

- Phage (with cluster) where this start called: Archis\_71 (CV), Barco\_66 (CV), Begonia\_68 (CV), BlingBling\_65 (CV), Blino\_71 (CV), CarolAnn\_70 (CV), Delian\_73 (CV), Fairfaxidum\_72 (CV), Fenry\_68 (CV), Hitter\_69 (CV), Jalammah\_72 (CV), Lysidious\_71 (CV), Malachai\_68 (CV), Melba\_69 (CV), Mellie\_66 (CV), MintFen\_70 (CV), Mollymur\_46 (DL), Obliviate\_68 (CV), PCoral7\_69 (CV), Pipp\_73 (CV), PrincePatrick\_70 (CV), Samba\_69 (CV), Soilmate\_73 (CV), Toast\_69 (CV), UmaThurman\_69 (CV), William\_72 (CV), Wisp\_68 (CV), ZiggyZoo\_70 (CV), Zilla\_66 (CV),

#### Start 25:

- Found in 11 of 48 ( 22.9% ) of genes in pham
- Manual Annotations of this start: 3 of 45
- Called 27.3% of time when present
- Phage (with cluster) where this start called: KappaFarmDelta\_69 (CV), Murp\_67 (CV), Walrus\_67 (CV),

#### Start 26:

- Found in 31 of 48 ( 64.6% ) of genes in pham
- Manual Annotations of this start: 1 of 45
- Called 3.2% of time when present
- Phage (with cluster) where this start called: CaptainKirk2\_70 (CV),

### Summary by clusters:

There are 2 clusters represented in this pham: DL, CV,

#### Info for manual annotations of cluster CV:

- Start number 19 was manually annotated 1 time for cluster CV.
- Start number 20 was manually annotated 1 time for cluster CV.
- Start number 21 was manually annotated 1 time for cluster CV.
- Start number 22 was manually annotated 9 times for cluster CV.
- Start number 24 was manually annotated 26 times for cluster CV.
- Start number 25 was manually annotated 3 times for cluster CV.
- Start number 26 was manually annotated 1 time for cluster CV.

#### Info for manual annotations of cluster DL:

- Start number 23 was manually annotated 2 times for cluster DL.
- Start number 24 was manually annotated 1 time for cluster DL.

### Gene Information:

Gene: Archis\_71 Start: 42723, Stop: 42881, Start Num: 24

Candidate Starts for Archis\_71:

(8, 42507), (17, 42678), (Start: 24 @42723 has 27 MA's), (Start: 26 @42735 has 1 MA's),

Gene: Azula\_74 Start: 46615, Stop: 46773, Start Num: 22

Candidate Starts for Azula\_74:

(4, 46321), (6, 46345), (9, 46417), (13, 46519), (Start: 22 @46615 has 9 MA's), (Start: 25 @46627 has 3 MA's),

Gene: Bantam\_46 Start: 40945, Stop: 41127, Start Num: 23

Candidate Starts for Bantam\_46:  
(10, 40768), (11, 40795), (Start: 23 @40945 has 2 MA's),

Gene: Barco\_66 Start: 42553, Stop: 42711, Start Num: 24  
Candidate Starts for Barco\_66:  
(14, 42481), (15, 42487), (16, 42505), (Start: 24 @42553 has 27 MA's), (Start: 26 @42565 has 1 MA's),

Gene: Begonia\_68 Start: 45480, Stop: 45644, Start Num: 24  
Candidate Starts for Begonia\_68:  
(1, 44973), (18, 45447), (Start: 24 @45480 has 27 MA's), (28, 45507), (29, 45516),

Gene: BlingBling\_65 Start: 43435, Stop: 43593, Start Num: 24  
Candidate Starts for BlingBling\_65:  
(14, 43363), (15, 43369), (16, 43387), (Start: 24 @43435 has 27 MA's), (Start: 26 @43447 has 1 MA's),

Gene: Blino\_71 Start: 48216, Stop: 48371, Start Num: 24  
Candidate Starts for Blino\_71:  
(Start: 24 @48216 has 27 MA's), (Start: 26 @48228 has 1 MA's), (28, 48237),

Gene: Blueberry\_73 Start: 46615, Stop: 46773, Start Num: 22  
Candidate Starts for Blueberry\_73:  
(4, 46321), (6, 46345), (9, 46417), (13, 46519), (Start: 22 @46615 has 9 MA's), (Start: 25 @46627 has 3 MA's),

Gene: CaptainKirk2\_70 Start: 42213, Stop: 42356, Start Num: 26  
Candidate Starts for CaptainKirk2\_70:  
(14, 42129), (15, 42135), (16, 42153), (Start: 24 @42201 has 27 MA's), (Start: 26 @42213 has 1 MA's), (28, 42222),

Gene: CarolAnn\_70 Start: 48215, Stop: 48370, Start Num: 24  
Candidate Starts for CarolAnn\_70:  
(Start: 24 @48215 has 27 MA's), (Start: 26 @48227 has 1 MA's), (28, 48236),

Gene: CheeseSpider\_80 Start: 46540, Stop: 46707, Start Num: 22  
Candidate Starts for CheeseSpider\_80:  
(4, 46246), (6, 46270), (9, 46342), (Start: 22 @46540 has 9 MA's), (Start: 26 @46561 has 1 MA's),

Gene: Delian\_73 Start: 42199, Stop: 42354, Start Num: 24  
Candidate Starts for Delian\_73:  
(14, 42127), (15, 42133), (16, 42151), (Start: 24 @42199 has 27 MA's), (Start: 26 @42211 has 1 MA's), (28, 42220),

Gene: Fairfaxidum\_72 Start: 44764, Stop: 44922, Start Num: 24  
Candidate Starts for Fairfaxidum\_72:  
(Start: 24 @44764 has 27 MA's), (Start: 26 @44776 has 1 MA's), (28, 44785),

Gene: Fenry\_68 Start: 44226, Stop: 44384, Start Num: 24  
Candidate Starts for Fenry\_68:  
(Start: 24 @44226 has 27 MA's), (Start: 26 @44238 has 1 MA's), (28, 44247),

Gene: Gambino\_76 Start: 46615, Stop: 46773, Start Num: 22  
Candidate Starts for Gambino\_76:

(4, 46321), (6, 46345), (9, 46417), (13, 46519), (Start: 22 @46615 has 9 MA's), (Start: 25 @46627 has 3 MA's),

Gene: Guacamole\_68 Start: 43616, Stop: 43774, Start Num: 22

Candidate Starts for Guacamole\_68:

(4, 43316), (5, 43328), (6, 43340), (9, 43412), (Start: 22 @43616 has 9 MA's), (Start: 25 @43628 has 3 MA's),

Gene: Hitter\_69 Start: 42159, Stop: 42317, Start Num: 24

Candidate Starts for Hitter\_69:

(Start: 24 @42159 has 27 MA's), (Start: 26 @42171 has 1 MA's), (28, 42180),

Gene: Jalammah\_72 Start: 45129, Stop: 45290, Start Num: 24

Candidate Starts for Jalammah\_72:

(Start: 24 @45129 has 27 MA's), (Start: 26 @45141 has 1 MA's), (28, 45150),

Gene: JasperJr\_68 Start: 43616, Stop: 43774, Start Num: 22

Candidate Starts for JasperJr\_68:

(4, 43316), (5, 43328), (6, 43340), (9, 43412), (Start: 22 @43616 has 9 MA's), (Start: 25 @43628 has 3 MA's),

Gene: JuJu\_78 Start: 48352, Stop: 48516, Start Num: 22

Candidate Starts for JuJu\_78:

(4, 48052), (6, 48076), (7, 48139), (9, 48148), (Start: 22 @48352 has 9 MA's), (Start: 26 @48373 has 1 MA's),

Gene: KappaFarmDelta\_69 Start: 43192, Stop: 43353, Start Num: 25

Candidate Starts for KappaFarmDelta\_69:

(Start: 24 @43189 has 27 MA's), (Start: 25 @43192 has 3 MA's), (27, 43207),

Gene: Lysidious\_71 Start: 44855, Stop: 45016, Start Num: 24

Candidate Starts for Lysidious\_71:

(Start: 24 @44855 has 27 MA's), (Start: 26 @44867 has 1 MA's), (28, 44876), (30, 44945),

Gene: Malachai\_68 Start: 45480, Stop: 45644, Start Num: 24

Candidate Starts for Malachai\_68:

(1, 44973), (18, 45447), (Start: 24 @45480 has 27 MA's), (28, 45507), (29, 45516),

Gene: Melba\_69 Start: 42570, Stop: 42728, Start Num: 24

Candidate Starts for Melba\_69:

(Start: 24 @42570 has 27 MA's), (Start: 26 @42582 has 1 MA's), (31, 42714),

Gene: Mellie\_66 Start: 42417, Stop: 42575, Start Num: 24

Candidate Starts for Mellie\_66:

(Start: 24 @42417 has 27 MA's), (Start: 26 @42429 has 1 MA's), (28, 42438),

Gene: MintFen\_70 Start: 42815, Stop: 42970, Start Num: 24

Candidate Starts for MintFen\_70:

(14, 42743), (15, 42749), (16, 42767), (Start: 24 @42815 has 27 MA's), (Start: 26 @42827 has 1 MA's), (28, 42836),

Gene: MissRona\_74 Start: 46616, Stop: 46774, Start Num: 22

Candidate Starts for MissRona\_74:

(4, 46322), (6, 46346), (9, 46418), (13, 46520), (Start: 22 @46616 has 9 MA's), (Start: 25 @46628 has 3 MA's),

Gene: Mollymur\_46 Start: 41494, Stop: 41667, Start Num: 24

Candidate Starts for Mollymur\_46:

(2, 41125), (3, 41164), (Start: 24 @41494 has 27 MA's),

Gene: Murp\_67 Start: 45821, Stop: 45982, Start Num: 25

Candidate Starts for Murp\_67:

(Start: 24 @45818 has 27 MA's), (Start: 25 @45821 has 3 MA's), (27, 45836), (28, 45845), (31, 45968),

Gene: Obliviate\_68 Start: 42724, Stop: 42882, Start Num: 24

Candidate Starts for Obliviate\_68:

(14, 42652), (15, 42658), (16, 42676), (Start: 24 @42724 has 27 MA's), (Start: 26 @42736 has 1 MA's),

Gene: PCoral7\_69 Start: 43537, Stop: 43695, Start Num: 24

Candidate Starts for PCoral7\_69:

(Start: 24 @43537 has 27 MA's), (Start: 26 @43549 has 1 MA's), (28, 43558), (29, 43567),

Gene: Petra\_73 Start: 44768, Stop: 44935, Start Num: 22

Candidate Starts for Petra\_73:

(4, 44474), (6, 44498), (7, 44561), (9, 44570), (Start: 22 @44768 has 9 MA's), (Start: 26 @44789 has 1 MA's),

Gene: PhrostedPhlake\_75 Start: 45016, Stop: 45183, Start Num: 20

Candidate Starts for PhrostedPhlake\_75:

(Start: 20 @45016 has 1 MA's), (Start: 25 @45037 has 3 MA's),

Gene: Pipp\_73 Start: 44772, Stop: 44930, Start Num: 24

Candidate Starts for Pipp\_73:

(14, 44700), (15, 44706), (16, 44724), (Start: 24 @44772 has 27 MA's), (Start: 26 @44784 has 1 MA's),

Gene: PrincePatrick\_70 Start: 42596, Stop: 42754, Start Num: 24

Candidate Starts for PrincePatrick\_70:

(Start: 24 @42596 has 27 MA's), (Start: 26 @42608 has 1 MA's), (28, 42617), (29, 42626),

Gene: Samba\_69 Start: 45554, Stop: 45712, Start Num: 24

Candidate Starts for Samba\_69:

(Start: 24 @45554 has 27 MA's), (Start: 26 @45566 has 1 MA's), (28, 45575),

Gene: Soilmate\_73 Start: 48215, Stop: 48370, Start Num: 24

Candidate Starts for Soilmate\_73:

(Start: 24 @48215 has 27 MA's), (Start: 26 @48227 has 1 MA's), (28, 48236),

Gene: SpeedDemon\_470 Start: 42648, Stop: 42830, Start Num: 23

Candidate Starts for SpeedDemon\_470:

(10, 42471), (11, 42498), (Start: 23 @42648 has 2 MA's),

Gene: Toast\_69 Start: 43537, Stop: 43695, Start Num: 24

Candidate Starts for Toast\_69:

(Start: 24 @43537 has 27 MA's), (Start: 26 @43549 has 1 MA's), (28, 43558), (29, 43567),

Gene: UmaThurman\_69 Start: 43900, Stop: 44064, Start Num: 24

Candidate Starts for UmaThurman\_69:  
(18, 43867), (Start: 24 @43900 has 27 MA's),

Gene: Utz\_61 Start: 43181, Stop: 43348, Start Num: 21  
Candidate Starts for Utz\_61:  
(Start: 21 @43181 has 1 MA's), (Start: 26 @43205 has 1 MA's), (28, 43214),

Gene: Walrus\_67 Start: 43261, Stop: 43425, Start Num: 25  
Candidate Starts for Walrus\_67:  
(Start: 25 @43261 has 3 MA's), (27, 43276),

Gene: William\_72 Start: 44944, Stop: 45102, Start Num: 24  
Candidate Starts for William\_72:  
(Start: 24 @44944 has 27 MA's), (Start: 26 @44956 has 1 MA's), (28, 44965), (29, 44974),

Gene: Wisp\_68 Start: 43598, Stop: 43756, Start Num: 24  
Candidate Starts for Wisp\_68:  
(18, 43565), (Start: 24 @43598 has 27 MA's), (Start: 26 @43610 has 1 MA's), (31, 43742),

Gene: Wocket\_67 Start: 43577, Stop: 43747, Start Num: 19  
Candidate Starts for Wocket\_67:  
(Start: 19 @43577 has 1 MA's), (Start: 25 @43601 has 3 MA's),

Gene: Zarbodnamra\_72 Start: 43709, Stop: 43876, Start Num: 22  
Candidate Starts for Zarbodnamra\_72:  
(6, 43439), (9, 43511), (12, 43580), (Start: 22 @43709 has 9 MA's), (Start: 26 @43730 has 1 MA's),

Gene: ZiggyZoo\_70 Start: 45187, Stop: 45345, Start Num: 24  
Candidate Starts for ZiggyZoo\_70:  
(8, 44971), (17, 45142), (Start: 24 @45187 has 27 MA's), (Start: 26 @45199 has 1 MA's),

Gene: Zilla\_66 Start: 42570, Stop: 42728, Start Num: 24  
Candidate Starts for Zilla\_66:  
(14, 42498), (15, 42504), (16, 42522), (Start: 24 @42570 has 27 MA's), (Start: 26 @42582 has 1 MA's),