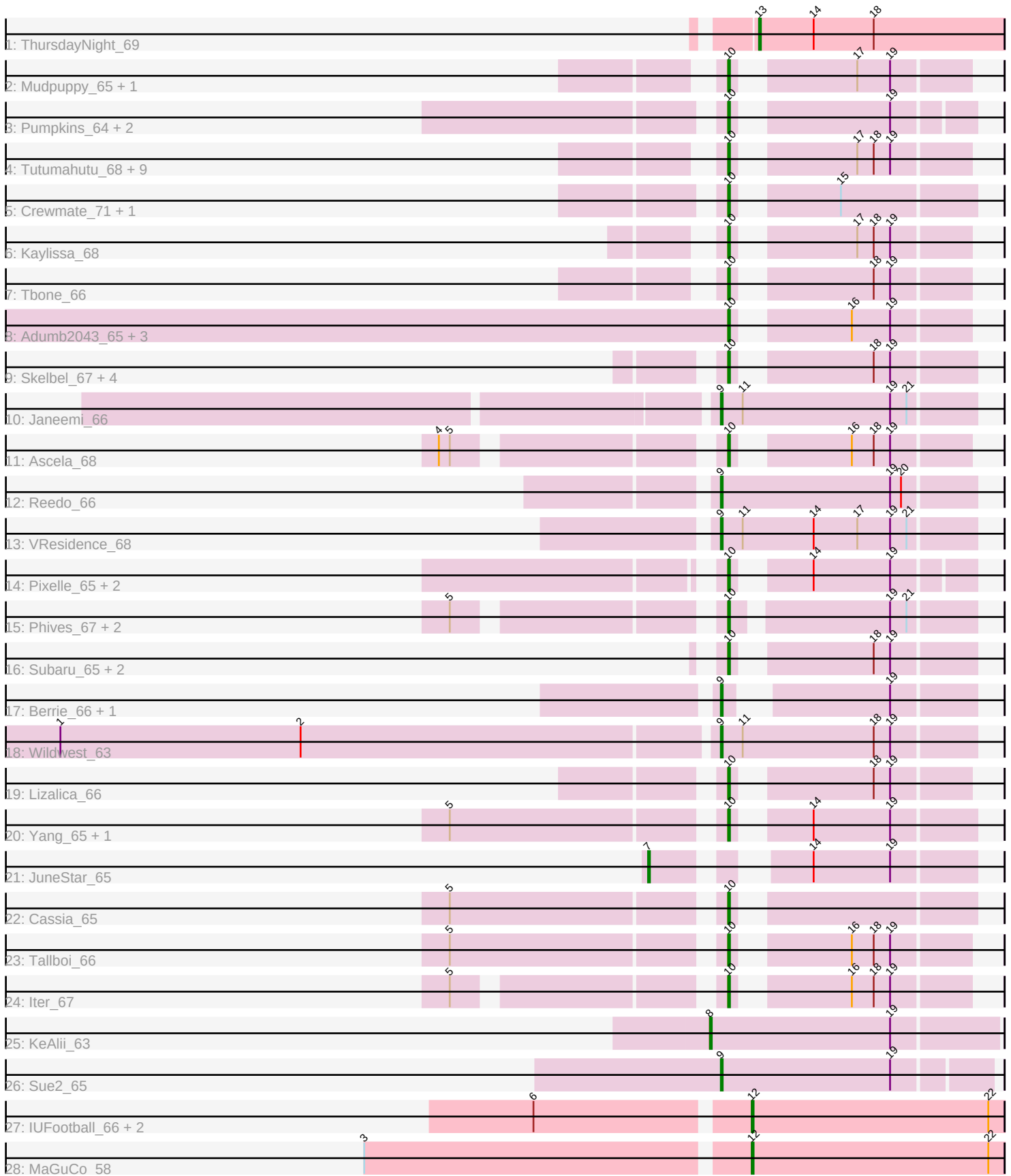




Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly 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 330895 Report

This analysis was run 09/05/26 on database version 662.

Pham number 330895 has 58 members, 8 are drafts.

Phages represented in each track:

- Track 1 : ThursdayNight\_69
- Track 2 : Mudpuppy\_65, Warda\_67
- Track 3 : Pumpkins\_64, IttyBittyPiggy\_67, TforTroy\_66
- Track 4 : Tutumahutu\_68, Powerpuff\_68, Flutur\_66, Joemato\_68, YesChef\_66, Simpson\_72, Lego\_66, AGrandiflora\_68, Cyan\_67, JohnDoe\_67
- Track 5 : Crewmate\_71, ObiToo\_71
- Track 6 : Kaylissa\_68
- Track 7 : Tbone\_66
- Track 8 : Adumb2043\_65, Turab\_64, Amploria\_67, AEgle\_64
- Track 9 : Skelbel\_67, Eraser\_66, Asa16\_66, London\_66, Niobe\_66
- Track 10 : Janeemi\_66
- Track 11 : Ascela\_68
- Track 12 : Reedo\_66
- Track 13 : VResidence\_68
- Track 14 : Pixelle\_65, Amyev\_65, Tian\_64
- Track 15 : Phives\_67, Tuck\_66, Community\_66
- Track 16 : Subaru\_65, Jstan\_67, Elezi\_65
- Track 17 : Berrie\_66, DrSierra\_64
- Track 18 : Wildwest\_63
- Track 19 : Lizalica\_66
- Track 20 : Yang\_65, Schaffner\_64
- Track 21 : JuneStar\_65
- Track 22 : Cassia\_65
- Track 23 : Tallboi\_66
- Track 24 : Iter\_67
- Track 25 : KeAlii\_63
- Track 26 : Sue2\_65
- Track 27 : IUFootball\_66, Liebe\_65, Maureen\_65
- Track 28 : MaGuCo\_58

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

The start number called the most often in the published annotations is 10, it was called in 36 of the 50 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AEgle\_64, AGrandiflora\_68, Adumb2043\_65, Amploria\_67, Amyev\_65, Asa16\_66, Ascela\_68, Cassia\_65, Community\_66, Crewmate\_71, Cyan\_67, Elezi\_65, Eraser\_66, Flutur\_66, Iter\_67, IttyBittyPiggy\_67, Joemato\_68, JohnDoe\_67, Jstan\_67, Kaylissa\_68, Lego\_66, Lizalica\_66, London\_66, Mudpuppy\_65, Niobe\_66, ObiToo\_71, Phives\_67, Pixelle\_65, Powerpuff\_68, Pumpkins\_64, Schaffner\_64, Simpson\_72, Skelbel\_67, Subaru\_65, Tallboi\_66, Tbone\_66, TforTroy\_66, Tian\_64, Tuck\_66, Turab\_64, Tutumahutu\_68, Warda\_67, Yang\_65, YesChef\_66,

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

- 

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

- Berrie\_66, DrSierra\_64, IUFootball\_66, Janeemi\_66, JuneStar\_65, KeAlii\_63, Liebe\_65, MaGuCo\_58, Maureen\_65, Reedo\_66, Sue2\_65, ThursdayNight\_69, VResidence\_68, Wildwest\_63,

### Summary by start number:

Start 7:

- Found in 1 of 58 ( 1.7% ) of genes in pham
- Manual Annotations of this start: 1 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JuneStar\_65 (AZ1),

Start 8:

- Found in 1 of 58 ( 1.7% ) of genes in pham
- Manual Annotations of this start: 1 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: KeAlii\_63 (AZ1),

Start 9:

- Found in 7 of 58 ( 12.1% ) of genes in pham
- Manual Annotations of this start: 7 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Berrie\_66 (AZ1), DrSierra\_64 (AZ1), Janeemi\_66 (AZ1), Reedo\_66 (AZ1), Sue2\_65 (AZ1), VResidence\_68 (AZ1), Wildwest\_63 (AZ1),

Start 10:

- Found in 44 of 58 ( 75.9% ) of genes in pham
- Manual Annotations of this start: 36 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AEgle\_64 (AZ1), AGrandiflora\_68 (AZ1), Adumb2043\_65 (AZ1), Amploria\_67 (AZ1), Amyev\_65 (AZ1), Asa16\_66 (AZ1), Ascela\_68 (AZ1), Cassia\_65 (AZ1), Community\_66 (AZ1), Crewmate\_71 (AZ1), Cyan\_67 (AZ1), Elezi\_65 (AZ1), Eraser\_66 (AZ1), Flutur\_66 (AZ1), Iter\_67 (AZ1), IttyBittyPiggy\_67 (AZ1), Joemato\_68 (AZ1), JohnDoe\_67 (AZ1), Jstan\_67 (AZ1), Kaylissa\_68 (AZ1), Lego\_66 (AZ1), Lizalica\_66 (AZ1), London\_66 (AZ1), Mudpuppy\_65 (AZ1), Niobe\_66 (AZ1), ObiToo\_71 (AZ1), Phives\_67 (AZ1), Pixelle\_65 (AZ1), Powerpuff\_68 (AZ1), Pumpkins\_64 (AZ1), Schaffner\_64 (AZ1), Simpson\_72 (AZ1), Skelbel\_67 (AZ1), Subaru\_65 (AZ1), Tallboi\_66 (AZ1), Tbone\_66

(AZ1), TforTroy\_66 (AZ1), Tian\_64 (AZ1), Tuck\_66 (AZ1), Turab\_64 (AZ1), Tutumahutu\_68 (AZ1), Warda\_67 (AZ1), Yang\_65 (AZ1), YesChef\_66 (AZ1),

Start 12:

- Found in 4 of 58 ( 6.9% ) of genes in pham
- Manual Annotations of this start: 4 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: IUFootball\_66 (AZ2), Liebe\_65 (AZ2), MaGuCo\_58 (AZ2), Maureen\_65 (AZ2),

Start 13:

- Found in 1 of 58 ( 1.7% ) of genes in pham
- Manual Annotations of this start: 1 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ThursdayNight\_69 (AZ),

### **Summary by clusters:**

There are 3 clusters represented in this pham: AZ1, AZ2, AZ,

Info for manual annotations of cluster AZ:

- Start number 13 was manually annotated 1 time for cluster AZ.

Info for manual annotations of cluster AZ1:

- Start number 7 was manually annotated 1 time for cluster AZ1.
- Start number 8 was manually annotated 1 time for cluster AZ1.
- Start number 9 was manually annotated 7 times for cluster AZ1.
- Start number 10 was manually annotated 36 times for cluster AZ1.

Info for manual annotations of cluster AZ2:

- Start number 12 was manually annotated 4 times for cluster AZ2.

### **Gene Information:**

Gene: AEgle\_64 Start: 41818, Stop: 41931, Start Num: 10

Candidate Starts for AEgle\_64:

(Start: 10 @41818 has 36 MA's), (16, 41869), (19, 41890),

Gene: AGrandiflora\_68 Start: 42717, Stop: 42830, Start Num: 10

Candidate Starts for AGrandiflora\_68:

(Start: 10 @42717 has 36 MA's), (17, 42771), (18, 42780), (19, 42789),

Gene: Adumb2043\_65 Start: 41842, Stop: 41955, Start Num: 10

Candidate Starts for Adumb2043\_65:

(Start: 10 @41842 has 36 MA's), (16, 41893), (19, 41914),

Gene: Amploria\_67 Start: 42022, Stop: 42135, Start Num: 10

Candidate Starts for Amploria\_67:

(Start: 10 @42022 has 36 MA's), (16, 42073), (19, 42094),

Gene: Amyev\_65 Start: 43046, Stop: 43159, Start Num: 10

Candidate Starts for Amyev\_65:  
(Start: 10 @43046 has 36 MA's), (14, 43076), (19, 43118),

Gene: Asa16\_66 Start: 42403, Stop: 42519, Start Num: 10  
Candidate Starts for Asa16\_66:  
(Start: 10 @42403 has 36 MA's), (18, 42466), (19, 42475),

Gene: Ascela\_68 Start: 42885, Stop: 42998, Start Num: 10  
Candidate Starts for Ascela\_68:  
(4, 42753), (5, 42759), (Start: 10 @42885 has 36 MA's), (16, 42936), (18, 42948), (19, 42957),

Gene: Berrie\_66 Start: 42497, Stop: 42613, Start Num: 9  
Candidate Starts for Berrie\_66:  
(Start: 9 @42497 has 7 MA's), (19, 42569),

Gene: Cassia\_65 Start: 42169, Stop: 42285, Start Num: 10  
Candidate Starts for Cassia\_65:  
(5, 42031), (Start: 10 @42169 has 36 MA's),

Gene: Community\_66 Start: 42765, Stop: 42887, Start Num: 10  
Candidate Starts for Community\_66:  
(5, 42639), (Start: 10 @42765 has 36 MA's), (19, 42843), (21, 42852),

Gene: Crewmate\_71 Start: 43128, Stop: 43244, Start Num: 10  
Candidate Starts for Crewmate\_71:  
(Start: 10 @43128 has 36 MA's), (15, 43173),

Gene: Cyan\_67 Start: 42461, Stop: 42574, Start Num: 10  
Candidate Starts for Cyan\_67:  
(Start: 10 @42461 has 36 MA's), (17, 42515), (18, 42524), (19, 42533),

Gene: DrSierra\_64 Start: 41559, Stop: 41696, Start Num: 9  
Candidate Starts for DrSierra\_64:  
(Start: 9 @41559 has 7 MA's), (19, 41652),

Gene: Elezi\_65 Start: 42160, Stop: 42276, Start Num: 10  
Candidate Starts for Elezi\_65:  
(Start: 10 @42160 has 36 MA's), (18, 42223), (19, 42232),

Gene: Eraser\_66 Start: 42410, Stop: 42526, Start Num: 10  
Candidate Starts for Eraser\_66:  
(Start: 10 @42410 has 36 MA's), (18, 42473), (19, 42482),

Gene: Flutur\_66 Start: 42742, Stop: 42855, Start Num: 10  
Candidate Starts for Flutur\_66:  
(Start: 10 @42742 has 36 MA's), (17, 42796), (18, 42805), (19, 42814),

Gene: IUFootball\_66 Start: 43748, Stop: 43885, Start Num: 12  
Candidate Starts for IUFootball\_66:  
(6, 43637), (Start: 12 @43748 has 4 MA's), (22, 43877),

Gene: Iter\_67 Start: 42656, Stop: 42769, Start Num: 10  
Candidate Starts for Iter\_67:

(5, 42530), (Start: 10 @42656 has 36 MA's), (16, 42707), (18, 42719), (19, 42728),

Gene: IttyBittyPiggy\_67 Start: 40890, Stop: 41003, Start Num: 10

Candidate Starts for IttyBittyPiggy\_67:

(Start: 10 @40890 has 36 MA's), (19, 40962),

Gene: Janeemi\_66 Start: 42543, Stop: 42680, Start Num: 9

Candidate Starts for Janeemi\_66:

(Start: 9 @42543 has 7 MA's), (11, 42555), (19, 42636), (21, 42645),

Gene: Joemato\_68 Start: 42638, Stop: 42751, Start Num: 10

Candidate Starts for Joemato\_68:

(Start: 10 @42638 has 36 MA's), (17, 42692), (18, 42701), (19, 42710),

Gene: JohnDoe\_67 Start: 42555, Stop: 42668, Start Num: 10

Candidate Starts for JohnDoe\_67:

(Start: 10 @42555 has 36 MA's), (17, 42609), (18, 42618), (19, 42627),

Gene: Jstan\_67 Start: 42164, Stop: 42280, Start Num: 10

Candidate Starts for Jstan\_67:

(Start: 10 @42164 has 36 MA's), (18, 42227), (19, 42236),

Gene: JuneStar\_65 Start: 43264, Stop: 43410, Start Num: 7

Candidate Starts for JuneStar\_65:

(Start: 7 @43264 has 1 MA's), (14, 43324), (19, 43366),

Gene: Kaylissa\_68 Start: 42914, Stop: 43027, Start Num: 10

Candidate Starts for Kaylissa\_68:

(Start: 10 @42914 has 36 MA's), (17, 42968), (18, 42977), (19, 42986),

Gene: KeAlii\_63 Start: 40502, Stop: 40657, Start Num: 8

Candidate Starts for KeAlii\_63:

(Start: 8 @40502 has 1 MA's), (19, 40601),

Gene: Lego\_66 Start: 42236, Stop: 42349, Start Num: 10

Candidate Starts for Lego\_66:

(Start: 10 @42236 has 36 MA's), (17, 42290), (18, 42299), (19, 42308),

Gene: Liebe\_65 Start: 43747, Stop: 43884, Start Num: 12

Candidate Starts for Liebe\_65:

(6, 43636), (Start: 12 @43747 has 4 MA's), (22, 43876),

Gene: Lizalica\_66 Start: 41835, Stop: 41948, Start Num: 10

Candidate Starts for Lizalica\_66:

(Start: 10 @41835 has 36 MA's), (18, 41898), (19, 41907),

Gene: London\_66 Start: 42401, Stop: 42517, Start Num: 10

Candidate Starts for London\_66:

(Start: 10 @42401 has 36 MA's), (18, 42464), (19, 42473),

Gene: MaGuCo\_58 Start: 41747, Stop: 41884, Start Num: 12

Candidate Starts for MaGuCo\_58:

(3, 41543), (Start: 12 @41747 has 4 MA's), (22, 41876),

Gene: Maureen\_65 Start: 43746, Stop: 43883, Start Num: 12

Candidate Starts for Maureen\_65:

(6, 43635), (Start: 12 @43746 has 4 MA's), (22, 43875),

Gene: Mudpuppy\_65 Start: 42601, Stop: 42714, Start Num: 10

Candidate Starts for Mudpuppy\_65:

(Start: 10 @42601 has 36 MA's), (17, 42655), (19, 42673),

Gene: Niobe\_66 Start: 42404, Stop: 42520, Start Num: 10

Candidate Starts for Niobe\_66:

(Start: 10 @42404 has 36 MA's), (18, 42467), (19, 42476),

Gene: ObiToo\_71 Start: 42744, Stop: 42860, Start Num: 10

Candidate Starts for ObiToo\_71:

(Start: 10 @42744 has 36 MA's), (15, 42789),

Gene: Phives\_67 Start: 42880, Stop: 43002, Start Num: 10

Candidate Starts for Phives\_67:

(5, 42754), (Start: 10 @42880 has 36 MA's), (19, 42958), (21, 42967),

Gene: Pixelle\_65 Start: 43147, Stop: 43260, Start Num: 10

Candidate Starts for Pixelle\_65:

(Start: 10 @43147 has 36 MA's), (14, 43177), (19, 43219),

Gene: Powerpuff\_68 Start: 43440, Stop: 43553, Start Num: 10

Candidate Starts for Powerpuff\_68:

(Start: 10 @43440 has 36 MA's), (17, 43494), (18, 43503), (19, 43512),

Gene: Pumpkins\_64 Start: 42687, Stop: 42800, Start Num: 10

Candidate Starts for Pumpkins\_64:

(Start: 10 @42687 has 36 MA's), (19, 42759),

Gene: Reedo\_66 Start: 40664, Stop: 40801, Start Num: 9

Candidate Starts for Reedo\_66:

(Start: 9 @40664 has 7 MA's), (19, 40757), (20, 40763),

Gene: Schaffner\_64 Start: 42370, Stop: 42486, Start Num: 10

Candidate Starts for Schaffner\_64:

(5, 42232), (Start: 10 @42370 has 36 MA's), (14, 42400), (19, 42442),

Gene: Simpson\_72 Start: 42642, Stop: 42755, Start Num: 10

Candidate Starts for Simpson\_72:

(Start: 10 @42642 has 36 MA's), (17, 42696), (18, 42705), (19, 42714),

Gene: Skelbel\_67 Start: 42404, Stop: 42520, Start Num: 10

Candidate Starts for Skelbel\_67:

(Start: 10 @42404 has 36 MA's), (18, 42467), (19, 42476),

Gene: Subaru\_65 Start: 42160, Stop: 42276, Start Num: 10

Candidate Starts for Subaru\_65:

(Start: 10 @42160 has 36 MA's), (18, 42223), (19, 42232),

Gene: Sue2\_65 Start: 41140, Stop: 41283, Start Num: 9

Candidate Starts for Sue2\_65:

(Start: 9 @41140 has 7 MA's), (19, 41233),

Gene: Tallboi\_66 Start: 42412, Stop: 42525, Start Num: 10

Candidate Starts for Tallboi\_66:

(5, 42274), (Start: 10 @42412 has 36 MA's), (16, 42463), (18, 42475), (19, 42484),

Gene: Tbone\_66 Start: 42888, Stop: 43001, Start Num: 10

Candidate Starts for Tbone\_66:

(Start: 10 @42888 has 36 MA's), (18, 42951), (19, 42960),

Gene: TforTroy\_66 Start: 42341, Stop: 42454, Start Num: 10

Candidate Starts for TforTroy\_66:

(Start: 10 @42341 has 36 MA's), (19, 42413),

Gene: ThursdayNight\_69 Start: 43429, Stop: 43563, Start Num: 13

Candidate Starts for ThursdayNight\_69:

(Start: 13 @43429 has 1 MA's), (14, 43459), (18, 43492),

Gene: Tian\_64 Start: 43045, Stop: 43158, Start Num: 10

Candidate Starts for Tian\_64:

(Start: 10 @43045 has 36 MA's), (14, 43075), (19, 43117),

Gene: Tuck\_66 Start: 42668, Stop: 42790, Start Num: 10

Candidate Starts for Tuck\_66:

(5, 42542), (Start: 10 @42668 has 36 MA's), (19, 42746), (21, 42755),

Gene: Turab\_64 Start: 41862, Stop: 41975, Start Num: 10

Candidate Starts for Turab\_64:

(Start: 10 @41862 has 36 MA's), (16, 41913), (19, 41934),

Gene: Tutumahutu\_68 Start: 42483, Stop: 42596, Start Num: 10

Candidate Starts for Tutumahutu\_68:

(Start: 10 @42483 has 36 MA's), (17, 42537), (18, 42546), (19, 42555),

Gene: VResidence\_68 Start: 40839, Stop: 40976, Start Num: 9

Candidate Starts for VResidence\_68:

(Start: 9 @40839 has 7 MA's), (11, 40851), (14, 40890), (17, 40914), (19, 40932), (21, 40941),

Gene: Warda\_67 Start: 42614, Stop: 42727, Start Num: 10

Candidate Starts for Warda\_67:

(Start: 10 @42614 has 36 MA's), (17, 42668), (19, 42686),

Gene: Wildwest\_63 Start: 42554, Stop: 42691, Start Num: 9

Candidate Starts for Wildwest\_63:

(1, 42200), (2, 42332), (Start: 9 @42554 has 7 MA's), (11, 42566), (18, 42638), (19, 42647),

Gene: Yang\_65 Start: 41984, Stop: 42100, Start Num: 10

Candidate Starts for Yang\_65:

(5, 41846), (Start: 10 @41984 has 36 MA's), (14, 42014), (19, 42056),

Gene: YesChef\_66 Start: 42299, Stop: 42412, Start Num: 10



Candidate Starts for YesChef\_66:

(Start: 10 @42299 has 36 MA's), (17, 42353), (18, 42362), (19, 42371),