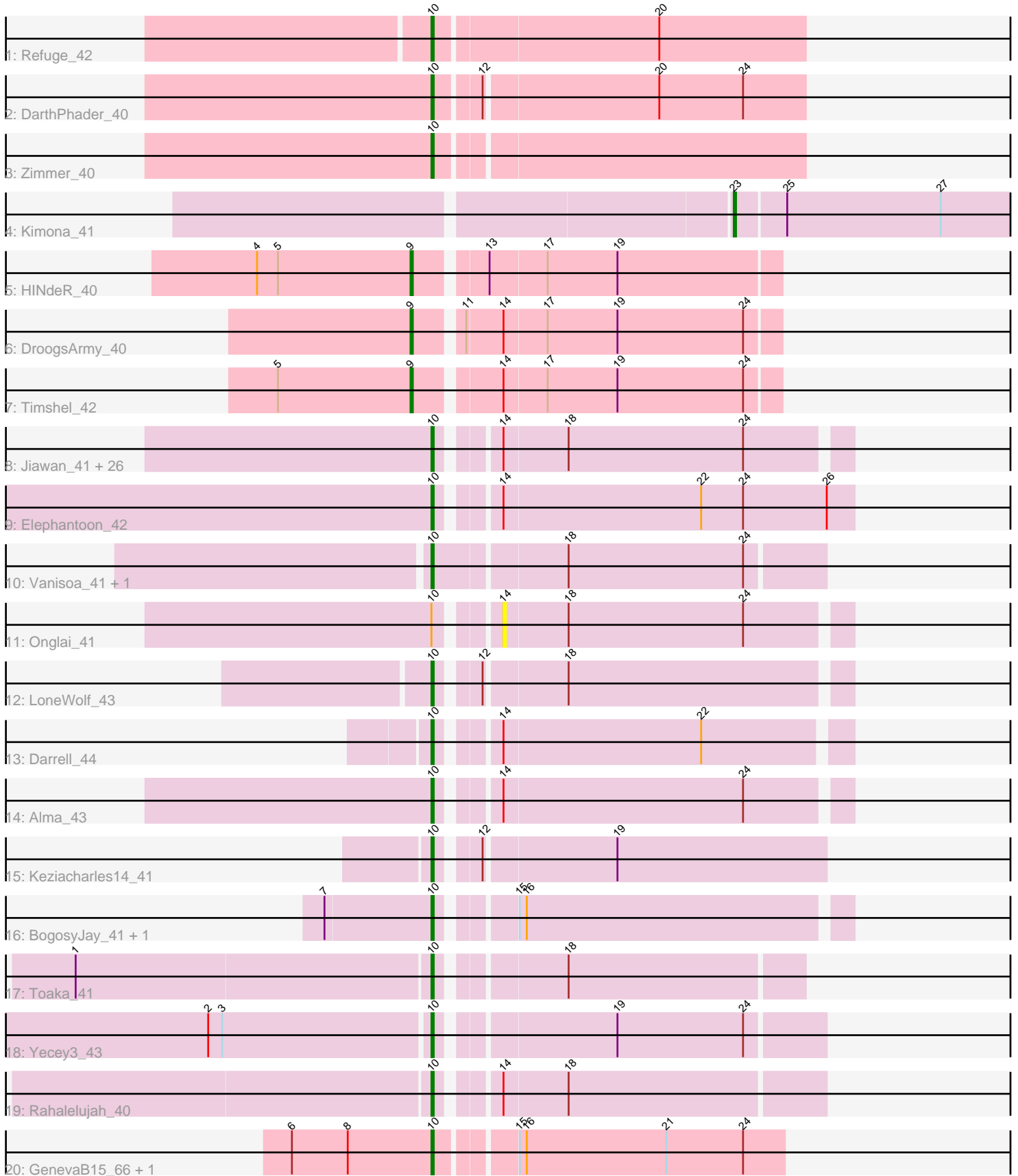


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 200346 Report

This analysis was run 01/18/25 on database version 583.

Pham number 200346 has 49 members, 8 are drafts.

Phages represented in each track:

- Track 1 : Refuge\_42
- Track 2 : DarthPhader\_40
- Track 3 : Zimmer\_40
- Track 4 : Kimona\_41
- Track 5 : HINdeR\_40
- Track 6 : DroogsArmy\_40
- Track 7 : Timshel\_42
- Track 8 : Jiawan\_41, RyeScarlet\_44, Conquerage\_43, Sachima\_40, Qobbit\_43, HortumSL17\_43, Tubs\_43, ExplosioNervosa\_43, EmyBug\_42, Scherzo\_43, EdogawaKiddo\_41, Eidsmoe\_43, Phaeder\_43, Horex\_42, PackMan\_42, Pioneer\_43, Aliter\_43, Lilleskat\_41, Spouty\_43, Fayely\_43, Myxus\_43, Hanray\_41, Catalina\_44, Priya\_43, Ugenie5\_40, Beemo\_43, Phonnegut\_43
- Track 9 : Elephantoon\_42
- Track 10 : Vanisoa\_41, Arissanae\_41
- Track 11 : Onglai\_41
- Track 12 : LoneWolf\_43
- Track 13 : Darrell\_44
- Track 14 : Alma\_43
- Track 15 : Keziacharles14\_41
- Track 16 : BogosyJay\_41, Maminiaina\_41
- Track 17 : Toaka\_41
- Track 18 : Yecey3\_43
- Track 19 : Rahalelujah\_40
- Track 20 : GenevaB15\_66, Aziz\_65

### ***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 37 of the 41 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aliter\_43, Alma\_43, Arissanae\_41, Aziz\_65, Beemo\_43, BogosyJay\_41, Catalina\_44, Conquerage\_43, Darrell\_44, DarthPhader\_40, EdogawaKiddo\_41, Eidsmoe\_43, Elephantoon\_42, EmyBug\_42, ExplosioNervosa\_43, Fayely\_43,

GenevaB15\_66, Hanray\_41, Holecx\_42, HortumSL17\_43, Jiawan\_41, Keziacharles14\_41, Lilleskat\_41, LoneWolf\_43, Maminaiaina\_41, Myxus\_43, PackMan\_42, Phaeder\_43, Phonnegut\_43, Pioneer\_43, Priya\_43, Qobbit\_43, Rahalelujah\_40, Refuge\_42, RyeScarlet\_44, Sachima\_40, Scherzo\_43, Spouty\_43, Toaka\_41, Tubs\_43, Ugenie5\_40, Vanisoa\_41, Yecey3\_43, Zimmer\_40,

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

- Onglai\_41,

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

- DroogsArmy\_40, HINdeR\_40, Kimona\_41, Timshel\_42,

### Summary by start number:

Start 9:

- Found in 3 of 49 ( 6.1% ) of genes in pham
- Manual Annotations of this start: 3 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DroogsArmy\_40 (A7), HINdeR\_40 (A7), Timshel\_42 (A7),

Start 10:

- Found in 45 of 49 ( 91.8% ) of genes in pham
- Manual Annotations of this start: 37 of 41
- Called 97.8% of time when present
- Phage (with cluster) where this start called: Aliter\_43 (A9), Alma\_43 (A9), Arissanae\_41 (A9), Aziz\_65 (M2), Beemo\_43 (A9), BogosyJay\_41 (A9), Catalina\_44 (A9), Conquerage\_43 (A9), Darrell\_44 (A9), DarthPhader\_40 (A12), EdogawaKiddo\_41 (A9), Eidsmoe\_43 (A9), Elephantoon\_42 (A9), EmyBug\_42 (A9), ExplosioNervosa\_43 (A9), Fayely\_43 (A9), GenevaB15\_66 (M2), Hanray\_41 (A9), Holecx\_42 (A9), HortumSL17\_43 (A9), Jiawan\_41 (A9), Keziacharles14\_41 (A9), Lilleskat\_41 (A9), LoneWolf\_43 (A9), Maminaiaina\_41 (A9), Myxus\_43 (A9), PackMan\_42 (A9), Phaeder\_43 (A9), Phonnegut\_43 (A9), Pioneer\_43 (A9), Priya\_43 (A9), Qobbit\_43 (A9), Rahalelujah\_40 (A9), Refuge\_42 (A12), RyeScarlet\_44 (A9), Sachima\_40 (A9), Scherzo\_43 (A9), Spouty\_43 (A9), Toaka\_41 (A9), Tubs\_43 (A9), Ugenie5\_40 (A9), Vanisoa\_41 (A9), Yecey3\_43 (A9), Zimmer\_40 (A12),

Start 14:

- Found in 34 of 49 ( 69.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 2.9% of time when present
- Phage (with cluster) where this start called: Onglai\_41 (A9),

Start 23:

- Found in 1 of 49 ( 2.0% ) of genes in pham
- Manual Annotations of this start: 1 of 41
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kimona\_41 (A19),

### Summary by clusters:

There are 5 clusters represented in this pham: A9, M2, A19, A7, A12,

Info for manual annotations of cluster A12:

- Start number 10 was manually annotated 3 times for cluster A12.

Info for manual annotations of cluster A19:

- Start number 23 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A7:

- Start number 9 was manually annotated 3 times for cluster A7.

Info for manual annotations of cluster A9:

- Start number 10 was manually annotated 32 times for cluster A9.

Info for manual annotations of cluster M2:

- Start number 10 was manually annotated 2 times for cluster M2.

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

Gene: Aliter\_43 Start: 29348, Stop: 29184, Start Num: 10

Candidate Starts for Aliter\_43:

(Start: 10 @29348 has 37 MA's), (14, 29327), (18, 29300), (24, 29225),

Gene: Alma\_43 Start: 29432, Stop: 29268, Start Num: 10

Candidate Starts for Alma\_43:

(Start: 10 @29432 has 37 MA's), (14, 29411), (24, 29309),

Gene: Arissanae\_41 Start: 29701, Stop: 29540, Start Num: 10

Candidate Starts for Arissanae\_41:

(Start: 10 @29701 has 37 MA's), (18, 29647), (24, 29572),

Gene: Aziz\_65 Start: 43279, Stop: 43422, Start Num: 10

Candidate Starts for Aziz\_65:

(6, 43219), (8, 43243), (Start: 10 @43279 has 37 MA's), (15, 43309), (16, 43312), (21, 43372), (24, 43405),

Gene: Beemo\_43 Start: 29476, Stop: 29312, Start Num: 10

Candidate Starts for Beemo\_43:

(Start: 10 @29476 has 37 MA's), (14, 29455), (18, 29428), (24, 29353),

Gene: BogosyJay\_41 Start: 29019, Stop: 28855, Start Num: 10

Candidate Starts for BogosyJay\_41:

(7, 29064), (Start: 10 @29019 has 37 MA's), (15, 28992), (16, 28989),

Gene: Catalina\_44 Start: 29421, Stop: 29257, Start Num: 10

Candidate Starts for Catalina\_44:

(Start: 10 @29421 has 37 MA's), (14, 29400), (18, 29373), (24, 29298),

Gene: Conquerage\_43 Start: 29450, Stop: 29286, Start Num: 10

Candidate Starts for Conquerage\_43:

(Start: 10 @29450 has 37 MA's), (14, 29429), (18, 29402), (24, 29327),

Gene: Darrell\_44 Start: 29790, Stop: 29626, Start Num: 10

Candidate Starts for Darrell\_44:

(Start: 10 @29790 has 37 MA's), (14, 29769), (22, 29685),

Gene: DarthPhader\_40 Start: 30166, Stop: 30014, Start Num: 10

Candidate Starts for DarthPhader\_40:

(Start: 10 @30166 has 37 MA's), (12, 30148), (20, 30076), (24, 30040),

Gene: DroogsArmy\_40 Start: 31224, Stop: 31075, Start Num: 9

Candidate Starts for DroogsArmy\_40:

(Start: 9 @31224 has 3 MA's), (11, 31206), (14, 31191), (17, 31173), (19, 31143), (24, 31089),

Gene: EdogawaKiddo\_41 Start: 29427, Stop: 29263, Start Num: 10

Candidate Starts for EdogawaKiddo\_41:

(Start: 10 @29427 has 37 MA's), (14, 29406), (18, 29379), (24, 29304),

Gene: Eidsmoe\_43 Start: 29484, Stop: 29320, Start Num: 10

Candidate Starts for Eidsmoe\_43:

(Start: 10 @29484 has 37 MA's), (14, 29463), (18, 29436), (24, 29361),

Gene: Elephantoon\_42 Start: 28767, Stop: 28597, Start Num: 10

Candidate Starts for Elephantoon\_42:

(Start: 10 @28767 has 37 MA's), (14, 28746), (22, 28662), (24, 28644), (26, 28608),

Gene: EmyBug\_42 Start: 29486, Stop: 29322, Start Num: 10

Candidate Starts for EmyBug\_42:

(Start: 10 @29486 has 37 MA's), (14, 29465), (18, 29438), (24, 29363),

Gene: ExplosioNervosa\_43 Start: 29510, Stop: 29346, Start Num: 10

Candidate Starts for ExplosioNervosa\_43:

(Start: 10 @29510 has 37 MA's), (14, 29489), (18, 29462), (24, 29387),

Gene: Fayely\_43 Start: 29453, Stop: 29289, Start Num: 10

Candidate Starts for Fayely\_43:

(Start: 10 @29453 has 37 MA's), (14, 29432), (18, 29405), (24, 29330),

Gene: GenevaB15\_66 Start: 43279, Stop: 43422, Start Num: 10

Candidate Starts for GenevaB15\_66:

(6, 43219), (8, 43243), (Start: 10 @43279 has 37 MA's), (15, 43309), (16, 43312), (21, 43372), (24, 43405),

Gene: HINdeR\_40 Start: 31050, Stop: 30901, Start Num: 9

Candidate Starts for HINdeR\_40:

(4, 31116), (5, 31107), (Start: 9 @31050 has 3 MA's), (13, 31023), (17, 30999), (19, 30969),

Gene: Hanray\_41 Start: 29431, Stop: 29267, Start Num: 10

Candidate Starts for Hanray\_41:

(Start: 10 @29431 has 37 MA's), (14, 29410), (18, 29383), (24, 29308),

Gene: Holec\_42 Start: 29444, Stop: 29280, Start Num: 10

Candidate Starts for Holec\_42:

(Start: 10 @29444 has 37 MA's), (14, 29423), (18, 29396), (24, 29321),

Gene: HortumSL17\_43 Start: 29420, Stop: 29256, Start Num: 10

Candidate Starts for HortumSL17\_43:  
(Start: 10 @29420 has 37 MA's), (14, 29399), (18, 29372), (24, 29297),

Gene: Jiawan\_41 Start: 29463, Stop: 29299, Start Num: 10  
Candidate Starts for Jiawan\_41:  
(Start: 10 @29463 has 37 MA's), (14, 29442), (18, 29415), (24, 29340),

Gene: Keziacharles14\_41 Start: 29939, Stop: 29781, Start Num: 10  
Candidate Starts for Keziacharles14\_41:  
(Start: 10 @29939 has 37 MA's), (12, 29924), (19, 29870),

Gene: Kimona\_41 Start: 27599, Stop: 27462, Start Num: 23  
Candidate Starts for Kimona\_41:  
(Start: 23 @27599 has 1 MA's), (25, 27578), (27, 27512),

Gene: Lilleskat\_41 Start: 29380, Stop: 29216, Start Num: 10  
Candidate Starts for Lilleskat\_41:  
(Start: 10 @29380 has 37 MA's), (14, 29359), (18, 29332), (24, 29257),

Gene: LoneWolf\_43 Start: 29241, Stop: 29077, Start Num: 10  
Candidate Starts for LoneWolf\_43:  
(Start: 10 @29241 has 37 MA's), (12, 29226), (18, 29193),

Gene: Maminiaina\_41 Start: 29001, Stop: 28837, Start Num: 10  
Candidate Starts for Maminiaina\_41:  
(7, 29046), (Start: 10 @29001 has 37 MA's), (15, 28974), (16, 28971),

Gene: Myxus\_43 Start: 29420, Stop: 29256, Start Num: 10  
Candidate Starts for Myxus\_43:  
(Start: 10 @29420 has 37 MA's), (14, 29399), (18, 29372), (24, 29297),

Gene: Onglai\_41 Start: 27740, Stop: 27597, Start Num: 14  
Candidate Starts for Onglai\_41:  
(Start: 10 @27761 has 37 MA's), (14, 27740), (18, 27713), (24, 27638),

Gene: PackMan\_42 Start: 29420, Stop: 29256, Start Num: 10  
Candidate Starts for PackMan\_42:  
(Start: 10 @29420 has 37 MA's), (14, 29399), (18, 29372), (24, 29297),

Gene: Phaeder\_43 Start: 29420, Stop: 29256, Start Num: 10  
Candidate Starts for Phaeder\_43:  
(Start: 10 @29420 has 37 MA's), (14, 29399), (18, 29372), (24, 29297),

Gene: Phonnegut\_43 Start: 29475, Stop: 29311, Start Num: 10  
Candidate Starts for Phonnegut\_43:  
(Start: 10 @29475 has 37 MA's), (14, 29454), (18, 29427), (24, 29352),

Gene: Pioneer\_43 Start: 29475, Stop: 29311, Start Num: 10  
Candidate Starts for Pioneer\_43:  
(Start: 10 @29475 has 37 MA's), (14, 29454), (18, 29427), (24, 29352),

Gene: Priya\_43 Start: 29487, Stop: 29323, Start Num: 10  
Candidate Starts for Priya\_43:

(Start: 10 @29487 has 37 MA's), (14, 29466), (18, 29439), (24, 29364),

Gene: Qobbit\_43 Start: 29449, Stop: 29285, Start Num: 10

Candidate Starts for Qobbit\_43:

(Start: 10 @29449 has 37 MA's), (14, 29428), (18, 29401), (24, 29326),

Gene: Rahalelujah\_40 Start: 28267, Stop: 28112, Start Num: 10

Candidate Starts for Rahalelujah\_40:

(Start: 10 @28267 has 37 MA's), (14, 28246), (18, 28219),

Gene: Refuge\_42 Start: 30544, Stop: 30389, Start Num: 10

Candidate Starts for Refuge\_42:

(Start: 10 @30544 has 37 MA's), (20, 30451),

Gene: RyeScarlet\_44 Start: 29444, Stop: 29280, Start Num: 10

Candidate Starts for RyeScarlet\_44:

(Start: 10 @29444 has 37 MA's), (14, 29423), (18, 29396), (24, 29321),

Gene: Sachima\_40 Start: 29360, Stop: 29196, Start Num: 10

Candidate Starts for Sachima\_40:

(Start: 10 @29360 has 37 MA's), (14, 29339), (18, 29312), (24, 29237),

Gene: Scherzo\_43 Start: 29664, Stop: 29500, Start Num: 10

Candidate Starts for Scherzo\_43:

(Start: 10 @29664 has 37 MA's), (14, 29643), (18, 29616), (24, 29541),

Gene: Spouty\_43 Start: 29486, Stop: 29322, Start Num: 10

Candidate Starts for Spouty\_43:

(Start: 10 @29486 has 37 MA's), (14, 29465), (18, 29438), (24, 29363),

Gene: Timshel\_42 Start: 31481, Stop: 31332, Start Num: 9

Candidate Starts for Timshel\_42:

(5, 31538), (Start: 9 @31481 has 3 MA's), (14, 31448), (17, 31430), (19, 31400), (24, 31346),

Gene: Toaka\_41 Start: 28759, Stop: 28613, Start Num: 10

Candidate Starts for Toaka\_41:

(1, 28909), (Start: 10 @28759 has 37 MA's), (18, 28711),

Gene: Tubs\_43 Start: 29420, Stop: 29256, Start Num: 10

Candidate Starts for Tubs\_43:

(Start: 10 @29420 has 37 MA's), (14, 29399), (18, 29372), (24, 29297),

Gene: Ugenie5\_40 Start: 29663, Stop: 29499, Start Num: 10

Candidate Starts for Ugenie5\_40:

(Start: 10 @29663 has 37 MA's), (14, 29642), (18, 29615), (24, 29540),

Gene: Vanisoa\_41 Start: 29706, Stop: 29545, Start Num: 10

Candidate Starts for Vanisoa\_41:

(Start: 10 @29706 has 37 MA's), (18, 29652), (24, 29577),

Gene: Yecey3\_43 Start: 28664, Stop: 28509, Start Num: 10

Candidate Starts for Yecey3\_43:

(2, 28757), (3, 28751), (Start: 10 @28664 has 37 MA's), (19, 28595), (24, 28541),

Gene: Zimmer\_40 Start: 30029, Stop: 29877, Start Num: 10  
Candidate Starts for Zimmer\_40:  
(Start: 10 @30029 has 37 MA's),