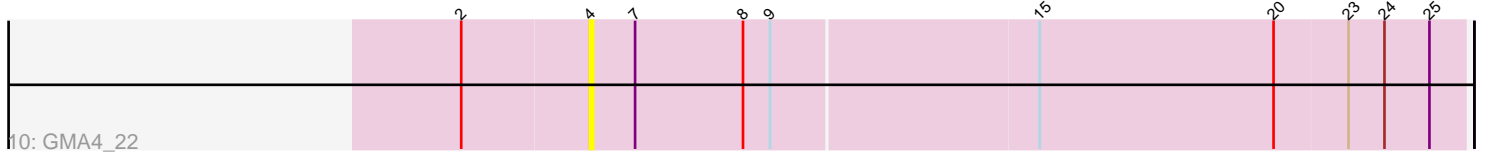
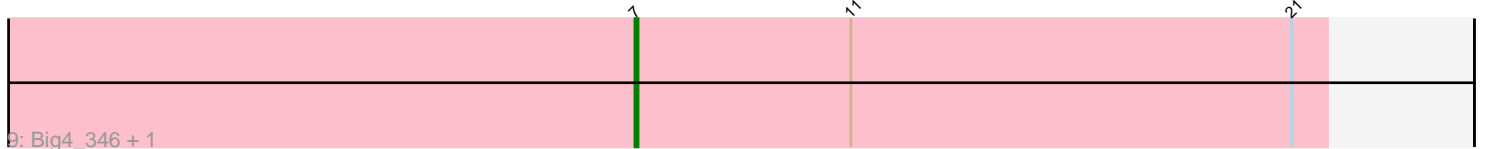
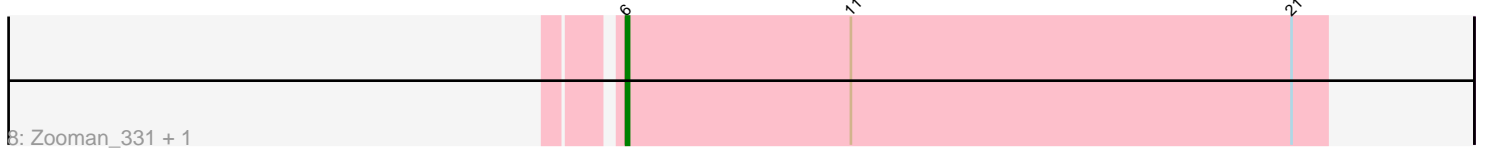
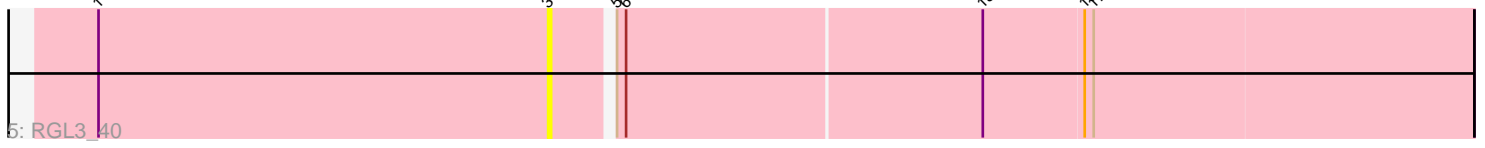
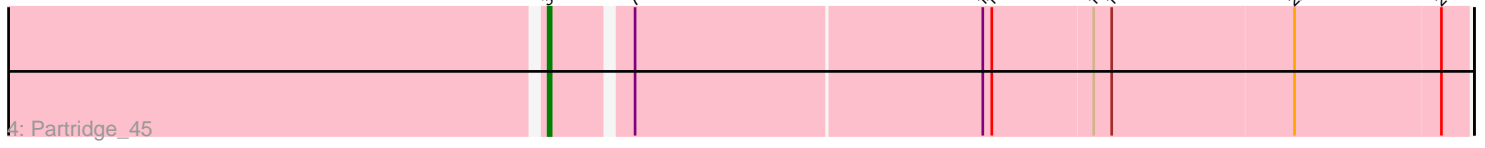
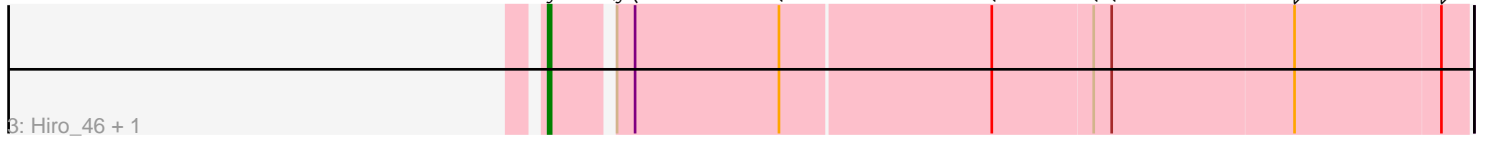
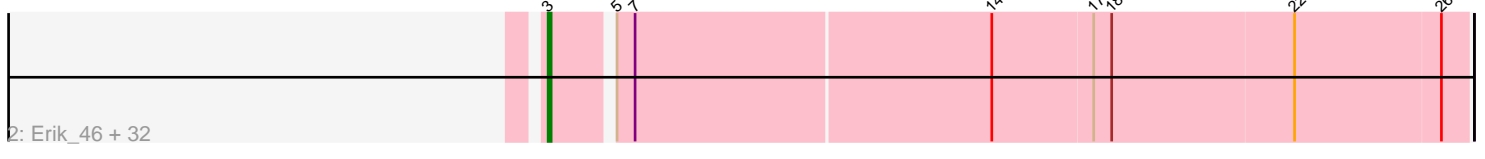
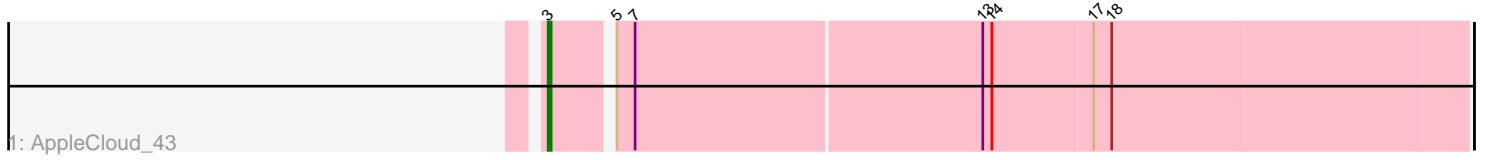


Pham 294827



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 294827 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294827 has 49 members, 5 are drafts.

Phages represented in each track:

- Track 1 : AppleCloud\_43
- Track 2 : Erik\_46, Yogi\_45, Lillie\_46, Shuman\_46, Gollum\_46, Bradshaw\_46, Nancinator\_46, Alatin\_45, Espica\_46, Dinger\_45, AngryOrchard\_44, Alpacados\_45, Krishelle\_46, CosmicSans\_46, TWAMP\_46, Takoda\_46, Jester\_45, Yoncess\_45, StCroix\_45, Harlequin\_45, Rasputin\_46, Naiad\_45, Bonanza\_46, Bryce\_45, Swann\_46, RER2\_39, BobbyDazzler\_46, RexFury\_45, Phrankenstein\_46, Rhodalysa\_46, Belenaria\_46, Natosaleda\_45, UhSalsa\_46
- Track 3 : Hiro\_46, PhailMary\_45
- Track 4 : Partridge\_45
- Track 5 : RGL3\_40
- Track 6 : PauloDiaboli\_20, PauloDiaboli\_375, Dodo\_21, Dodo\_371
- Track 7 : A3Wally\_20, A3Wally\_373
- Track 8 : Zooman\_331, Zooman\_18
- Track 9 : Big4\_346, Big4\_20
- Track 10 : GMA4\_22

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

The start number called the most often in the published annotations is 3, it was called in 36 of the 44 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alatin\_45, Alpacados\_45, AngryOrchard\_44, AppleCloud\_43, Belenaria\_46, BobbyDazzler\_46, Bonanza\_46, Bradshaw\_46, Bryce\_45, CosmicSans\_46, Dinger\_45, Erik\_46, Espica\_46, Gollum\_46, Harlequin\_45, Hiro\_46, Jester\_45, Krishelle\_46, Lillie\_46, Naiad\_45, Nancinator\_46, Natosaleda\_45, Partridge\_45, PhailMary\_45, Phrankenstein\_46, RER2\_39, RGL3\_40, Rasputin\_46, RexFury\_45, Rhodalysa\_46, Shuman\_46, StCroix\_45, Swann\_46, TWAMP\_46, Takoda\_46, UhSalsa\_46, Yogi\_45, Yoncess\_45,

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

- 

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

- A3Wally\_20, A3Wally\_373, Big4\_20, Big4\_346, Dodo\_21, Dodo\_371, GMA4\_22, PauloDiaboli\_20, PauloDiaboli\_375, Zooman\_18, Zooman\_331,

### Summary by start number:

#### Start 3:

- Found in 38 of 49 ( 77.6% ) of genes in pham
- Manual Annotations of this start: 36 of 44
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Alatin\_45 (CA), Alpacados\_45 (CA), AngryOrchard\_44 (CA), AppleCloud\_43 (CA), Belenaria\_46 (CA), BobbyDazzler\_46 (CA), Bonanza\_46 (CA), Bradshaw\_46 (CA), Bryce\_45 (CA), CosmicSans\_46 (CA), Dinger\_45 (CA), Erik\_46 (CA), Espica\_46 (CA), Gollum\_46 (CA), Harlequin\_45 (CA), Hiro\_46 (CA), Jester\_45 (CA), Krishelle\_46 (CA), Lillie\_46 (CA), Naiad\_45 (CA), Nancinator\_46 (CA), Natosaleda\_45 (CA), Partridge\_45 (CA), PhailMary\_45 (CA), Phrankenstien\_46 (CA), RER2\_39 (CA), RGL3\_40 (CA), Rasputin\_46 (CA), RexFury\_45 (CA), Rhodalysa\_46 (CA), Shuman\_46 (CA), StCroix\_45 (CA), Swann\_46 (CA), TWAMP\_46 (CA), Takoda\_46 (CA), UhSalsa\_46 (CA), Yogi\_45 (CA), Yoncess\_45 (CA),

#### Start 4:

- Found in 1 of 49 ( 2.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA4\_22 (singleton),

#### Start 6:

- Found in 3 of 49 ( 6.1% ) of genes in pham
- Manual Annotations of this start: 2 of 44
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Zooman\_18 (GD2), Zooman\_331 (GD2),

#### Start 7:

- Found in 46 of 49 ( 93.9% ) of genes in pham
- Manual Annotations of this start: 6 of 44
- Called 17.4% of time when present
- Phage (with cluster) where this start called: A3Wally\_20 (GD1), A3Wally\_373 (GD1), Big4\_20 (GD2), Big4\_346 (GD2), Dodo\_21 (GD1), Dodo\_371 (GD1), PauloDiaboli\_20 (GD1), PauloDiaboli\_375 (GD1),

### Summary by clusters:

There are 4 clusters represented in this pham: GD1, CA, GD2, singleton,

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

- Start number 3 was manually annotated 36 times for cluster CA.

#### Info for manual annotations of cluster GD1:

- Start number 7 was manually annotated 4 times for cluster GD1.

#### Info for manual annotations of cluster GD2:

- Start number 6 was manually annotated 2 times for cluster GD2.
- Start number 7 was manually annotated 2 times for cluster GD2.

**Gene Information:**

Gene: A3Wally\_20 Start: 7196, Stop: 7426, Start Num: 7

Candidate Starts for A3Wally\_20:

(Start: 7 @7196 has 6 MA's), (11, 7268), (21, 7415),

Gene: A3Wally\_373 Start: 186417, Stop: 186647, Start Num: 7

Candidate Starts for A3Wally\_373:

(Start: 7 @186417 has 6 MA's), (11, 186489), (21, 186636),

Gene: Alatin\_45 Start: 34365, Stop: 34069, Start Num: 3

Candidate Starts for Alatin\_45:

(Start: 3 @34365 has 36 MA's), (5, 34347), (Start: 7 @34341 has 6 MA's), (14, 34224), (17, 34191), (18, 34185), (22, 34125), (26, 34077),

Gene: Alpacados\_45 Start: 34270, Stop: 33974, Start Num: 3

Candidate Starts for Alpacados\_45:

(Start: 3 @34270 has 36 MA's), (5, 34252), (Start: 7 @34246 has 6 MA's), (14, 34129), (17, 34096), (18, 34090), (22, 34030), (26, 33982),

Gene: AngryOrchard\_44 Start: 34430, Stop: 34134, Start Num: 3

Candidate Starts for AngryOrchard\_44:

(Start: 3 @34430 has 36 MA's), (5, 34412), (Start: 7 @34406 has 6 MA's), (14, 34289), (17, 34256), (18, 34250), (22, 34190), (26, 34142),

Gene: AppleCloud\_43 Start: 34089, Stop: 33793, Start Num: 3

Candidate Starts for AppleCloud\_43:

(Start: 3 @34089 has 36 MA's), (5, 34071), (Start: 7 @34065 has 6 MA's), (13, 33951), (14, 33948), (17, 33915), (18, 33909),

Gene: Belenaria\_46 Start: 34231, Stop: 33935, Start Num: 3

Candidate Starts for Belenaria\_46:

(Start: 3 @34231 has 36 MA's), (5, 34213), (Start: 7 @34207 has 6 MA's), (14, 34090), (17, 34057), (18, 34051), (22, 33991), (26, 33943),

Gene: Big4\_346 Start: 183627, Stop: 183857, Start Num: 7

Candidate Starts for Big4\_346:

(Start: 7 @183627 has 6 MA's), (11, 183699), (21, 183846),

Gene: Big4\_20 Start: 8933, Stop: 9163, Start Num: 7

Candidate Starts for Big4\_20:

(Start: 7 @8933 has 6 MA's), (11, 9005), (21, 9152),

Gene: BobbyDazzler\_46 Start: 34344, Stop: 34048, Start Num: 3

Candidate Starts for BobbyDazzler\_46:

(Start: 3 @34344 has 36 MA's), (5, 34326), (Start: 7 @34320 has 6 MA's), (14, 34203), (17, 34170), (18, 34164), (22, 34104), (26, 34056),

Gene: Bonanza\_46 Start: 34272, Stop: 33976, Start Num: 3

Candidate Starts for Bonanza\_46:

(Start: 3 @34272 has 36 MA's), (5, 34254), (Start: 7 @34248 has 6 MA's), (14, 34131), (17, 34098), (18, 34092), (22, 34032), (26, 33984),

Gene: Bradshaw\_46 Start: 34298, Stop: 34002, Start Num: 3

Candidate Starts for Bradshaw\_46:

(Start: 3 @34298 has 36 MA's), (5, 34280), (Start: 7 @34274 has 6 MA's), (14, 34157), (17, 34124), (18, 34118), (22, 34058), (26, 34010),

Gene: Bryce\_45 Start: 34052, Stop: 33756, Start Num: 3

Candidate Starts for Bryce\_45:

(Start: 3 @34052 has 36 MA's), (5, 34034), (Start: 7 @34028 has 6 MA's), (14, 33911), (17, 33878), (18, 33872), (22, 33812), (26, 33764),

Gene: CosmicSans\_46 Start: 34298, Stop: 34002, Start Num: 3

Candidate Starts for CosmicSans\_46:

(Start: 3 @34298 has 36 MA's), (5, 34280), (Start: 7 @34274 has 6 MA's), (14, 34157), (17, 34124), (18, 34118), (22, 34058), (26, 34010),

Gene: Dinger\_45 Start: 34431, Stop: 34135, Start Num: 3

Candidate Starts for Dinger\_45:

(Start: 3 @34431 has 36 MA's), (5, 34413), (Start: 7 @34407 has 6 MA's), (14, 34290), (17, 34257), (18, 34251), (22, 34191), (26, 34143),

Gene: Dodo\_21 Start: 7043, Stop: 7273, Start Num: 7

Candidate Starts for Dodo\_21:

(Start: 7 @7043 has 6 MA's), (11, 7115), (12, 7157), (19, 7244), (21, 7262),

Gene: Dodo\_371 Start: 185243, Stop: 185473, Start Num: 7

Candidate Starts for Dodo\_371:

(Start: 7 @185243 has 6 MA's), (11, 185315), (12, 185357), (19, 185444), (21, 185462),

Gene: Erik\_46 Start: 34230, Stop: 33934, Start Num: 3

Candidate Starts for Erik\_46:

(Start: 3 @34230 has 36 MA's), (5, 34212), (Start: 7 @34206 has 6 MA's), (14, 34089), (17, 34056), (18, 34050), (22, 33990), (26, 33942),

Gene: Espica\_46 Start: 34231, Stop: 33935, Start Num: 3

Candidate Starts for Espica\_46:

(Start: 3 @34231 has 36 MA's), (5, 34213), (Start: 7 @34207 has 6 MA's), (14, 34090), (17, 34057), (18, 34051), (22, 33991), (26, 33943),

Gene: GMA4\_22 Start: 21398, Stop: 21685, Start Num: 4

Candidate Starts for GMA4\_22:

(2, 21356), (4, 21398), (Start: 7 @21413 has 6 MA's), (8, 21449), (9, 21458), (15, 21545), (20, 21623), (23, 21647), (24, 21659), (25, 21674),

Gene: Gollum\_46 Start: 34296, Stop: 34000, Start Num: 3

Candidate Starts for Gollum\_46:

(Start: 3 @34296 has 36 MA's), (5, 34278), (Start: 7 @34272 has 6 MA's), (14, 34155), (17, 34122), (18, 34116), (22, 34056), (26, 34008),

Gene: Harlequin\_45 Start: 34082, Stop: 33786, Start Num: 3

Candidate Starts for Harlequin\_45:

(Start: 3 @34082 has 36 MA's), (5, 34064), (Start: 7 @34058 has 6 MA's), (14, 33941), (17, 33908), (18, 33902), (22, 33842), (26, 33794),

Gene: Hiro\_46 Start: 34558, Stop: 34262, Start Num: 3

Candidate Starts for Hiro\_46:

(Start: 3 @34558 has 36 MA's), (5, 34540), (Start: 7 @34534 has 6 MA's), (10, 34486), (14, 34417), (17, 34384), (18, 34378), (22, 34318), (26, 34270),

Gene: Jester\_45 Start: 34013, Stop: 33717, Start Num: 3

Candidate Starts for Jester\_45:

(Start: 3 @34013 has 36 MA's), (5, 33995), (Start: 7 @33989 has 6 MA's), (14, 33872), (17, 33839), (18, 33833), (22, 33773), (26, 33725),

Gene: Krishelle\_46 Start: 34658, Stop: 34362, Start Num: 3

Candidate Starts for Krishelle\_46:

(Start: 3 @34658 has 36 MA's), (5, 34640), (Start: 7 @34634 has 6 MA's), (14, 34517), (17, 34484), (18, 34478), (22, 34418), (26, 34370),

Gene: Lillie\_46 Start: 34298, Stop: 34002, Start Num: 3

Candidate Starts for Lillie\_46:

(Start: 3 @34298 has 36 MA's), (5, 34280), (Start: 7 @34274 has 6 MA's), (14, 34157), (17, 34124), (18, 34118), (22, 34058), (26, 34010),

Gene: Naiad\_45 Start: 34311, Stop: 34015, Start Num: 3

Candidate Starts for Naiad\_45:

(Start: 3 @34311 has 36 MA's), (5, 34293), (Start: 7 @34287 has 6 MA's), (14, 34170), (17, 34137), (18, 34131), (22, 34071), (26, 34023),

Gene: Nancinator\_46 Start: 34231, Stop: 33935, Start Num: 3

Candidate Starts for Nancinator\_46:

(Start: 3 @34231 has 36 MA's), (5, 34213), (Start: 7 @34207 has 6 MA's), (14, 34090), (17, 34057), (18, 34051), (22, 33991), (26, 33943),

Gene: Natosaleda\_45 Start: 34230, Stop: 33934, Start Num: 3

Candidate Starts for Natosaleda\_45:

(Start: 3 @34230 has 36 MA's), (5, 34212), (Start: 7 @34206 has 6 MA's), (14, 34089), (17, 34056), (18, 34050), (22, 33990), (26, 33942),

Gene: Partridge\_45 Start: 34587, Stop: 34291, Start Num: 3

Candidate Starts for Partridge\_45:

(Start: 3 @34587 has 36 MA's), (Start: 7 @34563 has 6 MA's), (13, 34449), (14, 34446), (17, 34413), (18, 34407), (22, 34347), (26, 34299),

Gene: PauloDiaboli\_20 Start: 7036, Stop: 7266, Start Num: 7

Candidate Starts for PauloDiaboli\_20:

(Start: 7 @7036 has 6 MA's), (11, 7108), (12, 7150), (19, 7237), (21, 7255),

Gene: PauloDiaboli\_375 Start: 183665, Stop: 183895, Start Num: 7

Candidate Starts for PauloDiaboli\_375:

(Start: 7 @183665 has 6 MA's), (11, 183737), (12, 183779), (19, 183866), (21, 183884),

Gene: PhailMary\_45 Start: 34620, Stop: 34324, Start Num: 3

Candidate Starts for PhailMary\_45:

(Start: 3 @34620 has 36 MA's), (5, 34602), (Start: 7 @34596 has 6 MA's), (10, 34548), (14, 34479), (17, 34446), (18, 34440), (22, 34380), (26, 34332),

Gene: Phrankenstein\_46 Start: 34244, Stop: 33948, Start Num: 3

Candidate Starts for Phrankenstein\_46:

(Start: 3 @34244 has 36 MA's), (5, 34226), (Start: 7 @34220 has 6 MA's), (14, 34103), (17, 34070), (18, 34064), (22, 34004), (26, 33956),

Gene: RER2\_39 Start: 31170, Stop: 30874, Start Num: 3

Candidate Starts for RER2\_39:

(Start: 3 @31170 has 36 MA's), (5, 31152), (Start: 7 @31146 has 6 MA's), (14, 31029), (17, 30996), (18, 30990), (22, 30930), (26, 30882),

Gene: RGL3\_40 Start: 32103, Stop: 31804, Start Num: 3

Candidate Starts for RGL3\_40:

(1, 32253), (Start: 3 @32103 has 36 MA's), (5, 32085), (Start: 6 @32082 has 2 MA's), (13, 31965), (16, 31932), (17, 31929),

Gene: Rasputin\_46 Start: 34268, Stop: 33972, Start Num: 3

Candidate Starts for Rasputin\_46:

(Start: 3 @34268 has 36 MA's), (5, 34250), (Start: 7 @34244 has 6 MA's), (14, 34127), (17, 34094), (18, 34088), (22, 34028), (26, 33980),

Gene: RexFury\_45 Start: 34329, Stop: 34033, Start Num: 3

Candidate Starts for RexFury\_45:

(Start: 3 @34329 has 36 MA's), (5, 34311), (Start: 7 @34305 has 6 MA's), (14, 34188), (17, 34155), (18, 34149), (22, 34089), (26, 34041),

Gene: Rhodalysa\_46 Start: 34298, Stop: 34002, Start Num: 3

Candidate Starts for Rhodalysa\_46:

(Start: 3 @34298 has 36 MA's), (5, 34280), (Start: 7 @34274 has 6 MA's), (14, 34157), (17, 34124), (18, 34118), (22, 34058), (26, 34010),

Gene: Shuman\_46 Start: 34243, Stop: 33947, Start Num: 3

Candidate Starts for Shuman\_46:

(Start: 3 @34243 has 36 MA's), (5, 34225), (Start: 7 @34219 has 6 MA's), (14, 34102), (17, 34069), (18, 34063), (22, 34003), (26, 33955),

Gene: StCroix\_45 Start: 34311, Stop: 34015, Start Num: 3

Candidate Starts for StCroix\_45:

(Start: 3 @34311 has 36 MA's), (5, 34293), (Start: 7 @34287 has 6 MA's), (14, 34170), (17, 34137), (18, 34131), (22, 34071), (26, 34023),

Gene: Swann\_46 Start: 34296, Stop: 34000, Start Num: 3

Candidate Starts for Swann\_46:

(Start: 3 @34296 has 36 MA's), (5, 34278), (Start: 7 @34272 has 6 MA's), (14, 34155), (17, 34122), (18, 34116), (22, 34056), (26, 34008),

Gene: TWAMP\_46 Start: 34298, Stop: 34002, Start Num: 3

Candidate Starts for TWAMP\_46:

(Start: 3 @34298 has 36 MA's), (5, 34280), (Start: 7 @34274 has 6 MA's), (14, 34157), (17, 34124), (18, 34118), (22, 34058), (26, 34010),

Gene: Takoda\_46 Start: 34472, Stop: 34176, Start Num: 3

Candidate Starts for Takoda\_46:

(Start: 3 @34472 has 36 MA's), (5, 34454), (Start: 7 @34448 has 6 MA's), (14, 34331), (17, 34298), (18, 34292), (22, 34232), (26, 34184),

Gene: UhSalsa\_46 Start: 34231, Stop: 33935, Start Num: 3

Candidate Starts for UhSalsa\_46:

(Start: 3 @34231 has 36 MA's), (5, 34213), (Start: 7 @34207 has 6 MA's), (14, 34090), (17, 34057), (18, 34051), (22, 33991), (26, 33943),

Gene: Yogi\_45 Start: 34272, Stop: 33976, Start Num: 3

Candidate Starts for Yogi\_45:

(Start: 3 @34272 has 36 MA's), (5, 34254), (Start: 7 @34248 has 6 MA's), (14, 34131), (17, 34098), (18, 34092), (22, 34032), (26, 33984),

Gene: Yoncess\_45 Start: 34052, Stop: 33756, Start Num: 3

Candidate Starts for Yoncess\_45:

(Start: 3 @34052 has 36 MA's), (5, 34034), (Start: 7 @34028 has 6 MA's), (14, 33911), (17, 33878), (18, 33872), (22, 33812), (26, 33764),

Gene: Zooman\_331 Start: 183965, Stop: 184198, Start Num: 6

Candidate Starts for Zooman\_331:

(Start: 6 @183965 has 2 MA's), (11, 184040), (21, 184187),

Gene: Zooman\_18 Start: 8314, Stop: 8547, Start Num: 6

Candidate Starts for Zooman\_18:

(Start: 6 @8314 has 2 MA's), (11, 8389), (21, 8536),