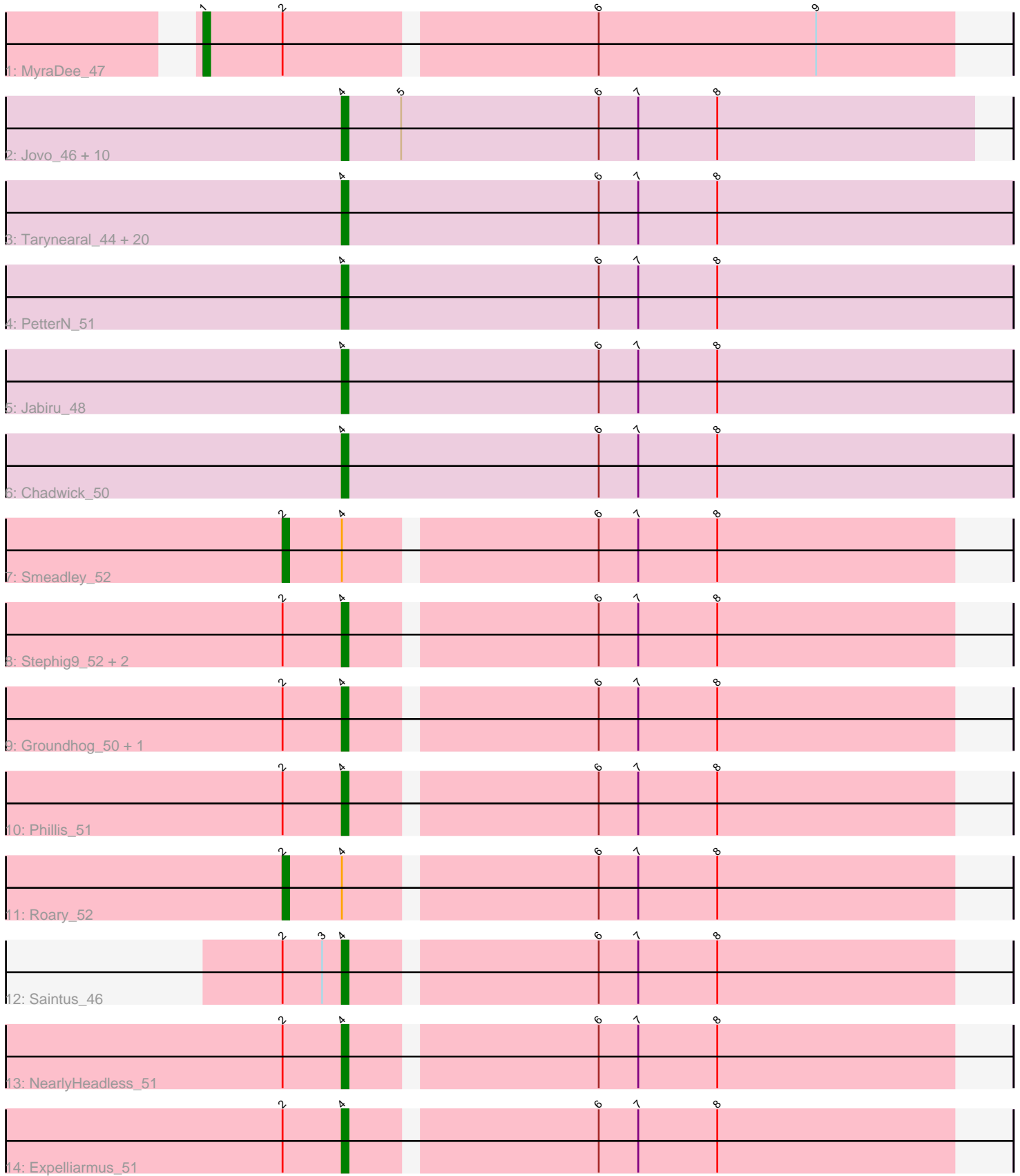


Pham 219845



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 219845 Report

This analysis was run 03/28/25 on database version 593.

Pham number 219845 has 47 members, 2 are drafts.

Phages represented in each track:

- Track 1 : MyraDee\_47
- Track 2 : Jovo\_46, ForGetIt\_46, Tiger\_45, Aragog\_45, AgentM\_45, Phlorence\_44, Discoknowium\_44, PickleBack\_46, Lev2\_46, Archetta\_45, Conspiracy\_46
- Track 3 : Tarynearal\_44, Swirley\_48, Bluefalcon\_45, MarysWell\_46, Bonamassa\_46, Prinash11\_46, Benedict\_50, Micasa\_47, Cuco\_46, UnionJack\_48, Milcery\_46, Theia\_45, Scorpia\_51, Ghoulyboy\_49, ElTiger69\_49, LittleCherry\_46, Dublin\_46, Zolita\_48, HuhtaEnerson15\_46, SydNat\_49, Twigg\_46
- Track 4 : PetterN\_51
- Track 5 : Jabiru\_48
- Track 6 : Chadwick\_50
- Track 7 : Smeadley\_52
- Track 8 : Stephig9\_52, Astro\_51, Danforth\_51
- Track 9 : Groundhog\_50, Dixon\_51
- Track 10 : Phillis\_51
- Track 11 : Roary\_52
- Track 12 : Saintus\_46
- Track 13 : NearlyHeadless\_51
- Track 14 : Expelliarmus\_51

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

The start number called the most often in the published annotations is 4, it was called in 42 of the 45 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AgentM\_45, Aragog\_45, Archetta\_45, Astro\_51, Benedict\_50, Bluefalcon\_45, Bonamassa\_46, Chadwick\_50, Conspiracy\_46, Cuco\_46, Danforth\_51, Discoknowium\_44, Dixon\_51, Dublin\_46, ElTiger69\_49, Expelliarmus\_51, ForGetIt\_46, Ghoulyboy\_49, Groundhog\_50, HuhtaEnerson15\_46, Jabiru\_48, Jovo\_46, Lev2\_46, LittleCherry\_46, MarysWell\_46, Micasa\_47, Milcery\_46, NearlyHeadless\_51, PetterN\_51, Phillis\_51, Phlorence\_44, PickleBack\_46, Prinash11\_46, Saintus\_46, Scorpia\_51, Stephig9\_52, Swirley\_48, SydNat\_49, Tarynearal\_44, Theia\_45, Tiger\_45, Twigg\_46, UnionJack\_48, Zolita\_48,

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

- Roary\_52, Smeadley\_52,

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

- MyraDee\_47,

### **Summary by start number:**

Start 1:

- Found in 1 of 47 ( 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: MyraDee\_47 (A18),

Start 2:

- Found in 12 of 47 ( 25.5% ) of genes in pham
- Manual Annotations of this start: 2 of 45
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Roary\_52 (A8), Smeadley\_52 (A8),

Start 4:

- Found in 46 of 47 ( 97.9% ) of genes in pham
- Manual Annotations of this start: 42 of 45
- Called 95.7% of time when present
- Phage (with cluster) where this start called: AgentM\_45 (A5), Aragog\_45 (A5), Archetta\_45 (A5), Astro\_51 (A8), Benedict\_50 (A5), Bluefalcon\_45 (A5), Bonamassa\_46 (A5), Chadwick\_50 (A5), Conspiracy\_46 (A5), Cuco\_46 (A5), Danforth\_51 (A8), Discoknowium\_44 (A5), Dixon\_51 (A8), Dublin\_46 (A5), EITiger69\_49 (A5), Expelliarmus\_51 (A8), ForGetIt\_46 (A5), Ghouboy\_49 (A5), Groundhog\_50 (A8), HuhtaEnerson15\_46 (A5), Jabiru\_48 (A5), Jovo\_46 (A5), Lev2\_46 (A5), LittleCherry\_46 (A5), MarysWell\_46 (A5), Micasa\_47 (A5), Milcery\_46 (A5), NearlyHeadless\_51 (A8), PetterN\_51 (A5), Phillis\_51 (A8), Phlorence\_44 (A5), PickleBack\_46 (A5), Prinash11\_46 (A5), Saintus\_46 (A8), Scorpia\_51 (A5), Stephig9\_52 (A8), Swirley\_48 (A5), SydNat\_49 (A5), Tarynearal\_44 (A5), Theia\_45 (A5), Tiger\_45 (A5), Twigg\_46 (A5), UnionJack\_48 (A5), Zolita\_48 (A5),

### **Summary by clusters:**

There are 3 clusters represented in this pham: A8, A5, A18,

Info for manual annotations of cluster A18:

- Start number 1 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A5:

- Start number 4 was manually annotated 33 times for cluster A5.

Info for manual annotations of cluster A8:

- Start number 2 was manually annotated 2 times for cluster A8.
- Start number 4 was manually annotated 9 times for cluster A8.

### **Gene Information:**

Gene: AgentM\_45 Start: 34651, Stop: 34556, Start Num: 4  
Candidate Starts for AgentM\_45:  
(Start: 4 @34651 has 42 MA's), (5, 34642), (6, 34612), (7, 34606), (8, 34594),

Gene: Aragog\_45 Start: 34671, Stop: 34576, Start Num: 4  
Candidate Starts for Aragog\_45:  
(Start: 4 @34671 has 42 MA's), (5, 34662), (6, 34632), (7, 34626), (8, 34614),

Gene: Archetta\_45 Start: 35081, Stop: 34980, Start Num: 4  
Candidate Starts for Archetta\_45:  
(Start: 4 @35081 has 42 MA's), (5, 35072), (6, 35042), (7, 35036), (8, 35024),

Gene: Astro\_51 Start: 34575, Stop: 34486, Start Num: 4  
Candidate Starts for Astro\_51:  
(Start: 2 @34584 has 2 MA's), (Start: 4 @34575 has 42 MA's), (6, 34539), (7, 34533), (8, 34521),

Gene: Benedict\_50 Start: 35040, Stop: 34939, Start Num: 4  
Candidate Starts for Benedict\_50:  
(Start: 4 @35040 has 42 MA's), (6, 35001), (7, 34995), (8, 34983),

Gene: Bluefalcon\_45 Start: 35226, Stop: 35125, Start Num: 4  
Candidate Starts for Bluefalcon\_45:  
(Start: 4 @35226 has 42 MA's), (6, 35187), (7, 35181), (8, 35169),

Gene: Bonamassa\_46 Start: 35070, Stop: 34969, Start Num: 4  
Candidate Starts for Bonamassa\_46:  
(Start: 4 @35070 has 42 MA's), (6, 35031), (7, 35025), (8, 35013),

Gene: Chadwick\_50 Start: 34851, Stop: 34750, Start Num: 4  
Candidate Starts for Chadwick\_50:  
(Start: 4 @34851 has 42 MA's), (6, 34812), (7, 34806), (8, 34794),

Gene: Conspiracy\_46 Start: 34893, Stop: 34798, Start Num: 4  
Candidate Starts for Conspiracy\_46:  
(Start: 4 @34893 has 42 MA's), (5, 34884), (6, 34854), (7, 34848), (8, 34836),

Gene: Cuco\_46 Start: 34926, Stop: 34825, Start Num: 4  
Candidate Starts for Cuco\_46:  
(Start: 4 @34926 has 42 MA's), (6, 34887), (7, 34881), (8, 34869),

Gene: Danforth\_51 Start: 34604, Stop: 34515, Start Num: 4  
Candidate Starts for Danforth\_51:  
(Start: 2 @34613 has 2 MA's), (Start: 4 @34604 has 42 MA's), (6, 34568), (7, 34562), (8, 34550),

Gene: Discoknowium\_44 Start: 34560, Stop: 34459, Start Num: 4  
Candidate Starts for Discoknowium\_44:  
(Start: 4 @34560 has 42 MA's), (5, 34551), (6, 34521), (7, 34515), (8, 34503),

Gene: Dixon\_51 Start: 34399, Stop: 34310, Start Num: 4  
Candidate Starts for Dixon\_51:  
(Start: 2 @34408 has 2 MA's), (Start: 4 @34399 has 42 MA's), (6, 34363), (7, 34357), (8, 34345),

Gene: Dublin\_46 Start: 35062, Stop: 34961, Start Num: 4

Candidate Starts for Dublin\_46:

(Start: 4 @35062 has 42 MA's), (6, 35023), (7, 35017), (8, 35005),

Gene: EITiger69\_49 Start: 35022, Stop: 34921, Start Num: 4

Candidate Starts for EITiger69\_49:

(Start: 4 @35022 has 42 MA's), (6, 34983), (7, 34977), (8, 34965),

Gene: Expelliarmus\_51 Start: 34633, Stop: 34544, Start Num: 4

Candidate Starts for Expelliarmus\_51:

(Start: 2 @34642 has 2 MA's), (Start: 4 @34633 has 42 MA's), (6, 34597), (7, 34591), (8, 34579),

Gene: ForGetIt\_46 Start: 34918, Stop: 34823, Start Num: 4

Candidate Starts for ForGetIt\_46:

(Start: 4 @34918 has 42 MA's), (5, 34909), (6, 34879), (7, 34873), (8, 34861),

Gene: Ghoulboy\_49 Start: 35797, Stop: 35696, Start Num: 4

Candidate Starts for Ghoulboy\_49:

(Start: 4 @35797 has 42 MA's), (6, 35758), (7, 35752), (8, 35740),

Gene: Groundhog\_50 Start: 34531, Stop: 34442, Start Num: 4

Candidate Starts for Groundhog\_50:

(Start: 2 @34540 has 2 MA's), (Start: 4 @34531 has 42 MA's), (6, 34495), (7, 34489), (8, 34477),

Gene: HuhtaEnerson15\_46 Start: 34964, Stop: 34863, Start Num: 4

Candidate Starts for HuhtaEnerson15\_46:

(Start: 4 @34964 has 42 MA's), (6, 34925), (7, 34919), (8, 34907),

Gene: Jabiru\_48 Start: 34895, Stop: 34794, Start Num: 4

Candidate Starts for Jabiru\_48:

(Start: 4 @34895 has 42 MA's), (6, 34856), (7, 34850), (8, 34838),

Gene: Jovo\_46 Start: 35174, Stop: 35079, Start Num: 4

Candidate Starts for Jovo\_46:

(Start: 4 @35174 has 42 MA's), (5, 35165), (6, 35135), (7, 35129), (8, 35117),

Gene: Lev2\_46 Start: 34806, Stop: 34711, Start Num: 4

Candidate Starts for Lev2\_46:

(Start: 4 @34806 has 42 MA's), (5, 34797), (6, 34767), (7, 34761), (8, 34749),

Gene: LittleCherry\_46 Start: 34984, Stop: 34883, Start Num: 4

Candidate Starts for LittleCherry\_46:

(Start: 4 @34984 has 42 MA's), (6, 34945), (7, 34939), (8, 34927),

Gene: MarysWell\_46 Start: 35305, Stop: 35204, Start Num: 4

Candidate Starts for MarysWell\_46:

(Start: 4 @35305 has 42 MA's), (6, 35266), (7, 35260), (8, 35248),

Gene: Micasa\_47 Start: 35152, Stop: 35051, Start Num: 4

Candidate Starts for Micasa\_47:

(Start: 4 @35152 has 42 MA's), (6, 35113), (7, 35107), (8, 35095),

Gene: Milcery\_46 Start: 34941, Stop: 34840, Start Num: 4

Candidate Starts for Milcery\_46:

(Start: 4 @34941 has 42 MA's), (6, 34902), (7, 34896), (8, 34884),

Gene: MyraDee\_47 Start: 32494, Stop: 32384, Start Num: 1

Candidate Starts for MyraDee\_47:

(Start: 1 @32494 has 1 MA's), (Start: 2 @32482 has 2 MA's), (6, 32437), (9, 32404),

Gene: NearlyHeadless\_51 Start: 34370, Stop: 34281, Start Num: 4

Candidate Starts for NearlyHeadless\_51:

(Start: 2 @34379 has 2 MA's), (Start: 4 @34370 has 42 MA's), (6, 34334), (7, 34328), (8, 34316),

Gene: PetterN\_51 Start: 35019, Stop: 34918, Start Num: 4

Candidate Starts for PetterN\_51:

(Start: 4 @35019 has 42 MA's), (6, 34980), (7, 34974), (8, 34962),

Gene: Phillis\_51 Start: 34572, Stop: 34483, Start Num: 4

Candidate Starts for Phillis\_51:

(Start: 2 @34581 has 2 MA's), (Start: 4 @34572 has 42 MA's), (6, 34536), (7, 34530), (8, 34518),

Gene: Phlorence\_44 Start: 34551, Stop: 34450, Start Num: 4

Candidate Starts for Phlorence\_44:

(Start: 4 @34551 has 42 MA's), (5, 34542), (6, 34512), (7, 34506), (8, 34494),

Gene: PickleBack\_46 Start: 34798, Stop: 34703, Start Num: 4

Candidate Starts for PickleBack\_46:

(Start: 4 @34798 has 42 MA's), (5, 34789), (6, 34759), (7, 34753), (8, 34741),

Gene: Prin Ashe11\_46 Start: 34843, Stop: 34742, Start Num: 4

Candidate Starts for Prin Ashe11\_46:

(Start: 4 @34843 has 42 MA's), (6, 34804), (7, 34798), (8, 34786),

Gene: Roary\_52 Start: 34598, Stop: 34500, Start Num: 2

Candidate Starts for Roary\_52:

(Start: 2 @34598 has 2 MA's), (Start: 4 @34589 has 42 MA's), (6, 34553), (7, 34547), (8, 34535),

Gene: Saintus\_46 Start: 31305, Stop: 31216, Start Num: 4

Candidate Starts for Saintus\_46:

(Start: 2 @31314 has 2 MA's), (3, 31308), (Start: 4 @31305 has 42 MA's), (6, 31269), (7, 31263), (8, 31251),

Gene: Scorpia\_51 Start: 35105, Stop: 35004, Start Num: 4

Candidate Starts for Scorpia\_51:

(Start: 4 @35105 has 42 MA's), (6, 35066), (7, 35060), (8, 35048),

Gene: Smeadley\_52 Start: 34764, Stop: 34666, Start Num: 2

Candidate Starts for Smeadley\_52:

(Start: 2 @34764 has 2 MA's), (Start: 4 @34755 has 42 MA's), (6, 34719), (7, 34713), (8, 34701),

Gene: Stephig9\_52 Start: 34821, Stop: 34732, Start Num: 4

Candidate Starts for Stephig9\_52:

(Start: 2 @34830 has 2 MA's), (Start: 4 @34821 has 42 MA's), (6, 34785), (7, 34779), (8, 34767),

Gene: Swirley\_48 Start: 35284, Stop: 35183, Start Num: 4

Candidate Starts for Swirley\_48:

(Start: 4 @35284 has 42 MA's), (6, 35245), (7, 35239), (8, 35227),

Gene: SydNat\_49 Start: 35806, Stop: 35705, Start Num: 4

Candidate Starts for SydNat\_49:

(Start: 4 @35806 has 42 MA's), (6, 35767), (7, 35761), (8, 35749),

Gene: Tarynearal\_44 Start: 34726, Stop: 34625, Start Num: 4

Candidate Starts for Tarynearal\_44:

(Start: 4 @34726 has 42 MA's), (6, 34687), (7, 34681), (8, 34669),

Gene: Theia\_45 Start: 35283, Stop: 35182, Start Num: 4

Candidate Starts for Theia\_45:

(Start: 4 @35283 has 42 MA's), (6, 35244), (7, 35238), (8, 35226),

Gene: Tiger\_45 Start: 34472, Stop: 34377, Start Num: 4

Candidate Starts for Tiger\_45:

(Start: 4 @34472 has 42 MA's), (5, 34463), (6, 34433), (7, 34427), (8, 34415),

Gene: Twigg\_46 Start: 34923, Stop: 34822, Start Num: 4

Candidate Starts for Twigg\_46:

(Start: 4 @34923 has 42 MA's), (6, 34884), (7, 34878), (8, 34866),

Gene: UnionJack\_48 Start: 34595, Stop: 34494, Start Num: 4

Candidate Starts for UnionJack\_48:

(Start: 4 @34595 has 42 MA's), (6, 34556), (7, 34550), (8, 34538),

Gene: Zolita\_48 Start: 35810, Stop: 35709, Start Num: 4

Candidate Starts for Zolita\_48:

(Start: 4 @35810 has 42 MA's), (6, 35771), (7, 35765), (8, 35753),