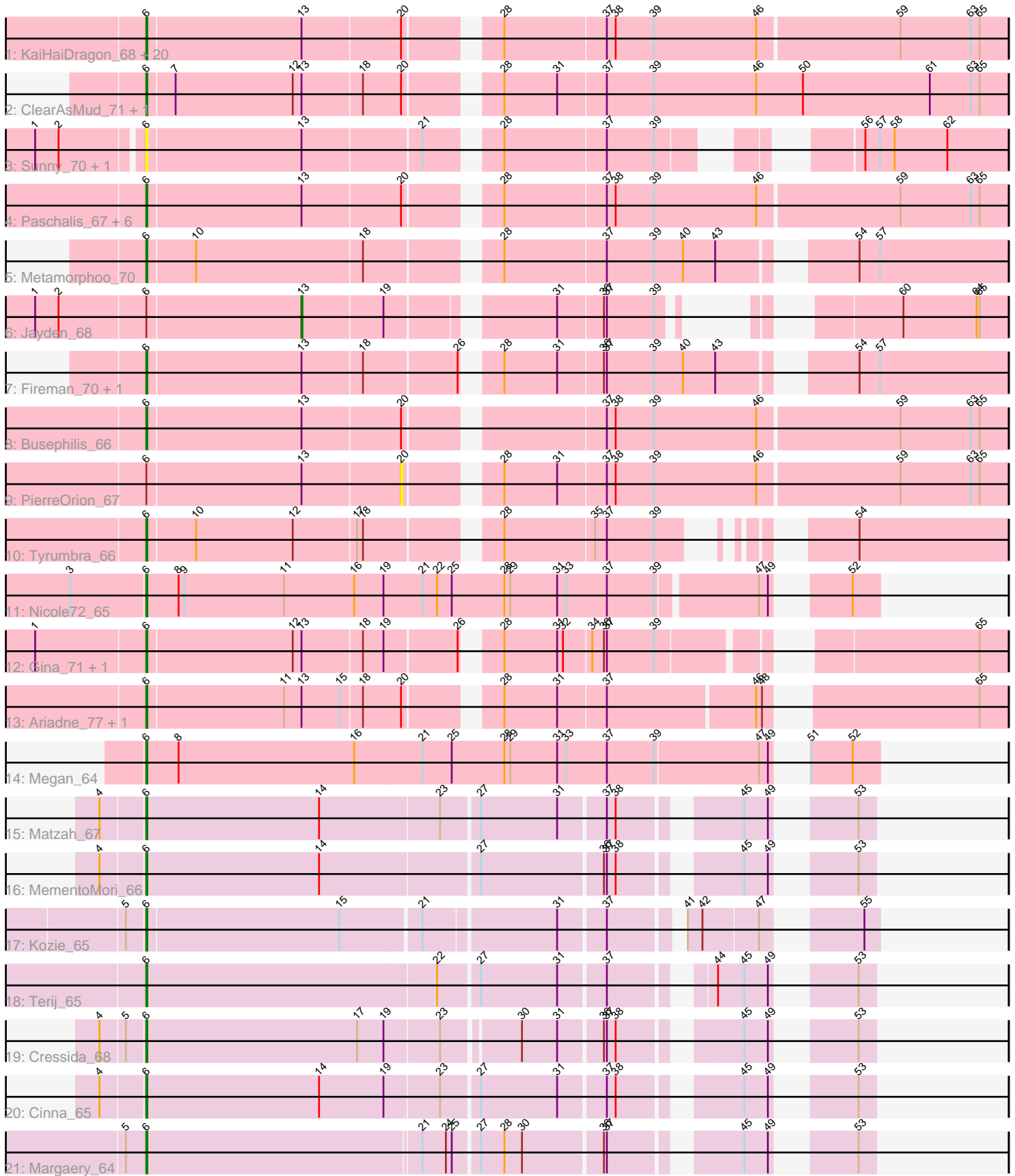


Pham 183764



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 183764 Report

This analysis was run 11/02/24 on database version 579.

Pham number 183764 has 52 members, 3 are drafts.

Phages represented in each track:

- Track 1 : KaiHaiDragon\_68, EarickHC\_68, Hermeonysus\_67, Shotgun\_67, Cranjjs\_68, Honeyfin\_68, Quhwah\_71, Jefe\_67, Phorgeous\_67, Savannah\_66, Ganandorf\_66, Piperis\_68, Selwyn23\_68, Scumberland\_69, Crisis\_68, Pulchra\_69, CrazyRich\_66, Yeti\_69, Phrancesco\_67, LittleFortune\_69, Antares\_67
- Track 2 : ClearAsMud\_71, NoodlelyBoi\_68
- Track 3 : Sunny\_70, Merry\_70
- Track 4 : Paschalis\_67, BrazzalePHS\_66, Onika\_66, Jollipop\_68, Ramiel05\_66, Kowalski\_66, PiperSansNom\_68
- Track 5 : Metamorphoo\_70
- Track 6 : Jayden\_68
- Track 7 : Fireman\_70, RobsFeet\_71
- Track 8 : Busephilis\_66
- Track 9 : PierreOrion\_67
- Track 10 : Tyumbra\_66
- Track 11 : Nicole72\_65
- Track 12 : Gina\_71, Teamocil\_71
- Track 13 : Ariadne\_77, Smarties\_77
- Track 14 : Megan\_64
- Track 15 : Matzah\_67
- Track 16 : MementoMori\_66
- Track 17 : Kozie\_65
- Track 18 : Terij\_65
- Track 19 : Cressida\_68
- Track 20 : Cinna\_65
- Track 21 : Margaery\_64

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

The start number called the most often in the published annotations is 6, it was called in 48 of the 49 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Antares\_67, Ariadne\_77, BrazzalePHS\_66, Busephilis\_66, Cinna\_65, ClearAsMud\_71, Cranjjs\_68, CrazyRich\_66, Cressida\_68, Crisis\_68, EarickHC\_68,

Fireman\_70, Ganandorf\_66, Gina\_71, Hermeonysus\_67, Honeyfin\_68, Jefe\_67, Jollipop\_68, KaiHaiDragon\_68, Kowalski\_66, Kozié\_65, LittleFortune\_69, Margaery\_64, Matzah\_67, Megan\_64, MementoMori\_66, Merry\_70, Metamorphoo\_70, Nicole72\_65, NoodlelyBoi\_68, Onika\_66, Paschalis\_67, Phorgeous\_67, Phrancesco\_67, PiperSansNom\_68, Piperis\_68, Pulchra\_69, Quhwah\_71, Ramiel05\_66, RobsFeet\_71, Savannah\_66, Scumberland\_69, Selwyn23\_68, Shotgun\_67, Smarties\_77, Sunny\_70, Teamocil\_71, Terij\_65, Tyrumbra\_66, Yeti\_69,

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

- Jayden\_68, PierreOrion\_67,

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

- 

### Summary by start number:

Start 6:

- Found in 52 of 52 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 48 of 49
- Called 96.2% of time when present
- Phage (with cluster) where this start called: Antares\_67 (EC), Ariadne\_77 (EC), BrazzalePHS\_66 (EC), Busephilis\_66 (EC), Cinna\_65 (EI), ClearAsMud\_71 (EC), Cranjis\_68 (EC), CrazyRich\_66 (EC), Cressida\_68 (EI), Crisis\_68 (EC), EarickHC\_68 (EC), Fireman\_70 (EC), Ganandorf\_66 (EC), Gina\_71 (EC), Hermeonysus\_67 (EC), Honeyfin\_68 (EC), Jefe\_67 (EC), Jollipop\_68 (EC), KaiHaiDragon\_68 (EC), Kowalski\_66 (EC), Kozié\_65 (EI), LittleFortune\_69 (EC), Margaery\_64 (EI), Matzah\_67 (EI), Megan\_64 (EC), MementoMori\_66 (EI), Merry\_70 (EC), Metamorphoo\_70 (EC), Nicole72\_65 (EC), NoodlelyBoi\_68 (EC), Onika\_66 (EC), Paschalis\_67 (EC), Phorgeous\_67 (EC), Phrancesco\_67 (EC), PiperSansNom\_68 (EC), Piperis\_68 (EC), Pulchra\_69 (EC), Quhwah\_71 (EC), Ramiel05\_66 (EC), RobsFeet\_71 (EC), Savannah\_66 (EC), Scumberland\_69 (EC), Selwyn23\_68 (EC), Shotgun\_67 (EC), Smarties\_77 (EC), Sunny\_70 (EC), Teamocil\_71 (EC), Terij\_65 (EI), Tyrumbra\_66 (EC), Yeti\_69 (EC),

Start 13:

- Found in 41 of 52 ( 78.8% ) of genes in pham
- Manual Annotations of this start: 1 of 49
- Called 2.4% of time when present
- Phage (with cluster) where this start called: Jayden\_68 (EC),

Start 20:

- Found in 34 of 52 ( 65.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 2.9% of time when present
- Phage (with cluster) where this start called: PierreOrion\_67 (EC),

### Summary by clusters:

There are 2 clusters represented in this pham: EI, EC,

Info for manual annotations of cluster EC:

- Start number 6 was manually annotated 41 times for cluster EC.

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

Info for manual annotations of cluster EI:

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

### **Gene Information:**

Gene: Antares\_67 Start: 41921, Stop: 42760, Start Num: 6

Candidate Starts for Antares\_67:

(Start: 6 @41921 has 48 MA's), (Start: 13 @42077 has 1 MA's), (20, 42176), (28, 42254), (37, 42356), (38, 42365), (39, 42404), (46, 42509), (59, 42650), (63, 42722), (65, 42731),

Gene: Ariadne\_77 Start: 43541, Stop: 44338, Start Num: 6

Candidate Starts for Ariadne\_77:

(Start: 6 @43541 has 48 MA's), (11, 43679), (Start: 13 @43697 has 1 MA's), (15, 43736), (18, 43757), (20, 43796), (28, 43874), (31, 43928), (37, 43976), (46, 44123), (48, 44129), (65, 44309),

Gene: BrazzalePHS\_66 Start: 41689, Stop: 42528, Start Num: 6

Candidate Starts for BrazzalePHS\_66:

(Start: 6 @41689 has 48 MA's), (Start: 13 @41845 has 1 MA's), (20, 41944), (28, 42022), (37, 42124), (38, 42133), (39, 42172), (46, 42277), (59, 42418), (63, 42490), (65, 42499),

Gene: Busephilis\_66 Start: 41628, Stop: 42467, Start Num: 6

Candidate Starts for Busephilis\_66:

(Start: 6 @41628 has 48 MA's), (Start: 13 @41784 has 1 MA's), (20, 41883), (37, 42063), (38, 42072), (39, 42111), (46, 42216), (59, 42357), (63, 42429), (65, 42438),

Gene: Cinna\_65 Start: 43270, Stop: 43929, Start Num: 6

Candidate Starts for Cinna\_65:

(4, 43228), (Start: 6 @43270 has 48 MA's), (14, 43447), (19, 43513), (23, 43567), (27, 43603), (31, 43681), (37, 43726), (38, 43735), (45, 43834), (49, 43858), (53, 43912),

Gene: ClearAsMud\_71 Start: 42203, Stop: 43048, Start Num: 6

Candidate Starts for ClearAsMud\_71:

(Start: 6 @42203 has 48 MA's), (7, 42230), (12, 42350), (Start: 13 @42359 has 1 MA's), (18, 42419), (20, 42458), (28, 42536), (31, 42590), (37, 42638), (39, 42686), (46, 42791), (50, 42839), (61, 42968), (63, 43010), (65, 43019),

Gene: Cranjis\_68 Start: 41876, Stop: 42715, Start Num: 6

Candidate Starts for Cranjis\_68:

(Start: 6 @41876 has 48 MA's), (Start: 13 @42032 has 1 MA's), (20, 42131), (28, 42209), (37, 42311), (38, 42320), (39, 42359), (46, 42464), (59, 42605), (63, 42677), (65, 42686),

Gene: CrazyRich\_66 Start: 41682, Stop: 42521, Start Num: 6

Candidate Starts for CrazyRich\_66:

(Start: 6 @41682 has 48 MA's), (Start: 13 @41838 has 1 MA's), (20, 41937), (28, 42015), (37, 42117), (38, 42126), (39, 42165), (46, 42270), (59, 42411), (63, 42483), (65, 42492),

Gene: Cressida\_68 Start: 42876, Stop: 43529, Start Num: 6

Candidate Starts for Cressida\_68:

(4, 42834), (5, 42858), (Start: 6 @42876 has 48 MA's), (17, 43092), (19, 43119), (23, 43173), (30, 43245), (31, 43281), (36, 43323), (37, 43326), (38, 43335), (45, 43434), (49, 43458), (53, 43512),

Gene: Crisis\_68 Start: 41691, Stop: 42530, Start Num: 6

Candidate Starts for Crisis\_68:

(Start: 6 @41691 has 48 MA's), (Start: 13 @41847 has 1 MA's), (20, 41946), (28, 42024), (37, 42126), (38, 42135), (39, 42174), (46, 42279), (59, 42420), (63, 42492), (65, 42501),

Gene: EarickHC\_68 Start: 41613, Stop: 42452, Start Num: 6

Candidate Starts for EarickHC\_68:

(Start: 6 @41613 has 48 MA's), (Start: 13 @41769 has 1 MA's), (20, 41868), (28, 41946), (37, 42048), (38, 42057), (39, 42096), (46, 42201), (59, 42342), (63, 42414), (65, 42423),

Gene: Fireman\_70 Start: 43653, Stop: 44456, Start Num: 6

Candidate Starts for Fireman\_70:

(Start: 6 @43653 has 48 MA's), (Start: 13 @43809 has 1 MA's), (18, 43869), (26, 43962), (28, 43986), (31, 44040), (36, 44085), (37, 44088), (39, 44136), (40, 44166), (43, 44199), (54, 44304), (57, 44325),

Gene: Ganandorf\_66 Start: 41709, Stop: 42548, Start Num: 6

Candidate Starts for Ganandorf\_66:

(Start: 6 @41709 has 48 MA's), (Start: 13 @41865 has 1 MA's), (20, 41964), (28, 42042), (37, 42144), (38, 42153), (39, 42192), (46, 42297), (59, 42438), (63, 42510), (65, 42519),

Gene: Gina\_71 Start: 41770, Stop: 42552, Start Num: 6

Candidate Starts for Gina\_71:

(1, 41659), (Start: 6 @41770 has 48 MA's), (12, 41917), (Start: 13 @41926 has 1 MA's), (18, 41986), (19, 42007), (26, 42079), (28, 42103), (31, 42157), (32, 42163), (34, 42190), (36, 42202), (37, 42205), (39, 42253), (65, 42523),

Gene: Hermeonysus\_67 Start: 41604, Stop: 42437, Start Num: 6

Candidate Starts for Hermeonysus\_67:

(Start: 6 @41604 has 48 MA's), (Start: 13 @41760 has 1 MA's), (20, 41859), (28, 41937), (37, 42039), (38, 42048), (39, 42087), (46, 42186), (59, 42327), (63, 42399), (65, 42408),

Gene: Honeyfin\_68 Start: 41864, Stop: 42697, Start Num: 6

Candidate Starts for Honeyfin\_68:

(Start: 6 @41864 has 48 MA's), (Start: 13 @42020 has 1 MA's), (20, 42119), (28, 42197), (37, 42299), (38, 42308), (39, 42347), (46, 42446), (59, 42587), (63, 42659), (65, 42668),

Gene: Jayden\_68 Start: 42363, Stop: 42914, Start Num: 13

Candidate Starts for Jayden\_68:

(1, 42096), (2, 42120), (Start: 6 @42207 has 48 MA's), (Start: 13 @42363 has 1 MA's), (19, 42444), (31, 42591), (36, 42636), (37, 42639), (39, 42687), (60, 42807), (64, 42882), (65, 42885),

Gene: Jefe\_67 Start: 41659, Stop: 42498, Start Num: 6

Candidate Starts for Jefe\_67:

(Start: 6 @41659 has 48 MA's), (Start: 13 @41815 has 1 MA's), (20, 41914), (28, 41992), (37, 42094), (38, 42103), (39, 42142), (46, 42247), (59, 42388), (63, 42460), (65, 42469),

Gene: Jollipop\_68 Start: 42047, Stop: 42886, Start Num: 6

Candidate Starts for Jollipop\_68:

(Start: 6 @42047 has 48 MA's), (Start: 13 @42203 has 1 MA's), (20, 42302), (28, 42380), (37, 42482), (38, 42491), (39, 42530), (46, 42635), (59, 42776), (63, 42848), (65, 42857),

Gene: KaiHaiDragon\_68 Start: 41613, Stop: 42452, Start Num: 6  
Candidate Starts for KaiHaiDragon\_68:  
(Start: 6 @41613 has 48 MA's), (Start: 13 @41769 has 1 MA's), (20, 41868), (28, 41946), (37, 42048),  
(38, 42057), (39, 42096), (46, 42201), (59, 42342), (63, 42414), (65, 42423),

Gene: Kowalski\_66 Start: 41684, Stop: 42523, Start Num: 6  
Candidate Starts for Kowalski\_66:  
(Start: 6 @41684 has 48 MA's), (Start: 13 @41840 has 1 MA's), (20, 41939), (28, 42017), (37, 42119),  
(38, 42128), (39, 42167), (46, 42272), (59, 42413), (63, 42485), (65, 42494),

Gene: Kozie\_65 Start: 42511, Stop: 43170, Start Num: 6  
Candidate Starts for Kozie\_65:  
(5, 42493), (Start: 6 @42511 has 48 MA's), (15, 42706), (21, 42784), (31, 42913), (37, 42958), (41,  
43018), (42, 43033), (47, 43087), (55, 43156),

Gene: LittleFortune\_69 Start: 41969, Stop: 42808, Start Num: 6  
Candidate Starts for LittleFortune\_69:  
(Start: 6 @41969 has 48 MA's), (Start: 13 @42125 has 1 MA's), (20, 42224), (28, 42302), (37, 42404),  
(38, 42413), (39, 42452), (46, 42557), (59, 42698), (63, 42770), (65, 42779),

Gene: Margaery\_64 Start: 42479, Stop: 43135, Start Num: 6  
Candidate Starts for Margaery\_64:  
(5, 42458), (Start: 6 @42479 has 48 MA's), (21, 42755), (24, 42779), (25, 42785), (27, 42809), (28,  
42833), (30, 42851), (36, 42929), (37, 42932), (45, 43040), (49, 43064), (53, 43118),

Gene: Matzah\_67 Start: 43337, Stop: 43996, Start Num: 6  
Candidate Starts for Matzah\_67:  
(4, 43295), (Start: 6 @43337 has 48 MA's), (14, 43514), (23, 43634), (27, 43670), (31, 43748), (37,  
43793), (38, 43802), (45, 43901), (49, 43925), (53, 43979),

Gene: Megan\_64 Start: 45834, Stop: 46541, Start Num: 6  
Candidate Starts for Megan\_64:  
(Start: 6 @45834 has 48 MA's), (8, 45867), (16, 46047), (21, 46116), (25, 46146), (28, 46200), (29,  
46206), (31, 46254), (33, 46263), (37, 46305), (39, 46353), (47, 46458), (49, 46467), (51, 46473), (52,  
46515),

Gene: MementoMori\_66 Start: 42932, Stop: 43591, Start Num: 6  
Candidate Starts for MementoMori\_66:  
(4, 42890), (Start: 6 @42932 has 48 MA's), (14, 43109), (27, 43265), (36, 43385), (37, 43388), (38,  
43397), (45, 43496), (49, 43520), (53, 43574),

Gene: Merry\_70 Start: 43851, Stop: 44606, Start Num: 6  
Candidate Starts for Merry\_70:  
(1, 43749), (2, 43773), (Start: 6 @43851 has 48 MA's), (Start: 13 @44007 has 1 MA's), (21, 44124),  
(28, 44184), (37, 44286), (39, 44334), (56, 44460), (57, 44475), (58, 44490), (62, 44544),

Gene: Metamorphoo\_70 Start: 42947, Stop: 43750, Start Num: 6  
Candidate Starts for Metamorphoo\_70:  
(Start: 6 @42947 has 48 MA's), (10, 42995), (18, 43163), (28, 43280), (37, 43382), (39, 43430), (40,  
43460), (43, 43493), (54, 43598), (57, 43619),

Gene: Nicole72\_65 Start: 46341, Stop: 47039, Start Num: 6

Candidate Starts for Nicole72\_65:

(3, 46266), (Start: 6 @46341 has 48 MA's), (8, 46374), (9, 46380), (11, 46482), (16, 46554), (19, 46584), (21, 46623), (22, 46638), (25, 46653), (28, 46707), (29, 46713), (31, 46761), (33, 46770), (37, 46812), (39, 46860), (47, 46956), (49, 46965), (52, 47013),

Gene: NoodlelyBoi\_68 Start: 42452, Stop: 43297, Start Num: 6

Candidate Starts for NoodlelyBoi\_68:

(Start: 6 @42452 has 48 MA's), (7, 42479), (12, 42599), (Start: 13 @42608 has 1 MA's), (18, 42668), (20, 42707), (28, 42785), (31, 42839), (37, 42887), (39, 42935), (46, 43040), (50, 43088), (61, 43217), (63, 43259), (65, 43268),

Gene: Onika\_66 Start: 41693, Stop: 42526, Start Num: 6

Candidate Starts for Onika\_66:

(Start: 6 @41693 has 48 MA's), (Start: 13 @41849 has 1 MA's), (20, 41948), (28, 42026), (37, 42128), (38, 42137), (39, 42176), (46, 42275), (59, 42416), (63, 42488), (65, 42497),

Gene: Paschalis\_67 Start: 41712, Stop: 42551, Start Num: 6

Candidate Starts for Paschalis\_67:

(Start: 6 @41712 has 48 MA's), (Start: 13 @41868 has 1 MA's), (20, 41967), (28, 42045), (37, 42147), (38, 42156), (39, 42195), (46, 42300), (59, 42441), (63, 42513), (65, 42522),

Gene: Phorgeous\_67 Start: 41495, Stop: 42334, Start Num: 6

Candidate Starts for Phorgeous\_67:

(Start: 6 @41495 has 48 MA's), (Start: 13 @41651 has 1 MA's), (20, 41750), (28, 41828), (37, 41930), (38, 41939), (39, 41978), (46, 42083), (59, 42224), (63, 42296), (65, 42305),

Gene: Phrancesco\_67 Start: 41818, Stop: 42657, Start Num: 6

Candidate Starts for Phrancesco\_67:

(Start: 6 @41818 has 48 MA's), (Start: 13 @41974 has 1 MA's), (20, 42073), (28, 42151), (37, 42253), (38, 42262), (39, 42301), (46, 42406), (59, 42547), (63, 42619), (65, 42628),

Gene: PierreOrion\_67 Start: 42179, Stop: 42763, Start Num: 20

Candidate Starts for PierreOrion\_67:

(Start: 6 @41924 has 48 MA's), (Start: 13 @42080 has 1 MA's), (20, 42179), (28, 42257), (31, 42311), (37, 42359), (38, 42368), (39, 42407), (46, 42512), (59, 42653), (63, 42725), (65, 42734),

Gene: PiperSansNom\_68 Start: 42003, Stop: 42836, Start Num: 6

Candidate Starts for PiperSansNom\_68:

(Start: 6 @42003 has 48 MA's), (Start: 13 @42159 has 1 MA's), (20, 42258), (28, 42336), (37, 42438), (38, 42447), (39, 42486), (46, 42585), (59, 42726), (63, 42798), (65, 42807),

Gene: Piperis\_68 Start: 41620, Stop: 42459, Start Num: 6

Candidate Starts for Piperis\_68:

(Start: 6 @41620 has 48 MA's), (Start: 13 @41776 has 1 MA's), (20, 41875), (28, 41953), (37, 42055), (38, 42064), (39, 42103), (46, 42208), (59, 42349), (63, 42421), (65, 42430),

Gene: Pulchra\_69 Start: 42016, Stop: 42855, Start Num: 6

Candidate Starts for Pulchra\_69:

(Start: 6 @42016 has 48 MA's), (Start: 13 @42172 has 1 MA's), (20, 42271), (28, 42349), (37, 42451), (38, 42460), (39, 42499), (46, 42604), (59, 42745), (63, 42817), (65, 42826),

Gene: Quhwah\_71 Start: 42305, Stop: 43144, Start Num: 6

Candidate Starts for Quhwah\_71:

(Start: 6 @42305 has 48 MA's), (Start: 13 @42461 has 1 MA's), (20, 42560), (28, 42638), (37, 42740), (38, 42749), (39, 42788), (46, 42893), (59, 43034), (63, 43106), (65, 43115),

Gene: Ramiel05\_66 Start: 41684, Stop: 42523, Start Num: 6

Candidate Starts for Ramiel05\_66:

(Start: 6 @41684 has 48 MA's), (Start: 13 @41840 has 1 MA's), (20, 41939), (28, 42017), (37, 42119), (38, 42128), (39, 42167), (46, 42272), (59, 42413), (63, 42485), (65, 42494),

Gene: RobsFeet\_71 Start: 43233, Stop: 44036, Start Num: 6

Candidate Starts for RobsFeet\_71:

(Start: 6 @43233 has 48 MA's), (Start: 13 @43389 has 1 MA's), (18, 43449), (26, 43542), (28, 43566), (31, 43620), (36, 43665), (37, 43668), (39, 43716), (40, 43746), (43, 43779), (54, 43884), (57, 43905),

Gene: Savannah\_66 Start: 41735, Stop: 42574, Start Num: 6

Candidate Starts for Savannah\_66:

(Start: 6 @41735 has 48 MA's), (Start: 13 @41891 has 1 MA's), (20, 41990), (28, 42068), (37, 42170), (38, 42179), (39, 42218), (46, 42323), (59, 42464), (63, 42536), (65, 42545),

Gene: Scumberland\_69 Start: 41930, Stop: 42769, Start Num: 6

Candidate Starts for Scumberland\_69:

(Start: 6 @41930 has 48 MA's), (Start: 13 @42086 has 1 MA's), (20, 42185), (28, 42263), (37, 42365), (38, 42374), (39, 42413), (46, 42518), (59, 42659), (63, 42731), (65, 42740),

Gene: Selwyn23\_68 Start: 41847, Stop: 42686, Start Num: 6

Candidate Starts for Selwyn23\_68:

(Start: 6 @41847 has 48 MA's), (Start: 13 @42003 has 1 MA's), (20, 42102), (28, 42180), (37, 42282), (38, 42291), (39, 42330), (46, 42435), (59, 42576), (63, 42648), (65, 42657),

Gene: Shotgun\_67 Start: 41614, Stop: 42453, Start Num: 6

Candidate Starts for Shotgun\_67:

(Start: 6 @41614 has 48 MA's), (Start: 13 @41770 has 1 MA's), (20, 41869), (28, 41947), (37, 42049), (38, 42058), (39, 42097), (46, 42202), (59, 42343), (63, 42415), (65, 42424),

Gene: Smarties\_77 Start: 43541, Stop: 44338, Start Num: 6

Candidate Starts for Smarties\_77:

(Start: 6 @43541 has 48 MA's), (11, 43679), (Start: 13 @43697 has 1 MA's), (15, 43736), (18, 43757), (20, 43796), (28, 43874), (31, 43928), (37, 43976), (46, 44123), (48, 44129), (65, 44309),

Gene: Sunny\_70 Start: 43853, Stop: 44608, Start Num: 6

Candidate Starts for Sunny\_70:

(1, 43751), (2, 43775), (Start: 6 @43853 has 48 MA's), (Start: 13 @44009 has 1 MA's), (21, 44126), (28, 44186), (37, 44288), (39, 44336), (56, 44462), (57, 44477), (58, 44492), (62, 44546),

Gene: Teamocil\_71 Start: 41863, Stop: 42645, Start Num: 6

Candidate Starts for Teamocil\_71:

(1, 41752), (Start: 6 @41863 has 48 MA's), (12, 42010), (Start: 13 @42019 has 1 MA's), (18, 42079), (19, 42100), (26, 42172), (28, 42196), (31, 42250), (32, 42256), (34, 42283), (36, 42295), (37, 42298), (39, 42346), (65, 42616),

Gene: Terij\_65 Start: 41714, Stop: 42370, Start Num: 6

Candidate Starts for Terij\_65:

(Start: 6 @41714 has 48 MA's), (22, 42008), (27, 42047), (31, 42125), (37, 42170), (44, 42248), (45, 42275), (49, 42299), (53, 42353),



Gene: Tyrumbra\_66 Start: 42515, Stop: 43261, Start Num: 6

Candidate Starts for Tyrumbra\_66:

(Start: 6 @42515 has 48 MA's), (10, 42563), (12, 42662), (17, 42725), (18, 42731), (28, 42848), (35, 42938), (37, 42950), (39, 42998), (54, 43109),

Gene: Yeti\_69 Start: 41652, Stop: 42485, Start Num: 6

Candidate Starts for Yeti\_69:

(Start: 6 @41652 has 48 MA's), (Start: 13 @41808 has 1 MA's), (20, 41907), (28, 41985), (37, 42087), (38, 42096), (39, 42135), (46, 42234), (59, 42375), (63, 42447), (65, 42456),