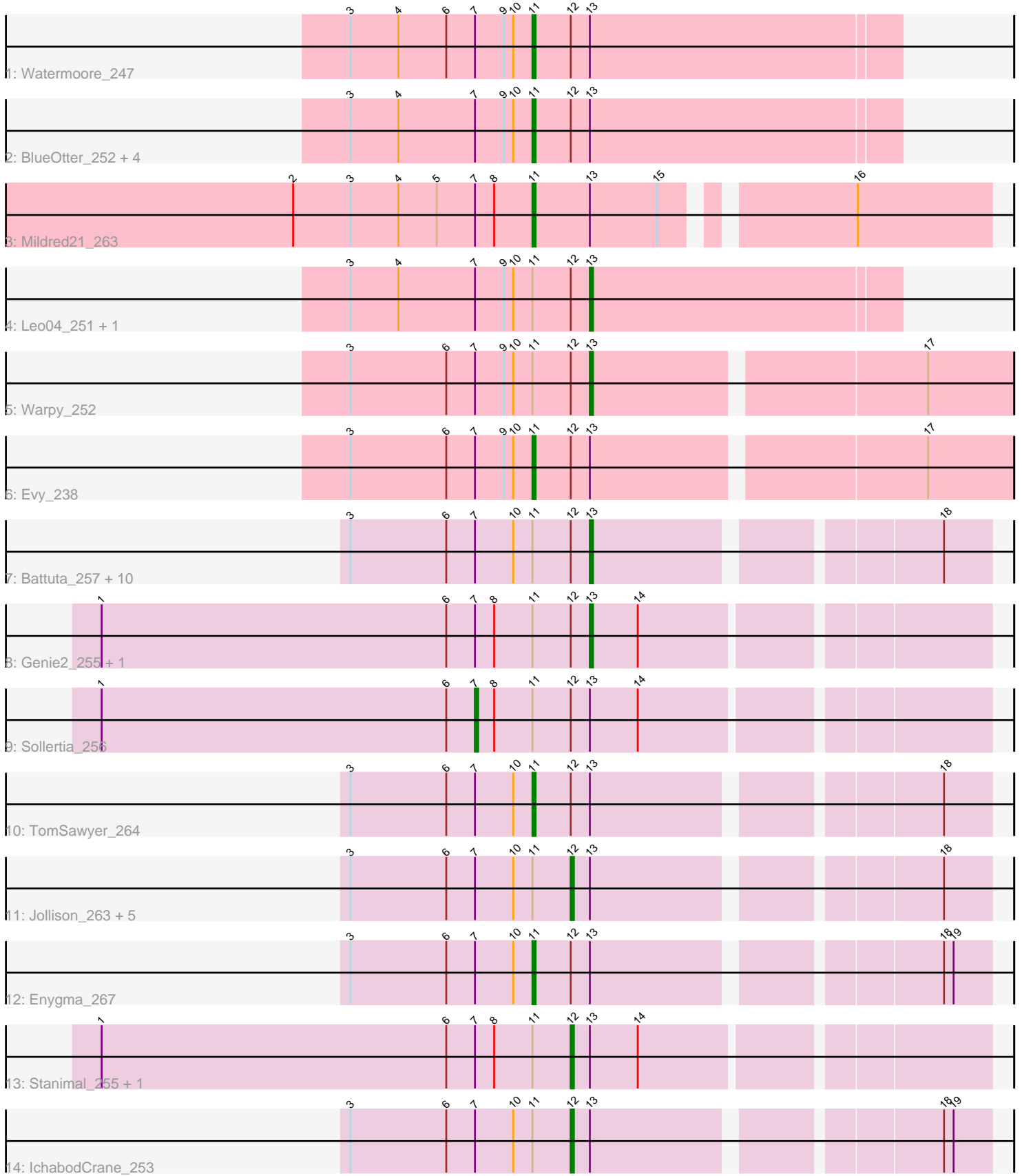


# Pham 163780



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 163780 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163780 has 36 members, 8 are drafts.

Phages represented in each track:

- Track 1 : Watermoore\_247
- Track 2 : BlueOtter\_252, HangryHippo\_252, PacManQ\_251, Lululemon\_250, Sushi23\_250
- Track 3 : Mildred21\_263
- Track 4 : Leo04\_251, Cursive\_254
- Track 5 : Warpy\_252
- Track 6 : Evy\_238
- Track 7 : Battuta\_257, CeilingFan\_273, Birchlyn\_259, PumpkinSpice\_262, Bordeaux\_257, KentuckyRacer\_272, Spelly\_264, Quaran19\_260, Spilled\_267, Wipeout\_251, SaltySpittoon\_259
- Track 8 : Genie2\_255, Yaboi\_261
- Track 9 : Sollertia\_256
- Track 10 : TomSawyer\_264
- Track 11 : Jollison\_263, Amabiko\_264, MindFlayer\_252, Gibbi\_269, JimJam\_267, Starbow\_256
- Track 12 : Enygma\_267
- Track 13 : Stanimal\_255, BoomerJR\_255
- Track 14 : IchabodCrane\_253

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

The start number called the most often in the published annotations is 13, it was called in 14 of the 28 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Battuta\_257, Birchlyn\_259, Bordeaux\_257, CeilingFan\_273, Cursive\_254, Genie2\_255, KentuckyRacer\_272, Leo04\_251, PumpkinSpice\_262, Quaran19\_260, SaltySpittoon\_259, Spelly\_264, Spilled\_267, Warpy\_252, Wipeout\_251, Yaboi\_261,

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

- Amabiko\_264, BlueOtter\_252, BoomerJR\_255, Enygma\_267, Evy\_238, Gibbi\_269, HangryHippo\_252, IchabodCrane\_253, JimJam\_267, Jollison\_263, Lululemon\_250, Mildred21\_263, MindFlayer\_252, PacManQ\_251, Sollertia\_256, Stanimal\_255, Starbow\_256, Sushi23\_250, TomSawyer\_264, Watermoore\_247,

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

- 

### Summary by start number:

Start 7:

- Found in 36 of 36 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 1 of 28
- Called 2.8% of time when present
- Phage (with cluster) where this start called: Sollertia\_256 (BE2),

Start 11:

- Found in 36 of 36 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 6 of 28
- Called 27.8% of time when present
- Phage (with cluster) where this start called: BlueOtter\_252 (BE1), Enygma\_267 (BE2), Evy\_238 (BE1), HangryHippo\_252 (BE1), Lululemon\_250 (BE1), Mildred21\_263 (BE1), PacManQ\_251 (BE1), Sushi23\_250 (BE1), TomSawyer\_264 (BE2), Watermoore\_247 (BE1),

Start 12:

- Found in 35 of 36 ( 97.2% ) of genes in pham
- Manual Annotations of this start: 7 of 28
- Called 25.7% of time when present
- Phage (with cluster) where this start called: Amabiko\_264 (BE2), BoomerJR\_255 (BE2), Gibbi\_269 (BE2), IchabodCrane\_253 (BE2), JimJam\_267 (BE2), Jollison\_263 (BE2), MindFlyer\_252 (BE2), Stanimal\_255 (BE2), Starbow\_256 (BE2),

Start 13:

- Found in 36 of 36 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 14 of 28
- Called 44.4% of time when present
- Phage (with cluster) where this start called: Battuta\_257 (BE2), Birchlyn\_259 (BE2), Bordeaux\_257 (BE2), CeilingFan\_273 (BE2), Cursive\_254 (BE1), Genie2\_255 (BE2), KentuckyRacer\_272 (BE2), Leo04\_251 (BE1), PumpkinSpice\_262 (BE2), Quaran19\_260 (BE2), SaltySpittoon\_259 (BE2), Spelly\_264 (BE2), Spilled\_267 (BE2), Warpy\_252 (BE1), Wipeout\_251 (BE2), Yaboi\_261 (BE2),

### Summary by clusters:

There are 2 clusters represented in this pham: BE2, BE1,

Info for manual annotations of cluster BE1:

- Start number 11 was manually annotated 4 times for cluster BE1.
- Start number 13 was manually annotated 3 times for cluster BE1.

Info for manual annotations of cluster BE2:

- Start number 7 was manually annotated 1 time for cluster BE2.
- Start number 11 was manually annotated 2 times for cluster BE2.
- Start number 12 was manually annotated 7 times for cluster BE2.
- Start number 13 was manually annotated 11 times for cluster BE2.

**Gene Information:**

Gene: Amabiko\_264 Start: 118326, Stop: 118445, Start Num: 12

Candidate Starts for Amabiko\_264:

(3, 118257), (6, 118287), (Start: 7 @118296 has 1 MA's), (10, 118308), (Start: 11 @118314 has 6 MA's), (Start: 12 @118326 has 7 MA's), (Start: 13 @118332 has 14 MA's), (18, 118431),

Gene: Battuta\_257 Start: 117647, Stop: 117760, Start Num: 13

Candidate Starts for Battuta\_257:

(3, 117572), (6, 117602), (Start: 7 @117611 has 1 MA's), (10, 117623), (Start: 11 @117629 has 6 MA's), (Start: 12 @117641 has 7 MA's), (Start: 13 @117647 has 14 MA's), (18, 117746),

Gene: Birchlyn\_259 Start: 115580, Stop: 115693, Start Num: 13

Candidate Starts for Birchlyn\_259:

(3, 115505), (6, 115535), (Start: 7 @115544 has 1 MA's), (10, 115556), (Start: 11 @115562 has 6 MA's), (Start: 12 @115574 has 7 MA's), (Start: 13 @115580 has 14 MA's), (18, 115679),

Gene: BlueOtter\_252 Start: 120541, Stop: 120654, Start Num: 11

Candidate Starts for BlueOtter\_252:

(3, 120484), (4, 120499), (Start: 7 @120523 has 1 MA's), (9, 120532), (10, 120535), (Start: 11 @120541 has 6 MA's), (Start: 12 @120553 has 7 MA's), (Start: 13 @120559 has 14 MA's),

Gene: BoomerJR\_255 Start: 118246, Stop: 118368, Start Num: 12

Candidate Starts for BoomerJR\_255:

(1, 118099), (6, 118207), (Start: 7 @118216 has 1 MA's), (8, 118222), (Start: 11 @118234 has 6 MA's), (Start: 12 @118246 has 7 MA's), (Start: 13 @118252 has 14 MA's), (14, 118267),

Gene: Bordeaux\_257 Start: 118230, Stop: 118343, Start Num: 13

Candidate Starts for Bordeaux\_257:

(3, 118155), (6, 118185), (Start: 7 @118194 has 1 MA's), (10, 118206), (Start: 11 @118212 has 6 MA's), (Start: 12 @118224 has 7 MA's), (Start: 13 @118230 has 14 MA's), (18, 118329),

Gene: CeilingFan\_273 Start: 119485, Stop: 119598, Start Num: 13

Candidate Starts for CeilingFan\_273:

(3, 119410), (6, 119440), (Start: 7 @119449 has 1 MA's), (10, 119461), (Start: 11 @119467 has 6 MA's), (Start: 12 @119479 has 7 MA's), (Start: 13 @119485 has 14 MA's), (18, 119584),

Gene: Cursive\_254 Start: 121481, Stop: 121576, Start Num: 13

Candidate Starts for Cursive\_254:

(3, 121406), (4, 121421), (Start: 7 @121445 has 1 MA's), (9, 121454), (10, 121457), (Start: 11 @121463 has 6 MA's), (Start: 12 @121475 has 7 MA's), (Start: 13 @121481 has 14 MA's),

Gene: Enygma\_267 Start: 121264, Stop: 121395, Start Num: 11

Candidate Starts for Enygma\_267:

(3, 121207), (6, 121237), (Start: 7 @121246 has 1 MA's), (10, 121258), (Start: 11 @121264 has 6 MA's), (Start: 12 @121276 has 7 MA's), (Start: 13 @121282 has 14 MA's), (18, 121381), (19, 121384),

Gene: Evy\_238 Start: 121200, Stop: 121343, Start Num: 11

Candidate Starts for Evy\_238:

(3, 121143), (6, 121173), (Start: 7 @121182 has 1 MA's), (9, 121191), (10, 121194), (Start: 11 @121200 has 6 MA's), (Start: 12 @121212 has 7 MA's), (Start: 13 @121218 has 14 MA's), (17,

121317),

Gene: Genie2\_255 Start: 118377, Stop: 118493, Start Num: 13

Candidate Starts for Genie2\_255:

(1, 118224), (6, 118332), (Start: 7 @118341 has 1 MA's), (8, 118347), (Start: 11 @118359 has 6 MA's), (Start: 12 @118371 has 7 MA's), (Start: 13 @118377 has 14 MA's), (14, 118392),

Gene: Gibbi\_269 Start: 118972, Stop: 119091, Start Num: 12

Candidate Starts for Gibbi\_269:

(3, 118903), (6, 118933), (Start: 7 @118942 has 1 MA's), (10, 118954), (Start: 11 @118960 has 6 MA's), (Start: 12 @118972 has 7 MA's), (Start: 13 @118978 has 14 MA's), (18, 119077),

Gene: HangryHippo\_252 Start: 120541, Stop: 120654, Start Num: 11

Candidate Starts for HangryHippo\_252:

(3, 120484), (4, 120499), (Start: 7 @120523 has 1 MA's), (9, 120532), (10, 120535), (Start: 11 @120541 has 6 MA's), (Start: 12 @120553 has 7 MA's), (Start: 13 @120559 has 14 MA's),

Gene: IchabodCrane\_253 Start: 118027, Stop: 118146, Start Num: 12

Candidate Starts for IchabodCrane\_253:

(3, 117958), (6, 117988), (Start: 7 @117997 has 1 MA's), (10, 118009), (Start: 11 @118015 has 6 MA's), (Start: 12 @118027 has 7 MA's), (Start: 13 @118033 has 14 MA's), (18, 118132), (19, 118135),

Gene: JimJam\_267 Start: 120408, Stop: 120527, Start Num: 12

Candidate Starts for JimJam\_267:

(3, 120339), (6, 120369), (Start: 7 @120378 has 1 MA's), (10, 120390), (Start: 11 @120396 has 6 MA's), (Start: 12 @120408 has 7 MA's), (Start: 13 @120414 has 14 MA's), (18, 120513),

Gene: Jollison\_263 Start: 118158, Stop: 118277, Start Num: 12

Candidate Starts for Jollison\_263:

(3, 118089), (6, 118119), (Start: 7 @118128 has 1 MA's), (10, 118140), (Start: 11 @118146 has 6 MA's), (Start: 12 @118158 has 7 MA's), (Start: 13 @118164 has 14 MA's), (18, 118263),

Gene: KentuckyRacer\_272 Start: 120329, Stop: 120442, Start Num: 13

Candidate Starts for KentuckyRacer\_272:

(3, 120254), (6, 120284), (Start: 7 @120293 has 1 MA's), (10, 120305), (Start: 11 @120311 has 6 MA's), (Start: 12 @120323 has 7 MA's), (Start: 13 @120329 has 14 MA's), (18, 120428),

Gene: Leo04\_251 Start: 121590, Stop: 121685, Start Num: 13

Candidate Starts for Leo04\_251:

(3, 121515), (4, 121530), (Start: 7 @121554 has 1 MA's), (9, 121563), (10, 121566), (Start: 11 @121572 has 6 MA's), (Start: 12 @121584 has 7 MA's), (Start: 13 @121590 has 14 MA's),

Gene: Lululemon\_250 Start: 120346, Stop: 120459, Start Num: 11

Candidate Starts for Lululemon\_250:

(3, 120289), (4, 120304), (Start: 7 @120328 has 1 MA's), (9, 120337), (10, 120340), (Start: 11 @120346 has 6 MA's), (Start: 12 @120358 has 7 MA's), (Start: 13 @120364 has 14 MA's),

Gene: Mildred21\_263 Start: 120638, Stop: 120769, Start Num: 11

Candidate Starts for Mildred21\_263:

(2, 120563), (3, 120581), (4, 120596), (5, 120608), (Start: 7 @120620 has 1 MA's), (8, 120626), (Start: 11 @120638 has 6 MA's), (Start: 13 @120656 has 14 MA's), (15, 120677), (16, 120728),

Gene: MindFlayer\_252 Start: 117543, Stop: 117662, Start Num: 12

Candidate Starts for MindFlayer\_252:

(3, 117474), (6, 117504), (Start: 7 @117513 has 1 MA's), (10, 117525), (Start: 11 @117531 has 6 MA's), (Start: 12 @117543 has 7 MA's), (Start: 13 @117549 has 14 MA's), (18, 117648),

Gene: PacManQ\_251 Start: 120346, Stop: 120459, Start Num: 11

Candidate Starts for PacManQ\_251:

(3, 120289), (4, 120304), (Start: 7 @120328 has 1 MA's), (9, 120337), (10, 120340), (Start: 11 @120346 has 6 MA's), (Start: 12 @120358 has 7 MA's), (Start: 13 @120364 has 14 MA's),

Gene: PumpkinSpice\_262 Start: 118770, Stop: 118883, Start Num: 13

Candidate Starts for PumpkinSpice\_262:

(3, 118695), (6, 118725), (Start: 7 @118734 has 1 MA's), (10, 118746), (Start: 11 @118752 has 6 MA's), (Start: 12 @118764 has 7 MA's), (Start: 13 @118770 has 14 MA's), (18, 118869),

Gene: Quaran19\_260 Start: 118671, Stop: 118784, Start Num: 13

Candidate Starts for Quaran19\_260:

(3, 118596), (6, 118626), (Start: 7 @118635 has 1 MA's), (10, 118647), (Start: 11 @118653 has 6 MA's), (Start: 12 @118665 has 7 MA's), (Start: 13 @118671 has 14 MA's), (18, 118770),

Gene: SaltySpittoon\_259 Start: 117753, Stop: 117866, Start Num: 13

Candidate Starts for SaltySpittoon\_259:

(3, 117678), (6, 117708), (Start: 7 @117717 has 1 MA's), (10, 117729), (Start: 11 @117735 has 6 MA's), (Start: 12 @117747 has 7 MA's), (Start: 13 @117753 has 14 MA's), (18, 117852),

Gene: Sollertia\_256 Start: 118330, Stop: 118482, Start Num: 7

Candidate Starts for Sollertia\_256:

(1, 118213), (6, 118321), (Start: 7 @118330 has 1 MA's), (8, 118336), (Start: 11 @118348 has 6 MA's), (Start: 12 @118360 has 7 MA's), (Start: 13 @118366 has 14 MA's), (14, 118381),

Gene: Spelly\_264 Start: 117682, Stop: 117795, Start Num: 13

Candidate Starts for Spelly\_264:

(3, 117607), (6, 117637), (Start: 7 @117646 has 1 MA's), (10, 117658), (Start: 11 @117664 has 6 MA's), (Start: 12 @117676 has 7 MA's), (Start: 13 @117682 has 14 MA's), (18, 117781),

Gene: Spilled\_267 Start: 119346, Stop: 119459, Start Num: 13

Candidate Starts for Spilled\_267:

(3, 119271), (6, 119301), (Start: 7 @119310 has 1 MA's), (10, 119322), (Start: 11 @119328 has 6 MA's), (Start: 12 @119340 has 7 MA's), (Start: 13 @119346 has 14 MA's), (18, 119445),

Gene: Stanimal\_255 Start: 118732, Stop: 118854, Start Num: 12

Candidate Starts for Stanimal\_255:

(1, 118585), (6, 118693), (Start: 7 @118702 has 1 MA's), (8, 118708), (Start: 11 @118720 has 6 MA's), (Start: 12 @118732 has 7 MA's), (Start: 13 @118738 has 14 MA's), (14, 118753),

Gene: Starbow\_256 Start: 117720, Stop: 117839, Start Num: 12

Candidate Starts for Starbow\_256:

(3, 117651), (6, 117681), (Start: 7 @117690 has 1 MA's), (10, 117702), (Start: 11 @117708 has 6 MA's), (Start: 12 @117720 has 7 MA's), (Start: 13 @117726 has 14 MA's), (18, 117825),

Gene: Sushi23\_250 Start: 122296, Stop: 122409, Start Num: 11

Candidate Starts for Sushi23\_250:

(3, 122239), (4, 122254), (Start: 7 @122278 has 1 MA's), (9, 122287), (10, 122290), (Start: 11 @122296 has 6 MA's), (Start: 12 @122308 has 7 MA's), (Start: 13 @122314 has 14 MA's),

Gene: TomSawyer\_264 Start: 120639, Stop: 120770, Start Num: 11

Candidate Starts for TomSawyer\_264:

(3, 120582), (6, 120612), (Start: 7 @120621 has 1 MA's), (10, 120633), (Start: 11 @120639 has 6 MA's), (Start: 12 @120651 has 7 MA's), (Start: 13 @120657 has 14 MA's), (18, 120756),

Gene: Warpy\_252 Start: 121027, Stop: 121152, Start Num: 13

Candidate Starts for Warpy\_252:

(3, 120952), (6, 120982), (Start: 7 @120991 has 1 MA's), (9, 121000), (10, 121003), (Start: 11 @121009 has 6 MA's), (Start: 12 @121021 has 7 MA's), (Start: 13 @121027 has 14 MA's), (17, 121126),

Gene: Watermoore\_247 Start: 122050, Stop: 122163, Start Num: 11

Candidate Starts for Watermoore\_247:

(3, 121993), (4, 122008), (6, 122023), (Start: 7 @122032 has 1 MA's), (9, 122041), (10, 122044), (Start: 11 @122050 has 6 MA's), (Start: 12 @122062 has 7 MA's), (Start: 13 @122068 has 14 MA's),

Gene: Wipeout\_251 Start: 119609, Stop: 119722, Start Num: 13

Candidate Starts for Wipeout\_251:

(3, 119534), (6, 119564), (Start: 7 @119573 has 1 MA's), (10, 119585), (Start: 11 @119591 has 6 MA's), (Start: 12 @119603 has 7 MA's), (Start: 13 @119609 has 14 MA's), (18, 119708),

Gene: Yaboi\_261 Start: 118301, Stop: 118417, Start Num: 13

Candidate Starts for Yaboi\_261:

(1, 118148), (6, 118256), (Start: 7 @118265 has 1 MA's), (8, 118271), (Start: 11 @118283 has 6 MA's), (Start: 12 @118295 has 7 MA's), (Start: 13 @118301 has 14 MA's), (14, 118316),