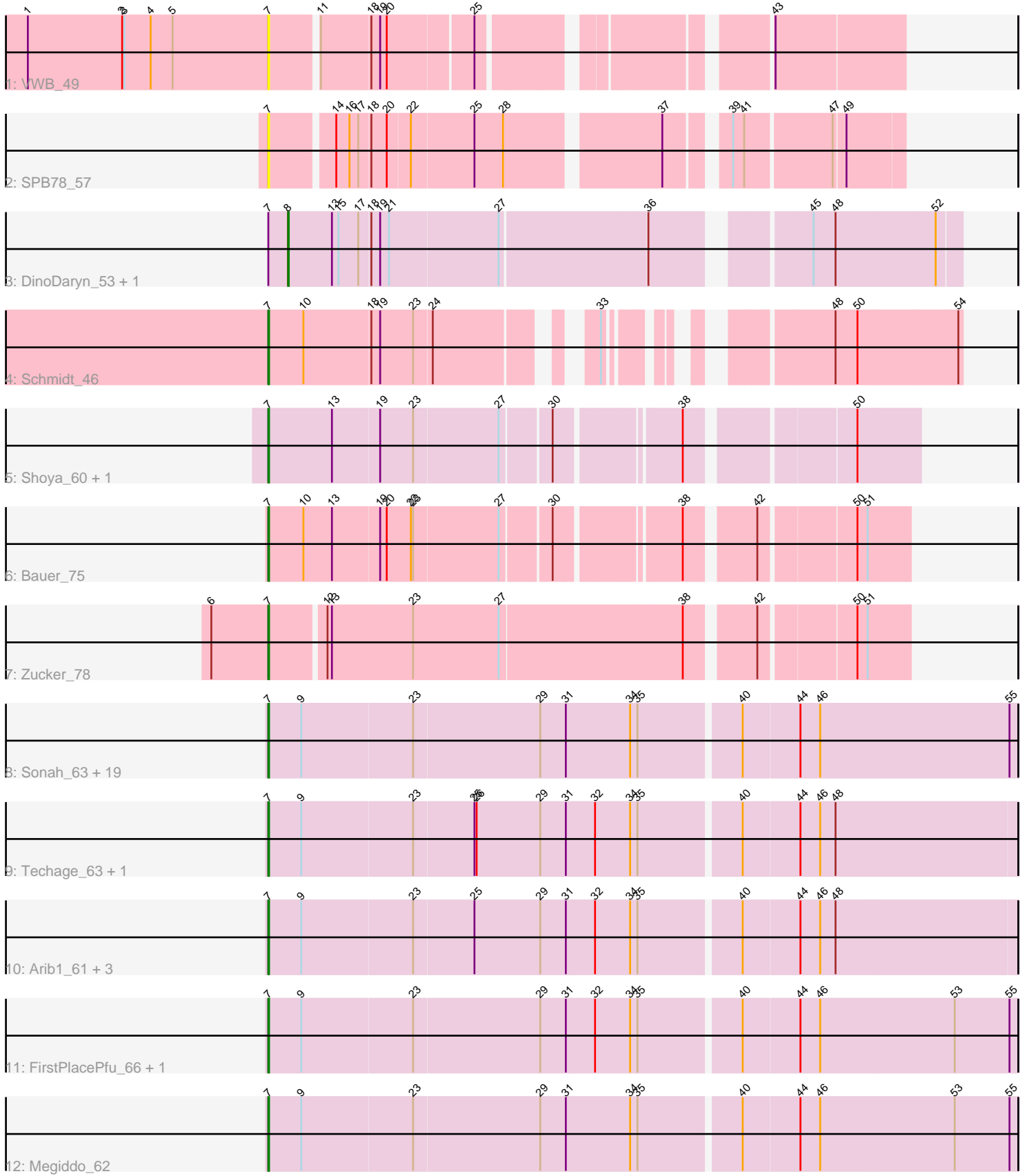


# Pham 194170



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 194170 Report

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

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 194170 has 38 members, 4 are drafts.

Phages represented in each track:

- Track 1 : VWB\_49
- Track 2 : SPB78\_57
- Track 3 : DinoDaryn\_53, Huffy\_53
- Track 4 : Schmidt\_46
- Track 5 : Shoya\_60, BrayBeast\_60
- Track 6 : Bauer\_75
- Track 7 : Zucker\_78
- Track 8 : Sonah\_63, Malithi\_62, Jung\_63, Polkaroo\_64, Atcoo\_64, Zilizebeth\_68, Juniormint\_60, Vidya\_61, Shipwreck\_65, StevieRay\_67, Jebeks\_63, Necropolis\_60, Bogie\_65, Dynamo\_62, Brusacoram\_64, Thespis\_64, HUHilltop\_65, Pygmy\_66, Camster\_63, Phineas\_63
- Track 9 : Techage\_63, Xula\_58
- Track 10 : Arib1\_61, Venti\_60, QueenHazel\_59, Bartholomew\_58
- Track 11 : FirstPlacePfu\_66, GreaseLightnin\_67
- Track 12 : Megidido\_62

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

The start number called the most often in the published annotations is 7, it was called in 32 of the 34 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arib1\_61, Atcoo\_64, Bartholomew\_58, Bauer\_75, Bogie\_65, BrayBeast\_60, Brusacoram\_64, Camster\_63, Dynamo\_62, FirstPlacePfu\_66, GreaseLightnin\_67, HUHilltop\_65, Jebeks\_63, Jung\_63, Juniormint\_60, Malithi\_62, Megidido\_62, Necropolis\_60, Phineas\_63, Polkaroo\_64, Pygmy\_66, QueenHazel\_59, SPB78\_57, Schmidt\_46, Shipwreck\_65, Shoya\_60, Sonah\_63, StevieRay\_67, Techage\_63, Thespis\_64, VWB\_49, Venti\_60, Vidya\_61, Xula\_58, Zilizebeth\_68, Zucker\_78,

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

- DinoDaryn\_53, Huffy\_53,

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

- 

### Summary by start number:

Start 7:

- Found in 38 of 38 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 32 of 34
- Called 94.7% of time when present
- Phage (with cluster) where this start called: Arib1\_61 (P1), Atcoo\_64 (P1), Bartholomew\_58 (P1), Bauer\_75 (FN), Bogie\_65 (P1), BrayBeast\_60 (FB), Brusacoram\_64 (P1), Camster\_63 (P1), Dynamo\_62 (P1), FirstPlacePfu\_66 (P1), GreaseLightnin\_67 (P1), HUHilltop\_65 (P1), Jebeks\_63 (P1), Jung\_63 (P1), Juniormint\_60 (P1), Malithi\_62 (P1), Megiddo\_62 (P1), Necropolis\_60 (P1), Phineas\_63 (P1), Polkaroo\_64 (P1), Pygmy\_66 (P1), QueenHazel\_59 (I1), SPB78\_57 (BA), Schmidt\_46 (CU4), Shipwreck\_65 (P1), Shoya\_60 (FB), Sonah\_63 (P1), StevieRay\_67 (P1), Techage\_63 (P1), Thespis\_64 (P1), VWB\_49 (BA), Venti\_60 (P1), Vidya\_61 (P1), Xula\_58 (I1), Zilizebeth\_68 (P1), Zucker\_78 (FN),

Start 8:

- Found in 2 of 38 ( 5.3% ) of genes in pham
- Manual Annotations of this start: 2 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DinoDaryn\_53 (CU1), Huffy\_53 (CU1),

### Summary by clusters:

There are 7 clusters represented in this pham: CU4, BA, CU1, I1, FB, P1, FN,

Info for manual annotations of cluster CU1:

- Start number 8 was manually annotated 2 times for cluster CU1.

Info for manual annotations of cluster CU4:

- Start number 7 was manually annotated 1 time for cluster CU4.

Info for manual annotations of cluster FB:

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

Info for manual annotations of cluster FN:

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

Info for manual annotations of cluster I1:

- Start number 7 was manually annotated 2 times for cluster I1.

Info for manual annotations of cluster P1:

- Start number 7 was manually annotated 25 times for cluster P1.

### Gene Information:

Gene: Arib1\_61 Start: 39295, Stop: 40290, Start Num: 7

Candidate Starts for Arib1\_61:

(Start: 7 @39295 has 32 MA's), (9, 39340), (23, 39490), (25, 39571), (29, 39661), (31, 39694), (32, 39733), (34, 39781), (35, 39790), (40, 39922), (44, 39997), (46, 40024), (48, 40045),

Gene: Atcoo\_64 Start: 42672, Stop: 43670, Start Num: 7

Candidate Starts for Atcoo\_64:

(Start: 7 @42672 has 32 MA's), (9, 42717), (23, 42867), (29, 43038), (31, 43071), (34, 43158), (35, 43167), (40, 43299), (44, 43374), (46, 43401), (55, 43659),

Gene: Bartholomew\_58 Start: 38622, Stop: 39617, Start Num: 7

Candidate Starts for Bartholomew\_58:

(Start: 7 @38622 has 32 MA's), (9, 38667), (23, 38817), (25, 38898), (29, 38988), (31, 39021), (32, 39060), (34, 39108), (35, 39117), (40, 39249), (44, 39324), (46, 39351), (48, 39372),

Gene: Bauer\_75 Start: 42042, Stop: 42833, Start Num: 7

Candidate Starts for Bauer\_75:

(Start: 7 @42042 has 32 MA's), (10, 42090), (13, 42129), (19, 42192), (20, 42201), (22, 42234), (23, 42237), (27, 42351), (30, 42414), (38, 42564), (42, 42645), (50, 42765), (51, 42777),

Gene: Bogie\_65 Start: 41654, Stop: 42652, Start Num: 7

Candidate Starts for Bogie\_65:

(Start: 7 @41654 has 32 MA's), (9, 41699), (23, 41849), (29, 42020), (31, 42053), (34, 42140), (35, 42149), (40, 42281), (44, 42356), (46, 42383), (55, 42641),

Gene: BrayBeast\_60 Start: 34355, Stop: 35161, Start Num: 7

Candidate Starts for BrayBeast\_60:

(Start: 7 @34355 has 32 MA's), (13, 34442), (19, 34505), (23, 34550), (27, 34664), (30, 34727), (38, 34877), (50, 35078),

Gene: Brusacoram\_64 Start: 41215, Stop: 42213, Start Num: 7

Candidate Starts for Brusacoram\_64:

(Start: 7 @41215 has 32 MA's), (9, 41260), (23, 41410), (29, 41581), (31, 41614), (34, 41701), (35, 41710), (40, 41842), (44, 41917), (46, 41944), (55, 42202),

Gene: Camster\_63 Start: 40115, Stop: 41113, Start Num: 7

Candidate Starts for Camster\_63:

(Start: 7 @40115 has 32 MA's), (9, 40160), (23, 40310), (29, 40481), (31, 40514), (34, 40601), (35, 40610), (40, 40742), (44, 40817), (46, 40844), (55, 41102),

Gene: DinoDaryn\_53 Start: 33407, Stop: 34255, Start Num: 8

Candidate Starts for DinoDaryn\_53:

(Start: 7 @33380 has 32 MA's), (Start: 8 @33407 has 2 MA's), (13, 33467), (15, 33476), (17, 33503), (18, 33518), (19, 33530), (21, 33542), (27, 33689), (36, 33881), (45, 34058), (48, 34088), (52, 34223),

Gene: Dynamo\_62 Start: 39688, Stop: 40686, Start Num: 7

Candidate Starts for Dynamo\_62:

(Start: 7 @39688 has 32 MA's), (9, 39733), (23, 39883), (29, 40054), (31, 40087), (34, 40174), (35, 40183), (40, 40315), (44, 40390), (46, 40417), (55, 40675),

Gene: FirstPlacePfu\_66 Start: 39281, Stop: 40279, Start Num: 7

Candidate Starts for FirstPlacePfu\_66:

(Start: 7 @39281 has 32 MA's), (9, 39326), (23, 39476), (29, 39647), (31, 39680), (32, 39719), (34, 39767), (35, 39776), (40, 39908), (44, 39983), (46, 40010), (53, 40193), (55, 40268),

Gene: GreaseLightnin\_67 Start: 42069, Stop: 43067, Start Num: 7

Candidate Starts for GreaseLightnin\_67:

(Start: 7 @42069 has 32 MA's), (9, 42114), (23, 42264), (29, 42435), (31, 42468), (32, 42507), (34, 42555), (35, 42564), (40, 42696), (44, 42771), (46, 42798), (53, 42981), (55, 43056),

Gene: HUHilltop\_65 Start: 39911, Stop: 40909, Start Num: 7

Candidate Starts for HUHilltop\_65:

(Start: 7 @39911 has 32 MA's), (9, 39956), (23, 40106), (29, 40277), (31, 40310), (34, 40397), (35, 40406), (40, 40538), (44, 40613), (46, 40640), (55, 40898),

Gene: Huffy\_53 Start: 33407, Stop: 34255, Start Num: 8

Candidate Starts for Huffy\_53:

(Start: 7 @33380 has 32 MA's), (Start: 8 @33407 has 2 MA's), (13, 33467), (15, 33476), (17, 33503), (18, 33518), (19, 33530), (21, 33542), (27, 33689), (36, 33881), (45, 34058), (48, 34088), (52, 34223),

Gene: Jebeks\_63 Start: 39208, Stop: 40206, Start Num: 7

Candidate Starts for Jebeks\_63:

(Start: 7 @39208 has 32 MA's), (9, 39253), (23, 39403), (29, 39574), (31, 39607), (34, 39694), (35, 39703), (40, 39835), (44, 39910), (46, 39937), (55, 40195),

Gene: Jung\_63 Start: 40211, Stop: 41209, Start Num: 7

Candidate Starts for Jung\_63:

(Start: 7 @40211 has 32 MA's), (9, 40256), (23, 40406), (29, 40577), (31, 40610), (34, 40697), (35, 40706), (40, 40838), (44, 40913), (46, 40940), (55, 41198),

Gene: Juniormint\_60 Start: 38664, Stop: 39662, Start Num: 7

Candidate Starts for Juniormint\_60:

(Start: 7 @38664 has 32 MA's), (9, 38709), (23, 38859), (29, 39030), (31, 39063), (34, 39150), (35, 39159), (40, 39291), (44, 39366), (46, 39393), (55, 39651),

Gene: Malithi\_62 Start: 39826, Stop: 40836, Start Num: 7

Candidate Starts for Malithi\_62:

(Start: 7 @39826 has 32 MA's), (9, 39871), (23, 40021), (29, 40192), (31, 40225), (34, 40312), (35, 40321), (40, 40465), (44, 40540), (46, 40567), (55, 40825),

Gene: Megiddo\_62 Start: 41848, Stop: 42846, Start Num: 7

Candidate Starts for Megiddo\_62:

(Start: 7 @41848 has 32 MA's), (9, 41893), (23, 42043), (29, 42214), (31, 42247), (34, 42334), (35, 42343), (40, 42475), (44, 42550), (46, 42577), (53, 42760), (55, 42835),

Gene: Necropolis\_60 Start: 39277, Stop: 40275, Start Num: 7

Candidate Starts for Necropolis\_60:

(Start: 7 @39277 has 32 MA's), (9, 39322), (23, 39472), (29, 39643), (31, 39676), (34, 39763), (35, 39772), (40, 39904), (44, 39979), (46, 40006), (55, 40264),

Gene: Phineas\_63 Start: 40246, Stop: 41244, Start Num: 7

Candidate Starts for Phineas\_63:

(Start: 7 @40246 has 32 MA's), (9, 40291), (23, 40441), (29, 40612), (31, 40645), (34, 40732), (35, 40741), (40, 40873), (44, 40948), (46, 40975), (55, 41233),

Gene: Polkaroo\_64 Start: 41992, Stop: 42990, Start Num: 7

Candidate Starts for Polkaroo\_64:

(Start: 7 @41992 has 32 MA's), (9, 42037), (23, 42187), (29, 42358), (31, 42391), (34, 42478), (35, 42487), (40, 42619), (44, 42694), (46, 42721), (55, 42979),

Gene: Pygmy\_66 Start: 41710, Stop: 42708, Start Num: 7

Candidate Starts for Pygmy\_66:

(Start: 7 @41710 has 32 MA's), (9, 41755), (23, 41905), (29, 42076), (31, 42109), (34, 42196), (35, 42205), (40, 42337), (44, 42412), (46, 42439), (55, 42697),

Gene: QueenHazel\_59 Start: 39831, Stop: 40829, Start Num: 7

Candidate Starts for QueenHazel\_59:

(Start: 7 @39831 has 32 MA's), (9, 39876), (23, 40026), (25, 40107), (29, 40197), (31, 40230), (32, 40269), (34, 40317), (35, 40326), (40, 40458), (44, 40536), (46, 40563), (48, 40584),

Gene: SPB78\_57 Start: 38788, Stop: 39564, Start Num: 7

Candidate Starts for SPB78\_57:

(Start: 7 @38788 has 32 MA's), (14, 38869), (16, 38887), (17, 38899), (18, 38914), (20, 38935), (22, 38965), (25, 39049), (28, 39088), (37, 39280), (39, 39349), (41, 39364), (47, 39475), (49, 39490),

Gene: Schmidt\_46 Start: 30686, Stop: 31453, Start Num: 7

Candidate Starts for Schmidt\_46:

(Start: 7 @30686 has 32 MA's), (10, 30734), (18, 30824), (19, 30836), (23, 30881), (24, 30905), (33, 31073), (48, 31283), (50, 31313), (54, 31448),

Gene: Shipwreck\_65 Start: 41685, Stop: 42683, Start Num: 7

Candidate Starts for Shipwreck\_65:

(Start: 7 @41685 has 32 MA's), (9, 41730), (23, 41880), (29, 42051), (31, 42084), (34, 42171), (35, 42180), (40, 42312), (44, 42387), (46, 42414), (55, 42672),

Gene: Shoya\_60 Start: 34184, Stop: 34990, Start Num: 7

Candidate Starts for Shoya\_60:

(Start: 7 @34184 has 32 MA's), (13, 34271), (19, 34334), (23, 34379), (27, 34493), (30, 34556), (38, 34706), (50, 34907),

Gene: Sonah\_63 Start: 39382, Stop: 40380, Start Num: 7

Candidate Starts for Sonah\_63:

(Start: 7 @39382 has 32 MA's), (9, 39427), (23, 39577), (29, 39748), (31, 39781), (34, 39868), (35, 39877), (40, 40009), (44, 40084), (46, 40111), (55, 40369),

Gene: StevieRay\_67 Start: 42449, Stop: 43447, Start Num: 7

Candidate Starts for StevieRay\_67:

(Start: 7 @42449 has 32 MA's), (9, 42494), (23, 42644), (29, 42815), (31, 42848), (34, 42935), (35, 42944), (40, 43076), (44, 43151), (46, 43178), (55, 43436),

Gene: Techage\_63 Start: 40250, Stop: 41245, Start Num: 7

Candidate Starts for Techage\_63:

(Start: 7 @40250 has 32 MA's), (9, 40295), (23, 40445), (25, 40526), (26, 40529), (29, 40616), (31, 40649), (32, 40688), (34, 40736), (35, 40745), (40, 40877), (44, 40952), (46, 40979), (48, 41000),

Gene: Thespis\_64 Start: 41215, Stop: 42213, Start Num: 7

Candidate Starts for Thespis\_64:

(Start: 7 @41215 has 32 MA's), (9, 41260), (23, 41410), (29, 41581), (31, 41614), (34, 41701), (35, 41710), (40, 41842), (44, 41917), (46, 41944), (55, 42202),

Gene: VWB\_49 Start: 36944, Stop: 37702, Start Num: 7

Candidate Starts for VWB\_49:

(1, 36617), (2, 36746), (3, 36749), (4, 36785), (5, 36815), (Start: 7 @36944 has 32 MA's), (11, 37004), (18, 37070), (19, 37082), (20, 37091), (25, 37202), (43, 37529),

Gene: Venti\_60 Start: 38622, Stop: 39617, Start Num: 7

Candidate Starts for Venti\_60:

(Start: 7 @38622 has 32 MA's), (9, 38667), (23, 38817), (25, 38898), (29, 38988), (31, 39021), (32, 39060), (34, 39108), (35, 39117), (40, 39249), (44, 39324), (46, 39351), (48, 39372),

Gene: Vidya\_61 Start: 39503, Stop: 40501, Start Num: 7

Candidate Starts for Vidya\_61:

(Start: 7 @39503 has 32 MA's), (9, 39548), (23, 39698), (29, 39869), (31, 39902), (34, 39989), (35, 39998), (40, 40130), (44, 40205), (46, 40232), (55, 40490),

Gene: Xula\_58 Start: 39452, Stop: 40450, Start Num: 7

Candidate Starts for Xula\_58:

(Start: 7 @39452 has 32 MA's), (9, 39497), (23, 39647), (25, 39728), (26, 39731), (29, 39818), (31, 39851), (32, 39890), (34, 39938), (35, 39947), (40, 40079), (44, 40157), (46, 40184), (48, 40205),

Gene: Zilizebeth\_68 Start: 41024, Stop: 42022, Start Num: 7

Candidate Starts for Zilizebeth\_68:

(Start: 7 @41024 has 32 MA's), (9, 41069), (23, 41219), (29, 41390), (31, 41423), (34, 41510), (35, 41519), (40, 41651), (44, 41726), (46, 41753), (55, 42011),

Gene: Zucker\_78 Start: 46620, Stop: 47435, Start Num: 7

Candidate Starts for Zucker\_78:

(6, 46542), (Start: 7 @46620 has 32 MA's), (12, 46689), (13, 46695), (23, 46803), (27, 46920), (38, 47166), (42, 47247), (50, 47367), (51, 47379),