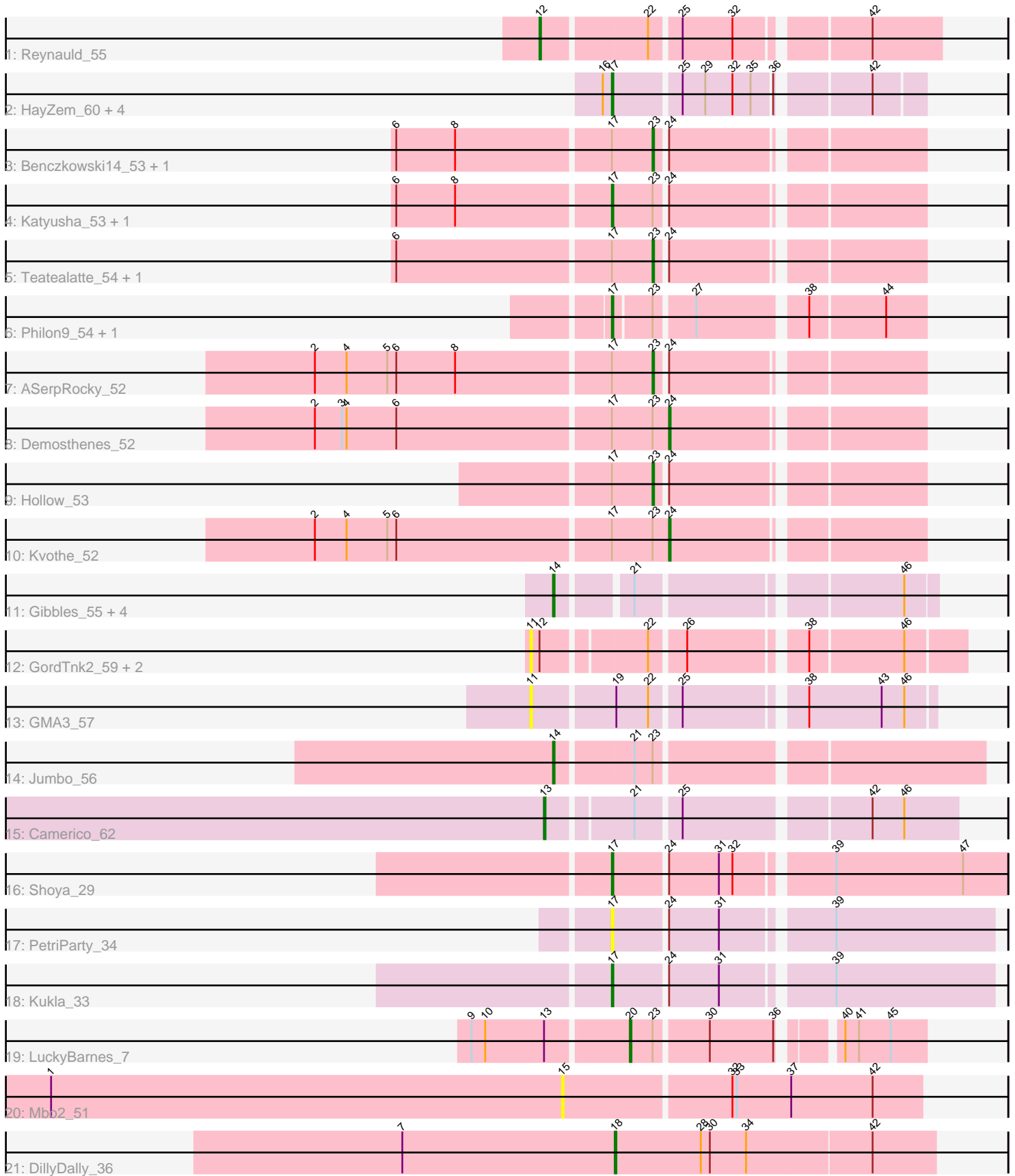


# Pham 311825



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 311825 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311825 has 35 members, 8 are drafts.

Phages represented in each track:

- Track 1 : Reynauld\_55
- Track 2 : HayZem\_60, Austin\_59, GMA7\_49, Amore2\_60, GTE7\_48
- Track 3 : Benczkowski14\_53, Niagara\_53
- Track 4 : Katyusha\_53, Teech\_54
- Track 5 : Teatealatte\_54, Tredge\_54
- Track 6 : Philon9\_54, Vitaenoi\_54
- Track 7 : ASerpRocky\_52
- Track 8 : Demosthenes\_52
- Track 9 : Hollow\_53
- Track 10 : Kvothe\_52
- Track 11 : Gibbles\_55, RobinSparkles\_60, Orchid\_56, Kampe\_57, PatrickStar\_57
- Track 12 : GordTnk2\_59, Gmala1\_54, GordDuk1\_58
- Track 13 : GMA3\_57
- Track 14 : Jumbo\_56
- Track 15 : Camerico\_62
- Track 16 : Shoya\_29
- Track 17 : PetriParty\_34
- Track 18 : Kukla\_33
- Track 19 : LuckyBarnes\_7
- Track 20 : Mbo2\_51
- Track 21 : DillyDally\_36

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

The start number called the most often in the published annotations is 17, it was called in 9 of the 27 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amore2\_60, Austin\_59, GMA7\_49, GTE7\_48, HayZem\_60, Katyusha\_53, Kukla\_33, PetriParty\_34, Philon9\_54, Shoya\_29, Teech\_54, Vitaenoi\_54,

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

- ASerpRocky\_52, Benczkowski14\_53, Demosthenes\_52, Hollow\_53, Kvothe\_52, Niagara\_53, Teatealatte\_54, Tredge\_54,

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

• Camerico\_62, DillyDally\_36, GMA3\_57, Gibbles\_55, Gmala1\_54, GordDuk1\_58, GordTnk2\_59, Jumbo\_56, Kampe\_57, LuckyBarnes\_7, Mbo2\_51, Orchid\_56, PatrickStar\_57, Reynauld\_55, RobinSparkles\_60,

### Summary by start number:

Start 11:

- Found in 4 of 35 ( 11.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA3\_57 (DF2), Gmala1\_54 (DF1), GordDuk1\_58 (DF1), GordTnk2\_59 (DF1),

Start 12:

- Found in 4 of 35 ( 11.4% ) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Reynauld\_55 (CH),

Start 13:

- Found in 2 of 35 ( 5.7% ) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Camerico\_62 (DF4),

Start 14:

- Found in 6 of 35 ( 17.1% ) of genes in pham
- Manual Annotations of this start: 6 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gibbles\_55 (CX), Jumbo\_56 (DF3), Kampe\_57 (CX), Orchid\_56 (CX), PatrickStar\_57 (CX), RobinSparkles\_60 (CX),

Start 15:

- Found in 1 of 35 ( 2.9% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mbo2\_51 (singleton),

Start 17:

- Found in 20 of 35 ( 57.1% ) of genes in pham
- Manual Annotations of this start: 9 of 27
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Amore2\_60 (CS1), Austin\_59 (CS1), GMA7\_49 (CS1), GTE7\_48 (CS1), HayZem\_60 (CS1), Katyusha\_53 (CS4), Kukla\_33 (FJ), PetriParty\_34 (FJ), Philon9\_54 (CS4), Shoya\_29 (FB), Teech\_54 (CS4), Vitaenoi\_54 (CS4),

Start 18:

- Found in 1 of 35 ( 2.9% ) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 100.0% of time when present

- Phage (with cluster) where this start called: DillyDally\_36 (singleton),

Start 20:

- Found in 1 of 35 ( 2.9% ) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LuckyBarnes\_7 (singleton),

Start 23:

- Found in 14 of 35 ( 40.0% ) of genes in pham
- Manual Annotations of this start: 6 of 27
- Called 42.9% of time when present
- Phage (with cluster) where this start called: ASerpRocky\_52 (CS4), Benczkowski14\_53 (CS4), Hollow\_53 (CS4), Niagara\_53 (CS4), Teatealatte\_54 (CS4), Tredge\_54 (CS4),

Start 24:

- Found in 13 of 35 ( 37.1% ) of genes in pham
- Manual Annotations of this start: 2 of 27
- Called 15.4% of time when present
- Phage (with cluster) where this start called: Demosthenes\_52 (CS4), Kvothe\_52 (CS4),

### **Summary by clusters:**

There are 11 clusters represented in this pham: singleton, CH, DF4, DF1, DF3, DF2, FB, CX, CS4, FJ, CS1,

Info for manual annotations of cluster CH:

- Start number 12 was manually annotated 1 time for cluster CH.

Info for manual annotations of cluster CS1:

- Start number 17 was manually annotated 3 times for cluster CS1.

Info for manual annotations of cluster CS4:

- Start number 17 was manually annotated 4 times for cluster CS4.
- Start number 23 was manually annotated 6 times for cluster CS4.
- Start number 24 was manually annotated 2 times for cluster CS4.

Info for manual annotations of cluster CX:

- Start number 14 was manually annotated 5 times for cluster CX.

Info for manual annotations of cluster DF3:

- Start number 14 was manually annotated 1 time for cluster DF3.

Info for manual annotations of cluster DF4:

- Start number 13 was manually annotated 1 time for cluster DF4.

Info for manual annotations of cluster FB:

- Start number 17 was manually annotated 1 time for cluster FB.

Info for manual annotations of cluster FJ:

•Start number 17 was manually annotated 1 time for cluster FJ.

**Gene Information:**

Gene: ASerpRocky\_52 Start: 50628, Stop: 50467, Start Num: 23

Candidate Starts for ASerpRocky\_52:

(2, 50847), (4, 50826), (5, 50799), (6, 50793), (8, 50754), (Start: 17 @50655 has 9 MA's), (Start: 23 @50628 has 6 MA's), (Start: 24 @50622 has 2 MA's),

Gene: Amore2\_60 Start: 50552, Stop: 50367, Start Num: 17

Candidate Starts for Amore2\_60:

(16, 50558), (Start: 17 @50552 has 9 MA's), (25, 50510), (29, 50495), (32, 50477), (35, 50465), (36, 50453), (42, 50399),

Gene: Austin\_59 Start: 50550, Stop: 50365, Start Num: 17

Candidate Starts for Austin\_59:

(16, 50556), (Start: 17 @50550 has 9 MA's), (25, 50508), (29, 50493), (32, 50475), (35, 50463), (36, 50451), (42, 50397),

Gene: Benczkowski14\_53 Start: 50899, Stop: 50738, Start Num: 23

Candidate Starts for Benczkowski14\_53:

(6, 51064), (8, 51025), (Start: 17 @50926 has 9 MA's), (Start: 23 @50899 has 6 MA's), (Start: 24 @50893 has 2 MA's),

Gene: Camerico\_62 Start: 53237, Stop: 52989, Start Num: 13

Candidate Starts for Camerico\_62:

(Start: 13 @53237 has 1 MA's), (21, 53186), (25, 53159), (42, 53045), (46, 53024),

Gene: Demosthenes\_52 Start: 50598, Stop: 50443, Start Num: 24

Candidate Starts for Demosthenes\_52:

(2, 50823), (3, 50805), (4, 50802), (6, 50769), (Start: 17 @50631 has 9 MA's), (Start: 23 @50604 has 6 MA's), (Start: 24 @50598 has 2 MA's),

Gene: DillyDally\_36 Start: 26012, Stop: 26221, Start Num: 18

Candidate Starts for DillyDally\_36:

(7, 25871), (Start: 18 @26012 has 1 MA's), (28, 26069), (30, 26075), (34, 26099), (42, 26180),

Gene: GMA3\_57 Start: 49348, Stop: 49106, Start Num: 11

Candidate Starts for GMA3\_57:

(11, 49348), (19, 49297), (22, 49276), (25, 49258), (38, 49186), (43, 49138), (46, 49123),

Gene: GMA7\_49 Start: 44766, Stop: 44581, Start Num: 17

Candidate Starts for GMA7\_49:

(16, 44772), (Start: 17 @44766 has 9 MA's), (25, 44724), (29, 44709), (32, 44691), (35, 44679), (36, 44667), (42, 44613),

Gene: GTE7\_48 Start: 44797, Stop: 44612, Start Num: 17

Candidate Starts for GTE7\_48:

(16, 44803), (Start: 17 @44797 has 9 MA's), (25, 44755), (29, 44740), (32, 44722), (35, 44710), (36, 44698), (42, 44644),

Gene: Gibbles\_55 Start: 48960, Stop: 48739, Start Num: 14

Candidate Starts for Gibbles\_55:

(Start: 14 @48960 has 6 MA's), (21, 48918), (46, 48759),

Gene: Gmala1\_54 Start: 47074, Stop: 46817, Start Num: 11

Candidate Starts for Gmala1\_54:

(11, 47074), (Start: 12 @47068 has 1 MA's), (22, 47005), (26, 46984), (38, 46915), (46, 46855),

Gene: GordDuk1\_58 Start: 47638, Stop: 47381, Start Num: 11

Candidate Starts for GordDuk1\_58:

(11, 47638), (Start: 12 @47632 has 1 MA's), (22, 47569), (26, 47548), (38, 47479), (46, 47419),

Gene: GordTnk2\_59 Start: 47792, Stop: 47535, Start Num: 11

Candidate Starts for GordTnk2\_59:

(11, 47792), (Start: 12 @47786 has 1 MA's), (22, 47723), (26, 47702), (38, 47633), (46, 47573),

Gene: HayZem\_60 Start: 50549, Stop: 50364, Start Num: 17

Candidate Starts for HayZem\_60:

(16, 50555), (Start: 17 @50549 has 9 MA's), (25, 50507), (29, 50492), (32, 50474), (35, 50462), (36, 50450), (42, 50396),

Gene: Hollow\_53 Start: 51080, Stop: 50919, Start Num: 23

Candidate Starts for Hollow\_53:

(Start: 17 @51107 has 9 MA's), (Start: 23 @51080 has 6 MA's), (Start: 24 @51074 has 2 MA's),

Gene: Jumbo\_56 Start: 51745, Stop: 51482, Start Num: 14

Candidate Starts for Jumbo\_56:

(Start: 14 @51745 has 6 MA's), (21, 51697), (Start: 23 @51685 has 6 MA's),

Gene: Kampe\_57 Start: 48938, Stop: 48717, Start Num: 14

Candidate Starts for Kampe\_57:

(Start: 14 @48938 has 6 MA's), (21, 48896), (46, 48737),

Gene: Katyusha\_53 Start: 50926, Stop: 50738, Start Num: 17

Candidate Starts for Katyusha\_53:

(6, 51064), (8, 51025), (Start: 17 @50926 has 9 MA's), (Start: 23 @50899 has 6 MA's), (Start: 24 @50893 has 2 MA's),

Gene: Kukla\_33 Start: 26271, Stop: 26035, Start Num: 17

Candidate Starts for Kukla\_33:

(Start: 17 @26271 has 9 MA's), (Start: 24 @26238 has 2 MA's), (31, 26205), (39, 26139),

Gene: Kvothe\_52 Start: 50792, Stop: 50637, Start Num: 24

Candidate Starts for Kvothe\_52:

(2, 51017), (4, 50996), (5, 50969), (6, 50963), (Start: 17 @50825 has 9 MA's), (Start: 23 @50798 has 6 MA's), (Start: 24 @50792 has 2 MA's),

Gene: LuckyBarnes\_7 Start: 2470, Stop: 2643, Start Num: 20

Candidate Starts for LuckyBarnes\_7:

(9, 2371), (10, 2380), (Start: 13 @2419 has 1 MA's), (Start: 20 @2470 has 1 MA's), (Start: 23 @2485 has 6 MA's), (30, 2518), (36, 2560), (40, 2590), (41, 2599), (45, 2620),

Gene: Mbo2\_51 Start: 41438, Stop: 41205, Start Num: 15  
Candidate Starts for Mbo2\_51:  
(1, 41777), (15, 41438), (32, 41330), (33, 41327), (37, 41291), (42, 41237),

Gene: Niagara\_53 Start: 50889, Stop: 50728, Start Num: 23  
Candidate Starts for Niagara\_53:  
(6, 51054), (8, 51015), (Start: 17 @50916 has 9 MA's), (Start: 23 @50889 has 6 MA's), (Start: 24 @50883 has 2 MA's),

Gene: Orchid\_56 Start: 48939, Stop: 48718, Start Num: 14  
Candidate Starts for Orchid\_56:  
(Start: 14 @48939 has 6 MA's), (21, 48897), (46, 48738),

Gene: PatrickStar\_57 Start: 48938, Stop: 48717, Start Num: 14  
Candidate Starts for PatrickStar\_57:  
(Start: 14 @48938 has 6 MA's), (21, 48896), (46, 48737),

Gene: PetriParty\_34 Start: 26511, Stop: 26275, Start Num: 17  
Candidate Starts for PetriParty\_34:  
(Start: 17 @26511 has 9 MA's), (Start: 24 @26478 has 2 MA's), (31, 26445), (39, 26379),

Gene: Philon9\_54 Start: 51773, Stop: 51585, Start Num: 17  
Candidate Starts for Philon9\_54:  
(Start: 17 @51773 has 9 MA's), (Start: 23 @51749 has 6 MA's), (27, 51725), (38, 51659), (44, 51611),

Gene: Reynauld\_55 Start: 49186, Stop: 48947, Start Num: 12  
Candidate Starts for Reynauld\_55:  
(Start: 12 @49186 has 1 MA's), (22, 49120), (25, 49102), (32, 49069), (42, 48991),

Gene: RobinSparkles\_60 Start: 49491, Stop: 49270, Start Num: 14  
Candidate Starts for RobinSparkles\_60:  
(Start: 14 @49491 has 6 MA's), (21, 49449), (46, 49290),

Gene: Shoya\_29 Start: 22392, Stop: 22147, Start Num: 17  
Candidate Starts for Shoya\_29:  
(Start: 17 @22392 has 9 MA's), (Start: 24 @22359 has 2 MA's), (31, 22326), (32, 22317), (39, 22260), (47, 22176),

Gene: Teatealatte\_54 Start: 50801, Stop: 50640, Start Num: 23  
Candidate Starts for Teatealatte\_54:  
(6, 50966), (Start: 17 @50828 has 9 MA's), (Start: 23 @50801 has 6 MA's), (Start: 24 @50795 has 2 MA's),

Gene: Teech\_54 Start: 50629, Stop: 50441, Start Num: 17  
Candidate Starts for Teech\_54:  
(6, 50767), (8, 50728), (Start: 17 @50629 has 9 MA's), (Start: 23 @50602 has 6 MA's), (Start: 24 @50596 has 2 MA's),

Gene: Tredge\_54 Start: 50801, Stop: 50640, Start Num: 23  
Candidate Starts for Tredge\_54:  
(6, 50966), (Start: 17 @50828 has 9 MA's), (Start: 23 @50801 has 6 MA's), (Start: 24 @50795 has 2 MA's),

Gene: Vitaenoi\_54 Start: 51772, Stop: 51584, Start Num: 17

Candidate Starts for Vitaenoi\_54:

(Start: 17 @51772 has 9 MA's), (Start: 23 @51748 has 6 MA's), (27, 51724), (38, 51658), (44, 51610),