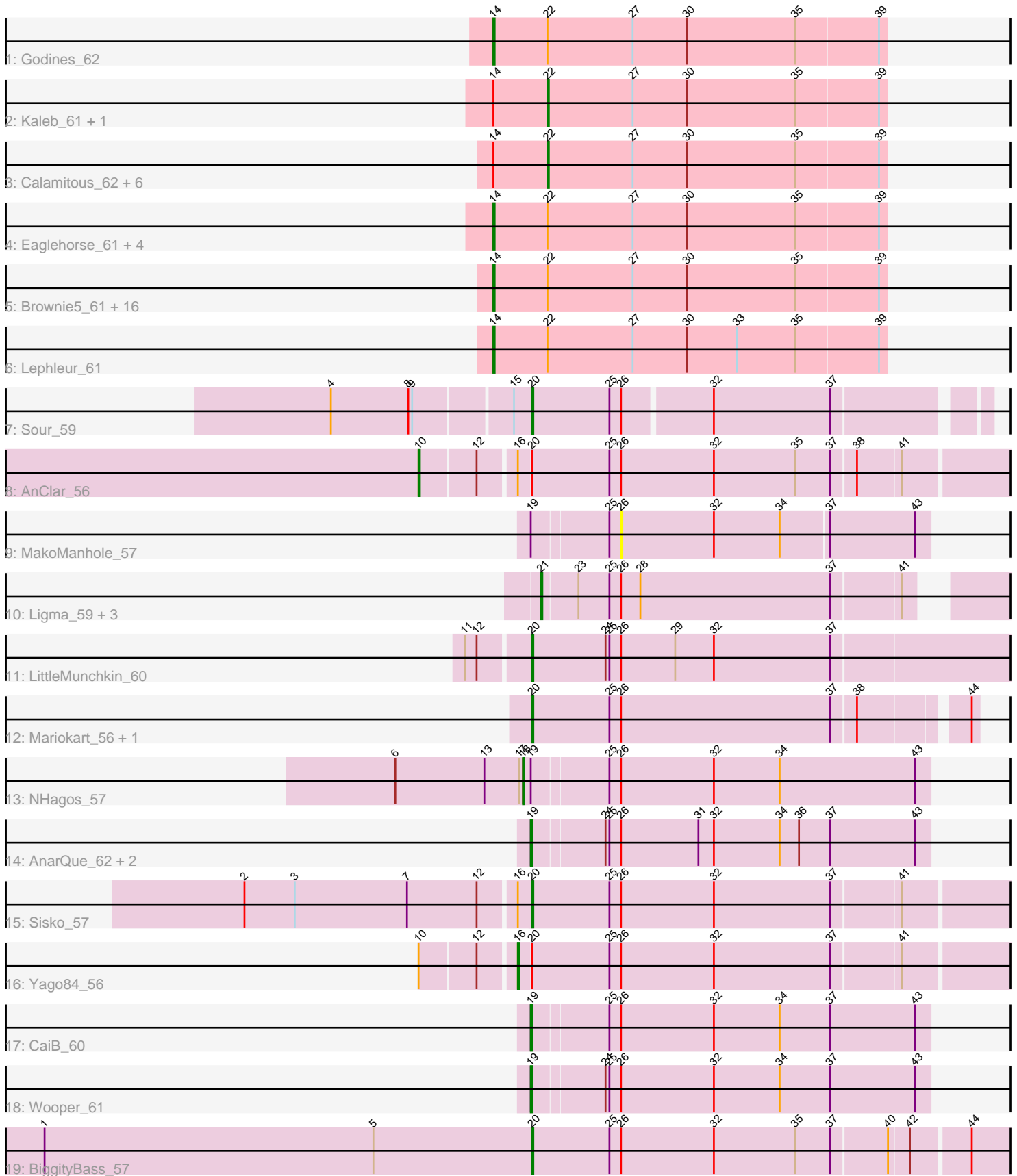


# Pham 157922



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 157922 Report

This analysis was run 04/13/24 on database version 558.

Pham number 157922 has 52 members, 6 are drafts.

Phages represented in each track:

- Track 1 : Godines\_62
- Track 2 : Kaleb\_61, Allegro\_61
- Track 3 : Calamitous\_62, TA17A\_61, Lars\_62, MasterPo\_62, Faze9\_60, Tres\_61, Coffee\_61
- Track 4 : Eaglehorse\_61, Kheth\_61, ItsyBitsy1\_61, FrenchFry\_62, Glass\_62
- Track 5 : Brownie5\_61, Qyrzula\_56, Boyle\_61, West99\_61, Arbiter\_60, LizLemon\_61, Sabella\_61, Rhinoforte\_61, Bananafish\_62, Laurie\_61, Ares\_61, Phantasmagoria\_61, Opia\_62, Rosebush\_60, Tinciduntolum\_62, Blocker23\_61, Hedgerow\_61
- Track 6 : Lephleur\_61
- Track 7 : Sour\_59
- Track 8 : AnClar\_56
- Track 9 : MakoManhole\_57
- Track 10 : Ligma\_59, Fresco\_59, Axumite\_59, Shatter\_59
- Track 11 : LittleMunchkin\_60
- Track 12 : Mariokart\_56, CharlottesWeb\_56
- Track 13 : NHagos\_57
- Track 14 : AnarQue\_62, CloverMinnie\_60, MossRose\_61
- Track 15 : Sisko\_57
- Track 16 : Yago84\_56
- Track 17 : CaiB\_60
- Track 18 : Wooper\_61
- Track 19 : BiggityBass\_57

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

The start number called the most often in the published annotations is 14, it was called in 24 of the 46 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arbiter\_60, Ares\_61, Bananafish\_62, Blocker23\_61, Boyle\_61, Brownie5\_61, Eaglehorse\_61, FrenchFry\_62, Glass\_62, Godines\_62, Hedgerow\_61, ItsyBitsy1\_61, Kheth\_61, Laurie\_61, Lephleur\_61, LizLemon\_61, Opia\_62, Phantasmagoria\_61, Qyrzula\_56, Rhinoforte\_61, Rosebush\_60, Sabella\_61, Tinciduntolum\_62,

West99\_61,

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

- Allegro\_61, Calamitous\_62, Coffee\_61, Faze9\_60, Kaleb\_61, Lars\_62, MasterPo\_62, TA17A\_61, Tres\_61,

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

- AnClar\_56, AnarQue\_62, Axumite\_59, BiggityBass\_57, CaiB\_60, CharlottesWeb\_56, CloverMinnie\_60, Fresco\_59, Ligma\_59, LittleMunchkin\_60, MakoManhole\_57, Mariokart\_56, MossRose\_61, NHagos\_57, Shatter\_59, Sisko\_57, Sour\_59, Wooper\_61, Yago84\_56,

### Summary by start number:

Start 10:

- Found in 2 of 52 ( 3.8% ) of genes in pham
- Manual Annotations of this start: 1 of 46
- Called 50.0% of time when present
- Phage (with cluster) where this start called: AnClar\_56 (DR),

Start 14:

- Found in 33 of 52 ( 63.5% ) of genes in pham
- Manual Annotations of this start: 24 of 46
- Called 72.7% of time when present
- Phage (with cluster) where this start called: Arbiter\_60 (B2), Ares\_61 (B2), Bananafish\_62 (B2), Blocker23\_61 (B2), Boyle\_61 (B2), Brownie5\_61 (B2), Eaglehorse\_61 (B2), FrenchFry\_62 (B2), Glass\_62 (B2), Godines\_62 (B2), Hedgerow\_61 (B2), ItsyBitsy1\_61 (B2), Kheth\_61 (B2), Laurie\_61 (B2), Lephleur\_61 (B2), LizLemon\_61 (B2), Opia\_62 (B2), Phantasmagoria\_61 (B2), Qyrzula\_56 (B2), Rhinoforte\_61 (B2), Rosebush\_60 (B2), Sabella\_61 (B2), Tinciduntolum\_62 (B2), West99\_61 (B2),

Start 16:

- Found in 3 of 52 ( 5.8% ) of genes in pham
- Manual Annotations of this start: 1 of 46
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Yago84\_56 (DR),

Start 18:

- Found in 1 of 52 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 1 of 46
- Called 100.0% of time when present
- Phage (with cluster) where this start called: NHagos\_57 (DR),

Start 19:

- Found in 7 of 52 ( 13.5% ) of genes in pham
- Manual Annotations of this start: 5 of 46
- Called 71.4% of time when present
- Phage (with cluster) where this start called: AnarQue\_62 (DR), CaiB\_60 (DR), CloverMinnie\_60 (DR), MossRose\_61 (DR), Wooper\_61 (DR),

Start 20:

- Found in 8 of 52 ( 15.4% ) of genes in pham

- Manual Annotations of this start: 5 of 46
- Called 75.0% of time when present
- Phage (with cluster) where this start called: BiggityBass\_57 (DR), CharlottesWeb\_56 (DR), LittleMunchkin\_60 (DR), Mariokart\_56 (DR), Sisko\_57 (DR), Sour\_59 (DR),

#### Start 21:

- Found in 4 of 52 ( 7.7% ) of genes in pham
- Manual Annotations of this start: 2 of 46
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Axumite\_59 (DR), Fresco\_59 (DR), Ligma\_59 (DR), Shatter\_59 (DR),

#### Start 22:

- Found in 33 of 52 ( 63.5% ) of genes in pham
- Manual Annotations of this start: 7 of 46
- Called 27.3% of time when present
- Phage (with cluster) where this start called: Allegro\_61 (B2), Calamitous\_62 (B2), Coffee\_61 (B2), Faze9\_60 (B2), Kaleb\_61 (B2), Lars\_62 (B2), MasterPo\_62 (B2), TA17A\_61 (B2), Tres\_61 (B2),

#### Start 26:

- Found in 19 of 52 ( 36.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 5.3% of time when present
- Phage (with cluster) where this start called: MakoManhole\_57 (DR),

### **Summary by clusters:**

There are 2 clusters represented in this pham: DR, B2,

#### Info for manual annotations of cluster B2:

- Start number 14 was manually annotated 24 times for cluster B2.
- Start number 22 was manually annotated 7 times for cluster B2.

#### Info for manual annotations of cluster DR:

- Start number 10 was manually annotated 1 time for cluster DR.
- Start number 16 was manually annotated 1 time for cluster DR.
- Start number 18 was manually annotated 1 time for cluster DR.
- Start number 19 was manually annotated 5 times for cluster DR.
- Start number 20 was manually annotated 5 times for cluster DR.
- Start number 21 was manually annotated 2 times for cluster DR.

### **Gene Information:**

Gene: Allegro\_61 Start: 54331, Stop: 54071, Start Num: 22

Candidate Starts for Allegro\_61:

(Start: 14 @54373 has 24 MA's), (Start: 22 @54331 has 7 MA's), (27, 54265), (30, 54223), (35, 54139), (39, 54076),

Gene: AnClar\_56 Start: 50443, Stop: 50006, Start Num: 10

Candidate Starts for AnClar\_56:

(Start: 10 @50443 has 1 MA's), (12, 50401), (Start: 16 @50374 has 1 MA's), (Start: 20 @50365 has 5 MA's), (25, 50305), (26, 50296), (32, 50224), (35, 50161), (37, 50134), (38, 50116), (41, 50083),

Gene: AnarQue\_62 Start: 51188, Stop: 50883, Start Num: 19

Candidate Starts for AnarQue\_62:

(Start: 19 @51188 has 5 MA's), (24, 51134), (25, 51131), (26, 51122), (31, 51062), (32, 51050), (34, 50999), (36, 50984), (37, 50960), (43, 50894),

Gene: Arbiter\_60 Start: 54484, Stop: 54182, Start Num: 14

Candidate Starts for Arbiter\_60:

(Start: 14 @54484 has 24 MA's), (Start: 22 @54442 has 7 MA's), (27, 54376), (30, 54334), (35, 54250), (39, 54187),

Gene: Ares\_61 Start: 54453, Stop: 54151, Start Num: 14

Candidate Starts for Ares\_61:

(Start: 14 @54453 has 24 MA's), (Start: 22 @54411 has 7 MA's), (27, 54345), (30, 54303), (35, 54219), (39, 54156),

Gene: Axumite\_59 Start: 48999, Stop: 48667, Start Num: 21

Candidate Starts for Axumite\_59:

(Start: 21 @48999 has 2 MA's), (23, 48972), (25, 48948), (26, 48939), (28, 48924), (37, 48777), (41, 48726),

Gene: Bananafish\_62 Start: 54384, Stop: 54082, Start Num: 14

Candidate Starts for Bananafish\_62:

(Start: 14 @54384 has 24 MA's), (Start: 22 @54342 has 7 MA's), (27, 54276), (30, 54234), (35, 54150), (39, 54087),

Gene: BiggityBass\_57 Start: 50638, Stop: 50279, Start Num: 20

Candidate Starts for BiggityBass\_57:

(1, 51016), (5, 50761), (Start: 20 @50638 has 5 MA's), (25, 50578), (26, 50569), (32, 50497), (35, 50434), (37, 50407), (40, 50365), (42, 50350), (44, 50308),

Gene: Blocker23\_61 Start: 54450, Stop: 54148, Start Num: 14

Candidate Starts for Blocker23\_61:

(Start: 14 @54450 has 24 MA's), (Start: 22 @54408 has 7 MA's), (27, 54342), (30, 54300), (35, 54216), (39, 54153),

Gene: Boyle\_61 Start: 54493, Stop: 54191, Start Num: 14

Candidate Starts for Boyle\_61:

(Start: 14 @54493 has 24 MA's), (Start: 22 @54451 has 7 MA's), (27, 54385), (30, 54343), (35, 54259), (39, 54196),

Gene: Brownie5\_61 Start: 54495, Stop: 54193, Start Num: 14

Candidate Starts for Brownie5\_61:

(Start: 14 @54495 has 24 MA's), (Start: 22 @54453 has 7 MA's), (27, 54387), (30, 54345), (35, 54261), (39, 54198),

Gene: CaiB\_60 Start: 50979, Stop: 50674, Start Num: 19

Candidate Starts for CaiB\_60:

(Start: 19 @50979 has 5 MA's), (25, 50922), (26, 50913), (32, 50841), (34, 50790), (37, 50751), (43, 50685),

Gene: Calamitous\_62 Start: 54341, Stop: 54081, Start Num: 22

Candidate Starts for Calamitous\_62:

(Start: 14 @54383 has 24 MA's), (Start: 22 @54341 has 7 MA's), (27, 54275), (30, 54233), (35, 54149), (39, 54086),

Gene: CharlottesWeb\_56 Start: 47807, Stop: 47478, Start Num: 20

Candidate Starts for CharlottesWeb\_56:

(Start: 20 @47807 has 5 MA's), (25, 47747), (26, 47738), (37, 47576), (38, 47558), (44, 47483),

Gene: CloverMinnie\_60 Start: 50580, Stop: 50275, Start Num: 19

Candidate Starts for CloverMinnie\_60:

(Start: 19 @50580 has 5 MA's), (24, 50526), (25, 50523), (26, 50514), (31, 50454), (32, 50442), (34, 50391), (36, 50376), (37, 50352), (43, 50286),

Gene: Coffee\_61 Start: 54445, Stop: 54185, Start Num: 22

Candidate Starts for Coffee\_61:

(Start: 14 @54487 has 24 MA's), (Start: 22 @54445 has 7 MA's), (27, 54379), (30, 54337), (35, 54253), (39, 54190),

Gene: Eaglehorse\_61 Start: 54371, Stop: 54069, Start Num: 14

Candidate Starts for Eaglehorse\_61:

(Start: 14 @54371 has 24 MA's), (Start: 22 @54329 has 7 MA's), (27, 54263), (30, 54221), (35, 54137), (39, 54074),

Gene: Faze9\_60 Start: 54468, Stop: 54208, Start Num: 22

Candidate Starts for Faze9\_60:

(Start: 14 @54510 has 24 MA's), (Start: 22 @54468 has 7 MA's), (27, 54402), (30, 54360), (35, 54276), (39, 54213),

Gene: FrenchFry\_62 Start: 54494, Stop: 54192, Start Num: 14

Candidate Starts for FrenchFry\_62:

(Start: 14 @54494 has 24 MA's), (Start: 22 @54452 has 7 MA's), (27, 54386), (30, 54344), (35, 54260), (39, 54197),

Gene: Fresco\_59 Start: 48999, Stop: 48667, Start Num: 21

Candidate Starts for Fresco\_59:

(Start: 21 @48999 has 2 MA's), (23, 48972), (25, 48948), (26, 48939), (28, 48924), (37, 48777), (41, 48726),

Gene: Glass\_62 Start: 54496, Stop: 54194, Start Num: 14

Candidate Starts for Glass\_62:

(Start: 14 @54496 has 24 MA's), (Start: 22 @54454 has 7 MA's), (27, 54388), (30, 54346), (35, 54262), (39, 54199),

Gene: Godines\_62 Start: 54753, Stop: 54451, Start Num: 14

Candidate Starts for Godines\_62:

(Start: 14 @54753 has 24 MA's), (Start: 22 @54711 has 7 MA's), (27, 54645), (30, 54603), (35, 54519), (39, 54456),

Gene: Hedgerow\_61 Start: 54470, Stop: 54168, Start Num: 14

Candidate Starts for Hedgerow\_61:

(Start: 14 @54470 has 24 MA's), (Start: 22 @54428 has 7 MA's), (27, 54362), (30, 54320), (35, 54236), (39, 54173),

Gene: ItsyBitsy1\_61 Start: 54584, Stop: 54282, Start Num: 14

Candidate Starts for ItsyBitsy1\_61:

(Start: 14 @54584 has 24 MA's), (Start: 22 @54542 has 7 MA's), (27, 54476), (30, 54434), (35, 54350), (39, 54287),

Gene: Kaleb\_61 Start: 54461, Stop: 54201, Start Num: 22

Candidate Starts for Kaleb\_61:

(Start: 14 @54503 has 24 MA's), (Start: 22 @54461 has 7 MA's), (27, 54395), (30, 54353), (35, 54269), (39, 54206),

Gene: Kheth\_61 Start: 54415, Stop: 54113, Start Num: 14

Candidate Starts for Kheth\_61:

(Start: 14 @54415 has 24 MA's), (Start: 22 @54373 has 7 MA's), (27, 54307), (30, 54265), (35, 54181), (39, 54118),

Gene: Lars\_62 Start: 54438, Stop: 54178, Start Num: 22

Candidate Starts for Lars\_62:

(Start: 14 @54480 has 24 MA's), (Start: 22 @54438 has 7 MA's), (27, 54372), (30, 54330), (35, 54246), (39, 54183),

Gene: Laurie\_61 Start: 54177, Stop: 53875, Start Num: 14

Candidate Starts for Laurie\_61:

(Start: 14 @54177 has 24 MA's), (Start: 22 @54135 has 7 MA's), (27, 54069), (30, 54027), (35, 53943), (39, 53880),

Gene: Lephleur\_61 Start: 54344, Stop: 54042, Start Num: 14

Candidate Starts for Lephleur\_61:

(Start: 14 @54344 has 24 MA's), (Start: 22 @54302 has 7 MA's), (27, 54236), (30, 54194), (33, 54155), (35, 54110), (39, 54047),

Gene: Ligma\_59 Start: 48999, Stop: 48667, Start Num: 21

Candidate Starts for Ligma\_59:

(Start: 21 @48999 has 2 MA's), (23, 48972), (25, 48948), (26, 48939), (28, 48924), (37, 48777), (41, 48726),

Gene: LittleMunchkin\_60 Start: 51846, Stop: 51481, Start Num: 20

Candidate Starts for LittleMunchkin\_60:

(11, 51891), (12, 51882), (Start: 20 @51846 has 5 MA's), (24, 51789), (25, 51786), (26, 51777), (29, 51735), (32, 51705), (37, 51615),

Gene: LizLemon\_61 Start: 54505, Stop: 54203, Start Num: 14

Candidate Starts for LizLemon\_61:

(Start: 14 @54505 has 24 MA's), (Start: 22 @54463 has 7 MA's), (27, 54397), (30, 54355), (35, 54271), (39, 54208),

Gene: MakoManhole\_57 Start: 49431, Stop: 49195, Start Num: 26

Candidate Starts for MakoManhole\_57:

(Start: 19 @49497 has 5 MA's), (25, 49440), (26, 49431), (32, 49359), (34, 49308), (37, 49272), (43, 49206),

Gene: Mariokart\_56 Start: 48093, Stop: 47764, Start Num: 20  
Candidate Starts for Mariokart\_56:  
(Start: 20 @48093 has 5 MA's), (25, 48033), (26, 48024), (37, 47862), (38, 47844), (44, 47769),

Gene: MasterPo\_62 Start: 54329, Stop: 54069, Start Num: 22  
Candidate Starts for MasterPo\_62:  
(Start: 14 @54371 has 24 MA's), (Start: 22 @54329 has 7 MA's), (27, 54263), (30, 54221), (35, 54137), (39, 54074),

Gene: MossRose\_61 Start: 50819, Stop: 50514, Start Num: 19  
Candidate Starts for MossRose\_61:  
(Start: 19 @50819 has 5 MA's), (24, 50765), (25, 50762), (26, 50753), (31, 50693), (32, 50681), (34, 50630), (36, 50615), (37, 50591), (43, 50525),

Gene: NHagos\_57 Start: 48610, Stop: 48299, Start Num: 18  
Candidate Starts for NHagos\_57:  
(6, 48709), (13, 48640), (17, 48613), (Start: 18 @48610 has 1 MA's), (Start: 19 @48604 has 5 MA's), (25, 48547), (26, 48538), (32, 48466), (34, 48415), (43, 48310),

Gene: Opia\_62 Start: 54395, Stop: 54093, Start Num: 14  
Candidate Starts for Opia\_62:  
(Start: 14 @54395 has 24 MA's), (Start: 22 @54353 has 7 MA's), (27, 54287), (30, 54245), (35, 54161), (39, 54098),

Gene: Phantasmagoria\_61 Start: 54385, Stop: 54083, Start Num: 14  
Candidate Starts for Phantasmagoria\_61:  
(Start: 14 @54385 has 24 MA's), (Start: 22 @54343 has 7 MA's), (27, 54277), (30, 54235), (35, 54151), (39, 54088),

Gene: Qyrzula\_56 Start: 54506, Stop: 54204, Start Num: 14  
Candidate Starts for Qyrzula\_56:  
(Start: 14 @54506 has 24 MA's), (Start: 22 @54464 has 7 MA's), (27, 54398), (30, 54356), (35, 54272), (39, 54209),

Gene: Rhinoforte\_61 Start: 54428, Stop: 54126, Start Num: 14  
Candidate Starts for Rhinoforte\_61:  
(Start: 14 @54428 has 24 MA's), (Start: 22 @54386 has 7 MA's), (27, 54320), (30, 54278), (35, 54194), (39, 54131),

Gene: Rosebush\_60 Start: 54491, Stop: 54189, Start Num: 14  
Candidate Starts for Rosebush\_60:  
(Start: 14 @54491 has 24 MA's), (Start: 22 @54449 has 7 MA's), (27, 54383), (30, 54341), (35, 54257), (39, 54194),

Gene: Sabella\_61 Start: 54327, Stop: 54025, Start Num: 14  
Candidate Starts for Sabella\_61:  
(Start: 14 @54327 has 24 MA's), (Start: 22 @54285 has 7 MA's), (27, 54219), (30, 54177), (35, 54093), (39, 54030),

Gene: Shatter\_59 Start: 48999, Stop: 48667, Start Num: 21  
Candidate Starts for Shatter\_59:  
(Start: 21 @48999 has 2 MA's), (23, 48972), (25, 48948), (26, 48939), (28, 48924), (37, 48777), (41, 48726),



Gene: Sisko\_57 Start: 49215, Stop: 48856, Start Num: 20

Candidate Starts for Sisko\_57:

(2, 49431), (3, 49392), (7, 49305), (12, 49251), (Start: 16 @49224 has 1 MA's), (Start: 20 @49215 has 5 MA's), (25, 49155), (26, 49146), (32, 49074), (37, 48984), (41, 48933),

Gene: Sour\_59 Start: 51504, Stop: 51172, Start Num: 20

Candidate Starts for Sour\_59:

(4, 51651), (8, 51591), (9, 51588), (15, 51516), (Start: 20 @51504 has 5 MA's), (25, 51444), (26, 51435), (32, 51369), (37, 51279),

Gene: TA17A\_61 Start: 54289, Stop: 54029, Start Num: 22

Candidate Starts for TA17A\_61:

(Start: 14 @54331 has 24 MA's), (Start: 22 @54289 has 7 MA's), (27, 54223), (30, 54181), (35, 54097), (39, 54034),

Gene: Tinciduntolum\_62 Start: 54494, Stop: 54192, Start Num: 14

Candidate Starts for Tinciduntolum\_62:

(Start: 14 @54494 has 24 MA's), (Start: 22 @54452 has 7 MA's), (27, 54386), (30, 54344), (35, 54260), (39, 54197),

Gene: Tres\_61 Start: 54306, Stop: 54046, Start Num: 22

Candidate Starts for Tres\_61:

(Start: 14 @54348 has 24 MA's), (Start: 22 @54306 has 7 MA's), (27, 54240), (30, 54198), (35, 54114), (39, 54051),

Gene: West99\_61 Start: 54521, Stop: 54219, Start Num: 14

Candidate Starts for West99\_61:

(Start: 14 @54521 has 24 MA's), (Start: 22 @54479 has 7 MA's), (27, 54413), (30, 54371), (35, 54287), (39, 54224),

Gene: Wooper\_61 Start: 50954, Stop: 50649, Start Num: 19

Candidate Starts for Wooper\_61:

(Start: 19 @50954 has 5 MA's), (24, 50900), (25, 50897), (26, 50888), (32, 50816), (34, 50765), (37, 50726), (43, 50660),

Gene: Yago84\_56 Start: 48921, Stop: 48553, Start Num: 16

Candidate Starts for Yago84\_56:

(Start: 10 @48990 has 1 MA's), (12, 48948), (Start: 16 @48921 has 1 MA's), (Start: 20 @48912 has 5 MA's), (25, 48852), (26, 48843), (32, 48771), (37, 48681), (41, 48630),