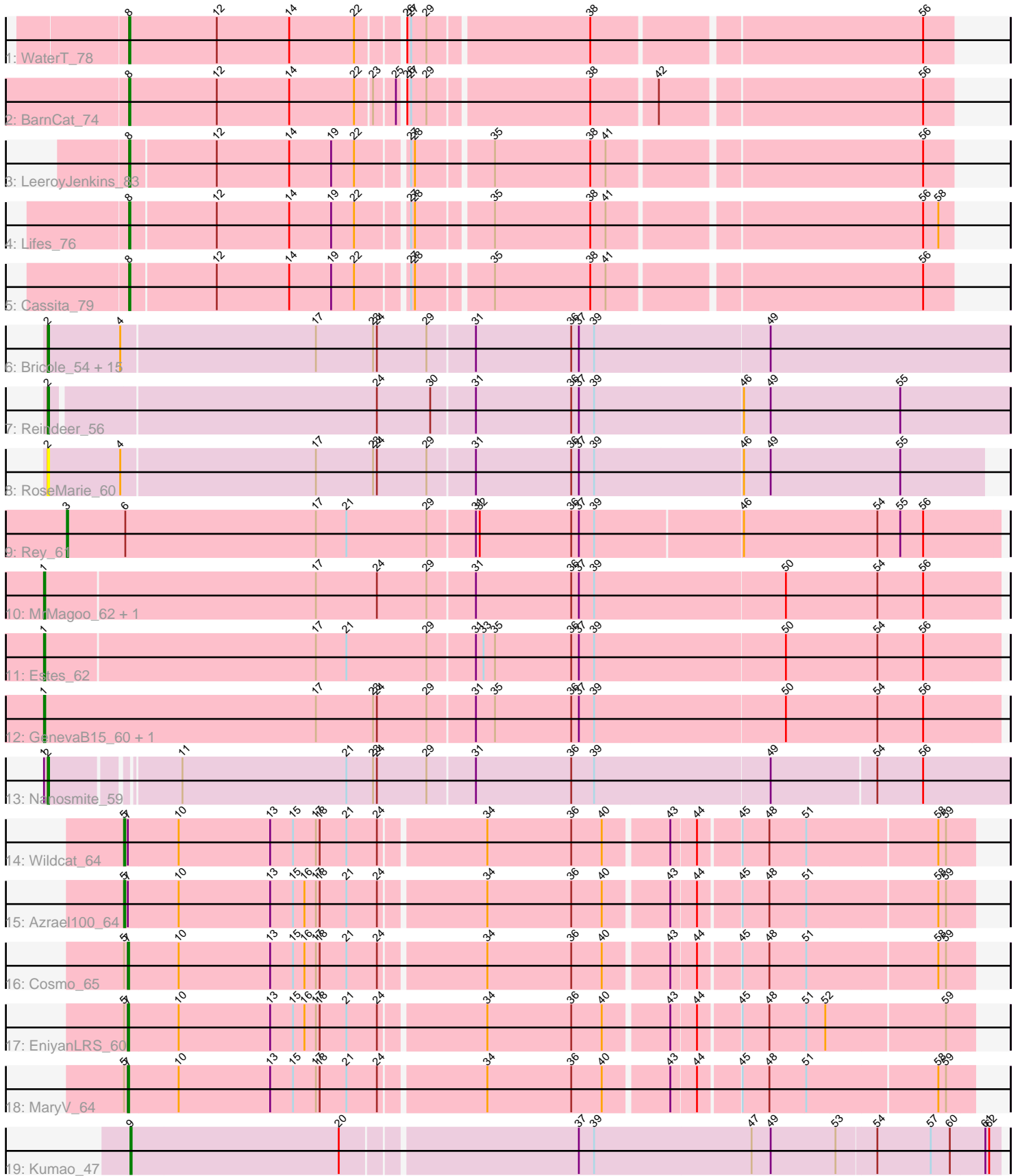


Pham 308947



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 308947 Report

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

Pham number 308947 has 36 members, 3 are drafts.

Phages represented in each track:

- Track 1 : WaterT\_78
- Track 2 : BarnCat\_74
- Track 3 : LeeroyJenkins\_83
- Track 4 : Lifes\_76
- Track 5 : Cassita\_79
- Track 6 : Bricole\_54, Dulcita\_55, Glaske16\_55, Bongo\_54, LilhomieP\_53, Diminimus\_55, IPhane7\_54, Auspice\_54, Skinny\_55, FreakyGoo\_55, SlimJimmy\_53, KleverKiS\_55, TpudiCK\_56, PegLeg\_54, Izel\_55, TyDawg\_54
- Track 7 : Reindeer\_56
- Track 8 : RoseMarie\_60
- Track 9 : Rey\_61
- Track 10 : MrMagoo\_62, GardenSalsa\_62
- Track 11 : Estes\_62
- Track 12 : GenevaB15\_60, Aziz\_60
- Track 13 : Nanosmite\_59
- Track 14 : Wildcat\_64
- Track 15 : Azrael100\_64
- Track 16 : Cosmo\_65
- Track 17 : EniyanLRS\_60
- Track 18 : MaryV\_64
- Track 19 : Kumao\_47

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

The start number called the most often in the published annotations is 2, it was called in 16 of the 33 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Auspice\_54, Bongo\_54, Bricole\_54, Diminimus\_55, Dulcita\_55, FreakyGoo\_55, Glaske16\_55, IPhane7\_54, Izel\_55, KleverKiS\_55, LilhomieP\_53, Nanosmite\_59, PegLeg\_54, Reindeer\_56, RoseMarie\_60, Skinny\_55, SlimJimmy\_53, TpudiCK\_56, TyDawg\_54,

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

- 

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

- Aziz\_60, Azrael100\_64, BarnCat\_74, Cassita\_79, Cosmo\_65, EniyanLRS\_60, Estes\_62, GardenSalsa\_62, GenevaB15\_60, Kumao\_47, LeeroyJenkins\_83, Lifes\_76, MaryV\_64, MrMagoo\_62, Rey\_61, WaterT\_78, Wildcat\_64,

### Summary by start number:

Start 1:

- Found in 6 of 36 ( 16.7% ) of genes in pham
- Manual Annotations of this start: 5 of 33
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Aziz\_60 (M2), Estes\_62 (M2), GardenSalsa\_62 (M2), GenevaB15\_60 (M2), MrMagoo\_62 (M2),

Start 2:

- Found in 19 of 36 ( 52.8% ) of genes in pham
- Manual Annotations of this start: 16 of 33
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Auspice\_54 (M1), Bongo\_54 (M1), Bricole\_54 (M1), Diminimus\_55 (M1), Dulcita\_55 (M1), FreakyGoo\_55 (M1), Glaske16\_55 (M1), IPhane7\_54 (M1), Izel\_55 (M1), KleverKiS\_55 (M1), LilhomieP\_53 (M1), Nanosmite\_59 (M3), PegLeg\_54 (M1), Reindeer\_56 (M1), RoseMarie\_60 (M1), Skinny\_55 (M1), SlimJimmy\_53 (M1), TpudiCK\_56 (M1), TyDawg\_54 (M1),

Start 3:

- Found in 1 of 36 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 1 of 33
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rey\_61 (M2),

Start 5:

- Found in 5 of 36 ( 13.9% ) of genes in pham
- Manual Annotations of this start: 2 of 33
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Azrael100\_64 (V), Wildcat\_64 (V),

Start 7:

- Found in 5 of 36 ( 13.9% ) of genes in pham
- Manual Annotations of this start: 3 of 33
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Cosmo\_65 (V), EniyanLRS\_60 (V), MaryV\_64 (V),

Start 8:

- Found in 5 of 36 ( 13.9% ) of genes in pham
- Manual Annotations of this start: 5 of 33
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BarnCat\_74 (GB), Cassita\_79 (GB), LeeroyJenkins\_83 (GB), Lifes\_76 (GB), WaterT\_78 (GB),

Start 9:

- Found in 1 of 36 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 1 of 33
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kumao\_47 (singleton),

### **Summary by clusters:**

There are 6 clusters represented in this pham: singleton, V, M1, GB, M3, M2,

Info for manual annotations of cluster GB:

- Start number 8 was manually annotated 5 times for cluster GB.

Info for manual annotations of cluster M1:

- Start number 2 was manually annotated 15 times for cluster M1.

Info for manual annotations of cluster M2:

- Start number 1 was manually annotated 5 times for cluster M2.
- Start number 3 was manually annotated 1 time for cluster M2.

Info for manual annotations of cluster M3:

- Start number 2 was manually annotated 1 time for cluster M3.

Info for manual annotations of cluster V:

- Start number 5 was manually annotated 2 times for cluster V.
- Start number 7 was manually annotated 3 times for cluster V.

### **Gene Information:**

Gene: Auspice\_54 Start: 38464, Stop: 39210, Start Num: 2

Candidate Starts for Auspice\_54:

(Start: 2 @38464 has 16 MA's), (4, 38521), (17, 38671), (23, 38716), (24, 38719), (29, 38758), (31, 38794), (36, 38869), (37, 38875), (39, 38887), (49, 39022),

Gene: Aziz\_60 Start: 40496, Stop: 41239, Start Num: 1

Candidate Starts for Aziz\_60:

(Start: 1 @40496 has 5 MA's), (17, 40709), (23, 40754), (24, 40757), (29, 40796), (31, 40832), (35, 40847), (36, 40907), (37, 40913), (39, 40925), (50, 41072), (54, 41144), (56, 41180),

Gene: Azrael100\_64 Start: 43489, Stop: 44124, Start Num: 5

Candidate Starts for Azrael100\_64:

(Start: 5 @43489 has 2 MA's), (Start: 7 @43492 has 3 MA's), (10, 43531), (13, 43603), (15, 43621), (16, 43630), (17, 43639), (18, 43642), (21, 43663), (24, 43687), (34, 43765), (36, 43831), (40, 43855), (43, 43903), (44, 43921), (45, 43951), (48, 43972), (51, 43999), (58, 44098), (59, 44104),

Gene: BarnCat\_74 Start: 44719, Stop: 44108, Start Num: 8

Candidate Starts for BarnCat\_74:

(Start: 8 @44719 has 5 MA's), (12, 44650), (14, 44593), (22, 44542), (23, 44530), (25, 44515), (26, 44512), (27, 44509), (29, 44497), (38, 44377), (42, 44329), (56, 44131),

Gene: Bongo\_54 Start: 38468, Stop: 39214, Start Num: 2

Candidate Starts for Bongo\_54:

(Start: 2 @38468 has 16 MA's), (4, 38525), (17, 38675), (23, 38720), (24, 38723), (29, 38762), (31, 38798), (36, 38873), (37, 38879), (39, 38891), (49, 39026),

Gene: Bricole\_54 Start: 38450, Stop: 39196, Start Num: 2

Candidate Starts for Bricole\_54:

(Start: 2 @38450 has 16 MA's), (4, 38507), (17, 38657), (23, 38702), (24, 38705), (29, 38744), (31, 38780), (36, 38855), (37, 38861), (39, 38873), (49, 39008),

Gene: Cassita\_79 Start: 45743, Stop: 45132, Start Num: 8

Candidate Starts for Cassita\_79:

(Start: 8 @45743 has 5 MA's), (12, 45677), (14, 45620), (19, 45587), (22, 45569), (27, 45533), (28, 45530), (35, 45476), (38, 45401), (41, 45389), (56, 45155),

Gene: Cosmo\_65 Start: 43493, Stop: 44125, Start Num: 7

Candidate Starts for Cosmo\_65:

(Start: 5 @43490 has 2 MA's), (Start: 7 @43493 has 3 MA's), (10, 43532), (13, 43604), (15, 43622), (16, 43631), (17, 43640), (18, 43643), (21, 43664), (24, 43688), (34, 43766), (36, 43832), (40, 43856), (43, 43904), (44, 43922), (45, 43952), (48, 43973), (51, 44000), (58, 44099), (59, 44105),

Gene: Diminimus\_55 Start: 38463, Stop: 39209, Start Num: 2

Candidate Starts for Diminimus\_55:

(Start: 2 @38463 has 16 MA's), (4, 38520), (17, 38670), (23, 38715), (24, 38718), (29, 38757), (31, 38793), (36, 38868), (37, 38874), (39, 38886), (49, 39021),

Gene: Dulcita\_55 Start: 38464, Stop: 39210, Start Num: 2

Candidate Starts for Dulcita\_55:

(Start: 2 @38464 has 16 MA's), (4, 38521), (17, 38671), (23, 38716), (24, 38719), (29, 38758), (31, 38794), (36, 38869), (37, 38875), (39, 38887), (49, 39022),

Gene: EniyanLRS\_60 Start: 43027, Stop: 43659, Start Num: 7

Candidate Starts for EniyanLRS\_60:

(Start: 5 @43024 has 2 MA's), (Start: 7 @43027 has 3 MA's), (10, 43066), (13, 43138), (15, 43156), (16, 43165), (17, 43174), (18, 43177), (21, 43198), (24, 43222), (34, 43300), (36, 43366), (40, 43390), (43, 43438), (44, 43456), (45, 43486), (48, 43507), (51, 43534), (52, 43549), (59, 43639),

Gene: Estes\_62 Start: 40753, Stop: 41493, Start Num: 1

Candidate Starts for Estes\_62:

(Start: 1 @40753 has 5 MA's), (17, 40963), (21, 40987), (29, 41050), (31, 41086), (33, 41092), (35, 41101), (36, 41161), (37, 41167), (39, 41179), (50, 41326), (54, 41398), (56, 41434),

Gene: FreakyGoo\_55 Start: 38464, Stop: 39210, Start Num: 2

Candidate Starts for FreakyGoo\_55:

(Start: 2 @38464 has 16 MA's), (4, 38521), (17, 38671), (23, 38716), (24, 38719), (29, 38758), (31, 38794), (36, 38869), (37, 38875), (39, 38887), (49, 39022),

Gene: GardenSalsa\_62 Start: 40903, Stop: 41643, Start Num: 1

Candidate Starts for GardenSalsa\_62:

(Start: 1 @40903 has 5 MA's), (17, 41113), (24, 41161), (29, 41200), (31, 41236), (36, 41311), (37, 41317), (39, 41329), (50, 41476), (54, 41548), (56, 41584),

Gene: GenevaB15\_60 Start: 40496, Stop: 41239, Start Num: 1

Candidate Starts for GenevaB15\_60:

(Start: 1 @40496 has 5 MA's), (17, 40709), (23, 40754), (24, 40757), (29, 40796), (31, 40832), (35, 40847), (36, 40907), (37, 40913), (39, 40925), (50, 41072), (54, 41144), (56, 41180),

Gene: Glaske16\_55 Start: 38463, Stop: 39209, Start Num: 2

Candidate Starts for Glaske16\_55:

(Start: 2 @38463 has 16 MA's), (4, 38520), (17, 38670), (23, 38715), (24, 38718), (29, 38757), (31, 38793), (36, 38868), (37, 38874), (39, 38886), (49, 39021),

Gene: IPhone7\_54 Start: 38468, Stop: 39214, Start Num: 2

Candidate Starts for IPhone7\_54:

(Start: 2 @38468 has 16 MA's), (4, 38525), (17, 38675), (23, 38720), (24, 38723), (29, 38762), (31, 38798), (36, 38873), (37, 38879), (39, 38891), (49, 39026),

Gene: Izel\_55 Start: 38463, Stop: 39209, Start Num: 2

Candidate Starts for Izel\_55:

(Start: 2 @38463 has 16 MA's), (4, 38520), (17, 38670), (23, 38715), (24, 38718), (29, 38757), (31, 38793), (36, 38868), (37, 38874), (39, 38886), (49, 39021),

Gene: KleverKiS\_55 Start: 38444, Stop: 39190, Start Num: 2

Candidate Starts for KleverKiS\_55:

(Start: 2 @38444 has 16 MA's), (4, 38501), (17, 38651), (23, 38696), (24, 38699), (29, 38738), (31, 38774), (36, 38849), (37, 38855), (39, 38867), (49, 39002),

Gene: Kumao\_47 Start: 37947, Stop: 38612, Start Num: 9

Candidate Starts for Kumao\_47:

(Start: 9 @37947 has 1 MA's), (20, 38109), (37, 38286), (39, 38298), (47, 38421), (49, 38436), (53, 38487), (54, 38517), (57, 38559), (60, 38574), (61, 38601), (62, 38604),

Gene: LeeroyJenkins\_83 Start: 46836, Stop: 46225, Start Num: 8

Candidate Starts for LeeroyJenkins\_83:

(Start: 8 @46836 has 5 MA's), (12, 46770), (14, 46713), (19, 46680), (22, 46662), (27, 46626), (28, 46623), (35, 46569), (38, 46494), (41, 46482), (56, 46248),

Gene: Lifes\_76 Start: 43663, Stop: 43052, Start Num: 8

Candidate Starts for Lifes\_76:

(Start: 8 @43663 has 5 MA's), (12, 43597), (14, 43540), (19, 43507), (22, 43489), (27, 43453), (28, 43450), (35, 43396), (38, 43321), (41, 43309), (56, 43075), (58, 43063),

Gene: LilhomieP\_53 Start: 38468, Stop: 39214, Start Num: 2

Candidate Starts for LilhomieP\_53:

(Start: 2 @38468 has 16 MA's), (4, 38525), (17, 38675), (23, 38720), (24, 38723), (29, 38762), (31, 38798), (36, 38873), (37, 38879), (39, 38891), (49, 39026),

Gene: MaryV\_64 Start: 43314, Stop: 43946, Start Num: 7

Candidate Starts for MaryV\_64:

(Start: 5 @43311 has 2 MA's), (Start: 7 @43314 has 3 MA's), (10, 43353), (13, 43425), (15, 43443), (17, 43461), (18, 43464), (21, 43485), (24, 43509), (34, 43587), (36, 43653), (40, 43677), (43, 43725), (44, 43743), (45, 43773), (48, 43794), (51, 43821), (58, 43920), (59, 43926),

Gene: MrMagoo\_62 Start: 40903, Stop: 41643, Start Num: 1

Candidate Starts for MrMagoo\_62:

(Start: 1 @40903 has 5 MA's), (17, 41113), (24, 41161), (29, 41200), (31, 41236), (36, 41311), (37, 41317), (39, 41329), (50, 41476), (54, 41548), (56, 41584),

Gene: Nanosmite\_59 Start: 40129, Stop: 40860, Start Num: 2

Candidate Starts for Nanosmite\_59:

(Start: 1 @40126 has 5 MA's), (Start: 2 @40129 has 16 MA's), (11, 40219), (21, 40348), (23, 40369), (24, 40372), (29, 40411), (31, 40447), (36, 40522), (39, 40540), (49, 40675), (54, 40756), (56, 40792),

Gene: PegLeg\_54 Start: 38467, Stop: 39213, Start Num: 2

Candidate Starts for PegLeg\_54:

(Start: 2 @38467 has 16 MA's), (4, 38524), (17, 38674), (23, 38719), (24, 38722), (29, 38761), (31, 38797), (36, 38872), (37, 38878), (39, 38890), (49, 39025),

Gene: Reindeer\_56 Start: 39670, Stop: 40410, Start Num: 2

Candidate Starts for Reindeer\_56:

(Start: 2 @39670 has 16 MA's), (24, 39919), (30, 39961), (31, 39994), (36, 40069), (37, 40075), (39, 40087), (46, 40201), (49, 40222), (55, 40324),

Gene: Rey\_61 Start: 40778, Stop: 41500, Start Num: 3

Candidate Starts for Rey\_61:

(Start: 3 @40778 has 1 MA's), (6, 40823), (17, 40973), (21, 40997), (29, 41060), (31, 41096), (32, 41099), (36, 41171), (37, 41177), (39, 41189), (46, 41300), (54, 41405), (55, 41423), (56, 41441),

Gene: RoseMarie\_60 Start: 42108, Stop: 42833, Start Num: 2

Candidate Starts for RoseMarie\_60:

(Start: 2 @42108 has 16 MA's), (4, 42165), (17, 42315), (23, 42360), (24, 42363), (29, 42402), (31, 42438), (36, 42513), (37, 42519), (39, 42531), (46, 42645), (49, 42666), (55, 42768),

Gene: Skinny\_55 Start: 38897, Stop: 39643, Start Num: 2

Candidate Starts for Skinny\_55:

(Start: 2 @38897 has 16 MA's), (4, 38954), (17, 39104), (23, 39149), (24, 39152), (29, 39191), (31, 39227), (36, 39302), (37, 39308), (39, 39320), (49, 39455),

Gene: SlimJimmy\_53 Start: 38451, Stop: 39197, Start Num: 2

Candidate Starts for SlimJimmy\_53:

(Start: 2 @38451 has 16 MA's), (4, 38508), (17, 38658), (23, 38703), (24, 38706), (29, 38745), (31, 38781), (36, 38856), (37, 38862), (39, 38874), (49, 39009),

Gene: TpudiCK\_56 Start: 38467, Stop: 39213, Start Num: 2

Candidate Starts for TpudiCK\_56:

(Start: 2 @38467 has 16 MA's), (4, 38524), (17, 38674), (23, 38719), (24, 38722), (29, 38761), (31, 38797), (36, 38872), (37, 38878), (39, 38890), (49, 39025),

Gene: TyDawg\_54 Start: 38468, Stop: 39214, Start Num: 2

Candidate Starts for TyDawg\_54:

(Start: 2 @38468 has 16 MA's), (4, 38525), (17, 38675), (23, 38720), (24, 38723), (29, 38762), (31, 38798), (36, 38873), (37, 38879), (39, 38891), (49, 39026),

Gene: WaterT\_78 Start: 45315, Stop: 44704, Start Num: 8

Candidate Starts for WaterT\_78:

(Start: 8 @45315 has 5 MA's), (12, 45246), (14, 45189), (22, 45138), (26, 45108), (27, 45105), (29, 45093), (38, 44973), (56, 44727),

Gene: Wildcat\_64 Start: 43321, Stop: 43956, Start Num: 5

Candidate Starts for Wildcat\_64:

(Start: 5 @43321 has 2 MA's), (Start: 7 @43324 has 3 MA's), (10, 43363), (13, 43435), (15, 43453), (17, 43471), (18, 43474), (21, 43495), (24, 43519), (34, 43597), (36, 43663), (40, 43687), (43, 43735), (44, 43753), (45, 43783), (48, 43804), (51, 43831), (58, 43930), (59, 43936),