



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 311219 Report

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

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 311219 has 223 members, 22 are drafts.

Phages represented in each track:

- Track 1 : Clank\_62
- Track 2 : ShowerHandel\_60, Cabrinians\_58, Vivum\_58, OlympiaSaint\_59, Zizzle\_61, Burwell21\_55, Seabastian\_62, Jinglebell\_62, Brocalys\_52, OfUltron\_62, SiSi\_55, Kimberlium\_59, Oksu\_61, LastJedi\_51, Dante\_58, Martik\_57, Emmaloid\_58, Lizziana\_63, DaWorst\_58, Starcevich\_56, Latretium\_59, Llama\_62, KristaRAM\_60, SeaLumen\_61, AlpineSix\_62, LunaBlu\_59, Chuckly\_60, Violac\_59, NewHope4\_58, ShiLan\_56, Mantra\_53, Clifton\_52, Hlubikazi\_53, Saal\_59, Radiance\_56, Alexphander\_61, Mwanjiwa\_63, MadMen\_55, Galactic\_56, Madiba\_55, Gorge\_61, Mattes\_61, Slim\_58, SwagPigglett\_62, Pippy\_55, FreddyB\_58, Ibhubesi\_57, Koella\_51, MulchExplorer\_59, Strokeseat\_53, QuickMath\_58, Priscilla\_57, PhilipPhlop\_57, GigiOuiOui\_53, Karhdo\_54, Rita\_58, Yorick\_56, Rialto\_63, Crumble\_52
- Track 3 : Fancypants\_59, Ochi17\_60, EmiMonkey\_55, BobaPhett\_61, Enzomatic\_63, Polo2Bam\_62
- Track 4 : Poenanya\_57, Empress\_55
- Track 5 : Kingsley\_54, Estave1\_60, Phatniss\_55, Llij\_53, LilMoolah\_55, Drago\_55, Scottish\_55, Sabbb\_61, Mova\_58, DRBy19\_60, Spikelee\_64, OldBen\_54, SimranZ1\_57, Velveteen\_52, Leozinho\_56, Brookers\_54, Renaud18\_62, DosHalletts\_59, Beanstalk\_57, Whouxphf\_54, LittleShirley\_56, Nichirin\_64, Peridot\_58, Doomslug\_66, Coco12\_56, ByChance\_49, Eish\_61, DaddyRickover\_56, James\_61, VRedHorse\_57, Maravista\_58, Sarma624\_55, UncleRicky\_56, Tootsieroll\_58, Nivrat\_53, Lucia\_56, Philus\_60, Ovechkin\_56, Mutaforma13\_61, Mahavrat\_55, Lorde\_57, Royals2015\_60
- Track 6 : DirtMcgirt\_56, Job42\_59, Blexus\_55, Firehouse51\_58, BigPhil\_53, BlueCrab\_57, Totinger\_56, Cerasum\_53, Plumbus\_59
- Track 7 : IbOuu\_56, Eradicator\_50, MinionDave\_56, Guppsters\_58
- Track 8 : IrishSherpFalk\_58, Spartacus\_59, WillSterrel\_58
- Track 9 : Jarcob\_57, Pollywog\_58, NormanBulbieJr\_57, Jennelsea\_54, Modragons\_61, Doug\_59, Mandlovu\_53
- Track 10 : Taj\_61, CaptainTrips\_54
- Track 11 : Kersh\_59, ShroomBoi\_59, KingJulian\_57, PatoPoderoso\_54, Corium\_54
- Track 12 : Seagreen\_57, Phasih\_55, Soul22\_63, JalFarm20\_70, TChen\_57, Harley\_60, Gandalph\_60, LunaStella\_55, Che8\_62, ThetaBob\_61, Yoshi\_69,

- Juice456\_58, EleanorGeorge\_58
- Track 13 : Hades\_58, DeadP\_63
  - Track 14 : Topiatin\_64
  - Track 15 : Sassafras\_55, Inventum\_52
  - Track 16 : Cornucopia\_59
  - Track 17 : Medindi\_54, Melissauren88\_56, Beakin\_59, Bipolar\_56, Ms6\_53, Krakatau\_55
  - Track 18 : Girr\_55, Ruby\_53, MisterCuddles\_55
  - Track 19 : Deb65\_52, Leperchaun\_49, Daenerys\_51, JoeyJr\_52, RedBird\_55, PHappiness\_52, Dorothy\_55, Stap\_55, Geralt\_52, RitaG\_52, BodEinwohner17\_57, KingMidas\_56, Pacc40\_51, Spoonbill\_54, Doomphist\_57, Nimbo\_51, Polka14\_55
  - Track 20 : Kenuha5\_55
  - Track 21 : Jant\_61
  - Track 22 : Juniper1\_55
  - Track 23 : Byougenkin\_55
  - Track 24 : Hegedechwinu\_57, BuzzLyseyear\_63, SG4\_54, Enby\_58
  - Track 25 : Mozy\_66
  - Track 26 : OwlsT2W\_57
  - Track 27 : Nitzel\_55
  - Track 28 : DotProduct\_52, Grimmer\_67
  - Track 29 : PMC\_54, Boomer\_62
  - Track 30 : RockyHorror\_58, Marker\_59, DillTech15\_54, Fastidio\_57
  - Track 31 : IMpilo\_53
  - Track 32 : Zerg\_57
  - Track 33 : Rockne\_58
  - Track 34 : GUmbe\_55
  - Track 35 : Jabbawokkie\_71, Blarby\_69, Zapner\_70
  - Track 36 : Avani\_65
  - Track 37 : Demsculpinboyz\_67
  - Track 38 : Cornie\_52, Cheese puff\_63, Che9d\_65, DoRead\_59
  - Track 39 : Baudelaire\_89, Aegeus\_89
  - Track 40 : Stellammi\_71
  - Track 41 : Gaia\_72, Nebkiss\_72
  - Track 42 : GMA1\_49

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

The start number called the most often in the published annotations is 3, it was called in 158 of the 201 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alexphander\_61, AlpineSix\_62, Avani\_65, Beanstalk\_57, Blarby\_69, BodEinwohner17\_57, Brocalys\_52, Brookers\_54, Burwell21\_55, ByChance\_49, Byougenkin\_55, Cabrinians\_58, CaptainTrips\_54, Che8\_62, Che9d\_65, Cheese puff\_63, Chuckly\_60, Clifton\_52, Coco12\_56, Corium\_54, Cornie\_52, Cornucopia\_59, Crumble\_52, DRBy19\_60, DaWorst\_58, DaddyRickover\_56, Daenerys\_51, Dante\_58, Deb65\_52, Demsculpinboyz\_67, DillTech15\_54, DoRead\_59, Doomphist\_57, Doomslug\_66, Dorothy\_55, DosHalletts\_59, Drago\_55, Eish\_61, EleanorGeorge\_58, Emmaloid\_58, Eradicator\_50, Estave1\_60, Fastidio\_57, FreddyB\_58, Galactic\_56, Gandolph\_60, Geralt\_52, GigiOuiOui\_53, Girr\_55,

Gorge\_61, Guppsters\_58, Harley\_60, Hlubikazi\_53, IbOuu\_56, Ibhubesi\_57, Inventum\_52, IrishSherpFalk\_58, Jabbawokkie\_71, JalFarm20\_70, James\_61, Jant\_61, Jinglebell\_62, JoeyJr\_52, Juice456\_58, Juniper1\_55, Karhdo\_54, Kersh\_59, Kimberlium\_59, KingJulian\_57, KingMidas\_56, Kingsley\_54, Koella\_51, KristaRAM\_60, LastJedi\_51, Latretium\_59, Leozinho\_56, Leperchaun\_49, LilMoolah\_55, LittleShirley\_56, Lizziana\_63, Llama\_62, Llij\_53, Lorde\_57, Lucia\_56, LunaBlu\_59, LunaStella\_55, MadMen\_55, Madiba\_55, Mahavrat\_55, Mantra\_53, Maravista\_58, Marker\_59, Martik\_57, Mattes\_61, MinionDave\_56, MisterCuddles\_55, Mova\_58, Mozy\_66, MulchExplorer\_59, Mutaforma13\_61, Mwanjiwa\_63, NewHope4\_58, Nichirin\_64, Nimbo\_51, Nivrat\_53, OfUltron\_62, Oksu\_61, OldBen\_54, OlympiaSaint\_59, Ovechkin\_56, OwlsT2W\_57, PHappiness\_52, Pacc40\_51, PatoPoderoso\_54, Peridot\_58, Phasih\_55, Phatniss\_55, Philus\_60, PhilipPhlop\_57, Pippy\_55, Polka14\_55, Priscilla\_57, QuickMath\_58, Radiance\_56, RedBird\_55, Renaud18\_62, Rialto\_63, RitaG\_52, Rita\_58, RockyHorror\_58, Royals2015\_60, Ruby\_53, Saal\_59, Sabbb\_61, Sarma624\_55, Sassafras\_55, Scottish\_55, SeaLumen\_61, Seabastian\_62, Seagreen\_57, ShiLan\_56, ShowerHandel\_60, ShroomBoi\_59, SiSi\_55, SimranZ1\_57, Slim\_58, Soul22\_63, Spartacus\_59, Spikelee\_64, Spoonbill\_54, Stap\_55, Starcevich\_56, Strokeseat\_53, SwagPigglett\_62, TChen\_57, Taj\_61, ThetaBob\_61, Tootsieroll\_58, Topiatin\_64, UncleRicky\_56, VRedHorse\_57, Velveteen\_52, Violac\_59, Vivum\_58, Whouxphf\_54, WillSterrel\_58, Yorick\_56, Yoshi\_69, Zapner\_70, Zizzle\_61,

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

- Beakin\_59, BigPhil\_53, Bipolar\_56, Blexus\_55, BlueCrab\_57, BobaPhett\_61, Boomer\_62, BuzzLyseyear\_63, Cerasum\_53, Clank\_62, DeadP\_63, DirtMcgirt\_56, DotProduct\_52, Doug\_59, EmiMonkey\_55, Empress\_55, Enby\_58, Enzomatic\_63, Fancypants\_59, Firehouse51\_58, GUmbie\_55, Grimmer\_67, Hades\_58, Hegedechwinu\_57, IMpilo\_53, Jarcob\_57, Jennelsea\_54, Job42\_59, Kenuha5\_55, Krakatau\_55, Mandlovu\_53, Medindi\_54, Melissauren88\_56, Modragons\_61, Ms6\_53, Nitzel\_55, NormanBulbieJr\_57, Ochi17\_60, PMC\_54, Plumbus\_59, Poenanya\_57, Pollywog\_58, Polo2Bam\_62, Rockne\_58, SG4\_54, Totinger\_56, Zerg\_57,

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

- Aegeus\_89, Baudelaire\_89, GMA1\_49, Gaia\_72, Nebkiss\_72, Stellammi\_71,

### Summary by start number:

Start 1:

- Found in 192 of 223 ( 86.1% ) of genes in pham
- Manual Annotations of this start: 12 of 201
- Called 9.9% of time when present
- Phage (with cluster) where this start called: Beakin\_59 (F1), Bipolar\_56 (F1), BobaPhett\_61 (F1), Boomer\_62 (F1), Clank\_62 (F), DotProduct\_52 (F1), EmiMonkey\_55 (F1), Enzomatic\_63 (F1), Fancypants\_59 (F1), GUmbie\_55 (F1), Grimmer\_67 (F1), Kenuha5\_55 (F1), Krakatau\_55 (F1), Medindi\_54 (F1), Melissauren88\_56 (F1), Ms6\_53 (F1), Ochi17\_60 (F1), PMC\_54 (F1), Polo2Bam\_62 (F1),

Start 2:

- Found in 192 of 223 ( 86.1% ) of genes in pham
- Manual Annotations of this start: 26 of 201
- Called 14.6% of time when present

- Phage (with cluster) where this start called: BigPhil\_53 (F1), Blexus\_55 (F1), BlueCrab\_57 (F1), BuzzLyseyear\_63 (F1), Cerasum\_53 (F1), DeadP\_63 (F1), DirtMcgirt\_56 (F1), Doug\_59 (F1), Empress\_55 (F1), Enby\_58 (F1), Firehouse51\_58 (F1), Hades\_58 (F1), Hegedechwinu\_57 (F1), IMpilo\_53 (F1), Jarcob\_57 (F1), Jennelsea\_54 (F1), Job42\_59 (F1), Mandlovu\_53 (F1), Modragons\_61 (F1), Nitzel\_55 (F1), NormanBulbieJr\_57 (F1), Plumbus\_59 (F1), Poenanya\_57 (F1), Pollywog\_58 (F1), Rockne\_58 (F1), SG4\_54 (F1), Totinger\_56 (F1), Zerg\_57 (F1),

Start 3:

- Found in 217 of 223 ( 97.3% ) of genes in pham
- Manual Annotations of this start: 158 of 201
- Called 78.3% of time when present
- Phage (with cluster) where this start called: Alexphander\_61 (F1), AlpineSix\_62 (F1), Avani\_65 (F2), Beanstalk\_57 (F1), Blarby\_69 (F), BodEinwohner17\_57 (F1), Brocalys\_52 (F1), Brookers\_54 (F1), Burwell21\_55 (F1), ByChance\_49 (F1), Byougenkin\_55 (F1), Cabrinians\_58 (F1), CaptainTrips\_54 (F1), Che8\_62 (F1), Che9d\_65 (F2), Cheesepuff\_63 (F1), Chuckly\_60 (F1), Clifton\_52 (F1), Coco12\_56 (F1), Corium\_54 (F1), Cornie\_52 (F5), Cornucopia\_59 (F1), Crumble\_52 (F1), DRBy19\_60 (F1), DaWorst\_58 (F1), DaddyRickover\_56 (F1), Daenerys\_51 (F1), Dante\_58 (F1), Deb65\_52 (F1), Demsculpinboyz\_67 (F2), DillTech15\_54 (F1), DoRead\_59 (F1), Doomphist\_57 (F1), Doomslug\_66 (F), Dorothy\_55 (F1), DosHalletts\_59 (F1), Drago\_55 (F1), Eish\_61 (F1), EleanorGeorge\_58 (F1), Emmaloid\_58 (F1), Eradicator\_50 (F1), Estave1\_60 (F1), Fastidio\_57 (F1), FreddyB\_58 (F1), Galactic\_56 (F1), Gandalph\_60 (F1), Geralt\_52 (F1), GigiOuiOui\_53 (F1), Girr\_55 (F1), Gorge\_61 (F1), Guppsters\_58 (F1), Harley\_60 (F1), Hlubikazi\_53 (F1), IbOuu\_56 (F1), Ibhubesi\_57 (F1), Inventum\_52 (F1), IrishSherpFalk\_58 (F1), Jabbawokkie\_71 (F2), JalFarm20\_70 (F1), James\_61 (F1), Jant\_61 (F1), Jinglebell\_62 (F1), JoeyJr\_52 (F1), Juice456\_58 (F1), Juniper1\_55 (F1), Karhdo\_54 (F1), Kersh\_59 (F1), Kimberlium\_59 (F1), KingJulian\_57 (F1), KingMidas\_56 (F1), Kingsley\_54 (F1), Koella\_51 (F1), KristaRAM\_60 (F1), LastJedi\_51 (F1), Latretium\_59 (F1), Leozinho\_56 (F1), Leperchaun\_49 (F1), LilMoolah\_55 (F1), LittleShirley\_56 (F1), Lizziana\_63 (F1), Llama\_62 (F1), Llij\_53 (F1), Lorde\_57 (F1), Lucia\_56 (F1), LunaBlu\_59 (F1), LunaStella\_55 (F4), MadMen\_55 (F1), Madiba\_55 (F1), Mahavrat\_55 (F1), Mantra\_53 (F1), Maravista\_58 (F1), Marker\_59 (F1), Martik\_57 (F1), Mattes\_61 (F1), MinionDave\_56 (F1), MisterCuddles\_55 (F1), Mova\_58 (F1), Mozy\_66 (F1), MulchExplorer\_59 (F1), Mutaforma13\_61 (F1), Mwanjiwa\_63 (F1), NewHope4\_58 (F1), Nichirin\_64 (F1), Nimbo\_51 (F1), Nivrat\_53 (F1), OfUltron\_62 (F1), Oksu\_61 (F1), OldBen\_54 (F1), OlympiaSaint\_59 (F1), Ovechkin\_56 (F1), OwlsT2W\_57 (F1), PHappiness\_52 (F1), Pacc40\_51 (F1), PatoPoderoso\_54 (F1), Peridot\_58 (F1), Phasih\_55 (F1), Phatniss\_55 (F1), Philus\_60 (F1), PhilipPhlop\_57 (F1), Pippy\_55 (F1), Polka14\_55 (F1), Priscilla\_57 (F1), QuickMath\_58 (F1), Radiance\_56 (F1), RedBird\_55 (F1), Renaud18\_62 (F4), Rialto\_63 (F1), RitaG\_52 (F1), Rita\_58 (F1), RockyHorror\_58 (F1), Royals2015\_60 (F1), Ruby\_53 (F1), Saal\_59 (F1), Sabbb\_61 (F1), Sarma624\_55 (F1), Sassafra\_55 (F1), Scottish\_55 (F1), SeaLumen\_61 (F1), Seabastian\_62 (F1), Seagreen\_57 (F1), ShiLan\_56 (F1), ShowerHandel\_60 (F1), ShroomBoi\_59 (F1), SiSi\_55 (F1), SimranZ1\_57 (F1), Slim\_58 (F1), Soul22\_63 (F2), Spartacus\_59 (F1), Spikelee\_64 (F1), Spoonbill\_54 (F1), Stap\_55 (F1), Starceвич\_56 (F1), Strokeseat\_53 (F1), SwagPigglett\_62 (F1), TChen\_57 (F4), Taj\_61 (F1), ThetaBob\_61 (F4), Tootsieroll\_58 (F1), Topiatin\_64 (F1), UncleRicky\_56 (F1), VRedHorse\_57 (F1), Velveteen\_52 (F1), Violac\_59 (F1), Vivum\_58 (F1), Whouxphf\_54 (F1), WillSterrel\_58 (F1), Yorick\_56 (F1), Yoshi\_69 (F2), Zapner\_70 (F2), Zizzle\_61 (F1),

Start 4:

- Found in 1 of 223 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 201
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Stellammi\_71 (UNK),

Start 5:

- Found in 3 of 223 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 2 of 201
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aegeus\_89 (L5), Baudelaire\_89 (L5), GMA1\_49 (singleton),

Start 6:

- Found in 2 of 223 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 2 of 201
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gaia\_72 (X), Nebkiss\_72 (X),

**Summary by clusters:**

There are 9 clusters represented in this pham: F1, F2, F4, F5, F, singleton, L5, X, UNK,

Info for manual annotations of cluster F1:

- Start number 1 was manually annotated 12 times for cluster F1.
- Start number 2 was manually annotated 26 times for cluster F1.
- Start number 3 was manually annotated 146 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 3 was manually annotated 7 times for cluster F2.

Info for manual annotations of cluster F4:

- Start number 3 was manually annotated 4 times for cluster F4.

Info for manual annotations of cluster F5:

- Start number 3 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster L5:

- Start number 5 was manually annotated 2 times for cluster L5.

Info for manual annotations of cluster UNK:

- Start number 4 was manually annotated 1 time for cluster UNK.

Info for manual annotations of cluster X:

- Start number 6 was manually annotated 2 times for cluster X.

**Gene Information:**

Gene: Aegeus\_89 Start: 55088, Stop: 55555, Start Num: 5

Candidate Starts for Aegeus\_89:

(Start: 5 @55088 has 2 MA's), (15, 55208), (23, 55310), (25, 55328), (28, 55352), (33, 55406), (35, 55412), (39, 55436),

Gene: Alexphander\_61 Start: 39449, Stop: 39943, Start Num: 3

Candidate Starts for Alexphander\_61:

(Start: 1 @39440 has 12 MA's), (Start: 2 @39446 has 26 MA's), (Start: 3 @39449 has 158 MA's), (7, 39473), (19, 39632), (21, 39653), (27, 39713), (31, 39746), (32, 39761), (42, 39830), (47, 39881),

Gene: AlpineSix\_62 Start: 41568, Stop: 42062, Start Num: 3

Candidate Starts for AlpineSix\_62:

(Start: 1 @41559 has 12 MA's), (Start: 2 @41565 has 26 MA's), (Start: 3 @41568 has 158 MA's), (7, 41592), (19, 41751), (21, 41772), (27, 41832), (31, 41865), (32, 41880), (42, 41949), (47, 42000),

Gene: Avani\_65 Start: 39767, Stop: 40261, Start Num: 3

Candidate Starts for Avani\_65:

(Start: 3 @39767 has 158 MA's), (7, 39791), (19, 39950), (21, 39971), (27, 40031), (31, 40064), (32, 40079), (42, 40148), (47, 40199), (48, 40250),

Gene: Baudelaire\_89 Start: 55088, Stop: 55555, Start Num: 5

Candidate Starts for Baudelaire\_89:

(Start: 5 @55088 has 2 MA's), (15, 55208), (23, 55310), (25, 55328), (28, 55352), (33, 55406), (35, 55412), (39, 55436),

Gene: Beakin\_59 Start: 38572, Stop: 38982, Start Num: 1

Candidate Starts for Beakin\_59:

(Start: 1 @38572 has 12 MA's), (Start: 2 @38578 has 26 MA's), (Start: 3 @38581 has 158 MA's), (7, 38605), (26, 38833), (27, 38842), (29, 38857), (30, 38860), (42, 38950),

Gene: Beanstalk\_57 Start: 37768, Stop: 38262, Start Num: 3

Candidate Starts for Beanstalk\_57:

(Start: 1 @37759 has 12 MA's), (Start: 2 @37765 has 26 MA's), (Start: 3 @37768 has 158 MA's), (19, 37951), (21, 37972), (27, 38032), (31, 38065), (32, 38080), (42, 38149), (47, 38200),

Gene: BigPhil\_53 Start: 35158, Stop: 35655, Start Num: 2

Candidate Starts for BigPhil\_53:

(Start: 1 @35152 has 12 MA's), (Start: 2 @35158 has 26 MA's), (Start: 3 @35161 has 158 MA's), (19, 35344), (21, 35365), (27, 35425), (31, 35458), (32, 35473), (42, 35542), (47, 35593),

Gene: Bipolar\_56 Start: 39193, Stop: 39603, Start Num: 1

Candidate Starts for Bipolar\_56:

(Start: 1 @39193 has 12 MA's), (Start: 2 @39199 has 26 MA's), (Start: 3 @39202 has 158 MA's), (7, 39226), (26, 39454), (27, 39463), (29, 39478), (30, 39481), (42, 39571),

Gene: Blarby\_69 Start: 40862, Stop: 41356, Start Num: 3

Candidate Starts for Blarby\_69:

(Start: 3 @40862 has 158 MA's), (7, 40886), (10, 40925), (19, 41045), (20, 41060), (21, 41066), (27, 41126), (31, 41159), (32, 41174), (34, 41186), (42, 41243), (47, 41294),

Gene: Blexus\_55 Start: 39416, Stop: 39913, Start Num: 2

Candidate Starts for Blexus\_55:

(Start: 1 @39410 has 12 MA's), (Start: 2 @39416 has 26 MA's), (Start: 3 @39419 has 158 MA's), (19, 39602), (21, 39623), (27, 39683), (31, 39716), (32, 39731), (42, 39800), (47, 39851),

Gene: BlueCrab\_57 Start: 39724, Stop: 40221, Start Num: 2

Candidate Starts for BlueCrab\_57:

(Start: 1 @39718 has 12 MA's), (Start: 2 @39724 has 26 MA's), (Start: 3 @39727 has 158 MA's), (19, 39910), (21, 39931), (27, 39991), (31, 40024), (32, 40039), (42, 40108), (47, 40159),

Gene: BobaPhett\_61 Start: 41669, Stop: 42172, Start Num: 1

Candidate Starts for BobaPhett\_61:

(Start: 1 @41669 has 12 MA's), (Start: 2 @41675 has 26 MA's), (Start: 3 @41678 has 158 MA's), (7, 41702), (19, 41861), (21, 41882), (27, 41942), (31, 41975), (32, 41990), (42, 42059), (47, 42110),

Gene: BodEinwohner17\_57 Start: 38489, Stop: 38983, Start Num: 3

Candidate Starts for BodEinwohner17\_57:

(Start: 1 @38480 has 12 MA's), (Start: 2 @38486 has 26 MA's), (Start: 3 @38489 has 158 MA's), (19, 38672), (20, 38687), (21, 38693), (27, 38753), (32, 38801), (34, 38813), (42, 38870), (47, 38921),

Gene: Boomer\_62 Start: 41344, Stop: 41847, Start Num: 1

Candidate Starts for Boomer\_62:

(Start: 1 @41344 has 12 MA's), (Start: 2 @41350 has 26 MA's), (Start: 3 @41353 has 158 MA's), (19, 41536), (21, 41557), (27, 41617), (31, 41650), (32, 41665), (43, 41743), (47, 41785),

Gene: Brocalys\_52 Start: 35863, Stop: 36357, Start Num: 3

Candidate Starts for Brocalys\_52:

(Start: 1 @35854 has 12 MA's), (Start: 2 @35860 has 26 MA's), (Start: 3 @35863 has 158 MA's), (7, 35887), (19, 36046), (21, 36067), (27, 36127), (31, 36160), (32, 36175), (42, 36244), (47, 36295),

Gene: Brookers\_54 Start: 38112, Stop: 38606, Start Num: 3

Candidate Starts for Brookers\_54:

(Start: 1 @38103 has 12 MA's), (Start: 2 @38109 has 26 MA's), (Start: 3 @38112 has 158 MA's), (19, 38295), (21, 38316), (27, 38376), (31, 38409), (32, 38424), (42, 38493), (47, 38544),

Gene: Burwell21\_55 Start: 38961, Stop: 39455, Start Num: 3

Candidate Starts for Burwell21\_55:

(Start: 1 @38952 has 12 MA's), (Start: 2 @38958 has 26 MA's), (Start: 3 @38961 has 158 MA's), (7, 38985), (19, 39144), (21, 39165), (27, 39225), (31, 39258), (32, 39273), (42, 39342), (47, 39393),

Gene: BuzzLyseyear\_63 Start: 40382, Stop: 40879, Start Num: 2

Candidate Starts for BuzzLyseyear\_63:

(Start: 1 @40376 has 12 MA's), (Start: 2 @40382 has 26 MA's), (Start: 3 @40385 has 158 MA's), (19, 40568), (20, 40583), (21, 40589), (27, 40649), (31, 40682), (32, 40697), (42, 40766), (47, 40817),

Gene: ByChance\_49 Start: 34652, Stop: 35146, Start Num: 3

Candidate Starts for ByChance\_49:

(Start: 1 @34643 has 12 MA's), (Start: 2 @34649 has 26 MA's), (Start: 3 @34652 has 158 MA's), (19, 34835), (21, 34856), (27, 34916), (31, 34949), (32, 34964), (42, 35033), (47, 35084),

Gene: Byougenkin\_55 Start: 38728, Stop: 39222, Start Num: 3

Candidate Starts for Byougenkin\_55:

(Start: 3 @38728 has 158 MA's), (19, 38911), (21, 38932), (27, 38992), (31, 39025), (32, 39040), (43, 39118), (47, 39160),

Gene: Cabrinians\_58 Start: 39039, Stop: 39533, Start Num: 3

Candidate Starts for Cabrinians\_58:

(Start: 1 @39030 has 12 MA's), (Start: 2 @39036 has 26 MA's), (Start: 3 @39039 has 158 MA's), (7, 39063), (19, 39222), (21, 39243), (27, 39303), (31, 39336), (32, 39351), (42, 39420), (47, 39471),

Gene: CaptainTrips\_54 Start: 38535, Stop: 39029, Start Num: 3

Candidate Starts for CaptainTrips\_54:

(Start: 1 @38526 has 12 MA's), (Start: 2 @38532 has 26 MA's), (Start: 3 @38535 has 158 MA's), (7, 38559), (19, 38718), (20, 38733), (21, 38739), (27, 38799), (31, 38832), (32, 38847), (42, 38916), (47, 38967),

Gene: Cerasum\_53 Start: 35176, Stop: 35673, Start Num: 2

Candidate Starts for Cerasum\_53:

(Start: 1 @35170 has 12 MA's), (Start: 2 @35176 has 26 MA's), (Start: 3 @35179 has 158 MA's), (19, 35362), (21, 35383), (27, 35443), (31, 35476), (32, 35491), (42, 35560), (47, 35611),

Gene: Che8\_62 Start: 41668, Stop: 42162, Start Num: 3

Candidate Starts for Che8\_62:

(Start: 3 @41668 has 158 MA's), (19, 41851), (21, 41872), (27, 41932), (31, 41965), (32, 41980), (42, 42049), (47, 42100),

Gene: Che9d\_65 Start: 38750, Stop: 39244, Start Num: 3

Candidate Starts for Che9d\_65:

(Start: 3 @38750 has 158 MA's), (7, 38774), (10, 38813), (16, 38906), (19, 38933), (20, 38948), (21, 38954), (27, 39014), (32, 39062), (34, 39074), (43, 39140), (47, 39182),

Gene: Cheesepuff\_63 Start: 40792, Stop: 41286, Start Num: 3

Candidate Starts for Cheesepuff\_63:

(Start: 3 @40792 has 158 MA's), (7, 40816), (10, 40855), (16, 40948), (19, 40975), (20, 40990), (21, 40996), (27, 41056), (32, 41104), (34, 41116), (43, 41182), (47, 41224),

Gene: Chuckly\_60 Start: 39681, Stop: 40175, Start Num: 3

Candidate Starts for Chuckly\_60:

(Start: 1 @39672 has 12 MA's), (Start: 2 @39678 has 26 MA's), (Start: 3 @39681 has 158 MA's), (7, 39705), (19, 39864), (21, 39885), (27, 39945), (31, 39978), (32, 39993), (42, 40062), (47, 40113),

Gene: Clank\_62 Start: 40002, Stop: 40505, Start Num: 1

Candidate Starts for Clank\_62:

(Start: 1 @40002 has 12 MA's), (Start: 2 @40008 has 26 MA's), (Start: 3 @40011 has 158 MA's), (16, 40167), (19, 40194), (21, 40215), (27, 40275), (31, 40308), (32, 40323), (42, 40392), (47, 40443),

Gene: Clifton\_52 Start: 36214, Stop: 36708, Start Num: 3

Candidate Starts for Clifton\_52:

(Start: 1 @36205 has 12 MA's), (Start: 2 @36211 has 26 MA's), (Start: 3 @36214 has 158 MA's), (7, 36238), (19, 36397), (21, 36418), (27, 36478), (31, 36511), (32, 36526), (42, 36595), (47, 36646),

Gene: Coco12\_56 Start: 39236, Stop: 39730, Start Num: 3

Candidate Starts for Coco12\_56:

(Start: 1 @39227 has 12 MA's), (Start: 2 @39233 has 26 MA's), (Start: 3 @39236 has 158 MA's), (19, 39419), (21, 39440), (27, 39500), (31, 39533), (32, 39548), (42, 39617), (47, 39668),

Gene: Corium\_54 Start: 38078, Stop: 38572, Start Num: 3

Candidate Starts for Corium\_54:

(Start: 1 @38069 has 12 MA's), (Start: 2 @38075 has 26 MA's), (Start: 3 @38078 has 158 MA's), (7, 38102), (16, 38234), (19, 38261), (21, 38282), (27, 38342), (31, 38375), (32, 38390), (42, 38459), (47, 38510),

Gene: Cornie\_52 Start: 37254, Stop: 37748, Start Num: 3

Candidate Starts for Cornie\_52:

(Start: 3 @37254 has 158 MA's), (7, 37278), (10, 37317), (16, 37410), (19, 37437), (20, 37452), (21, 37458), (27, 37518), (32, 37566), (34, 37578), (43, 37644), (47, 37686),

Gene: Cornucopia\_59 Start: 39695, Stop: 40189, Start Num: 3

Candidate Starts for Cornucopia\_59:

(Start: 3 @39695 has 158 MA's), (7, 39719), (19, 39878), (21, 39899), (27, 39959), (31, 39992), (32, 40007), (42, 40076), (47, 40127),

Gene: Crumble\_52 Start: 34975, Stop: 35469, Start Num: 3

Candidate Starts for Crumble\_52:

(Start: 1 @34966 has 12 MA's), (Start: 2 @34972 has 26 MA's), (Start: 3 @34975 has 158 MA's), (7, 34999), (19, 35158), (21, 35179), (27, 35239), (31, 35272), (32, 35287), (42, 35356), (47, 35407),

Gene: DRBy19\_60 Start: 40139, Stop: 40633, Start Num: 3

Candidate Starts for DRBy19\_60:

(Start: 1 @40130 has 12 MA's), (Start: 2 @40136 has 26 MA's), (Start: 3 @40139 has 158 MA's), (19, 40322), (21, 40343), (27, 40403), (31, 40436), (32, 40451), (42, 40520), (47, 40571),

Gene: DaWorst\_58 Start: 39440, Stop: 39934, Start Num: 3

Candidate Starts for DaWorst\_58:

(Start: 1 @39431 has 12 MA's), (Start: 2 @39437 has 26 MA's), (Start: 3 @39440 has 158 MA's), (7, 39464), (19, 39623), (21, 39644), (27, 39704), (31, 39737), (32, 39752), (42, 39821), (47, 39872),

Gene: DaddyRickover\_56 Start: 39178, Stop: 39672, Start Num: 3

Candidate Starts for DaddyRickover\_56:

(Start: 1 @39169 has 12 MA's), (Start: 2 @39175 has 26 MA's), (Start: 3 @39178 has 158 MA's), (19, 39361), (21, 39382), (27, 39442), (31, 39475), (32, 39490), (42, 39559), (47, 39610),

Gene: Daenerys\_51 Start: 37294, Stop: 37788, Start Num: 3

Candidate Starts for Daenerys\_51:

(Start: 1 @37285 has 12 MA's), (Start: 2 @37291 has 26 MA's), (Start: 3 @37294 has 158 MA's), (19, 37477), (20, 37492), (21, 37498), (27, 37558), (32, 37606), (34, 37618), (42, 37675), (47, 37726),

Gene: Dante\_58 Start: 38963, Stop: 39457, Start Num: 3

Candidate Starts for Dante\_58:

(Start: 1 @38954 has 12 MA's), (Start: 2 @38960 has 26 MA's), (Start: 3 @38963 has 158 MA's), (7, 38987), (19, 39146), (21, 39167), (27, 39227), (31, 39260), (32, 39275), (42, 39344), (47, 39395),

Gene: DeadP\_63 Start: 41612, Stop: 42103, Start Num: 2

Candidate Starts for DeadP\_63:

(Start: 1 @41606 has 12 MA's), (Start: 2 @41612 has 26 MA's), (Start: 3 @41615 has 158 MA's), (7, 41639), (19, 41792), (20, 41807), (21, 41813), (27, 41873), (31, 41906), (32, 41921), (42, 41990), (47, 42041),

Gene: Deb65\_52 Start: 37263, Stop: 37757, Start Num: 3

Candidate Starts for Deb65\_52:

(Start: 1 @37254 has 12 MA's), (Start: 2 @37260 has 26 MA's), (Start: 3 @37263 has 158 MA's), (19, 37446), (20, 37461), (21, 37467), (27, 37527), (32, 37575), (34, 37587), (42, 37644), (47, 37695),

Gene: Demsculpinboyz\_67 Start: 38751, Stop: 39245, Start Num: 3

Candidate Starts for Demsculpinboyz\_67:

(Start: 3 @38751 has 158 MA's), (16, 38907), (19, 38934), (20, 38949), (21, 38955), (27, 39015), (32, 39063), (34, 39075), (43, 39141), (47, 39183),

Gene: DillTech15\_54 Start: 37628, Stop: 38122, Start Num: 3

Candidate Starts for DillTech15\_54:

(Start: 1 @37619 has 12 MA's), (Start: 2 @37625 has 26 MA's), (Start: 3 @37628 has 158 MA's), (16, 37784), (19, 37811), (21, 37832), (27, 37892), (31, 37925), (32, 37940), (42, 38009), (47, 38060),

Gene: DirtMcgirt\_56 Start: 37700, Stop: 38197, Start Num: 2

Candidate Starts for DirtMcgirt\_56:

(Start: 1 @37694 has 12 MA's), (Start: 2 @37700 has 26 MA's), (Start: 3 @37703 has 158 MA's), (19, 37886), (21, 37907), (27, 37967), (31, 38000), (32, 38015), (42, 38084), (47, 38135),

Gene: DoRead\_59 Start: 38163, Stop: 38657, Start Num: 3

Candidate Starts for DoRead\_59:

(Start: 3 @38163 has 158 MA's), (7, 38187), (10, 38226), (16, 38319), (19, 38346), (20, 38361), (21, 38367), (27, 38427), (32, 38475), (34, 38487), (43, 38553), (47, 38595),

Gene: Doomphist\_57 Start: 40139, Stop: 40633, Start Num: 3

Candidate Starts for Doomphist\_57:

(Start: 1 @40130 has 12 MA's), (Start: 2 @40136 has 26 MA's), (Start: 3 @40139 has 158 MA's), (19, 40322), (20, 40337), (21, 40343), (27, 40403), (32, 40451), (34, 40463), (42, 40520), (47, 40571),

Gene: Doomslug\_66 Start: 39559, Stop: 40053, Start Num: 3

Candidate Starts for Doomslug\_66:

(Start: 1 @39550 has 12 MA's), (Start: 2 @39556 has 26 MA's), (Start: 3 @39559 has 158 MA's), (19, 39742), (21, 39763), (27, 39823), (31, 39856), (32, 39871), (42, 39940), (47, 39991),

Gene: Dorothy\_55 Start: 38358, Stop: 38852, Start Num: 3

Candidate Starts for Dorothy\_55:

(Start: 1 @38349 has 12 MA's), (Start: 2 @38355 has 26 MA's), (Start: 3 @38358 has 158 MA's), (19, 38541), (20, 38556), (21, 38562), (27, 38622), (32, 38670), (34, 38682), (42, 38739), (47, 38790),

Gene: DosHalletts\_59 Start: 40494, Stop: 40988, Start Num: 3

Candidate Starts for DosHalletts\_59:

(Start: 1 @40485 has 12 MA's), (Start: 2 @40491 has 26 MA's), (Start: 3 @40494 has 158 MA's), (19, 40677), (21, 40698), (27, 40758), (31, 40791), (32, 40806), (42, 40875), (47, 40926),

Gene: DotProduct\_52 Start: 37748, Stop: 38251, Start Num: 1

Candidate Starts for DotProduct\_52:

(Start: 1 @37748 has 12 MA's), (Start: 2 @37754 has 26 MA's), (Start: 3 @37757 has 158 MA's), (19, 37940), (21, 37961), (27, 38021), (31, 38054), (32, 38069), (42, 38138), (47, 38189),

Gene: Doug\_59 Start: 39703, Stop: 40200, Start Num: 2

Candidate Starts for Doug\_59:

(Start: 1 @39697 has 12 MA's), (Start: 2 @39703 has 26 MA's), (Start: 3 @39706 has 158 MA's), (7, 39730), (19, 39889), (21, 39910), (27, 39970), (31, 40003), (32, 40018), (42, 40087), (47, 40138),

Gene: Drago\_55 Start: 37706, Stop: 38200, Start Num: 3

Candidate Starts for Drago\_55:

(Start: 1 @37697 has 12 MA's), (Start: 2 @37703 has 26 MA's), (Start: 3 @37706 has 158 MA's), (19, 37889), (21, 37910), (27, 37970), (31, 38003), (32, 38018), (42, 38087), (47, 38138),

Gene: Eish\_61 Start: 39955, Stop: 40449, Start Num: 3

Candidate Starts for Eish\_61:

(Start: 1 @39946 has 12 MA's), (Start: 2 @39952 has 26 MA's), (Start: 3 @39955 has 158 MA's), (19, 40138), (21, 40159), (27, 40219), (31, 40252), (32, 40267), (42, 40336), (47, 40387),

Gene: EleanorGeorge\_58 Start: 39822, Stop: 40316, Start Num: 3

Candidate Starts for EleanorGeorge\_58:

(Start: 3 @39822 has 158 MA's), (19, 40005), (21, 40026), (27, 40086), (31, 40119), (32, 40134), (42, 40203), (47, 40254),

Gene: EmiMonkey\_55 Start: 40660, Stop: 41163, Start Num: 1

Candidate Starts for EmiMonkey\_55:

(Start: 1 @40660 has 12 MA's), (Start: 2 @40666 has 26 MA's), (Start: 3 @40669 has 158 MA's), (7, 40693), (19, 40852), (21, 40873), (27, 40933), (31, 40966), (32, 40981), (42, 41050), (47, 41101),

Gene: Emmaloid\_58 Start: 39765, Stop: 40259, Start Num: 3

Candidate Starts for Emmaloid\_58:

(Start: 1 @39756 has 12 MA's), (Start: 2 @39762 has 26 MA's), (Start: 3 @39765 has 158 MA's), (7, 39789), (19, 39948), (21, 39969), (27, 40029), (31, 40062), (32, 40077), (42, 40146), (47, 40197),

Gene: Empress\_55 Start: 38705, Stop: 39202, Start Num: 2

Candidate Starts for Empress\_55:

(Start: 1 @38699 has 12 MA's), (Start: 2 @38705 has 26 MA's), (Start: 3 @38708 has 158 MA's), (19, 38891), (20, 38906), (21, 38912), (27, 38972), (32, 39020), (34, 39032), (42, 39089), (47, 39140),

Gene: Enby\_58 Start: 37979, Stop: 38476, Start Num: 2

Candidate Starts for Enby\_58:

(Start: 1 @37973 has 12 MA's), (Start: 2 @37979 has 26 MA's), (Start: 3 @37982 has 158 MA's), (19, 38165), (20, 38180), (21, 38186), (27, 38246), (31, 38279), (32, 38294), (42, 38363), (47, 38414),

Gene: Enzomatic\_63 Start: 38803, Stop: 39306, Start Num: 1

Candidate Starts for Enzomatic\_63:

(Start: 1 @38803 has 12 MA's), (Start: 2 @38809 has 26 MA's), (Start: 3 @38812 has 158 MA's), (7, 38836), (19, 38995), (21, 39016), (27, 39076), (31, 39109), (32, 39124), (42, 39193), (47, 39244),

Gene: Eradicator\_50 Start: 37235, Stop: 37729, Start Num: 3

Candidate Starts for Eradicator\_50:

(Start: 1 @37226 has 12 MA's), (Start: 2 @37232 has 26 MA's), (Start: 3 @37235 has 158 MA's), (19, 37418), (20, 37433), (21, 37439), (27, 37499), (31, 37532), (32, 37547), (42, 37616), (47, 37667),

Gene: Estave1\_60 Start: 40159, Stop: 40653, Start Num: 3

Candidate Starts for Estave1\_60:

(Start: 1 @40150 has 12 MA's), (Start: 2 @40156 has 26 MA's), (Start: 3 @40159 has 158 MA's), (19, 40342), (21, 40363), (27, 40423), (31, 40456), (32, 40471), (42, 40540), (47, 40591),

Gene: Fancypants\_59 Start: 39664, Stop: 40167, Start Num: 1

Candidate Starts for Fancypants\_59:

(Start: 1 @39664 has 12 MA's), (Start: 2 @39670 has 26 MA's), (Start: 3 @39673 has 158 MA's), (7, 39697), (19, 39856), (21, 39877), (27, 39937), (31, 39970), (32, 39985), (42, 40054), (47, 40105),

Gene: Fastidio\_57 Start: 37775, Stop: 38269, Start Num: 3

Candidate Starts for Fastidio\_57:

(Start: 1 @37766 has 12 MA's), (Start: 2 @37772 has 26 MA's), (Start: 3 @37775 has 158 MA's), (16, 37931), (19, 37958), (21, 37979), (27, 38039), (31, 38072), (32, 38087), (42, 38156), (47, 38207),

Gene: Firehouse51\_58 Start: 42554, Stop: 43051, Start Num: 2

Candidate Starts for Firehouse51\_58:

(Start: 1 @42548 has 12 MA's), (Start: 2 @42554 has 26 MA's), (Start: 3 @42557 has 158 MA's), (19, 42740), (21, 42761), (27, 42821), (31, 42854), (32, 42869), (42, 42938), (47, 42989),

Gene: FreddyB\_58 Start: 37887, Stop: 38381, Start Num: 3

Candidate Starts for FreddyB\_58:

(Start: 1 @37878 has 12 MA's), (Start: 2 @37884 has 26 MA's), (Start: 3 @37887 has 158 MA's), (7, 37911), (19, 38070), (21, 38091), (27, 38151), (31, 38184), (32, 38199), (42, 38268), (47, 38319),

Gene: GMA1\_49 Start: 32118, Stop: 32558, Start Num: 5

Candidate Starts for GMA1\_49:

(Start: 5 @32118 has 2 MA's), (11, 32190), (12, 32196), (13, 32202), (14, 32205), (18, 32274), (24, 32349), (28, 32376), (38, 32454), (40, 32475), (46, 32529),

Gene: GUmbie\_55 Start: 38453, Stop: 38956, Start Num: 1

Candidate Starts for GUmbie\_55:

(Start: 1 @38453 has 12 MA's), (Start: 2 @38459 has 26 MA's), (Start: 3 @38462 has 158 MA's), (19, 38645), (20, 38660), (21, 38666), (27, 38726), (31, 38759), (32, 38774), (42, 38843), (47, 38894),

Gene: Gaia\_72 Start: 46921, Stop: 47298, Start Num: 6

Candidate Starts for Gaia\_72:

(Start: 6 @46921 has 2 MA's), (8, 46930), (16, 47053), (17, 47068), (19, 47080), (37, 47221),

Gene: Galactic\_56 Start: 38928, Stop: 39422, Start Num: 3

Candidate Starts for Galactic\_56:

(Start: 1 @38919 has 12 MA's), (Start: 2 @38925 has 26 MA's), (Start: 3 @38928 has 158 MA's), (7, 38952), (19, 39111), (21, 39132), (27, 39192), (31, 39225), (32, 39240), (42, 39309), (47, 39360),

Gene: Gandalph\_60 Start: 39284, Stop: 39778, Start Num: 3

Candidate Starts for Gandalph\_60:

(Start: 3 @39284 has 158 MA's), (19, 39467), (21, 39488), (27, 39548), (31, 39581), (32, 39596), (42, 39665), (47, 39716),

Gene: Geralt\_52 Start: 37262, Stop: 37756, Start Num: 3

Candidate Starts for Geralt\_52:

(Start: 1 @37253 has 12 MA's), (Start: 2 @37259 has 26 MA's), (Start: 3 @37262 has 158 MA's), (19, 37445), (20, 37460), (21, 37466), (27, 37526), (32, 37574), (34, 37586), (42, 37643), (47, 37694),

Gene: GigiOuiOui\_53 Start: 37902, Stop: 38396, Start Num: 3

Candidate Starts for GigiOuiOui\_53:

(Start: 1 @37893 has 12 MA's), (Start: 2 @37899 has 26 MA's), (Start: 3 @37902 has 158 MA's), (7, 37926), (19, 38085), (21, 38106), (27, 38166), (31, 38199), (32, 38214), (42, 38283), (47, 38334),

Gene: Girr\_55 Start: 38769, Stop: 39263, Start Num: 3

Candidate Starts for Girr\_55:

(Start: 1 @38760 has 12 MA's), (Start: 2 @38766 has 26 MA's), (Start: 3 @38769 has 158 MA's), (7, 38793), (19, 38952), (21, 38973), (26, 39024), (27, 39033), (31, 39066), (32, 39081), (42, 39150), (47, 39201),

Gene: Gorge\_61 Start: 40404, Stop: 40898, Start Num: 3

Candidate Starts for Gorge\_61:

(Start: 1 @40395 has 12 MA's), (Start: 2 @40401 has 26 MA's), (Start: 3 @40404 has 158 MA's), (7, 40428), (19, 40587), (21, 40608), (27, 40668), (31, 40701), (32, 40716), (42, 40785), (47, 40836),

Gene: Grimmer\_67 Start: 40555, Stop: 41058, Start Num: 1

Candidate Starts for Grimmer\_67:

(Start: 1 @40555 has 12 MA's), (Start: 2 @40561 has 26 MA's), (Start: 3 @40564 has 158 MA's), (19, 40747), (21, 40768), (27, 40828), (31, 40861), (32, 40876), (42, 40945), (47, 40996),

Gene: Guppsters\_58 Start: 38592, Stop: 39086, Start Num: 3

Candidate Starts for Guppsters\_58:

(Start: 1 @38583 has 12 MA's), (Start: 2 @38589 has 26 MA's), (Start: 3 @38592 has 158 MA's), (19, 38775), (20, 38790), (21, 38796), (27, 38856), (31, 38889), (32, 38904), (42, 38973), (47, 39024),

Gene: Hades\_58 Start: 39857, Stop: 40354, Start Num: 2

Candidate Starts for Hades\_58:

(Start: 1 @39851 has 12 MA's), (Start: 2 @39857 has 26 MA's), (Start: 3 @39860 has 158 MA's), (7, 39884), (19, 40043), (20, 40058), (21, 40064), (27, 40124), (31, 40157), (32, 40172), (42, 40241), (47, 40292),

Gene: Harley\_60 Start: 39823, Stop: 40317, Start Num: 3

Candidate Starts for Harley\_60:

(Start: 3 @39823 has 158 MA's), (19, 40006), (21, 40027), (27, 40087), (31, 40120), (32, 40135), (42, 40204), (47, 40255),

Gene: Hegedechwinu\_57 Start: 38071, Stop: 38568, Start Num: 2

Candidate Starts for Hegedechwinu\_57:

(Start: 1 @38065 has 12 MA's), (Start: 2 @38071 has 26 MA's), (Start: 3 @38074 has 158 MA's), (19, 38257), (20, 38272), (21, 38278), (27, 38338), (31, 38371), (32, 38386), (42, 38455), (47, 38506),

Gene: Hlubikazi\_53 Start: 37080, Stop: 37574, Start Num: 3

Candidate Starts for Hlubikazi\_53:

(Start: 1 @37071 has 12 MA's), (Start: 2 @37077 has 26 MA's), (Start: 3 @37080 has 158 MA's), (7, 37104), (19, 37263), (21, 37284), (27, 37344), (31, 37377), (32, 37392), (42, 37461), (47, 37512),

Gene: IMpilo\_53 Start: 36915, Stop: 37412, Start Num: 2

Candidate Starts for IMpilo\_53:

(Start: 1 @36909 has 12 MA's), (Start: 2 @36915 has 26 MA's), (Start: 3 @36918 has 158 MA's), (7, 36942), (19, 37101), (21, 37122), (27, 37182), (31, 37215), (32, 37230), (43, 37308), (47, 37350),

Gene: IbOuu\_56 Start: 39439, Stop: 39933, Start Num: 3

Candidate Starts for IbOuu\_56:

(Start: 1 @39430 has 12 MA's), (Start: 2 @39436 has 26 MA's), (Start: 3 @39439 has 158 MA's), (19, 39622), (20, 39637), (21, 39643), (27, 39703), (31, 39736), (32, 39751), (42, 39820), (47, 39871),

Gene: Ibhubesi\_57 Start: 39052, Stop: 39546, Start Num: 3

Candidate Starts for Ibhubesi\_57:

(Start: 1 @39043 has 12 MA's), (Start: 2 @39049 has 26 MA's), (Start: 3 @39052 has 158 MA's), (7, 39076), (19, 39235), (21, 39256), (27, 39316), (31, 39349), (32, 39364), (42, 39433), (47, 39484),

Gene: Inventum\_52 Start: 38556, Stop: 39050, Start Num: 3

Candidate Starts for Inventum\_52:

(Start: 1 @38547 has 12 MA's), (Start: 2 @38553 has 26 MA's), (Start: 3 @38556 has 158 MA's), (19, 38739), (21, 38760), (27, 38820), (32, 38868), (34, 38880), (42, 38937), (47, 38988),

Gene: IrishSherpFalk\_58 Start: 40717, Stop: 41211, Start Num: 3

Candidate Starts for IrishSherpFalk\_58:

(Start: 1 @40708 has 12 MA's), (Start: 2 @40714 has 26 MA's), (Start: 3 @40717 has 158 MA's), (19, 40900), (21, 40921), (27, 40981), (31, 41014), (32, 41029), (47, 41149),

Gene: Jabbawokkie\_71 Start: 40782, Stop: 41276, Start Num: 3

Candidate Starts for Jabbawokkie\_71:

(Start: 3 @40782 has 158 MA's), (7, 40806), (10, 40845), (19, 40965), (20, 40980), (21, 40986), (27, 41046), (31, 41079), (32, 41094), (34, 41106), (42, 41163), (47, 41214),

Gene: JalFarm20\_70 Start: 42971, Stop: 43465, Start Num: 3

Candidate Starts for JalFarm20\_70:

(Start: 3 @42971 has 158 MA's), (19, 43154), (21, 43175), (27, 43235), (31, 43268), (32, 43283), (42, 43352), (47, 43403),

Gene: James\_61 Start: 40529, Stop: 41023, Start Num: 3

Candidate Starts for James\_61:

(Start: 1 @40520 has 12 MA's), (Start: 2 @40526 has 26 MA's), (Start: 3 @40529 has 158 MA's), (19, 40712), (21, 40733), (27, 40793), (31, 40826), (32, 40841), (42, 40910), (47, 40961),

Gene: Jant\_61 Start: 40549, Stop: 41043, Start Num: 3

Candidate Starts for Jant\_61:

(Start: 1 @40540 has 12 MA's), (Start: 2 @40546 has 26 MA's), (Start: 3 @40549 has 158 MA's), (19, 40732), (20, 40747), (21, 40753), (27, 40813), (31, 40846), (32, 40861), (43, 40939), (47, 40981),

Gene: Jarcob\_57 Start: 39004, Stop: 39501, Start Num: 2

Candidate Starts for Jarcob\_57:

(Start: 1 @38998 has 12 MA's), (Start: 2 @39004 has 26 MA's), (Start: 3 @39007 has 158 MA's), (7, 39031), (19, 39190), (21, 39211), (27, 39271), (31, 39304), (32, 39319), (42, 39388), (47, 39439),

Gene: Jennelsea\_54 Start: 37689, Stop: 38186, Start Num: 2

Candidate Starts for Jennelsea\_54:

(Start: 1 @37683 has 12 MA's), (Start: 2 @37689 has 26 MA's), (Start: 3 @37692 has 158 MA's), (7, 37716), (19, 37875), (21, 37896), (27, 37956), (31, 37989), (32, 38004), (42, 38073), (47, 38124),

Gene: Jinglebell\_62 Start: 41567, Stop: 42061, Start Num: 3

Candidate Starts for Jinglebell\_62:

(Start: 1 @41558 has 12 MA's), (Start: 2 @41564 has 26 MA's), (Start: 3 @41567 has 158 MA's), (7, 41591), (19, 41750), (21, 41771), (27, 41831), (31, 41864), (32, 41879), (42, 41948), (47, 41999),

Gene: Job42\_59 Start: 40944, Stop: 41441, Start Num: 2

Candidate Starts for Job42\_59:

(Start: 1 @40938 has 12 MA's), (Start: 2 @40944 has 26 MA's), (Start: 3 @40947 has 158 MA's), (19, 41130), (21, 41151), (27, 41211), (31, 41244), (32, 41259), (42, 41328), (47, 41379),

Gene: JoeyJr\_52 Start: 37462, Stop: 37956, Start Num: 3

Candidate Starts for JoeyJr\_52:

(Start: 1 @37453 has 12 MA's), (Start: 2 @37459 has 26 MA's), (Start: 3 @37462 has 158 MA's), (19, 37645), (20, 37660), (21, 37666), (27, 37726), (32, 37774), (34, 37786), (42, 37843), (47, 37894),

Gene: Juice456\_58 Start: 40927, Stop: 41421, Start Num: 3

Candidate Starts for Juice456\_58:

(Start: 3 @40927 has 158 MA's), (19, 41110), (21, 41131), (27, 41191), (31, 41224), (32, 41239), (42, 41308), (47, 41359),

Gene: Juniper1\_55 Start: 38863, Stop: 39357, Start Num: 3

Candidate Starts for Juniper1\_55:

(Start: 1 @38854 has 12 MA's), (Start: 2 @38860 has 26 MA's), (Start: 3 @38863 has 158 MA's), (7, 38887), (19, 39046), (21, 39067), (26, 39118), (27, 39127), (31, 39160), (32, 39175), (42, 39244), (43, 39253), (47, 39295),

Gene: Karhdo\_54 Start: 38552, Stop: 39046, Start Num: 3

Candidate Starts for Karhdo\_54:

(Start: 1 @38543 has 12 MA's), (Start: 2 @38549 has 26 MA's), (Start: 3 @38552 has 158 MA's), (7, 38576), (19, 38735), (21, 38756), (27, 38816), (31, 38849), (32, 38864), (42, 38933), (47, 38984),

Gene: Kenuha5\_55 Start: 37976, Stop: 38380, Start Num: 1

Candidate Starts for Kenuha5\_55:

(Start: 1 @37976 has 12 MA's), (Start: 2 @37982 has 26 MA's), (Start: 3 @37985 has 158 MA's), (26, 38231), (27, 38240), (29, 38255), (30, 38258), (42, 38348),

Gene: Kersh\_59 Start: 41305, Stop: 41799, Start Num: 3

Candidate Starts for Kersh\_59:

(Start: 1 @41296 has 12 MA's), (Start: 2 @41302 has 26 MA's), (Start: 3 @41305 has 158 MA's), (7, 41329), (16, 41461), (19, 41488), (21, 41509), (27, 41569), (31, 41602), (32, 41617), (42, 41686), (47, 41737),

Gene: Kimberlium\_59 Start: 40626, Stop: 41120, Start Num: 3

Candidate Starts for Kimberlium\_59:

(Start: 1 @40617 has 12 MA's), (Start: 2 @40623 has 26 MA's), (Start: 3 @40626 has 158 MA's), (7, 40650), (19, 40809), (21, 40830), (27, 40890), (31, 40923), (32, 40938), (42, 41007), (47, 41058),

Gene: KingJulian\_57 Start: 38078, Stop: 38572, Start Num: 3

Candidate Starts for KingJulian\_57:

(Start: 1 @38069 has 12 MA's), (Start: 2 @38075 has 26 MA's), (Start: 3 @38078 has 158 MA's), (7, 38102), (16, 38234), (19, 38261), (21, 38282), (27, 38342), (31, 38375), (32, 38390), (42, 38459), (47, 38510),

Gene: KingMidas\_56 Start: 39124, Stop: 39618, Start Num: 3

Candidate Starts for KingMidas\_56:

(Start: 1 @39115 has 12 MA's), (Start: 2 @39121 has 26 MA's), (Start: 3 @39124 has 158 MA's), (19, 39307), (20, 39322), (21, 39328), (27, 39388), (32, 39436), (34, 39448), (42, 39505), (47, 39556),

Gene: Kingsley\_54 Start: 37969, Stop: 38463, Start Num: 3

Candidate Starts for Kingsley\_54:

(Start: 1 @37960 has 12 MA's), (Start: 2 @37966 has 26 MA's), (Start: 3 @37969 has 158 MA's), (19, 38152), (21, 38173), (27, 38233), (31, 38266), (32, 38281), (42, 38350), (47, 38401),

Gene: Koella\_51 Start: 34937, Stop: 35431, Start Num: 3

Candidate Starts for Koella\_51:

(Start: 1 @34928 has 12 MA's), (Start: 2 @34934 has 26 MA's), (Start: 3 @34937 has 158 MA's), (7, 34961), (19, 35120), (21, 35141), (27, 35201), (31, 35234), (32, 35249), (42, 35318), (47, 35369),

Gene: Krakatau\_55 Start: 38665, Stop: 39075, Start Num: 1

Candidate Starts for Krakatau\_55:

(Start: 1 @38665 has 12 MA's), (Start: 2 @38671 has 26 MA's), (Start: 3 @38674 has 158 MA's), (7, 38698), (26, 38926), (27, 38935), (29, 38950), (30, 38953), (42, 39043),

Gene: KristaRAM\_60 Start: 41509, Stop: 42003, Start Num: 3

Candidate Starts for KristaRAM\_60:

(Start: 1 @41500 has 12 MA's), (Start: 2 @41506 has 26 MA's), (Start: 3 @41509 has 158 MA's), (7, 41533), (19, 41692), (21, 41713), (27, 41773), (31, 41806), (32, 41821), (42, 41890), (47, 41941),

Gene: LastJedi\_51 Start: 36257, Stop: 36751, Start Num: 3

Candidate Starts for LastJedi\_51:

(Start: 1 @36248 has 12 MA's), (Start: 2 @36254 has 26 MA's), (Start: 3 @36257 has 158 MA's), (7, 36281), (19, 36440), (21, 36461), (27, 36521), (31, 36554), (32, 36569), (42, 36638), (47, 36689),

Gene: Latretium\_59 Start: 39583, Stop: 40077, Start Num: 3

Candidate Starts for Latretium\_59:

(Start: 1 @39574 has 12 MA's), (Start: 2 @39580 has 26 MA's), (Start: 3 @39583 has 158 MA's), (7, 39607), (19, 39766), (21, 39787), (27, 39847), (31, 39880), (32, 39895), (42, 39964), (47, 40015),

Gene: Leozinho\_56 Start: 38342, Stop: 38836, Start Num: 3

Candidate Starts for Leozinho\_56:

(Start: 1 @38333 has 12 MA's), (Start: 2 @38339 has 26 MA's), (Start: 3 @38342 has 158 MA's), (19, 38525), (21, 38546), (27, 38606), (31, 38639), (32, 38654), (42, 38723), (47, 38774),

Gene: Leperchaun\_49 Start: 36692, Stop: 37186, Start Num: 3

Candidate Starts for Leperchaun\_49:

(Start: 1 @36683 has 12 MA's), (Start: 2 @36689 has 26 MA's), (Start: 3 @36692 has 158 MA's), (19, 36875), (20, 36890), (21, 36896), (27, 36956), (32, 37004), (34, 37016), (42, 37073), (47, 37124),

Gene: LilMoolah\_55 Start: 38452, Stop: 38946, Start Num: 3

Candidate Starts for LilMoolah\_55:

(Start: 1 @38443 has 12 MA's), (Start: 2 @38449 has 26 MA's), (Start: 3 @38452 has 158 MA's), (19, 38635), (21, 38656), (27, 38716), (31, 38749), (32, 38764), (42, 38833), (47, 38884),

Gene: LittleShirley\_56 Start: 39496, Stop: 39990, Start Num: 3

Candidate Starts for LittleShirley\_56:

(Start: 1 @39487 has 12 MA's), (Start: 2 @39493 has 26 MA's), (Start: 3 @39496 has 158 MA's), (19, 39679), (21, 39700), (27, 39760), (31, 39793), (32, 39808), (42, 39877), (47, 39928),

Gene: Lizziana\_63 Start: 40010, Stop: 40504, Start Num: 3

Candidate Starts for Lizziana\_63:

(Start: 1 @40001 has 12 MA's), (Start: 2 @40007 has 26 MA's), (Start: 3 @40010 has 158 MA's), (7, 40034), (19, 40193), (21, 40214), (27, 40274), (31, 40307), (32, 40322), (42, 40391), (47, 40442),

Gene: Llama\_62 Start: 41421, Stop: 41915, Start Num: 3

Candidate Starts for Llama\_62:

(Start: 1 @41412 has 12 MA's), (Start: 2 @41418 has 26 MA's), (Start: 3 @41421 has 158 MA's), (7, 41445), (19, 41604), (21, 41625), (27, 41685), (31, 41718), (32, 41733), (42, 41802), (47, 41853),

Gene: Llij\_53 Start: 37860, Stop: 38354, Start Num: 3

Candidate Starts for Llij\_53:

(Start: 1 @37851 has 12 MA's), (Start: 2 @37857 has 26 MA's), (Start: 3 @37860 has 158 MA's), (19, 38043), (21, 38064), (27, 38124), (31, 38157), (32, 38172), (42, 38241), (47, 38292),

Gene: Lorde\_57 Start: 37147, Stop: 37641, Start Num: 3

Candidate Starts for Lorde\_57:

(Start: 1 @37138 has 12 MA's), (Start: 2 @37144 has 26 MA's), (Start: 3 @37147 has 158 MA's), (19, 37330), (21, 37351), (27, 37411), (31, 37444), (32, 37459), (42, 37528), (47, 37579),

Gene: Lucia\_56 Start: 38004, Stop: 38498, Start Num: 3

Candidate Starts for Lucia\_56:

(Start: 1 @37995 has 12 MA's), (Start: 2 @38001 has 26 MA's), (Start: 3 @38004 has 158 MA's), (19, 38187), (21, 38208), (27, 38268), (31, 38301), (32, 38316), (42, 38385), (47, 38436),

Gene: LunaBlu\_59 Start: 39587, Stop: 40081, Start Num: 3

Candidate Starts for LunaBlu\_59:

(Start: 1 @39578 has 12 MA's), (Start: 2 @39584 has 26 MA's), (Start: 3 @39587 has 158 MA's), (7, 39611), (19, 39770), (21, 39791), (27, 39851), (31, 39884), (32, 39899), (42, 39968), (47, 40019),

Gene: LunaStella\_55 Start: 38222, Stop: 38716, Start Num: 3

Candidate Starts for LunaStella\_55:

(Start: 3 @38222 has 158 MA's), (19, 38405), (21, 38426), (27, 38486), (31, 38519), (32, 38534), (42, 38603), (47, 38654),

Gene: MadMen\_55 Start: 38784, Stop: 39278, Start Num: 3

Candidate Starts for MadMen\_55:

(Start: 1 @38775 has 12 MA's), (Start: 2 @38781 has 26 MA's), (Start: 3 @38784 has 158 MA's), (7, 38808), (19, 38967), (21, 38988), (27, 39048), (31, 39081), (32, 39096), (42, 39165), (47, 39216),

Gene: Madiba\_55 Start: 38033, Stop: 38527, Start Num: 3

Candidate Starts for Madiba\_55:

(Start: 1 @38024 has 12 MA's), (Start: 2 @38030 has 26 MA's), (Start: 3 @38033 has 158 MA's), (7, 38057), (19, 38216), (21, 38237), (27, 38297), (31, 38330), (32, 38345), (42, 38414), (47, 38465),

Gene: Mahavrat\_55 Start: 38412, Stop: 38906, Start Num: 3

Candidate Starts for Mahavrat\_55:

(Start: 1 @38403 has 12 MA's), (Start: 2 @38409 has 26 MA's), (Start: 3 @38412 has 158 MA's), (19, 38595), (21, 38616), (27, 38676), (31, 38709), (32, 38724), (42, 38793), (47, 38844),

Gene: Mandlovu\_53 Start: 37019, Stop: 37516, Start Num: 2

Candidate Starts for Mandlovu\_53:

(Start: 1 @37013 has 12 MA's), (Start: 2 @37019 has 26 MA's), (Start: 3 @37022 has 158 MA's), (7, 37046), (19, 37205), (21, 37226), (27, 37286), (31, 37319), (32, 37334), (42, 37403), (47, 37454),

Gene: Mantra\_53 Start: 37905, Stop: 38399, Start Num: 3

Candidate Starts for Mantra\_53:

(Start: 1 @37896 has 12 MA's), (Start: 2 @37902 has 26 MA's), (Start: 3 @37905 has 158 MA's), (7, 37929), (19, 38088), (21, 38109), (27, 38169), (31, 38202), (32, 38217), (42, 38286), (47, 38337),

Gene: Maravista\_58 Start: 40459, Stop: 40953, Start Num: 3

Candidate Starts for Maravista\_58:

(Start: 1 @40450 has 12 MA's), (Start: 2 @40456 has 26 MA's), (Start: 3 @40459 has 158 MA's), (19, 40642), (21, 40663), (27, 40723), (31, 40756), (32, 40771), (42, 40840), (47, 40891),

Gene: Marker\_59 Start: 39127, Stop: 39621, Start Num: 3

Candidate Starts for Marker\_59:

(Start: 1 @39118 has 12 MA's), (Start: 2 @39124 has 26 MA's), (Start: 3 @39127 has 158 MA's), (16, 39283), (19, 39310), (21, 39331), (27, 39391), (31, 39424), (32, 39439), (42, 39508), (47, 39559),

Gene: Martik\_57 Start: 38963, Stop: 39457, Start Num: 3

Candidate Starts for Martik\_57:

(Start: 1 @38954 has 12 MA's), (Start: 2 @38960 has 26 MA's), (Start: 3 @38963 has 158 MA's), (7, 38987), (19, 39146), (21, 39167), (27, 39227), (31, 39260), (32, 39275), (42, 39344), (47, 39395),

Gene: Mattes\_61 Start: 40529, Stop: 41023, Start Num: 3

Candidate Starts for Mattes\_61:

(Start: 1 @40520 has 12 MA's), (Start: 2 @40526 has 26 MA's), (Start: 3 @40529 has 158 MA's), (7, 40553), (19, 40712), (21, 40733), (27, 40793), (31, 40826), (32, 40841), (42, 40910), (47, 40961),

Gene: Medindi\_54 Start: 36747, Stop: 37157, Start Num: 1

Candidate Starts for Medindi\_54:

(Start: 1 @36747 has 12 MA's), (Start: 2 @36753 has 26 MA's), (Start: 3 @36756 has 158 MA's), (7, 36780), (26, 37008), (27, 37017), (29, 37032), (30, 37035), (42, 37125),

Gene: Melissauren88\_56 Start: 38890, Stop: 39300, Start Num: 1

Candidate Starts for Melissauren88\_56:

(Start: 1 @38890 has 12 MA's), (Start: 2 @38896 has 26 MA's), (Start: 3 @38899 has 158 MA's), (7, 38923), (26, 39151), (27, 39160), (29, 39175), (30, 39178), (42, 39268),

Gene: MinionDave\_56 Start: 39310, Stop: 39804, Start Num: 3

Candidate Starts for MinionDave\_56:

(Start: 1 @39301 has 12 MA's), (Start: 2 @39307 has 26 MA's), (Start: 3 @39310 has 158 MA's), (19, 39493), (20, 39508), (21, 39514), (27, 39574), (31, 39607), (32, 39622), (42, 39691), (47, 39742),

Gene: MisterCuddles\_55 Start: 38769, Stop: 39263, Start Num: 3

Candidate Starts for MisterCuddles\_55:

(Start: 1 @38760 has 12 MA's), (Start: 2 @38766 has 26 MA's), (Start: 3 @38769 has 158 MA's), (7, 38793), (19, 38952), (21, 38973), (26, 39024), (27, 39033), (31, 39066), (32, 39081), (42, 39150), (47, 39201),

Gene: Modragons\_61 Start: 41408, Stop: 41905, Start Num: 2

Candidate Starts for Modragons\_61:

(Start: 1 @41402 has 12 MA's), (Start: 2 @41408 has 26 MA's), (Start: 3 @41411 has 158 MA's), (7, 41435), (19, 41594), (21, 41615), (27, 41675), (31, 41708), (32, 41723), (42, 41792), (47, 41843),

Gene: Mova\_58 Start: 38537, Stop: 39031, Start Num: 3

Candidate Starts for Mova\_58:

(Start: 1 @38528 has 12 MA's), (Start: 2 @38534 has 26 MA's), (Start: 3 @38537 has 158 MA's), (19, 38720), (21, 38741), (27, 38801), (31, 38834), (32, 38849), (42, 38918), (47, 38969),

Gene: Mozy\_66 Start: 41544, Stop: 42038, Start Num: 3

Candidate Starts for Mozy\_66:

(Start: 1 @41535 has 12 MA's), (Start: 2 @41541 has 26 MA's), (Start: 3 @41544 has 158 MA's), (19, 41727), (20, 41742), (21, 41748), (27, 41808), (32, 41856), (34, 41868), (42, 41925), (43, 41934), (47, 41976),

Gene: Ms6\_53 Start: 34621, Stop: 35031, Start Num: 1

Candidate Starts for Ms6\_53:

(Start: 1 @34621 has 12 MA's), (Start: 2 @34627 has 26 MA's), (Start: 3 @34630 has 158 MA's), (7, 34654), (26, 34882), (27, 34891), (29, 34906), (30, 34909), (42, 34999),

Gene: MulchExplorer\_59 Start: 40625, Stop: 41119, Start Num: 3

Candidate Starts for MulchExplorer\_59:

(Start: 1 @40616 has 12 MA's), (Start: 2 @40622 has 26 MA's), (Start: 3 @40625 has 158 MA's), (7, 40649), (19, 40808), (21, 40829), (27, 40889), (31, 40922), (32, 40937), (42, 41006), (47, 41057),

Gene: Mutaforma13\_61 Start: 41867, Stop: 42361, Start Num: 3

Candidate Starts for Mutaforma13\_61:

(Start: 1 @41858 has 12 MA's), (Start: 2 @41864 has 26 MA's), (Start: 3 @41867 has 158 MA's), (19, 42050), (21, 42071), (27, 42131), (31, 42164), (32, 42179), (42, 42248), (47, 42299),

Gene: Mwanjiwa\_63 Start: 39644, Stop: 40138, Start Num: 3

Candidate Starts for Mwanjiwa\_63:

(Start: 1 @39635 has 12 MA's), (Start: 2 @39641 has 26 MA's), (Start: 3 @39644 has 158 MA's), (7, 39668), (19, 39827), (21, 39848), (27, 39908), (31, 39941), (32, 39956), (42, 40025), (47, 40076),

Gene: Nebkiss\_72 Start: 45532, Stop: 45909, Start Num: 6

Candidate Starts for Nebkiss\_72:

(Start: 6 @45532 has 2 MA's), (8, 45541), (16, 45664), (17, 45679), (19, 45691), (37, 45832),

Gene: NewHope4\_58 Start: 38958, Stop: 39452, Start Num: 3

Candidate Starts for NewHope4\_58:

(Start: 1 @38949 has 12 MA's), (Start: 2 @38955 has 26 MA's), (Start: 3 @38958 has 158 MA's), (7, 38982), (19, 39141), (21, 39162), (27, 39222), (31, 39255), (32, 39270), (42, 39339), (47, 39390),

Gene: Nichirin\_64 Start: 42952, Stop: 43446, Start Num: 3

Candidate Starts for Nichirin\_64:

(Start: 1 @42943 has 12 MA's), (Start: 2 @42949 has 26 MA's), (Start: 3 @42952 has 158 MA's), (19, 43135), (21, 43156), (27, 43216), (31, 43249), (32, 43264), (42, 43333), (47, 43384),

Gene: Nimbo\_51 Start: 37265, Stop: 37759, Start Num: 3

Candidate Starts for Nimbo\_51:

(Start: 1 @37256 has 12 MA's), (Start: 2 @37262 has 26 MA's), (Start: 3 @37265 has 158 MA's), (19, 37448), (20, 37463), (21, 37469), (27, 37529), (32, 37577), (34, 37589), (42, 37646), (47, 37697),

Gene: Nitzel\_55 Start: 38315, Stop: 38812, Start Num: 2

Candidate Starts for Nitzel\_55:

(Start: 1 @38309 has 12 MA's), (Start: 2 @38315 has 26 MA's), (Start: 3 @38318 has 158 MA's), (9, 38351), (19, 38501), (21, 38522), (27, 38582), (31, 38615), (32, 38630), (42, 38699), (47, 38750),

Gene: Nivrat\_53 Start: 38325, Stop: 38819, Start Num: 3

Candidate Starts for Nivrat\_53:

(Start: 1 @38316 has 12 MA's), (Start: 2 @38322 has 26 MA's), (Start: 3 @38325 has 158 MA's), (19, 38508), (21, 38529), (27, 38589), (31, 38622), (32, 38637), (42, 38706), (47, 38757),

Gene: NormanBulbieJr\_57 Start: 38947, Stop: 39444, Start Num: 2

Candidate Starts for NormanBulbieJr\_57:

(Start: 1 @38941 has 12 MA's), (Start: 2 @38947 has 26 MA's), (Start: 3 @38950 has 158 MA's), (7, 38974), (19, 39133), (21, 39154), (27, 39214), (31, 39247), (32, 39262), (42, 39331), (47, 39382),

Gene: Ochi17\_60 Start: 41009, Stop: 41512, Start Num: 1

Candidate Starts for Ochi17\_60:

(Start: 1 @41009 has 12 MA's), (Start: 2 @41015 has 26 MA's), (Start: 3 @41018 has 158 MA's), (7, 41042), (19, 41201), (21, 41222), (27, 41282), (31, 41315), (32, 41330), (42, 41399), (47, 41450),

Gene: OfUltron\_62 Start: 41567, Stop: 42061, Start Num: 3

Candidate Starts for OfUltron\_62:

(Start: 1 @41558 has 12 MA's), (Start: 2 @41564 has 26 MA's), (Start: 3 @41567 has 158 MA's), (7, 41591), (19, 41750), (21, 41771), (27, 41831), (31, 41864), (32, 41879), (42, 41948), (47, 41999),

Gene: Oksu\_61 Start: 41830, Stop: 42324, Start Num: 3

Candidate Starts for Oksu\_61:

(Start: 1 @41821 has 12 MA's), (Start: 2 @41827 has 26 MA's), (Start: 3 @41830 has 158 MA's), (7, 41854), (19, 42013), (21, 42034), (27, 42094), (31, 42127), (32, 42142), (42, 42211), (47, 42262),

Gene: OldBen\_54 Start: 38875, Stop: 39369, Start Num: 3

Candidate Starts for OldBen\_54:

(Start: 1 @38866 has 12 MA's), (Start: 2 @38872 has 26 MA's), (Start: 3 @38875 has 158 MA's), (19, 39058), (21, 39079), (27, 39139), (31, 39172), (32, 39187), (42, 39256), (47, 39307),

Gene: OlympiaSaint\_59 Start: 39471, Stop: 39965, Start Num: 3

Candidate Starts for OlympiaSaint\_59:

(Start: 1 @39462 has 12 MA's), (Start: 2 @39468 has 26 MA's), (Start: 3 @39471 has 158 MA's), (7, 39495), (19, 39654), (21, 39675), (27, 39735), (31, 39768), (32, 39783), (42, 39852), (47, 39903),

Gene: Ovechkin\_56 Start: 39471, Stop: 39965, Start Num: 3

Candidate Starts for Ovechkin\_56:

(Start: 1 @39462 has 12 MA's), (Start: 2 @39468 has 26 MA's), (Start: 3 @39471 has 158 MA's), (19, 39654), (21, 39675), (27, 39735), (31, 39768), (32, 39783), (42, 39852), (47, 39903),

Gene: OwlsT2W\_57 Start: 39193, Stop: 39687, Start Num: 3

Candidate Starts for OwlsT2W\_57:

(Start: 1 @39184 has 12 MA's), (Start: 2 @39190 has 26 MA's), (Start: 3 @39193 has 158 MA's), (7, 39217), (19, 39376), (20, 39391), (21, 39397), (27, 39457), (32, 39505), (34, 39517), (42, 39574), (43, 39583), (47, 39625),

Gene: PHappiness\_52 Start: 37238, Stop: 37732, Start Num: 3

Candidate Starts for PHappiness\_52:

(Start: 1 @37229 has 12 MA's), (Start: 2 @37235 has 26 MA's), (Start: 3 @37238 has 158 MA's), (19, 37421), (20, 37436), (21, 37442), (27, 37502), (32, 37550), (34, 37562), (42, 37619), (47, 37670),

Gene: PMC\_54 Start: 39568, Stop: 40071, Start Num: 1

Candidate Starts for PMC\_54:

(Start: 1 @39568 has 12 MA's), (Start: 2 @39574 has 26 MA's), (Start: 3 @39577 has 158 MA's), (19, 39760), (21, 39781), (27, 39841), (31, 39874), (32, 39889), (43, 39967), (47, 40009),

Gene: Pacc40\_51 Start: 37312, Stop: 37806, Start Num: 3

Candidate Starts for Pacc40\_51:

(Start: 1 @37303 has 12 MA's), (Start: 2 @37309 has 26 MA's), (Start: 3 @37312 has 158 MA's), (19, 37495), (20, 37510), (21, 37516), (27, 37576), (32, 37624), (34, 37636), (42, 37693), (47, 37744),

Gene: PatoPoderoso\_54 Start: 38078, Stop: 38572, Start Num: 3

Candidate Starts for PatoPoderoso\_54:

(Start: 1 @38069 has 12 MA's), (Start: 2 @38075 has 26 MA's), (Start: 3 @38078 has 158 MA's), (7, 38102), (16, 38234), (19, 38261), (21, 38282), (27, 38342), (31, 38375), (32, 38390), (42, 38459), (47, 38510),

Gene: Peridot\_58 Start: 38415, Stop: 38909, Start Num: 3

Candidate Starts for Peridot\_58:

(Start: 1 @38406 has 12 MA's), (Start: 2 @38412 has 26 MA's), (Start: 3 @38415 has 158 MA's), (19, 38598), (21, 38619), (27, 38679), (31, 38712), (32, 38727), (42, 38796), (47, 38847),

Gene: Phasih\_55 Start: 39382, Stop: 39876, Start Num: 3

Candidate Starts for Phasih\_55:

(Start: 3 @39382 has 158 MA's), (19, 39565), (21, 39586), (27, 39646), (31, 39679), (32, 39694), (42, 39763), (47, 39814),

Gene: Phatniss\_55 Start: 38955, Stop: 39449, Start Num: 3

Candidate Starts for Phatniss\_55:

(Start: 1 @38946 has 12 MA's), (Start: 2 @38952 has 26 MA's), (Start: 3 @38955 has 158 MA's), (19, 39138), (21, 39159), (27, 39219), (31, 39252), (32, 39267), (42, 39336), (47, 39387),

Gene: Philus\_60 Start: 40115, Stop: 40609, Start Num: 3

Candidate Starts for Philus\_60:

(Start: 1 @40106 has 12 MA's), (Start: 2 @40112 has 26 MA's), (Start: 3 @40115 has 158 MA's), (19, 40298), (21, 40319), (27, 40379), (31, 40412), (32, 40427), (42, 40496), (47, 40547),

Gene: PhlipPhlop\_57 Start: 40669, Stop: 41163, Start Num: 3

Candidate Starts for PhlipPhlop\_57:

(Start: 1 @40660 has 12 MA's), (Start: 2 @40666 has 26 MA's), (Start: 3 @40669 has 158 MA's), (7, 40693), (19, 40852), (21, 40873), (27, 40933), (31, 40966), (32, 40981), (42, 41050), (47, 41101),

Gene: Pippy\_55 Start: 37821, Stop: 38315, Start Num: 3

Candidate Starts for Pippy\_55:

(Start: 1 @37812 has 12 MA's), (Start: 2 @37818 has 26 MA's), (Start: 3 @37821 has 158 MA's), (7, 37845), (19, 38004), (21, 38025), (27, 38085), (31, 38118), (32, 38133), (42, 38202), (47, 38253),

Gene: Plumbus\_59 Start: 39279, Stop: 39776, Start Num: 2

Candidate Starts for Plumbus\_59:

(Start: 1 @39273 has 12 MA's), (Start: 2 @39279 has 26 MA's), (Start: 3 @39282 has 158 MA's), (19, 39465), (21, 39486), (27, 39546), (31, 39579), (32, 39594), (42, 39663), (47, 39714),

Gene: Poenanya\_57 Start: 40136, Stop: 40633, Start Num: 2

Candidate Starts for Poenanya\_57:

(Start: 1 @40130 has 12 MA's), (Start: 2 @40136 has 26 MA's), (Start: 3 @40139 has 158 MA's), (19, 40322), (20, 40337), (21, 40343), (27, 40403), (32, 40451), (34, 40463), (42, 40520), (47, 40571),

Gene: Polka14\_55 Start: 38335, Stop: 38829, Start Num: 3

Candidate Starts for Polka14\_55:

(Start: 1 @38326 has 12 MA's), (Start: 2 @38332 has 26 MA's), (Start: 3 @38335 has 158 MA's), (19, 38518), (20, 38533), (21, 38539), (27, 38599), (32, 38647), (34, 38659), (42, 38716), (47, 38767),

Gene: Pollywog\_58 Start: 39783, Stop: 40280, Start Num: 2

Candidate Starts for Pollywog\_58:

(Start: 1 @39777 has 12 MA's), (Start: 2 @39783 has 26 MA's), (Start: 3 @39786 has 158 MA's), (7, 39810), (19, 39969), (21, 39990), (27, 40050), (31, 40083), (32, 40098), (42, 40167), (47, 40218),

Gene: Polo2Bam\_62 Start: 38803, Stop: 39306, Start Num: 1

Candidate Starts for Polo2Bam\_62:

(Start: 1 @38803 has 12 MA's), (Start: 2 @38809 has 26 MA's), (Start: 3 @38812 has 158 MA's), (7, 38836), (19, 38995), (21, 39016), (27, 39076), (31, 39109), (32, 39124), (42, 39193), (47, 39244),

Gene: Priscilla\_57 Start: 39049, Stop: 39543, Start Num: 3

Candidate Starts for Priscilla\_57:

(Start: 1 @39040 has 12 MA's), (Start: 2 @39046 has 26 MA's), (Start: 3 @39049 has 158 MA's), (7, 39073), (19, 39232), (21, 39253), (27, 39313), (31, 39346), (32, 39361), (42, 39430), (47, 39481),

Gene: QuickMath\_58 Start: 40849, Stop: 41343, Start Num: 3

Candidate Starts for QuickMath\_58:

(Start: 1 @40840 has 12 MA's), (Start: 2 @40846 has 26 MA's), (Start: 3 @40849 has 158 MA's), (7, 40873), (19, 41032), (21, 41053), (27, 41113), (31, 41146), (32, 41161), (42, 41230), (47, 41281),

Gene: Radiance\_56 Start: 39074, Stop: 39568, Start Num: 3

Candidate Starts for Radiance\_56:

(Start: 1 @39065 has 12 MA's), (Start: 2 @39071 has 26 MA's), (Start: 3 @39074 has 158 MA's), (7, 39098), (19, 39257), (21, 39278), (27, 39338), (31, 39371), (32, 39386), (42, 39455), (47, 39506),

Gene: RedBird\_55 Start: 38370, Stop: 38864, Start Num: 3

Candidate Starts for RedBird\_55:

(Start: 1 @38361 has 12 MA's), (Start: 2 @38367 has 26 MA's), (Start: 3 @38370 has 158 MA's), (19, 38553), (20, 38568), (21, 38574), (27, 38634), (32, 38682), (34, 38694), (42, 38751), (47, 38802),

Gene: Renaud18\_62 Start: 39627, Stop: 40121, Start Num: 3

Candidate Starts for Renaud18\_62:

(Start: 1 @39618 has 12 MA's), (Start: 2 @39624 has 26 MA's), (Start: 3 @39627 has 158 MA's), (19, 39810), (21, 39831), (27, 39891), (31, 39924), (32, 39939), (42, 40008), (47, 40059),

Gene: Rialto\_63 Start: 41853, Stop: 42347, Start Num: 3

Candidate Starts for Rialto\_63:

(Start: 1 @41844 has 12 MA's), (Start: 2 @41850 has 26 MA's), (Start: 3 @41853 has 158 MA's), (7, 41877), (19, 42036), (21, 42057), (27, 42117), (31, 42150), (32, 42165), (42, 42234), (47, 42285),

Gene: Rita\_58 Start: 37680, Stop: 38174, Start Num: 3

Candidate Starts for Rita\_58:

(Start: 1 @37671 has 12 MA's), (Start: 2 @37677 has 26 MA's), (Start: 3 @37680 has 158 MA's), (7, 37704), (19, 37863), (21, 37884), (27, 37944), (31, 37977), (32, 37992), (42, 38061), (47, 38112),

Gene: RitaG\_52 Start: 37583, Stop: 38077, Start Num: 3

Candidate Starts for RitaG\_52:

(Start: 1 @37574 has 12 MA's), (Start: 2 @37580 has 26 MA's), (Start: 3 @37583 has 158 MA's), (19, 37766), (20, 37781), (21, 37787), (27, 37847), (32, 37895), (34, 37907), (42, 37964), (47, 38015),

Gene: Rockne\_58 Start: 39586, Stop: 40083, Start Num: 2

Candidate Starts for Rockne\_58:

(Start: 1 @39580 has 12 MA's), (Start: 2 @39586 has 26 MA's), (Start: 3 @39589 has 158 MA's), (19, 39772), (21, 39793), (27, 39853), (31, 39886), (32, 39901), (43, 39979), (47, 40021),

Gene: RockyHorror\_58 Start: 38638, Stop: 39132, Start Num: 3  
Candidate Starts for RockyHorror\_58:

(Start: 1 @38629 has 12 MA's), (Start: 2 @38635 has 26 MA's), (Start: 3 @38638 has 158 MA's), (16, 38794), (19, 38821), (21, 38842), (27, 38902), (31, 38935), (32, 38950), (42, 39019), (47, 39070),

Gene: Royals2015\_60 Start: 38991, Stop: 39485, Start Num: 3  
Candidate Starts for Royals2015\_60:

(Start: 1 @38982 has 12 MA's), (Start: 2 @38988 has 26 MA's), (Start: 3 @38991 has 158 MA's), (19, 39174), (21, 39195), (27, 39255), (31, 39288), (32, 39303), (42, 39372), (47, 39423),

Gene: Ruby\_53 Start: 38770, Stop: 39264, Start Num: 3  
Candidate Starts for Ruby\_53:

(Start: 1 @38761 has 12 MA's), (Start: 2 @38767 has 26 MA's), (Start: 3 @38770 has 158 MA's), (7, 38794), (19, 38953), (21, 38974), (26, 39025), (27, 39034), (31, 39067), (32, 39082), (42, 39151), (47, 39202),

Gene: SG4\_54 Start: 38464, Stop: 38961, Start Num: 2  
Candidate Starts for SG4\_54:

(Start: 1 @38458 has 12 MA's), (Start: 2 @38464 has 26 MA's), (Start: 3 @38467 has 158 MA's), (19, 38650), (20, 38665), (21, 38671), (27, 38731), (31, 38764), (32, 38779), (42, 38848), (47, 38899),

Gene: Saal\_59 Start: 40223, Stop: 40717, Start Num: 3  
Candidate Starts for Saal\_59:

(Start: 1 @40214 has 12 MA's), (Start: 2 @40220 has 26 MA's), (Start: 3 @40223 has 158 MA's), (7, 40247), (19, 40406), (21, 40427), (27, 40487), (31, 40520), (32, 40535), (42, 40604), (47, 40655),

Gene: Sabbb\_61 Start: 39911, Stop: 40405, Start Num: 3  
Candidate Starts for Sabbb\_61:

(Start: 1 @39902 has 12 MA's), (Start: 2 @39908 has 26 MA's), (Start: 3 @39911 has 158 MA's), (19, 40094), (21, 40115), (27, 40175), (31, 40208), (32, 40223), (42, 40292), (47, 40343),

Gene: Sarma624\_55 Start: 35161, Stop: 35655, Start Num: 3  
Candidate Starts for Sarma624\_55:

(Start: 1 @35152 has 12 MA's), (Start: 2 @35158 has 26 MA's), (Start: 3 @35161 has 158 MA's), (19, 35344), (21, 35365), (27, 35425), (31, 35458), (32, 35473), (42, 35542), (47, 35593),

Gene: Sassafras\_55 Start: 38555, Stop: 39049, Start Num: 3  
Candidate Starts for Sassafras\_55:

(Start: 1 @38546 has 12 MA's), (Start: 2 @38552 has 26 MA's), (Start: 3 @38555 has 158 MA's), (19, 38738), (21, 38759), (27, 38819), (32, 38867), (34, 38879), (42, 38936), (47, 38987),

Gene: Scottish\_55 Start: 38595, Stop: 39089, Start Num: 3  
Candidate Starts for Scottish\_55:

(Start: 1 @38586 has 12 MA's), (Start: 2 @38592 has 26 MA's), (Start: 3 @38595 has 158 MA's), (19, 38778), (21, 38799), (27, 38859), (31, 38892), (32, 38907), (42, 38976), (47, 39027),

Gene: SeaLumen\_61 Start: 38812, Stop: 39306, Start Num: 3  
Candidate Starts for SeaLumen\_61:

(Start: 1 @38803 has 12 MA's), (Start: 2 @38809 has 26 MA's), (Start: 3 @38812 has 158 MA's), (7, 38836), (19, 38995), (21, 39016), (27, 39076), (31, 39109), (32, 39124), (42, 39193), (47, 39244),

Gene: Seabastian\_62 Start: 41568, Stop: 42062, Start Num: 3

Candidate Starts for Seabastian\_62:

(Start: 1 @41559 has 12 MA's), (Start: 2 @41565 has 26 MA's), (Start: 3 @41568 has 158 MA's), (7, 41592), (19, 41751), (21, 41772), (27, 41832), (31, 41865), (32, 41880), (42, 41949), (47, 42000),

Gene: Seagreen\_57 Start: 38560, Stop: 39054, Start Num: 3

Candidate Starts for Seagreen\_57:

(Start: 3 @38560 has 158 MA's), (19, 38743), (21, 38764), (27, 38824), (31, 38857), (32, 38872), (42, 38941), (47, 38992),

Gene: ShiLan\_56 Start: 38996, Stop: 39490, Start Num: 3

Candidate Starts for ShiLan\_56:

(Start: 1 @38987 has 12 MA's), (Start: 2 @38993 has 26 MA's), (Start: 3 @38996 has 158 MA's), (7, 39020), (19, 39179), (21, 39200), (27, 39260), (31, 39293), (32, 39308), (42, 39377), (47, 39428),

Gene: ShowerHandel\_60 Start: 38963, Stop: 39457, Start Num: 3

Candidate Starts for ShowerHandel\_60:

(Start: 1 @38954 has 12 MA's), (Start: 2 @38960 has 26 MA's), (Start: 3 @38963 has 158 MA's), (7, 38987), (19, 39146), (21, 39167), (27, 39227), (31, 39260), (32, 39275), (42, 39344), (47, 39395),

Gene: ShroomBoi\_59 Start: 39923, Stop: 40417, Start Num: 3

Candidate Starts for ShroomBoi\_59:

(Start: 1 @39914 has 12 MA's), (Start: 2 @39920 has 26 MA's), (Start: 3 @39923 has 158 MA's), (7, 39947), (16, 40079), (19, 40106), (21, 40127), (27, 40187), (31, 40220), (32, 40235), (42, 40304), (47, 40355),

Gene: SiSi\_55 Start: 38369, Stop: 38863, Start Num: 3

Candidate Starts for SiSi\_55:

(Start: 1 @38360 has 12 MA's), (Start: 2 @38366 has 26 MA's), (Start: 3 @38369 has 158 MA's), (7, 38393), (19, 38552), (21, 38573), (27, 38633), (31, 38666), (32, 38681), (42, 38750), (47, 38801),

Gene: SimranZ1\_57 Start: 39149, Stop: 39643, Start Num: 3

Candidate Starts for SimranZ1\_57:

(Start: 1 @39140 has 12 MA's), (Start: 2 @39146 has 26 MA's), (Start: 3 @39149 has 158 MA's), (19, 39332), (21, 39353), (27, 39413), (31, 39446), (32, 39461), (42, 39530), (47, 39581),

Gene: Slim\_58 Start: 39756, Stop: 40250, Start Num: 3

Candidate Starts for Slim\_58:

(Start: 1 @39747 has 12 MA's), (Start: 2 @39753 has 26 MA's), (Start: 3 @39756 has 158 MA's), (7, 39780), (19, 39939), (21, 39960), (27, 40020), (31, 40053), (32, 40068), (42, 40137), (47, 40188),

Gene: Soul22\_63 Start: 40554, Stop: 41048, Start Num: 3

Candidate Starts for Soul22\_63:

(Start: 3 @40554 has 158 MA's), (19, 40737), (21, 40758), (27, 40818), (31, 40851), (32, 40866), (42, 40935), (47, 40986),

Gene: Spartacus\_59 Start: 39633, Stop: 40127, Start Num: 3

Candidate Starts for Spartacus\_59:

(Start: 1 @39624 has 12 MA's), (Start: 2 @39630 has 26 MA's), (Start: 3 @39633 has 158 MA's), (19, 39816), (21, 39837), (27, 39897), (31, 39930), (32, 39945), (47, 40065),

Gene: Spikelee\_64 Start: 41253, Stop: 41747, Start Num: 3

Candidate Starts for Spikelee\_64:

(Start: 1 @41244 has 12 MA's), (Start: 2 @41250 has 26 MA's), (Start: 3 @41253 has 158 MA's), (19, 41436), (21, 41457), (27, 41517), (31, 41550), (32, 41565), (42, 41634), (47, 41685),

Gene: Spoonbill\_54 Start: 37543, Stop: 38037, Start Num: 3

Candidate Starts for Spoonbill\_54:

(Start: 1 @37534 has 12 MA's), (Start: 2 @37540 has 26 MA's), (Start: 3 @37543 has 158 MA's), (19, 37726), (20, 37741), (21, 37747), (27, 37807), (32, 37855), (34, 37867), (42, 37924), (47, 37975),

Gene: Stap\_55 Start: 38344, Stop: 38838, Start Num: 3

Candidate Starts for Stap\_55:

(Start: 1 @38335 has 12 MA's), (Start: 2 @38341 has 26 MA's), (Start: 3 @38344 has 158 MA's), (19, 38527), (20, 38542), (21, 38548), (27, 38608), (32, 38656), (34, 38668), (42, 38725), (47, 38776),

Gene: Starcevich\_56 Start: 38920, Stop: 39414, Start Num: 3

Candidate Starts for Starcevich\_56:

(Start: 1 @38911 has 12 MA's), (Start: 2 @38917 has 26 MA's), (Start: 3 @38920 has 158 MA's), (7, 38944), (19, 39103), (21, 39124), (27, 39184), (31, 39217), (32, 39232), (42, 39301), (47, 39352),

Gene: Stellammi\_71 Start: 40940, Stop: 41377, Start Num: 4

Candidate Starts for Stellammi\_71:

(Start: 4 @40940 has 1 MA's), (16, 41078), (21, 41129), (22, 41141), (30, 41198), (36, 41240), (41, 41279), (44, 41318), (45, 41330),

Gene: Strokeseat\_53 Start: 37079, Stop: 37573, Start Num: 3

Candidate Starts for Strokeseat\_53:

(Start: 1 @37070 has 12 MA's), (Start: 2 @37076 has 26 MA's), (Start: 3 @37079 has 158 MA's), (7, 37103), (19, 37262), (21, 37283), (27, 37343), (31, 37376), (32, 37391), (42, 37460), (47, 37511),

Gene: SwagPiggett\_62 Start: 41271, Stop: 41765, Start Num: 3

Candidate Starts for SwagPiggett\_62:

(Start: 1 @41262 has 12 MA's), (Start: 2 @41268 has 26 MA's), (Start: 3 @41271 has 158 MA's), (7, 41295), (19, 41454), (21, 41475), (27, 41535), (31, 41568), (32, 41583), (42, 41652), (47, 41703),

Gene: TChen\_57 Start: 40173, Stop: 40667, Start Num: 3

Candidate Starts for TChen\_57:

(Start: 3 @40173 has 158 MA's), (19, 40356), (21, 40377), (27, 40437), (31, 40470), (32, 40485), (42, 40554), (47, 40605),

Gene: Taj\_61 Start: 40729, Stop: 41217, Start Num: 3

Candidate Starts for Taj\_61:

(Start: 1 @40720 has 12 MA's), (Start: 2 @40726 has 26 MA's), (Start: 3 @40729 has 158 MA's), (7, 40753), (19, 40906), (20, 40921), (21, 40927), (27, 40987), (31, 41020), (32, 41035), (42, 41104), (47, 41155),

Gene: ThetaBob\_61 Start: 40247, Stop: 40741, Start Num: 3

Candidate Starts for ThetaBob\_61:

(Start: 3 @40247 has 158 MA's), (19, 40430), (21, 40451), (27, 40511), (31, 40544), (32, 40559), (42, 40628), (47, 40679),

Gene: Tootsieroll\_58 Start: 38292, Stop: 38786, Start Num: 3

Candidate Starts for Tootsieroll\_58:

(Start: 1 @38283 has 12 MA's), (Start: 2 @38289 has 26 MA's), (Start: 3 @38292 has 158 MA's), (19, 38475), (21, 38496), (27, 38556), (31, 38589), (32, 38604), (42, 38673), (47, 38724),

Gene: Topiatin\_64 Start: 41412, Stop: 41906, Start Num: 3

Candidate Starts for Topiatin\_64:

(Start: 3 @41412 has 158 MA's), (19, 41595), (21, 41616), (27, 41676), (31, 41709), (32, 41724), (34, 41736), (43, 41802), (47, 41844),

Gene: Totinger\_56 Start: 38219, Stop: 38716, Start Num: 2

Candidate Starts for Totinger\_56:

(Start: 1 @38213 has 12 MA's), (Start: 2 @38219 has 26 MA's), (Start: 3 @38222 has 158 MA's), (19, 38405), (21, 38426), (27, 38486), (31, 38519), (32, 38534), (42, 38603), (47, 38654),

Gene: UncleRicky\_56 Start: 39203, Stop: 39697, Start Num: 3

Candidate Starts for UncleRicky\_56:

(Start: 1 @39194 has 12 MA's), (Start: 2 @39200 has 26 MA's), (Start: 3 @39203 has 158 MA's), (19, 39386), (21, 39407), (27, 39467), (31, 39500), (32, 39515), (42, 39584), (47, 39635),

Gene: VRedHorse\_57 Start: 38279, Stop: 38773, Start Num: 3

Candidate Starts for VRedHorse\_57:

(Start: 1 @38270 has 12 MA's), (Start: 2 @38276 has 26 MA's), (Start: 3 @38279 has 158 MA's), (19, 38462), (21, 38483), (27, 38543), (31, 38576), (32, 38591), (42, 38660), (47, 38711),

Gene: Velveteen\_52 Start: 35161, Stop: 35655, Start Num: 3

Candidate Starts for Velveteen\_52:

(Start: 1 @35152 has 12 MA's), (Start: 2 @35158 has 26 MA's), (Start: 3 @35161 has 158 MA's), (19, 35344), (21, 35365), (27, 35425), (31, 35458), (32, 35473), (42, 35542), (47, 35593),

Gene: Violac\_59 Start: 40349, Stop: 40843, Start Num: 3

Candidate Starts for Violac\_59:

(Start: 1 @40340 has 12 MA's), (Start: 2 @40346 has 26 MA's), (Start: 3 @40349 has 158 MA's), (7, 40373), (19, 40532), (21, 40553), (27, 40613), (31, 40646), (32, 40661), (42, 40730), (47, 40781),

Gene: Vivum\_58 Start: 39281, Stop: 39775, Start Num: 3

Candidate Starts for Vivum\_58:

(Start: 1 @39272 has 12 MA's), (Start: 2 @39278 has 26 MA's), (Start: 3 @39281 has 158 MA's), (7, 39305), (19, 39464), (21, 39485), (27, 39545), (31, 39578), (32, 39593), (42, 39662), (47, 39713),

Gene: Whouxphf\_54 Start: 38875, Stop: 39369, Start Num: 3

Candidate Starts for Whouxphf\_54:

(Start: 1 @38866 has 12 MA's), (Start: 2 @38872 has 26 MA's), (Start: 3 @38875 has 158 MA's), (19, 39058), (21, 39079), (27, 39139), (31, 39172), (32, 39187), (42, 39256), (47, 39307),

Gene: WillSterrel\_58 Start: 40750, Stop: 41244, Start Num: 3

Candidate Starts for WillSterrel\_58:

(Start: 1 @40741 has 12 MA's), (Start: 2 @40747 has 26 MA's), (Start: 3 @40750 has 158 MA's), (19, 40933), (21, 40954), (27, 41014), (31, 41047), (32, 41062), (47, 41182),

Gene: Yorick\_56 Start: 39337, Stop: 39831, Start Num: 3

Candidate Starts for Yorick\_56:

(Start: 1 @39328 has 12 MA's), (Start: 2 @39334 has 26 MA's), (Start: 3 @39337 has 158 MA's), (7, 39361), (19, 39520), (21, 39541), (27, 39601), (31, 39634), (32, 39649), (42, 39718), (47, 39769),

Gene: Yoshi\_69 Start: 40511, Stop: 41005, Start Num: 3

Candidate Starts for Yoshi\_69:

(Start: 3 @40511 has 158 MA's), (19, 40694), (21, 40715), (27, 40775), (31, 40808), (32, 40823), (42, 40892), (47, 40943),

Gene: Zapner\_70 Start: 40876, Stop: 41370, Start Num: 3

Candidate Starts for Zapner\_70:

(Start: 3 @40876 has 158 MA's), (7, 40900), (10, 40939), (19, 41059), (20, 41074), (21, 41080), (27, 41140), (31, 41173), (32, 41188), (34, 41200), (42, 41257), (47, 41308),

Gene: Zerg\_57 Start: 38744, Stop: 39241, Start Num: 2

Candidate Starts for Zerg\_57:

(Start: 1 @38738 has 12 MA's), (Start: 2 @38744 has 26 MA's), (Start: 3 @38747 has 158 MA's), (16, 38903), (19, 38930), (21, 38951), (27, 39011), (31, 39044), (32, 39059), (42, 39128), (47, 39179),

Gene: Zizzle\_61 Start: 40590, Stop: 41084, Start Num: 3

Candidate Starts for Zizzle\_61:

(Start: 1 @40581 has 12 MA's), (Start: 2 @40587 has 26 MA's), (Start: 3 @40590 has 158 MA's), (7, 40614), (19, 40773), (21, 40794), (27, 40854), (31, 40887), (32, 40902), (42, 40971), (47, 41022),