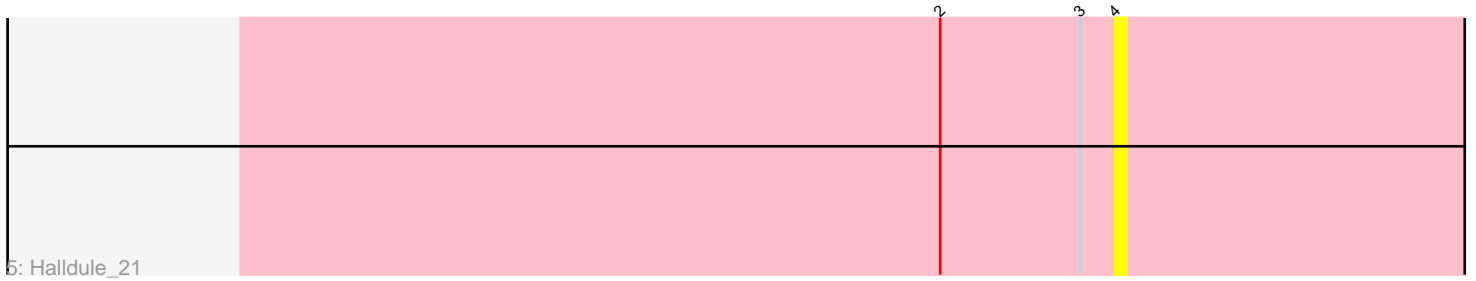
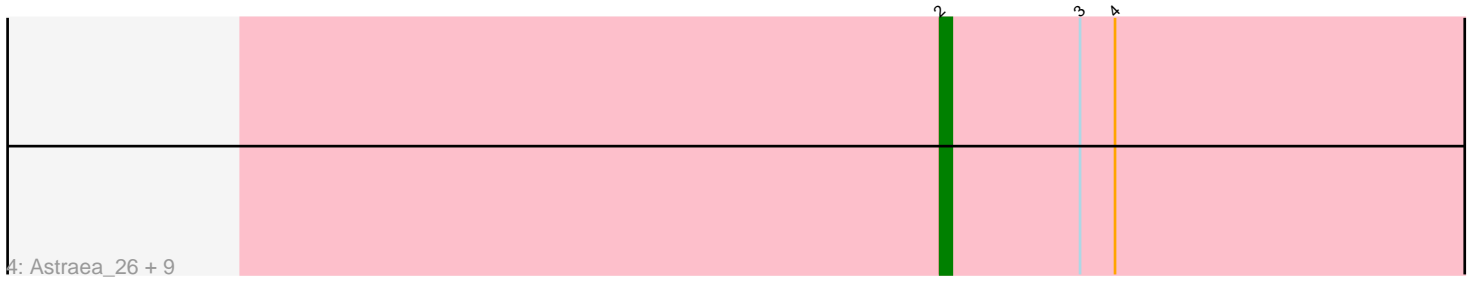
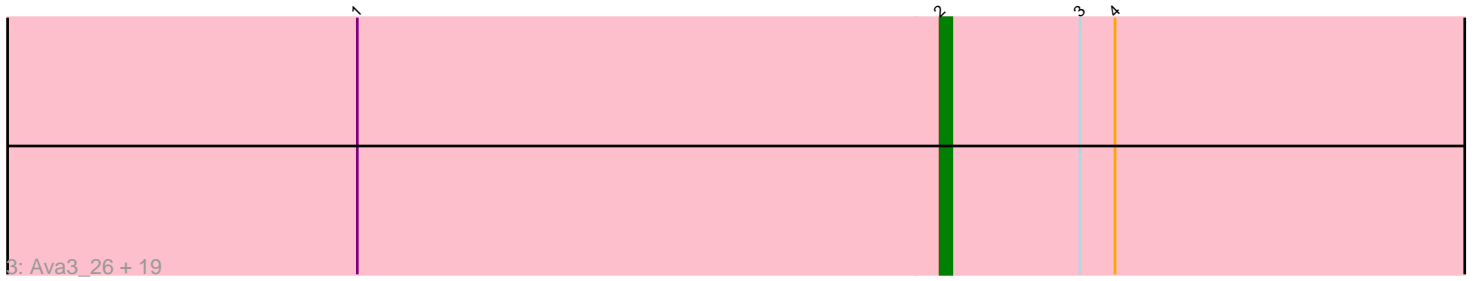
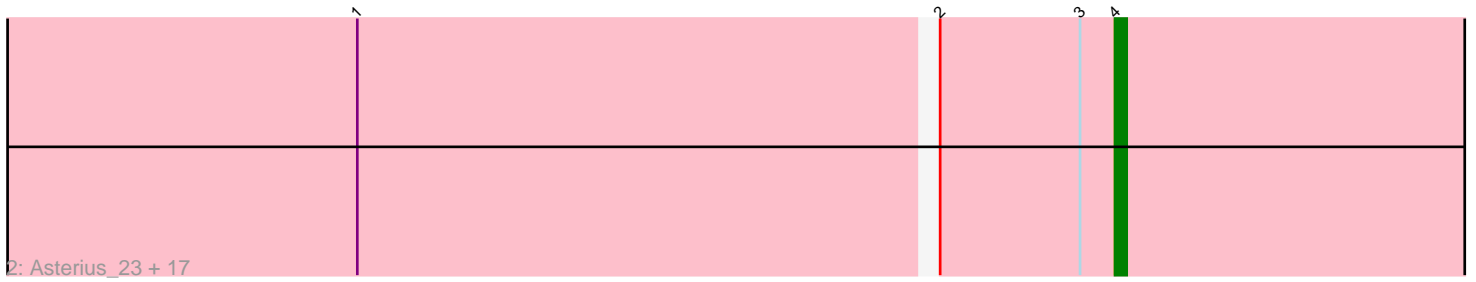
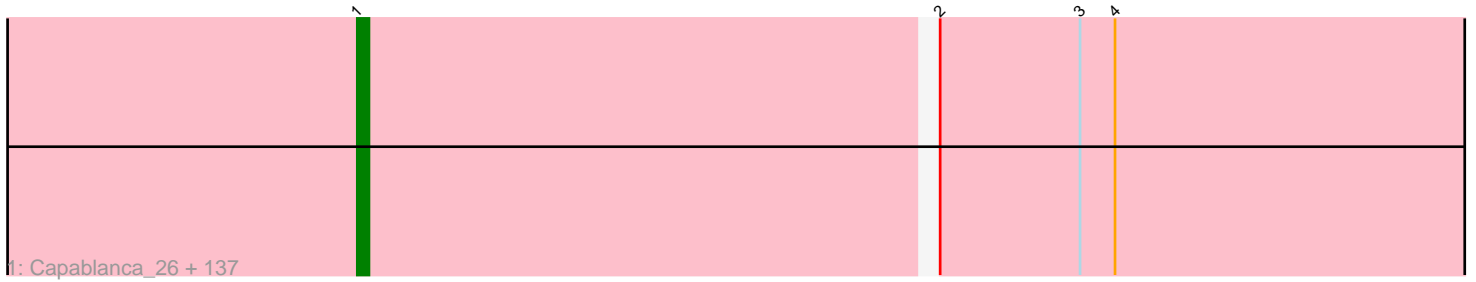


Pham 174560



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 174560 Report

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

Pham number 174560 has 187 members, 18 are drafts.

Phages represented in each track:

- Track 1 : Capablanca\_26, Dietrick\_20, Kboogie\_25, McGee\_24, Shrimp\_25, ZygoTaiga\_25, Ghost\_24, Babyland\_24, Pleione\_27, IkeLoa\_20, Spud\_27, Colt\_18, Amataga\_24, EmToTheThree\_28, RoMag\_19, Jessibeth14\_24, JustHall\_24, Delylah\_26, ET08\_20, Blackbrain\_23, NoodleTree\_23, Patter\_24, NedWong\_26, CharlieB\_25, Yucca\_25, LifeSavor\_25, Zalkecks\_27, ArcherS7\_23, Koguma\_21, Phlegm\_26, Pier\_26, Rabinovish\_24, FrayBell\_31, SrishMeg2525\_24, TinyTim\_25, Bangla1971\_23, SmallFry\_24, Specks\_29, Phusco\_24, Morizzled23\_24, Chomp\_24, Teardrop\_24, Audrick\_26, Ading\_24, Bonray\_25, Norm\_25, Janiyra\_24, Iota\_22, Khaleesi\_24, NuevoMundo\_28, ParkTD\_24, Drazdys\_25, Burrough\_25, Loanshark\_25, Alice\_20, Latch\_24, Delilah\_25, Stubby\_23, Tyke\_26, Bxz1\_26, Adlitam\_24, ChickenPhender\_24, Gamgam\_24, Darko\_24, ScottMcG\_25, Pivoine\_24, Breeniome\_25, Daffodil\_27, Salacia\_27, Gabriel\_25, Quasimodo\_24, ChaylaJr\_24, Jedediah\_25, InterFolia\_31, Blubba\_19, Cactojaque\_22, Kamryn\_24, Nidhogg\_26, Guwapp\_24, CindyLou\_24, FudgeTart\_26, ErnieJ\_26, StubbySaigey\_24, DrPhinkDaddy\_25, HyRo\_23, Derek\_25, YemiJoy2021\_26, Willis\_25, FoxtrotP1\_25, Littleton\_24, Bipolarisk\_24, Sauce\_26, ShiaLabeouf\_24, Nappy\_26, ValleyTerrace\_24, BadAgartude\_26, Melpomini\_24, Cane17\_18, YoungMoneyMata\_24, Shelob\_27, Mikro\_22, Essence\_23, QBert\_23, Ngannou\_23, Erdmann\_26, JPickles\_23, EmmaElysia\_23, Megamind\_25, Fludd\_24, McWolfish\_24, Cali\_25, Basquiat\_24, Chargie21\_24, LinStu\_25, Yassified\_22, Shnickers\_24, Roots515\_25, Jaygup\_24, SilverDipper\_25, InigoMontoya\_25, Trinitium\_24, Jemmno\_24, BeanWater\_20, Tortoise16\_23, DTDevon\_25, Rahel\_24, MikeLiesIn\_25, Catera\_23, Maby2021\_26, Caravan\_23, Mangeria\_28, Wally\_24, Momo\_23, Shifa\_21, Napoleon13\_24, MoMoMixon\_26, Naija\_24, Pio\_28
- Track 2 : Asterius\_23, LordLeafolot\_30, Matsumoto\_22, Lee7\_24, Concombre\_24, EggyFarm\_29, Atlantean\_24, Grasshills\_29, Tainan\_30, JulietS\_20, Blackdragon\_20, Naval22\_27, BigCity\_29, JigglyPuff\_25, Spec\_22, PurduePete\_24, Demodog\_23, JayJay\_26
- Track 3 : Ava3\_26, Izajani\_26, Turret\_23, Zeenon\_27, I3\_27, Bigswole\_31, Phox\_24, Domi\_19, Bread\_26, Sprinklers\_25, Ronan\_20, Pinkcreek\_17, Sebata\_25, LolaVinca\_27, DirtMonster\_23, BananaFence\_26, StephanieG\_24, Issimir\_25, EasyJones\_24, BackyardAgain\_22
- Track 4 : Astraea\_26, Rizal\_23, Grungle\_18, Shaqnato\_21, Dandelion\_28, Lukilu\_18, LRRHood\_22, Gizmo\_27, Flabslab\_26, Ewok\_25
- Track 5 : Halldule\_21

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

The start number called the most often in the published annotations is 1, it was called in 138 of the 169 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ading\_24, Adlitam\_24, Alice\_20, Amataga\_24, ArcherS7\_23, Audrick\_26, Babyland\_24, BadAgartude\_26, Bangla1971\_23, Basquiat\_24, BeanWater\_20, Bipolarisk\_24, Blackbrain\_23, Blubba\_19, Bonray\_25, Breeniome\_25, Burrough\_25, Bxz1\_26, Cactojaque\_22, Cali\_25, Cane17\_18, Capablanca\_26, Caravan\_23, Catera\_23, Chargie21\_24, CharlieB\_25, ChaylaJr\_24, ChickenPhender\_24, Chomp\_24, CindyLou\_24, Colt\_18, DTDevon\_25, Daffodil\_27, Darko\_24, Delilah\_25, Delylah\_26, Derek\_25, Dietrick\_20, DrPhinkDaddy\_25, Drazdys\_25, ET08\_20, EmToTheThree\_28, EmmaElysia\_23, Erdmann\_26, ErnieJ\_26, Essence\_23, Fludd\_24, FoxtrotP1\_25, FrayBell\_31, FudgeTart\_26, Gabriel\_25, Gamgam\_24, Ghost\_24, Guwapp\_24, HyRo\_23, IkeLoa\_20, InigoMontoya\_25, InterFolia\_31, Iota\_22, JPickles\_23, Janiyra\_24, Jaygup\_24, Jedediah\_25, Jemmno\_24, Jessibeth14\_24, JustHall\_24, Kamryn\_24, Kboogie\_25, Khaleesi\_24, Koguma\_21, Latch\_24, LifeSavor\_25, LinStu\_25, Littleton\_24, Loanshark\_25, Maby2021\_26, Mangeria\_28, McGee\_24, McWolfish\_24, Megamind\_25, Melpomini\_24, MikeLiesIn\_25, Mikro\_22, MoMoMixon\_26, Momo\_23, Morizzled23\_24, Naija\_24, Napoleon13\_24, Nappy\_26, NedWong\_26, Ngannou\_23, Nidhogg\_26, NoodleTree\_23, Norm\_25, NuevoMundo\_28, ParkTD\_24, Patter\_24, Phlegm\_26, Phusco\_24, Pier\_26, Pio\_28, Pivoine\_24, Pleione\_27, QBert\_23, Quasimodo\_24, Rabinovish\_24, Rahel\_24, RoMag\_19, Roots515\_25, Salacia\_27, Sauce\_26, ScottMcG\_25, Shelob\_27, ShiaLabeouf\_24, Shifa\_21, Shnickers\_24, Shrimp\_25, SilverDipper\_25, SmallFry\_24, Specks\_29, Spud\_27, SrishMeg2525\_24, StubbySaigey\_24, Stubby\_23, Teardrop\_24, TinyTim\_25, Tortoise16\_23, Trinitium\_24, Tyke\_26, ValleyTerrace\_24, Wally\_24, Willis\_25, Yassified\_22, YemiJoy2021\_26, YoungMoneyMata\_24, Yucca\_25, Zalkecks\_27, ZygoTaiga\_25,

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

- Asterius\_23, Atlantean\_24, Ava3\_26, BackyardAgain\_22, BananaFence\_26, BigCity\_29, Bigswole\_31, Blackdragon\_20, Bread\_26, Concombre\_24, Demodog\_23, DirtMonster\_23, Domi\_19, EasyJones\_24, EggyFarm\_29, Grasshills\_29, I3\_27, Issimir\_25, Izajani\_26, JayJay\_26, JigglyPuff\_25, JulietS\_20, Lee7\_24, LolaVinca\_27, LordLeafolot\_30, Matsumoto\_22, Naval22\_27, Phox\_24, Pinkcreek\_17, PurduePete\_24, Ronan\_20, Sebata\_25, Spec\_22, Sprinklers\_25, StephanieG\_24, Tainan\_30, Turret\_23, Zeenon\_27,

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

- Astraea\_26, Dandelion\_28, Ewok\_25, Flabslab\_26, Gizmo\_27, Grungle\_18, Halldule\_21, LRRHood\_22, Lukilu\_18, Rizal\_23, Shaqnato\_21,

### **Summary by start number:**

Start 1:

- Found in 176 of 187 ( 94.1% ) of genes in pham
- Manual Annotations of this start: 138 of 169
- Called 78.4% of time when present
- Phage (with cluster) where this start called: Ading\_24 (C1), Adlitam\_24 (C1), Alice\_20 (C1), Amataga\_24 (C1), ArcherS7\_23 (C1), Audrick\_26 (C1), Babyland\_24

(C1), BadAgartude\_26 (C1), Bangla1971\_23 (C1), Basquiat\_24 (C1), BeanWater\_20 (C1), Bipolarisk\_24 (C1), Blackbrain\_23 (C1), Blubba\_19 (C1), Bonray\_25 (C1), Breeniome\_25 (C1), Burrough\_25 (C1), Bxz1\_26 (C1), Cactojaque\_22 (C1), Cali\_25 (C1), Cane17\_18 (C1), Capablanca\_26 (C1), Caravan\_23 (C1), Catera\_23 (C1), Chargie21\_24 (C1), CharlieB\_25 (C1), ChaylaJr\_24 (C1), ChickenPhender\_24 (C1), Chomp\_24 (C1), CindyLou\_24 (C1), Colt\_18 (C1), DTDevon\_25 (C1), Daffodil\_27 (C1), Darko\_24 (C1), Delilah\_25 (C1), Delylah\_26 (C1), Derek\_25 (C1), Dietrick\_20 (C1), DrPhinkDaddy\_25 (C1), Drazdys\_25 (C1), ET08\_20 (C1), EmToTheThree\_28 (C1), EmmaElysia\_23 (C1), Erdmann\_26 (C1), ErnieJ\_26 (C1), Essence\_23 (C1), Fludd\_24 (C1), FoxtrotP1\_25 (C1), FrayBell\_31 (C1), FudgeTart\_26 (C1), Gabriel\_25 (C1), Gamgam\_24 (C1), Ghost\_24 (C1), Guwapp\_24 (C1), HyRo\_23 (C1), IkeLoa\_20 (C1), InigoMontoya\_25 (C1), InterFolia\_31 (C1), Iota\_22 (C1), JPickles\_23 (C1), Janiyra\_24 (C1), Jaygup\_24 (C1), Jedediah\_25 (C1), Jemmno\_24 (C1), Jessibeth14\_24 (C1), JustHall\_24 (C1), Kamryn\_24 (C1), Kboogie\_25 (C1), Khaleesi\_24 (C1), Koguma\_21 (C1), Latch\_24 (C1), LifeSavor\_25 (C1), LinStu\_25 (C1), Littleton\_24 (C1), Loanshark\_25 (C1), Maby2021\_26 (C1), Mangeria\_28 (C1), McGee\_24 (C1), McWolfish\_24 (C1), Megamind\_25 (C1), Melpomini\_24 (C1), MikeLiesIn\_25 (C1), Mikro\_22 (C1), MoMoMixon\_26 (C1), Momo\_23 (C1), Morizzled23\_24 (C1), Naija\_24 (C1), Napoleon13\_24 (C1), Nappy\_26 (C1), NedWong\_26 (C1), Ngannou\_23 (C1), Nidhogg\_26 (C1), NoodleTree\_23 (C1), Norm\_25 (C1), NuevoMundo\_28 (C1), ParkTD\_24 (C1), Patter\_24 (C1), Phlegm\_26 (C1), Phusco\_24 (C1), Pier\_26 (C1), Pio\_28 (C1), Pivoine\_24 (C1), Pleione\_27 (C1), QBert\_23 (C1), Quasimodo\_24 (C1), Rabinovish\_24 (C1), Rahel\_24 (C1), RoMag\_19 (C1), Roots515\_25 (C1), Salacia\_27 (C1), Sauce\_26 (C1), ScottMcG\_25 (C1), Shelob\_27 (C1), ShiaLabeouf\_24 (C1), Shifa\_21 (C1), Shnickers\_24 (C1), Shrimp\_25 (C1), SilverDipper\_25 (C1), SmallFry\_24 (C1), Specks\_29 (C1), Spud\_27 (C1), SrishMeg2525\_24 (C1), StubbySaigey\_24 (C1), Stubby\_23 (C1), Teardrop\_24 (C1), TinyTim\_25 (C1), Tortoise16\_23 (C1), Trinitium\_24 (C1), Tyke\_26 (C1), ValleyTerrace\_24 (C1), Wally\_24 (C1), Willis\_25 (C1), Yassified\_22 (C1), YemiJoy2021\_26 (C1), YoungMoneyMata\_24 (C1), Yucca\_25 (C1), Zalkecks\_27 (C1), ZygoTaiga\_25 (C1),

#### Start 2:

- Found in 187 of 187 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 29 of 169
- Called 16.0% of time when present
- Phage (with cluster) where this start called: Astraea\_26 (C1), Ava3\_26 (C1), BackyardAgain\_22 (C1), BananaFence\_26 (C1), Bigswole\_31 (C1), Bread\_26 (C1), Dandelion\_28 (C1), DirtMonster\_23 (C1), Domi\_19 (C1), EasyJones\_24 (C1), Ewok\_25 (C1), Flabslab\_26 (C1), Gizmo\_27 (C1), Grungle\_18 (C1), I3\_27 (C1), Issimir\_25 (C1), Izajani\_26 (C1), LRRHood\_22 (C1), LolaVinca\_27 (C1), Lukilu\_18 (C1), Phox\_24 (C1), Pinkcreek\_17 (C1), Rizal\_23 (C1), Ronan\_20 (C1), Sebata\_25 (C1), Shaqnato\_21 (C1), Sprinklers\_25 (C1), StephanieG\_24 (C1), Turret\_23 (C1), Zeenon\_27 (C1),

#### Start 4:

- Found in 187 of 187 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 2 of 169
- Called 10.2% of time when present
- Phage (with cluster) where this start called: Asterius\_23 (C1), Atlantean\_24 (C1), BigCity\_29 (C1), Blackdragon\_20 (C1), Concombre\_24 (C1), Demodog\_23 (C1), EggyFarm\_29 (C1), Grasshills\_29 (C1), Halldule\_21 (C1), JayJay\_26 (C1), JigglyPuff\_25 (C1), JulietS\_20 (C1), Lee7\_24 (C1), LordLeafolot\_30 (C1),

Matsumoto\_22 (C1), Naval22\_27 (C1), PurduePete\_24 (C1), Spec\_22 (C1), Tainan\_30 (C1),

### **Summary by clusters:**

There is one cluster represented in this pham: C1

Info for manual annotations of cluster C1:

- Start number 1 was manually annotated 138 times for cluster C1.
- Start number 2 was manually annotated 29 times for cluster C1.
- Start number 4 was manually annotated 2 times for cluster C1.

### **Gene Information:**

Gene: Ading\_24 Start: 7174, Stop: 7515, Start Num: 1

Candidate Starts for Ading\_24:

(Start: 1 @7174 has 138 MA's), (Start: 2 @7222 has 29 MA's), (3, 7234), (Start: 4 @7237 has 2 MA's),

Gene: Adlitam\_24 Start: 7191, Stop: 7532, Start Num: 1

Candidate Starts for Adlitam\_24:

(Start: 1 @7191 has 138 MA's), (Start: 2 @7239 has 29 MA's), (3, 7251), (Start: 4 @7254 has 2 MA's),

Gene: Alice\_20 Start: 6789, Stop: 7151, Start Num: 1

Candidate Starts for Alice\_20:

(Start: 1 @6789 has 138 MA's), (Start: 2 @6837 has 29 MA's), (3, 6849), (Start: 4 @6852 has 2 MA's),

Gene: Amataga\_24 Start: 7195, Stop: 7536, Start Num: 1

Candidate Starts for Amataga\_24:

(Start: 1 @7195 has 138 MA's), (Start: 2 @7243 has 29 MA's), (3, 7255), (Start: 4 @7258 has 2 MA's),

Gene: ArcherS7\_23 Start: 7191, Stop: 7532, Start Num: 1

Candidate Starts for ArcherS7\_23:

(Start: 1 @7191 has 138 MA's), (Start: 2 @7239 has 29 MA's), (3, 7251), (Start: 4 @7254 has 2 MA's),

Gene: Asterius\_23 Start: 8058, Stop: 8342, Start Num: 4

Candidate Starts for Asterius\_23:

(Start: 1 @7995 has 138 MA's), (Start: 2 @8043 has 29 MA's), (3, 8055), (Start: 4 @8058 has 2 MA's),

Gene: Astraea\_26 Start: 7926, Stop: 8225, Start Num: 2

Candidate Starts for Astraea\_26:

(Start: 2 @7926 has 29 MA's), (3, 7938), (Start: 4 @7941 has 2 MA's),

Gene: Atlantean\_24 Start: 7258, Stop: 7536, Start Num: 4

Candidate Starts for Atlantean\_24:

(Start: 1 @7195 has 138 MA's), (Start: 2 @7243 has 29 MA's), (3, 7255), (Start: 4 @7258 has 2 MA's),

Gene: Audrick\_26 Start: 7174, Stop: 7515, Start Num: 1

Candidate Starts for Audrick\_26:

(Start: 1 @7174 has 138 MA's), (Start: 2 @7222 has 29 MA's), (3, 7234), (Start: 4 @7237 has 2 MA's),

Gene: Ava3\_26 Start: 8317, Stop: 8616, Start Num: 2

Candidate Starts for Ava3\_26:

(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),

Gene: Babyland\_24 Start: 7156, Stop: 7503, Start Num: 1

Candidate Starts for Babyland\_24:

(Start: 1 @7156 has 138 MA's), (Start: 2 @7204 has 29 MA's), (3, 7216), (Start: 4 @7219 has 2 MA's),

Gene: BackyardAgain\_22 Start: 7200, Stop: 7499, Start Num: 2

Candidate Starts for BackyardAgain\_22:

(Start: 1 @7152 has 138 MA's), (Start: 2 @7200 has 29 MA's), (3, 7212), (Start: 4 @7215 has 2 MA's),

Gene: BadAgartude\_26 Start: 8350, Stop: 8697, Start Num: 1

Candidate Starts for BadAgartude\_26:

(Start: 1 @8350 has 138 MA's), (Start: 2 @8398 has 29 MA's), (3, 8410), (Start: 4 @8413 has 2 MA's),

Gene: BananaFence\_26 Start: 8210, Stop: 8503, Start Num: 2

Candidate Starts for BananaFence\_26:

(Start: 1 @8162 has 138 MA's), (Start: 2 @8210 has 29 MA's), (3, 8222), (Start: 4 @8225 has 2 MA's),

Gene: Bangla1971\_23 Start: 7191, Stop: 7532, Start Num: 1

Candidate Starts for Bangla1971\_23:

(Start: 1 @7191 has 138 MA's), (Start: 2 @7239 has 29 MA's), (3, 7251), (Start: 4 @7254 has 2 MA's),

Gene: Basquiat\_24 Start: 7137, Stop: 7484, Start Num: 1

Candidate Starts for Basquiat\_24:

(Start: 1 @7137 has 138 MA's), (Start: 2 @7185 has 29 MA's), (3, 7197), (Start: 4 @7200 has 2 MA's),

Gene: BeanWater\_20 Start: 7305, Stop: 7646, Start Num: 1

Candidate Starts for BeanWater\_20:

(Start: 1 @7305 has 138 MA's), (Start: 2 @7353 has 29 MA's), (3, 7365), (Start: 4 @7368 has 2 MA's),

Gene: BigCity\_29 Start: 9318, Stop: 9596, Start Num: 4

Candidate Starts for BigCity\_29:

(Start: 1 @9255 has 138 MA's), (Start: 2 @9303 has 29 MA's), (3, 9315), (Start: 4 @9318 has 2 MA's),

Gene: Bigswole\_31 Start: 9841, Stop: 10134, Start Num: 2

Candidate Starts for Bigswole\_31:

(Start: 1 @9793 has 138 MA's), (Start: 2 @9841 has 29 MA's), (3, 9853), (Start: 4 @9856 has 2 MA's),

Gene: Bipolarisk\_24 Start: 7995, Stop: 8336, Start Num: 1

Candidate Starts for Bipolarisk\_24:

(Start: 1 @7995 has 138 MA's), (Start: 2 @8043 has 29 MA's), (3, 8055), (Start: 4 @8058 has 2 MA's),

Gene: Blackbrain\_23 Start: 6953, Stop: 7300, Start Num: 1

Candidate Starts for Blackbrain\_23:

(Start: 1 @6953 has 138 MA's), (Start: 2 @7001 has 29 MA's), (3, 7013), (Start: 4 @7016 has 2 MA's),

Gene: Blackdragon\_20 Start: 6822, Stop: 7106, Start Num: 4

Candidate Starts for Blackdragon\_20:

(Start: 1 @6759 has 138 MA's), (Start: 2 @6807 has 29 MA's), (3, 6819), (Start: 4 @6822 has 2 MA's),

Gene: Blubba\_19 Start: 6459, Stop: 6800, Start Num: 1

Candidate Starts for Blubba\_19:

(Start: 1 @6459 has 138 MA's), (Start: 2 @6507 has 29 MA's), (3, 6519), (Start: 4 @6522 has 2 MA's),

Gene: Bonray\_25 Start: 8263, Stop: 8610, Start Num: 1

Candidate Starts for Bonray\_25:

(Start: 1 @8263 has 138 MA's), (Start: 2 @8311 has 29 MA's), (3, 8323), (Start: 4 @8326 has 2 MA's),

Gene: Bread\_26 Start: 8317, Stop: 8616, Start Num: 2

Candidate Starts for Bread\_26:

(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),

Gene: Breeniome\_25 Start: 7152, Stop: 7493, Start Num: 1

Candidate Starts for Breeniome\_25:

(Start: 1 @7152 has 138 MA's), (Start: 2 @7200 has 29 MA's), (3, 7212), (Start: 4 @7215 has 2 MA's),

Gene: Burrough\_25 Start: 7995, Stop: 8336, Start Num: 1

Candidate Starts for Burrough\_25:

(Start: 1 @7995 has 138 MA's), (Start: 2 @8043 has 29 MA's), (3, 8055), (Start: 4 @8058 has 2 MA's),

Gene: Bxz1\_26 Start: 8738, Stop: 9079, Start Num: 1

Candidate Starts for Bxz1\_26:

(Start: 1 @8738 has 138 MA's), (Start: 2 @8786 has 29 MA's), (3, 8798), (Start: 4 @8801 has 2 MA's),

Gene: Cactojaque\_22 Start: 6842, Stop: 7189, Start Num: 1

Candidate Starts for Cactojaque\_22:

(Start: 1 @6842 has 138 MA's), (Start: 2 @6890 has 29 MA's), (3, 6902), (Start: 4 @6905 has 2 MA's),

Gene: Cali\_25 Start: 9299, Stop: 9640, Start Num: 1

Candidate Starts for Cali\_25:

(Start: 1 @9299 has 138 MA's), (Start: 2 @9347 has 29 MA's), (3, 9359), (Start: 4 @9362 has 2 MA's),

Gene: Cane17\_18 Start: 6331, Stop: 6672, Start Num: 1

Candidate Starts for Cane17\_18:

(Start: 1 @6331 has 138 MA's), (Start: 2 @6379 has 29 MA's), (3, 6391), (Start: 4 @6394 has 2 MA's),

Gene: Capablanca\_26 Start: 8320, Stop: 8661, Start Num: 1

Candidate Starts for Capablanca\_26:

(Start: 1 @8320 has 138 MA's), (Start: 2 @8368 has 29 MA's), (3, 8380), (Start: 4 @8383 has 2 MA's),

Gene: Caravan\_23 Start: 7269, Stop: 7610, Start Num: 1

Candidate Starts for Caravan\_23:

(Start: 1 @7269 has 138 MA's), (Start: 2 @7317 has 29 MA's), (3, 7329), (Start: 4 @7332 has 2 MA's),

Gene: Catera\_23 Start: 7156, Stop: 7497, Start Num: 1

Candidate Starts for Catera\_23:

(Start: 1 @7156 has 138 MA's), (Start: 2 @7204 has 29 MA's), (3, 7216), (Start: 4 @7219 has 2 MA's),

Gene: Chargie21\_24 Start: 7137, Stop: 7484, Start Num: 1

Candidate Starts for Chargie21\_24:

(Start: 1 @7137 has 138 MA's), (Start: 2 @7185 has 29 MA's), (3, 7197), (Start: 4 @7200 has 2 MA's),

Gene: CharlieB\_25 Start: 7291, Stop: 7638, Start Num: 1

Candidate Starts for CharlieB\_25:

(Start: 1 @7291 has 138 MA's), (Start: 2 @7339 has 29 MA's), (3, 7351), (Start: 4 @7354 has 2 MA's),

Gene: ChaylaJr\_24 Start: 7224, Stop: 7571, Start Num: 1

Candidate Starts for ChaylaJr\_24:

(Start: 1 @7224 has 138 MA's), (Start: 2 @7272 has 29 MA's), (3, 7284), (Start: 4 @7287 has 2 MA's),

Gene: ChickenPhender\_24 Start: 7182, Stop: 7529, Start Num: 1

Candidate Starts for ChickenPhender\_24:

(Start: 1 @7182 has 138 MA's), (Start: 2 @7230 has 29 MA's), (3, 7242), (Start: 4 @7245 has 2 MA's),

Gene: Chomp\_24 Start: 7195, Stop: 7536, Start Num: 1

Candidate Starts for Chomp\_24:

(Start: 1 @7195 has 138 MA's), (Start: 2 @7243 has 29 MA's), (3, 7255), (Start: 4 @7258 has 2 MA's),

Gene: CindyLou\_24 Start: 7195, Stop: 7536, Start Num: 1

Candidate Starts for CindyLou\_24:

(Start: 1 @7195 has 138 MA's), (Start: 2 @7243 has 29 MA's), (3, 7255), (Start: 4 @7258 has 2 MA's),

Gene: Colt\_18 Start: 6337, Stop: 6678, Start Num: 1

Candidate Starts for Colt\_18:

(Start: 1 @6337 has 138 MA's), (Start: 2 @6385 has 29 MA's), (3, 6397), (Start: 4 @6400 has 2 MA's),

Gene: Concombres\_24 Start: 8288, Stop: 8566, Start Num: 4

Candidate Starts for Concombres\_24:

(Start: 1 @8225 has 138 MA's), (Start: 2 @8273 has 29 MA's), (3, 8285), (Start: 4 @8288 has 2 MA's),

Gene: DTDevon\_25 Start: 8359, Stop: 8700, Start Num: 1

Candidate Starts for DTDevon\_25:

(Start: 1 @8359 has 138 MA's), (Start: 2 @8407 has 29 MA's), (3, 8419), (Start: 4 @8422 has 2 MA's),

Gene: Daffodil\_27 Start: 8269, Stop: 8616, Start Num: 1

Candidate Starts for Daffodil\_27:

(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),

Gene: Dandelion\_28 Start: 9102, Stop: 9395, Start Num: 2

Candidate Starts for Dandelion\_28:

(Start: 2 @9102 has 29 MA's), (3, 9114), (Start: 4 @9117 has 2 MA's),

Gene: Darko\_24 Start: 8131, Stop: 8472, Start Num: 1

Candidate Starts for Darko\_24:

(Start: 1 @8131 has 138 MA's), (Start: 2 @8179 has 29 MA's), (3, 8191), (Start: 4 @8194 has 2 MA's),

Gene: Delilah\_25 Start: 8269, Stop: 8616, Start Num: 1

Candidate Starts for Delilah\_25:

(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),

Gene: Delylah\_26 Start: 8055, Stop: 8402, Start Num: 1

Candidate Starts for Delylah\_26:

(Start: 1 @8055 has 138 MA's), (Start: 2 @8103 has 29 MA's), (3, 8115), (Start: 4 @8118 has 2 MA's),

Gene: Demodog\_23 Start: 8288, Stop: 8566, Start Num: 4

Candidate Starts for Demodog\_23:

(Start: 1 @8225 has 138 MA's), (Start: 2 @8273 has 29 MA's), (3, 8285), (Start: 4 @8288 has 2 MA's),



Gene: Derek\_25 Start: 7152, Stop: 7493, Start Num: 1  
Candidate Starts for Derek\_25:  
(Start: 1 @7152 has 138 MA's), (Start: 2 @7200 has 29 MA's), (3, 7212), (Start: 4 @7215 has 2 MA's),

Gene: Dietrick\_20 Start: 6910, Stop: 7257, Start Num: 1  
Candidate Starts for Dietrick\_20:  
(Start: 1 @6910 has 138 MA's), (Start: 2 @6958 has 29 MA's), (3, 6970), (Start: 4 @6973 has 2 MA's),

Gene: DirtMonster\_23 Start: 8332, Stop: 8625, Start Num: 2  
Candidate Starts for DirtMonster\_23:  
(Start: 1 @8284 has 138 MA's), (Start: 2 @8332 has 29 MA's), (3, 8344), (Start: 4 @8347 has 2 MA's),

Gene: Domi\_19 Start: 7048, Stop: 7356, Start Num: 2  
Candidate Starts for Domi\_19:  
(Start: 1 @7000 has 138 MA's), (Start: 2 @7048 has 29 MA's), (3, 7060), (Start: 4 @7063 has 2 MA's),

Gene: DrPhinkDaddy\_25 Start: 8269, Stop: 8616, Start Num: 1  
Candidate Starts for DrPhinkDaddy\_25:  
(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),

Gene: Drazdys\_25 Start: 8060, Stop: 8401, Start Num: 1  
Candidate Starts for Drazdys\_25:  
(Start: 1 @8060 has 138 MA's), (Start: 2 @8108 has 29 MA's), (3, 8120), (Start: 4 @8123 has 2 MA's),

Gene: ET08\_20 Start: 7719, Stop: 8066, Start Num: 1  
Candidate Starts for ET08\_20:  
(Start: 1 @7719 has 138 MA's), (Start: 2 @7767 has 29 MA's), (3, 7779), (Start: 4 @7782 has 2 MA's),

Gene: EasyJones\_24 Start: 6941, Stop: 7240, Start Num: 2  
Candidate Starts for EasyJones\_24:  
(Start: 1 @6893 has 138 MA's), (Start: 2 @6941 has 29 MA's), (3, 6953), (Start: 4 @6956 has 2 MA's),

Gene: EggyFarm\_29 Start: 9318, Stop: 9596, Start Num: 4  
Candidate Starts for EggyFarm\_29:  
(Start: 1 @9255 has 138 MA's), (Start: 2 @9303 has 29 MA's), (3, 9315), (Start: 4 @9318 has 2 MA's),

Gene: EmToTheThree\_28 Start: 9683, Stop: 10030, Start Num: 1  
Candidate Starts for EmToTheThree\_28:  
(Start: 1 @9683 has 138 MA's), (Start: 2 @9731 has 29 MA's), (3, 9743), (Start: 4 @9746 has 2 MA's),

Gene: EmmaElysia\_23 Start: 6908, Stop: 7249, Start Num: 1  
Candidate Starts for EmmaElysia\_23:  
(Start: 1 @6908 has 138 MA's), (Start: 2 @6956 has 29 MA's), (3, 6968), (Start: 4 @6971 has 2 MA's),

Gene: Erdmann\_26 Start: 8269, Stop: 8616, Start Num: 1  
Candidate Starts for Erdmann\_26:  
(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),

Gene: ErnieJ\_26 Start: 8083, Stop: 8430, Start Num: 1  
Candidate Starts for ErnieJ\_26:  
(Start: 1 @8083 has 138 MA's), (Start: 2 @8131 has 29 MA's), (3, 8143), (Start: 4 @8146 has 2 MA's),

Gene: Essence\_23 Start: 6917, Stop: 7258, Start Num: 1

Candidate Starts for Essence\_23:

(Start: 1 @6917 has 138 MA's), (Start: 2 @6965 has 29 MA's), (3, 6977), (Start: 4 @6980 has 2 MA's),

Gene: Ewok\_25 Start: 8319, Stop: 8618, Start Num: 2

Candidate Starts for Ewok\_25:

(Start: 2 @8319 has 29 MA's), (3, 8331), (Start: 4 @8334 has 2 MA's),

Gene: Flabslab\_26 Start: 8238, Stop: 8552, Start Num: 2

Candidate Starts for Flabslab\_26:

(Start: 2 @8238 has 29 MA's), (3, 8250), (Start: 4 @8253 has 2 MA's),

Gene: Fludd\_24 Start: 7138, Stop: 7485, Start Num: 1

Candidate Starts for Fludd\_24:

(Start: 1 @7138 has 138 MA's), (Start: 2 @7186 has 29 MA's), (3, 7198), (Start: 4 @7201 has 2 MA's),

Gene: FoxtrotP1\_25 Start: 8581, Stop: 8943, Start Num: 1

Candidate Starts for FoxtrotP1\_25:

(Start: 1 @8581 has 138 MA's), (Start: 2 @8629 has 29 MA's), (3, 8641), (Start: 4 @8644 has 2 MA's),

Gene: FrayBell\_31 Start: 9849, Stop: 10190, Start Num: 1

Candidate Starts for FrayBell\_31:

(Start: 1 @9849 has 138 MA's), (Start: 2 @9897 has 29 MA's), (3, 9909), (Start: 4 @9912 has 2 MA's),

Gene: FudgeTart\_26 Start: 8269, Stop: 8616, Start Num: 1

Candidate Starts for FudgeTart\_26:

(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),

Gene: Gabriel\_25 Start: 7152, Stop: 7493, Start Num: 1

Candidate Starts for Gabriel\_25:

(Start: 1 @7152 has 138 MA's), (Start: 2 @7200 has 29 MA's), (3, 7212), (Start: 4 @7215 has 2 MA's),

Gene: Gamgam\_24 Start: 7195, Stop: 7536, Start Num: 1

Candidate Starts for Gamgam\_24:

(Start: 1 @7195 has 138 MA's), (Start: 2 @7243 has 29 MA's), (3, 7255), (Start: 4 @7258 has 2 MA's),

Gene: Ghost\_24 Start: 7195, Stop: 7536, Start Num: 1

Candidate Starts for Ghost\_24:

(Start: 1 @7195 has 138 MA's), (Start: 2 @7243 has 29 MA's), (3, 7255), (Start: 4 @7258 has 2 MA's),

Gene: Gizmo\_27 Start: 8319, Stop: 8618, Start Num: 2

Candidate Starts for Gizmo\_27:

(Start: 2 @8319 has 29 MA's), (3, 8331), (Start: 4 @8334 has 2 MA's),

Gene: Grasshills\_29 Start: 9318, Stop: 9596, Start Num: 4

Candidate Starts for Grasshills\_29:

(Start: 1 @9255 has 138 MA's), (Start: 2 @9303 has 29 MA's), (3, 9315), (Start: 4 @9318 has 2 MA's),

Gene: Grungle\_18 Start: 5890, Stop: 6189, Start Num: 2

Candidate Starts for Grungle\_18:

(Start: 2 @5890 has 29 MA's), (3, 5902), (Start: 4 @5905 has 2 MA's),

Gene: Guwapp\_24 Start: 7152, Stop: 7493, Start Num: 1

Candidate Starts for Guwapp\_24:

(Start: 1 @7152 has 138 MA's), (Start: 2 @7200 has 29 MA's), (3, 7212), (Start: 4 @7215 has 2 MA's),

Gene: Halldule\_21 Start: 6575, Stop: 6859, Start Num: 4

Candidate Starts for Halldule\_21:

(Start: 2 @6560 has 29 MA's), (3, 6572), (Start: 4 @6575 has 2 MA's),

Gene: HyRo\_23 Start: 7924, Stop: 8271, Start Num: 1

Candidate Starts for HyRo\_23:

(Start: 1 @7924 has 138 MA's), (Start: 2 @7972 has 29 MA's), (3, 7984), (Start: 4 @7987 has 2 MA's),

Gene: I3\_27 Start: 8893, Stop: 9186, Start Num: 2

Candidate Starts for I3\_27:

(Start: 1 @8845 has 138 MA's), (Start: 2 @8893 has 29 MA's), (3, 8905), (Start: 4 @8908 has 2 MA's),

Gene: IkeLoa\_20 Start: 7011, Stop: 7382, Start Num: 1

Candidate Starts for IkeLoa\_20:

(Start: 1 @7011 has 138 MA's), (Start: 2 @7059 has 29 MA's), (3, 7071), (Start: 4 @7074 has 2 MA's),

Gene: InigoMontoya\_25 Start: 7156, Stop: 7497, Start Num: 1

Candidate Starts for InigoMontoya\_25:

(Start: 1 @7156 has 138 MA's), (Start: 2 @7204 has 29 MA's), (3, 7216), (Start: 4 @7219 has 2 MA's),

Gene: InterFolia\_31 Start: 9846, Stop: 10187, Start Num: 1

Candidate Starts for InterFolia\_31:

(Start: 1 @9846 has 138 MA's), (Start: 2 @9894 has 29 MA's), (3, 9906), (Start: 4 @9909 has 2 MA's),

Gene: Iota\_22 Start: 7810, Stop: 8151, Start Num: 1

Candidate Starts for Iota\_22:

(Start: 1 @7810 has 138 MA's), (Start: 2 @7858 has 29 MA's), (3, 7870), (Start: 4 @7873 has 2 MA's),

Gene: Issimir\_25 Start: 8311, Stop: 8610, Start Num: 2

Candidate Starts for Issimir\_25:

(Start: 1 @8263 has 138 MA's), (Start: 2 @8311 has 29 MA's), (3, 8323), (Start: 4 @8326 has 2 MA's),

Gene: Izajani\_26 Start: 8317, Stop: 8616, Start Num: 2

Candidate Starts for Izajani\_26:

(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),

Gene: JPickles\_23 Start: 6912, Stop: 7259, Start Num: 1

Candidate Starts for JPickles\_23:

(Start: 1 @6912 has 138 MA's), (Start: 2 @6960 has 29 MA's), (3, 6972), (Start: 4 @6975 has 2 MA's),

Gene: Janiyra\_24 Start: 7174, Stop: 7515, Start Num: 1

Candidate Starts for Janiyra\_24:

(Start: 1 @7174 has 138 MA's), (Start: 2 @7222 has 29 MA's), (3, 7234), (Start: 4 @7237 has 2 MA's),

Gene: JayJay\_26 Start: 8309, Stop: 8587, Start Num: 4

Candidate Starts for JayJay\_26:

(Start: 1 @8246 has 138 MA's), (Start: 2 @8294 has 29 MA's), (3, 8306), (Start: 4 @8309 has 2 MA's),

Gene: Jaygup\_24 Start: 7191, Stop: 7532, Start Num: 1

Candidate Starts for Jaygup\_24:

(Start: 1 @7191 has 138 MA's), (Start: 2 @7239 has 29 MA's), (3, 7251), (Start: 4 @7254 has 2 MA's),

Gene: Jedediah\_25 Start: 7195, Stop: 7536, Start Num: 1

Candidate Starts for Jedediah\_25:

(Start: 1 @7195 has 138 MA's), (Start: 2 @7243 has 29 MA's), (3, 7255), (Start: 4 @7258 has 2 MA's),

Gene: Jemmno\_24 Start: 7195, Stop: 7536, Start Num: 1

Candidate Starts for Jemmno\_24:

(Start: 1 @7195 has 138 MA's), (Start: 2 @7243 has 29 MA's), (3, 7255), (Start: 4 @7258 has 2 MA's),

Gene: Jessibeth14\_24 Start: 7995, Stop: 8342, Start Num: 1

Candidate Starts for Jessibeth14\_24:

(Start: 1 @7995 has 138 MA's), (Start: 2 @8043 has 29 MA's), (3, 8055), (Start: 4 @8058 has 2 MA's),

Gene: JigglyPuff\_25 Start: 8337, Stop: 8615, Start Num: 4

Candidate Starts for JigglyPuff\_25:

(Start: 1 @8274 has 138 MA's), (Start: 2 @8322 has 29 MA's), (3, 8334), (Start: 4 @8337 has 2 MA's),

Gene: JulietS\_20 Start: 6200, Stop: 6484, Start Num: 4

Candidate Starts for JulietS\_20:

(Start: 1 @6137 has 138 MA's), (Start: 2 @6185 has 29 MA's), (3, 6197), (Start: 4 @6200 has 2 MA's),

Gene: JustHall\_24 Start: 8157, Stop: 8519, Start Num: 1

Candidate Starts for JustHall\_24:

(Start: 1 @8157 has 138 MA's), (Start: 2 @8205 has 29 MA's), (3, 8217), (Start: 4 @8220 has 2 MA's),

Gene: Kamryn\_24 Start: 7519, Stop: 7860, Start Num: 1

Candidate Starts for Kamryn\_24:

(Start: 1 @7519 has 138 MA's), (Start: 2 @7567 has 29 MA's), (3, 7579), (Start: 4 @7582 has 2 MA's),

Gene: Kboogie\_25 Start: 7193, Stop: 7540, Start Num: 1

Candidate Starts for Kboogie\_25:

(Start: 1 @7193 has 138 MA's), (Start: 2 @7241 has 29 MA's), (3, 7253), (Start: 4 @7256 has 2 MA's),

Gene: Khaleesi\_24 Start: 8022, Stop: 8369, Start Num: 1

Candidate Starts for Khaleesi\_24:

(Start: 1 @8022 has 138 MA's), (Start: 2 @8070 has 29 MA's), (3, 8082), (Start: 4 @8085 has 2 MA's),

Gene: Koguma\_21 Start: 6480, Stop: 6827, Start Num: 1

Candidate Starts for Koguma\_21:

(Start: 1 @6480 has 138 MA's), (Start: 2 @6528 has 29 MA's), (3, 6540), (Start: 4 @6543 has 2 MA's),

Gene: LRRHood\_22 Start: 8459, Stop: 8758, Start Num: 2

Candidate Starts for LRRHood\_22:

(Start: 2 @8459 has 29 MA's), (3, 8471), (Start: 4 @8474 has 2 MA's),

Gene: Latch\_24 Start: 7195, Stop: 7536, Start Num: 1

Candidate Starts for Latch\_24:

(Start: 1 @7195 has 138 MA's), (Start: 2 @7243 has 29 MA's), (3, 7255), (Start: 4 @7258 has 2 MA's),

Gene: Lee7\_24 Start: 8332, Stop: 8616, Start Num: 4

Candidate Starts for Lee7\_24:

(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),

Gene: LifeSavor\_25 Start: 7191, Stop: 7532, Start Num: 1  
Candidate Starts for LifeSavor\_25:  
(Start: 1 @7191 has 138 MA's), (Start: 2 @7239 has 29 MA's), (3, 7251), (Start: 4 @7254 has 2 MA's),

Gene: LinStu\_25 Start: 8613, Stop: 8960, Start Num: 1  
Candidate Starts for LinStu\_25:  
(Start: 1 @8613 has 138 MA's), (Start: 2 @8661 has 29 MA's), (3, 8673), (Start: 4 @8676 has 2 MA's),

Gene: Littleton\_24 Start: 7195, Stop: 7536, Start Num: 1  
Candidate Starts for Littleton\_24:  
(Start: 1 @7195 has 138 MA's), (Start: 2 @7243 has 29 MA's), (3, 7255), (Start: 4 @7258 has 2 MA's),

Gene: Loanshark\_25 Start: 8269, Stop: 8616, Start Num: 1  
Candidate Starts for Loanshark\_25:  
(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),

Gene: LolaVinca\_27 Start: 9000, Stop: 9293, Start Num: 2  
Candidate Starts for LolaVinca\_27:  
(Start: 1 @8952 has 138 MA's), (Start: 2 @9000 has 29 MA's), (3, 9012), (Start: 4 @9015 has 2 MA's),

Gene: LordLeafolot\_30 Start: 9911, Stop: 10189, Start Num: 4  
Candidate Starts for LordLeafolot\_30:  
(Start: 1 @9848 has 138 MA's), (Start: 2 @9896 has 29 MA's), (3, 9908), (Start: 4 @9911 has 2 MA's),

Gene: Lukilu\_18 Start: 6910, Stop: 7209, Start Num: 2  
Candidate Starts for Lukilu\_18:  
(Start: 2 @6910 has 29 MA's), (3, 6922), (Start: 4 @6925 has 2 MA's),

Gene: Maby2021\_26 Start: 8269, Stop: 8616, Start Num: 1  
Candidate Starts for Maby2021\_26:  
(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),

Gene: Mangeria\_28 Start: 8804, Stop: 9145, Start Num: 1  
Candidate Starts for Mangeria\_28:  
(Start: 1 @8804 has 138 MA's), (Start: 2 @8852 has 29 MA's), (3, 8864), (Start: 4 @8867 has 2 MA's),

Gene: Matsumoto\_22 Start: 7219, Stop: 7497, Start Num: 4  
Candidate Starts for Matsumoto\_22:  
(Start: 1 @7156 has 138 MA's), (Start: 2 @7204 has 29 MA's), (3, 7216), (Start: 4 @7219 has 2 MA's),

Gene: McGee\_24 Start: 6910, Stop: 7257, Start Num: 1  
Candidate Starts for McGee\_24:  
(Start: 1 @6910 has 138 MA's), (Start: 2 @6958 has 29 MA's), (3, 6970), (Start: 4 @6973 has 2 MA's),

Gene: McWolfish\_24 Start: 8022, Stop: 8369, Start Num: 1  
Candidate Starts for McWolfish\_24:  
(Start: 1 @8022 has 138 MA's), (Start: 2 @8070 has 29 MA's), (3, 8082), (Start: 4 @8085 has 2 MA's),

Gene: Megamind\_25 Start: 8269, Stop: 8610, Start Num: 1  
Candidate Starts for Megamind\_25:  
(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),

Gene: Melpomini\_24 Start: 7135, Stop: 7476, Start Num: 1

Candidate Starts for Melpomini\_24:

(Start: 1 @7135 has 138 MA's), (Start: 2 @7183 has 29 MA's), (3, 7195), (Start: 4 @7198 has 2 MA's),

Gene: MikeLiesIn\_25 Start: 8269, Stop: 8616, Start Num: 1

Candidate Starts for MikeLiesIn\_25:

(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),

Gene: Mikro\_22 Start: 8211, Stop: 8567, Start Num: 1

Candidate Starts for Mikro\_22:

(Start: 1 @8211 has 138 MA's), (Start: 2 @8259 has 29 MA's), (3, 8271), (Start: 4 @8274 has 2 MA's),

Gene: MoMoMixon\_26 Start: 8592, Stop: 8933, Start Num: 1

Candidate Starts for MoMoMixon\_26:

(Start: 1 @8592 has 138 MA's), (Start: 2 @8640 has 29 MA's), (3, 8652), (Start: 4 @8655 has 2 MA's),

Gene: Momo\_23 Start: 7195, Stop: 7536, Start Num: 1

Candidate Starts for Momo\_23:

(Start: 1 @7195 has 138 MA's), (Start: 2 @7243 has 29 MA's), (3, 7255), (Start: 4 @7258 has 2 MA's),

Gene: Morizzled23\_24 Start: 7135, Stop: 7476, Start Num: 1

Candidate Starts for Morizzled23\_24:

(Start: 1 @7135 has 138 MA's), (Start: 2 @7183 has 29 MA's), (3, 7195), (Start: 4 @7198 has 2 MA's),

Gene: Naija\_24 Start: 7195, Stop: 7536, Start Num: 1

Candidate Starts for Naija\_24:

(Start: 1 @7195 has 138 MA's), (Start: 2 @7243 has 29 MA's), (3, 7255), (Start: 4 @7258 has 2 MA's),

Gene: Napoleon13\_24 Start: 7154, Stop: 7495, Start Num: 1

Candidate Starts for Napoleon13\_24:

(Start: 1 @7154 has 138 MA's), (Start: 2 @7202 has 29 MA's), (3, 7214), (Start: 4 @7217 has 2 MA's),

Gene: Nappy\_26 Start: 8442, Stop: 8783, Start Num: 1

Candidate Starts for Nappy\_26:

(Start: 1 @8442 has 138 MA's), (Start: 2 @8490 has 29 MA's), (3, 8502), (Start: 4 @8505 has 2 MA's),

Gene: Naval22\_27 Start: 8381, Stop: 8659, Start Num: 4

Candidate Starts for Naval22\_27:

(Start: 1 @8318 has 138 MA's), (Start: 2 @8366 has 29 MA's), (3, 8378), (Start: 4 @8381 has 2 MA's),

Gene: NedWong\_26 Start: 8269, Stop: 8616, Start Num: 1

Candidate Starts for NedWong\_26:

(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),

Gene: Ngannou\_23 Start: 6891, Stop: 7238, Start Num: 1

Candidate Starts for Ngannou\_23:

(Start: 1 @6891 has 138 MA's), (Start: 2 @6939 has 29 MA's), (3, 6951), (Start: 4 @6954 has 2 MA's),

Gene: Nidhogg\_26 Start: 8345, Stop: 8686, Start Num: 1

Candidate Starts for Nidhogg\_26:

(Start: 1 @8345 has 138 MA's), (Start: 2 @8393 has 29 MA's), (3, 8405), (Start: 4 @8408 has 2 MA's),

Gene: NoodleTree\_23 Start: 7212, Stop: 7568, Start Num: 1

Candidate Starts for NoodleTree\_23:

(Start: 1 @7212 has 138 MA's), (Start: 2 @7260 has 29 MA's), (3, 7272), (Start: 4 @7275 has 2 MA's),

Gene: Norm\_25 Start: 8269, Stop: 8616, Start Num: 1

Candidate Starts for Norm\_25:

(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),

Gene: NuevoMundo\_28 Start: 9320, Stop: 9676, Start Num: 1

Candidate Starts for NuevoMundo\_28:

(Start: 1 @9320 has 138 MA's), (Start: 2 @9368 has 29 MA's), (3, 9380), (Start: 4 @9383 has 2 MA's),

Gene: ParkTD\_24 Start: 8269, Stop: 8616, Start Num: 1

Candidate Starts for ParkTD\_24:

(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),

Gene: Patter\_24 Start: 7212, Stop: 7553, Start Num: 1

Candidate Starts for Patter\_24:

(Start: 1 @7212 has 138 MA's), (Start: 2 @7260 has 29 MA's), (3, 7272), (Start: 4 @7275 has 2 MA's),

Gene: Phlegm\_26 Start: 7195, Stop: 7536, Start Num: 1

Candidate Starts for Phlegm\_26:

(Start: 1 @7195 has 138 MA's), (Start: 2 @7243 has 29 MA's), (3, 7255), (Start: 4 @7258 has 2 MA's),

Gene: Phox\_24 Start: 8475, Stop: 8774, Start Num: 2

Candidate Starts for Phox\_24:

(Start: 1 @8427 has 138 MA's), (Start: 2 @8475 has 29 MA's), (3, 8487), (Start: 4 @8490 has 2 MA's),

Gene: Phusco\_24 Start: 7191, Stop: 7532, Start Num: 1

Candidate Starts for Phusco\_24:

(Start: 1 @7191 has 138 MA's), (Start: 2 @7239 has 29 MA's), (3, 7251), (Start: 4 @7254 has 2 MA's),

Gene: Pier\_26 Start: 7883, Stop: 8239, Start Num: 1

Candidate Starts for Pier\_26:

(Start: 1 @7883 has 138 MA's), (Start: 2 @7931 has 29 MA's), (3, 7943), (Start: 4 @7946 has 2 MA's),

Gene: Pinkcreek\_17 Start: 6160, Stop: 6459, Start Num: 2

Candidate Starts for Pinkcreek\_17:

(Start: 1 @6112 has 138 MA's), (Start: 2 @6160 has 29 MA's), (3, 6172), (Start: 4 @6175 has 2 MA's),

Gene: Pio\_28 Start: 9127, Stop: 9468, Start Num: 1

Candidate Starts for Pio\_28:

(Start: 1 @9127 has 138 MA's), (Start: 2 @9175 has 29 MA's), (3, 9187), (Start: 4 @9190 has 2 MA's),

Gene: Pivoine\_24 Start: 7195, Stop: 7536, Start Num: 1

Candidate Starts for Pivoine\_24:

(Start: 1 @7195 has 138 MA's), (Start: 2 @7243 has 29 MA's), (3, 7255), (Start: 4 @7258 has 2 MA's),

Gene: Pleione\_27 Start: 8269, Stop: 8616, Start Num: 1

Candidate Starts for Pleione\_27:

(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),

Gene: PurduePete\_24 Start: 8058, Stop: 8336, Start Num: 4

Candidate Starts for PurduePete\_24:

(Start: 1 @7995 has 138 MA's), (Start: 2 @8043 has 29 MA's), (3, 8055), (Start: 4 @8058 has 2 MA's),

Gene: QBert\_23 Start: 8427, Stop: 8774, Start Num: 1  
Candidate Starts for QBert\_23:  
(Start: 1 @8427 has 138 MA's), (Start: 2 @8475 has 29 MA's), (3, 8487), (Start: 4 @8490 has 2 MA's),

Gene: Quasimodo\_24 Start: 8155, Stop: 8496, Start Num: 1  
Candidate Starts for Quasimodo\_24:  
(Start: 1 @8155 has 138 MA's), (Start: 2 @8203 has 29 MA's), (3, 8215), (Start: 4 @8218 has 2 MA's),

Gene: Rabinovish\_24 Start: 8715, Stop: 9062, Start Num: 1  
Candidate Starts for Rabinovish\_24:  
(Start: 1 @8715 has 138 MA's), (Start: 2 @8763 has 29 MA's), (3, 8775), (Start: 4 @8778 has 2 MA's),

Gene: Rahel\_24 Start: 7191, Stop: 7532, Start Num: 1  
Candidate Starts for Rahel\_24:  
(Start: 1 @7191 has 138 MA's), (Start: 2 @7239 has 29 MA's), (3, 7251), (Start: 4 @7254 has 2 MA's),

Gene: Rizal\_23 Start: 7240, Stop: 7533, Start Num: 2  
Candidate Starts for Rizal\_23:  
(Start: 2 @7240 has 29 MA's), (3, 7252), (Start: 4 @7255 has 2 MA's),

Gene: RoMag\_19 Start: 6962, Stop: 7333, Start Num: 1  
Candidate Starts for RoMag\_19:  
(Start: 1 @6962 has 138 MA's), (Start: 2 @7010 has 29 MA's), (3, 7022), (Start: 4 @7025 has 2 MA's),

Gene: Ronan\_20 Start: 5886, Stop: 6179, Start Num: 2  
Candidate Starts for Ronan\_20:  
(Start: 1 @5838 has 138 MA's), (Start: 2 @5886 has 29 MA's), (3, 5898), (Start: 4 @5901 has 2 MA's),

Gene: Roots515\_25 Start: 8268, Stop: 8615, Start Num: 1  
Candidate Starts for Roots515\_25:  
(Start: 1 @8268 has 138 MA's), (Start: 2 @8316 has 29 MA's), (3, 8328), (Start: 4 @8331 has 2 MA's),

Gene: Salacia\_27 Start: 8269, Stop: 8616, Start Num: 1  
Candidate Starts for Salacia\_27:  
(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),

Gene: Sauce\_26 Start: 8390, Stop: 8737, Start Num: 1  
Candidate Starts for Sauce\_26:  
(Start: 1 @8390 has 138 MA's), (Start: 2 @8438 has 29 MA's), (3, 8450), (Start: 4 @8453 has 2 MA's),

Gene: ScottMcG\_25 Start: 8578, Stop: 8925, Start Num: 1  
Candidate Starts for ScottMcG\_25:  
(Start: 1 @8578 has 138 MA's), (Start: 2 @8626 has 29 MA's), (3, 8638), (Start: 4 @8641 has 2 MA's),

Gene: Sebata\_25 Start: 8661, Stop: 8960, Start Num: 2  
Candidate Starts for Sebata\_25:  
(Start: 1 @8613 has 138 MA's), (Start: 2 @8661 has 29 MA's), (3, 8673), (Start: 4 @8676 has 2 MA's),

Gene: Shaqnato\_21 Start: 6893, Stop: 7192, Start Num: 2  
Candidate Starts for Shaqnato\_21:  
(Start: 2 @6893 has 29 MA's), (3, 6905), (Start: 4 @6908 has 2 MA's),



Gene: Shelob\_27 Start: 9157, Stop: 9504, Start Num: 1  
Candidate Starts for Shelob\_27:  
(Start: 1 @9157 has 138 MA's), (Start: 2 @9205 has 29 MA's), (3, 9217), (Start: 4 @9220 has 2 MA's),

Gene: ShiaLabeouf\_24 Start: 7191, Stop: 7532, Start Num: 1  
Candidate Starts for ShiaLabeouf\_24:  
(Start: 1 @7191 has 138 MA's), (Start: 2 @7239 has 29 MA's), (3, 7251), (Start: 4 @7254 has 2 MA's),

Gene: Shifa\_21 Start: 7355, Stop: 7717, Start Num: 1  
Candidate Starts for Shifa\_21:  
(Start: 1 @7355 has 138 MA's), (Start: 2 @7403 has 29 MA's), (3, 7415), (Start: 4 @7418 has 2 MA's),

Gene: Shnickers\_24 Start: 7191, Stop: 7532, Start Num: 1  
Candidate Starts for Shnickers\_24:  
(Start: 1 @7191 has 138 MA's), (Start: 2 @7239 has 29 MA's), (3, 7251), (Start: 4 @7254 has 2 MA's),

Gene: Shrimp\_25 Start: 8273, Stop: 8620, Start Num: 1  
Candidate Starts for Shrimp\_25:  
(Start: 1 @8273 has 138 MA's), (Start: 2 @8321 has 29 MA's), (3, 8333), (Start: 4 @8336 has 2 MA's),

Gene: SilverDipper\_25 Start: 7195, Stop: 7536, Start Num: 1  
Candidate Starts for SilverDipper\_25:  
(Start: 1 @7195 has 138 MA's), (Start: 2 @7243 has 29 MA's), (3, 7255), (Start: 4 @7258 has 2 MA's),

Gene: SmallFry\_24 Start: 7191, Stop: 7532, Start Num: 1  
Candidate Starts for SmallFry\_24:  
(Start: 1 @7191 has 138 MA's), (Start: 2 @7239 has 29 MA's), (3, 7251), (Start: 4 @7254 has 2 MA's),

Gene: Spec\_22 Start: 7254, Stop: 7538, Start Num: 4  
Candidate Starts for Spec\_22:  
(Start: 1 @7191 has 138 MA's), (Start: 2 @7239 has 29 MA's), (3, 7251), (Start: 4 @7254 has 2 MA's),

Gene: Specks\_29 Start: 9029, Stop: 9370, Start Num: 1  
Candidate Starts for Specks\_29:  
(Start: 1 @9029 has 138 MA's), (Start: 2 @9077 has 29 MA's), (3, 9089), (Start: 4 @9092 has 2 MA's),

Gene: Sprinklers\_25 Start: 7800, Stop: 8099, Start Num: 2  
Candidate Starts for Sprinklers\_25:  
(Start: 1 @7752 has 138 MA's), (Start: 2 @7800 has 29 MA's), (3, 7812), (Start: 4 @7815 has 2 MA's),

Gene: Spud\_27 Start: 9127, Stop: 9468, Start Num: 1  
Candidate Starts for Spud\_27:  
(Start: 1 @9127 has 138 MA's), (Start: 2 @9175 has 29 MA's), (3, 9187), (Start: 4 @9190 has 2 MA's),

Gene: SrishMeg2525\_24 Start: 7995, Stop: 8336, Start Num: 1  
Candidate Starts for SrishMeg2525\_24:  
(Start: 1 @7995 has 138 MA's), (Start: 2 @8043 has 29 MA's), (3, 8055), (Start: 4 @8058 has 2 MA's),

Gene: StephanieG\_24 Start: 7956, Stop: 8264, Start Num: 2  
Candidate Starts for StephanieG\_24:  
(Start: 1 @7908 has 138 MA's), (Start: 2 @7956 has 29 MA's), (3, 7968), (Start: 4 @7971 has 2 MA's),

Gene: Stubby\_23 Start: 7535, Stop: 7882, Start Num: 1

Candidate Starts for Stubby\_23:

(Start: 1 @7535 has 138 MA's), (Start: 2 @7583 has 29 MA's), (3, 7595), (Start: 4 @7598 has 2 MA's),

Gene: StubbySaigey\_24 Start: 6912, Stop: 7259, Start Num: 1

Candidate Starts for StubbySaigey\_24:

(Start: 1 @6912 has 138 MA's), (Start: 2 @6960 has 29 MA's), (3, 6972), (Start: 4 @6975 has 2 MA's),

Gene: Tainan\_30 Start: 9911, Stop: 10189, Start Num: 4

Candidate Starts for Tainan\_30:

(Start: 1 @9848 has 138 MA's), (Start: 2 @9896 has 29 MA's), (3, 9908), (Start: 4 @9911 has 2 MA's),

Gene: Teardrop\_24 Start: 7191, Stop: 7532, Start Num: 1

Candidate Starts for Teardrop\_24:

(Start: 1 @7191 has 138 MA's), (Start: 2 @7239 has 29 MA's), (3, 7251), (Start: 4 @7254 has 2 MA's),

Gene: TinyTim\_25 Start: 8269, Stop: 8616, Start Num: 1

Candidate Starts for TinyTim\_25:

(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),

Gene: Tortoise16\_23 Start: 7191, Stop: 7532, Start Num: 1

Candidate Starts for Tortoise16\_23:

(Start: 1 @7191 has 138 MA's), (Start: 2 @7239 has 29 MA's), (3, 7251), (Start: 4 @7254 has 2 MA's),

Gene: Trinitium\_24 Start: 7152, Stop: 7499, Start Num: 1

Candidate Starts for Trinitium\_24:

(Start: 1 @7152 has 138 MA's), (Start: 2 @7200 has 29 MA's), (3, 7212), (Start: 4 @7215 has 2 MA's),

Gene: Turret\_23 Start: 6939, Stop: 7238, Start Num: 2

Candidate Starts for Turret\_23:

(Start: 1 @6891 has 138 MA's), (Start: 2 @6939 has 29 MA's), (3, 6951), (Start: 4 @6954 has 2 MA's),

Gene: Tyke\_26 Start: 8603, Stop: 8944, Start Num: 1

Candidate Starts for Tyke\_26:

(Start: 1 @8603 has 138 MA's), (Start: 2 @8651 has 29 MA's), (3, 8663), (Start: 4 @8666 has 2 MA's),

Gene: ValleyTerrace\_24 Start: 7195, Stop: 7536, Start Num: 1

Candidate Starts for ValleyTerrace\_24:

(Start: 1 @7195 has 138 MA's), (Start: 2 @7243 has 29 MA's), (3, 7255), (Start: 4 @7258 has 2 MA's),

Gene: Wally\_24 Start: 7156, Stop: 7497, Start Num: 1

Candidate Starts for Wally\_24:

(Start: 1 @7156 has 138 MA's), (Start: 2 @7204 has 29 MA's), (3, 7216), (Start: 4 @7219 has 2 MA's),

Gene: Willis\_25 Start: 8164, Stop: 8511, Start Num: 1

Candidate Starts for Willis\_25:

(Start: 1 @8164 has 138 MA's), (Start: 2 @8212 has 29 MA's), (3, 8224), (Start: 4 @8227 has 2 MA's),

Gene: Yassified\_22 Start: 6915, Stop: 7262, Start Num: 1

Candidate Starts for Yassified\_22:

(Start: 1 @6915 has 138 MA's), (Start: 2 @6963 has 29 MA's), (3, 6975), (Start: 4 @6978 has 2 MA's),

Gene: YemiJoy2021\_26 Start: 8269, Stop: 8616, Start Num: 1

Candidate Starts for YemiJoy2021\_26:

(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),

Gene: YoungMoneyMata\_24 Start: 6925, Stop: 7287, Start Num: 1

Candidate Starts for YoungMoneyMata\_24:

(Start: 1 @6925 has 138 MA's), (Start: 2 @6973 has 29 MA's), (3, 6985), (Start: 4 @6988 has 2 MA's),

Gene: Yucca\_25 Start: 8191, Stop: 8538, Start Num: 1

Candidate Starts for Yucca\_25:

(Start: 1 @8191 has 138 MA's), (Start: 2 @8239 has 29 MA's), (3, 8251), (Start: 4 @8254 has 2 MA's),

Gene: Zalkecks\_27 Start: 8269, Stop: 8616, Start Num: 1

Candidate Starts for Zalkecks\_27:

(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),

Gene: Zeenon\_27 Start: 8318, Stop: 8611, Start Num: 2

Candidate Starts for Zeenon\_27:

(Start: 1 @8270 has 138 MA's), (Start: 2 @8318 has 29 MA's), (3, 8330), (Start: 4 @8333 has 2 MA's),

Gene: ZygoTaiga\_25 Start: 8269, Stop: 8616, Start Num: 1

Candidate Starts for ZygoTaiga\_25:

(Start: 1 @8269 has 138 MA's), (Start: 2 @8317 has 29 MA's), (3, 8329), (Start: 4 @8332 has 2 MA's),