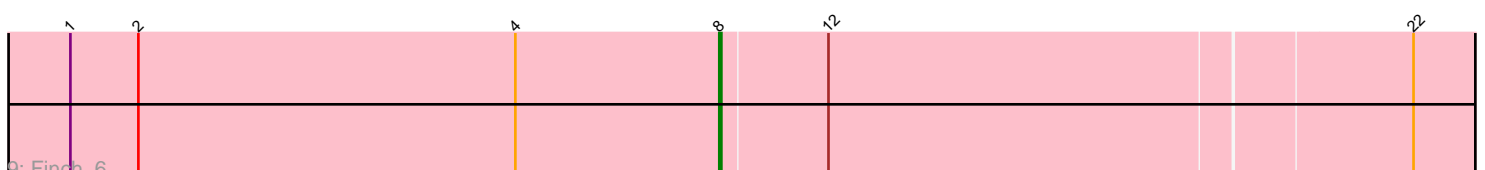
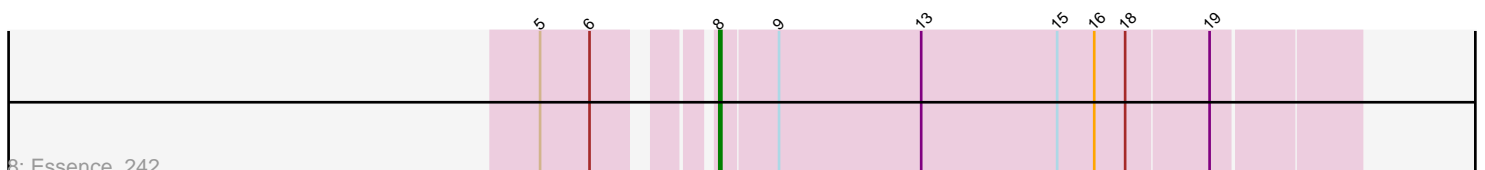
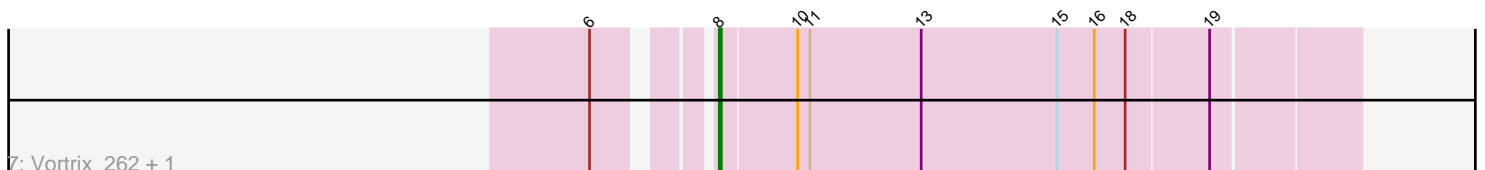
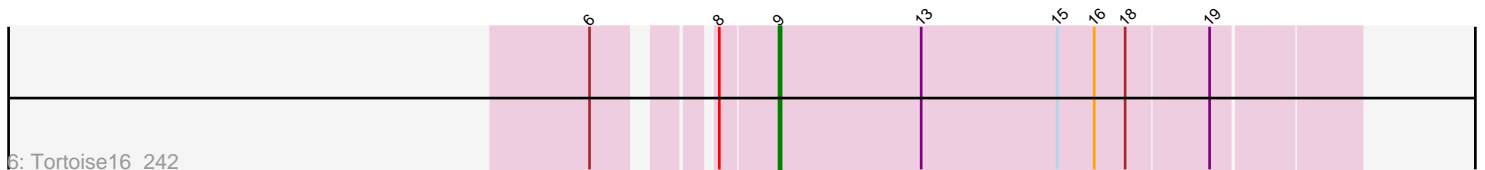
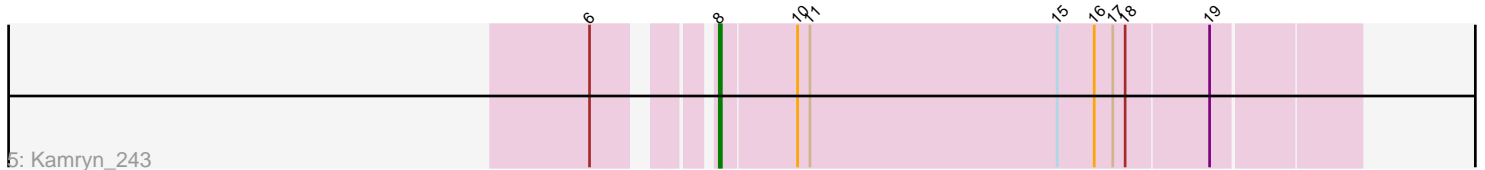
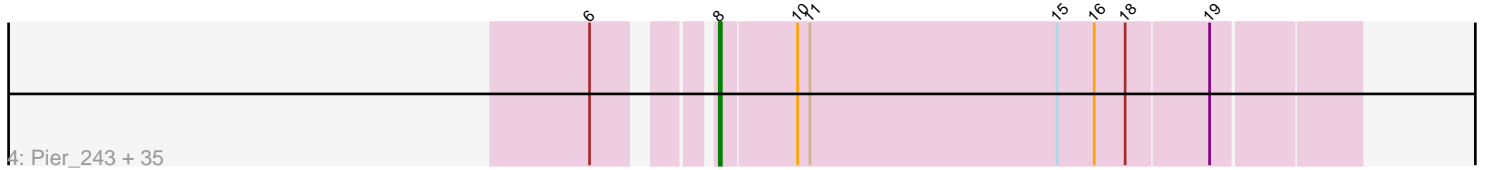
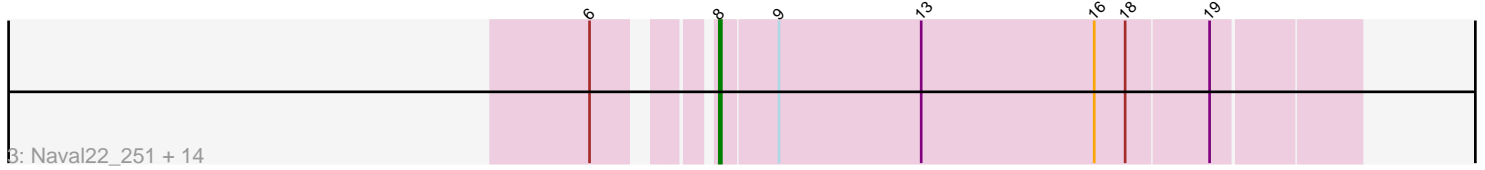
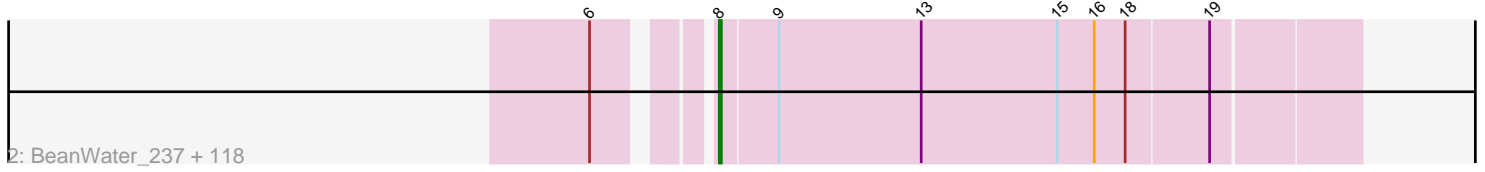
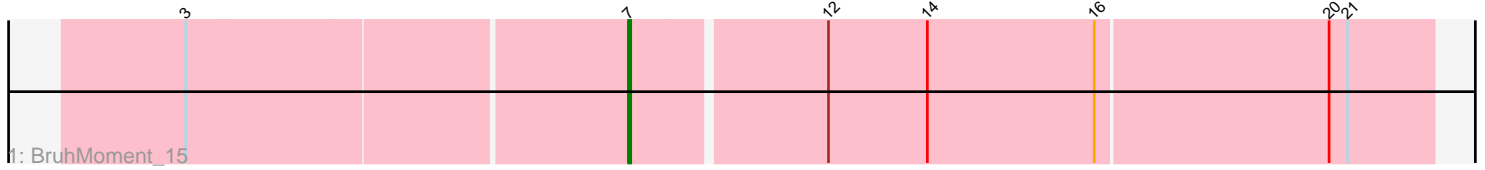


Pham 311276



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 311276 Report

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

Pham number 311276 has 177 members, 27 are drafts.

Phages represented in each track:

- Track 1 : BruhMoment\_15
- Track 2 : BeanWater\_237, Labradorite\_241, Gamgam\_246, Bxz1\_230, Wally\_242, Matsumoto\_242, SoilZilla\_237, Duckfeet\_238, Pivoine\_245, JulietS\_233, Teardrop\_242, DTDevon\_245, Lukilu\_233, Asterius\_244, Grasshills\_251, Ghost\_244, JPickles\_241, LRRHood\_236, QBert\_236, Phlegm\_249, Naija\_245, RoMag\_239, Jessibeth14\_244, IkeLoa\_238, Kboogie\_248, Atlantean\_244, Domi\_238, Drazdys\_241, EasyJones\_245, Adlitam\_244, Blackbrain\_242, Darko\_243, Dietrick\_233, Phusco\_243, Momo\_246, Jaygup\_241, Ablatia\_243, Quasimodo\_247, ChaylaJr\_243, Shnickers\_243, Chargie21\_241, Khaleesi\_243, Basquiat\_241, Ading\_246, Amataga\_245, Audrick\_247, ArcherS7\_245, Catera\_233, SVoro\_239, Bowman\_241, EggyFarm\_252, Sauce\_241, Rocha\_240, Ngannou\_239, Turret\_235, Belieber\_236, ShiaLabeouf\_242, Guwapp\_240, EmmaElysia\_249, Melpomini\_239, Sprinklers\_242, Cali\_234, Burrough\_245, McGee\_245, SmallFry\_245, Rahel\_246, Jedediah\_246, BananaFence\_241, StubbySaigey\_250, Trinitium\_240, LookingGlass\_242, ChickenPhender\_240, Bezza\_232, Dessert\_241, CharlieB\_239, Specks\_248, Shaqato\_235, Derek\_240, Astraea\_239, Demodog\_250, Gabriel\_247, InigoMontoya\_248, Pio\_251, Fixie\_243, Fludd\_244, Cactojaque\_238, Chomp\_243, JustHall\_238, PurduePete\_244, BadAgartude\_238, ErnieJ\_237, BackyardAgain\_239, ValleyTerrace\_245, Bangla1971\_245, McWolfish\_241, CindyLou\_245, Latch\_244, StephanieG\_238, GlutenPhree\_245, Littleton\_248, Concombre\_249, Janiyra\_247, NoodleTree\_240, BigCity\_252, Morizzled23\_241, LifeSavor\_245, SilverDipper\_249, Napoleon13\_241, BobaPhatt\_235, Spud\_236, Blackdragon\_239, EmToTheThree\_244, Babyland\_247, Jemmno\_244, Rizal\_233, Primadonna\_238, Substance289\_240, Pupusa\_247, Fongie\_244
- Track 3 : Naval22\_251, TinyTim\_242, Maby2021\_244, Pleione\_248, Delylah\_246, Erdmann\_245, Shrimp\_246, Bread\_240, Gizmo\_249, MoMoMixon\_240, Iota\_241, Yucca\_244, JigglyPuff\_250, Caravan\_234, FoxtrotP1\_242
- Track 4 : Pier\_243, Ewok\_243, Issimir\_237, ET08\_230, OrediggerDelux\_239, Daffodil\_250, DrPhinkDaddy\_241, Shelob\_245, Loanshark\_241, NedWong\_243, Capablanca\_249, Megamind\_241, Roots515\_247, Bipolarisk\_242, MikeLiesIn\_245, Yassified\_240, ParkTD\_243, Jezreel\_241, Nidhogg\_245, Ronan\_240, Norm\_244, Cleatunium\_236, Bonray\_246, Zeenon\_245, FudgeTart\_239, Delilah\_242, Salacia\_245, ZygoTaiga\_240, YemiJoy2021\_245, Zalkecks\_243, Ava3\_241, SrishMeg2525\_241, Lee7\_243, Izajani\_240, Phox\_245, Willis\_245
- Track 5 : Kamryn\_243
- Track 6 : Tortoise16\_242
- Track 7 : Vortrix\_262, Tonenili\_266

- Track 8 : Essence\_242
- Track 9 : Finch\_6

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

The start number called the most often in the published annotations is 8, it was called in 148 of the 150 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ablatia\_243, Ading\_246, Adlitam\_244, Amataga\_245, ArcherS7\_245, Asterius\_244, Astraea\_239, Atlantean\_244, Audrick\_247, Ava3\_241, Babyland\_247, BackyardAgain\_239, BadAgartude\_238, BananaFence\_241, Bangla1971\_245, Basquiat\_241, BeanWater\_237, Belieber\_236, Bezza\_232, BigCity\_252, Bipolarisk\_242, Blackbrain\_242, Blackdragon\_239, BobaPhatt\_235, Bonray\_246, Bowman\_241, Bread\_240, Burrough\_245, Bxz1\_230, Cactojaque\_238, Cali\_234, Capablanca\_249, Caravan\_234, Catera\_233, Chargie21\_241, CharlieB\_239, ChaylaJr\_243, ChickenPhender\_240, Chomp\_243, CindyLou\_245, Cleatunium\_236, Concombre\_249, DTDevon\_245, Daffodil\_250, Darko\_243, Delilah\_242, Delylah\_246, Demodog\_250, Derek\_240, Dessert\_241, Dietrick\_233, Domi\_238, DrPhinkDaddy\_241, Drazdys\_241, Duckfeet\_238, ET08\_230, EasyJones\_245, EggFarm\_252, EmToTheThree\_244, EmmaElysia\_249, Erdmann\_245, ErnieJ\_237, Essence\_242, Ewok\_243, Finch\_6, Fixie\_243, Fludd\_244, Fongie\_244, FoxtrotP1\_242, FudgeTart\_239, Gabriel\_247, Gangam\_246, Ghost\_244, Gizmo\_249, GlutenPhree\_245, Grasshills\_251, Guwapp\_240, IkeLoa\_238, InigoMontoya\_248, Iota\_241, Issimir\_237, Izajani\_240, JPickles\_241, Janiyra\_247, Jaygup\_241, Jedediah\_246, Jemmno\_244, Jessibeth14\_244, Jezreel\_241, JigglyPuff\_250, JulietS\_233, JustHall\_238, Kamryn\_243, Kboogie\_248, Khaleesi\_243, LRRHood\_236, Labradorite\_241, Latch\_244, Lee7\_243, LifeSavor\_245, Littleton\_248, Loanshark\_241, LookingGlass\_242, Lukilu\_233, Maby2021\_244, Matsumoto\_242, McGee\_245, McWolfish\_241, Megamind\_241, Melpomini\_239, MikeLiesIn\_245, MoMoMixon\_240, Momo\_246, Morizzled23\_241, Naija\_245, Napoleon13\_241, Naval22\_251, NedWong\_243, Ngannou\_239, Nidhogg\_245, NoodleTree\_240, Norm\_244, OrediggerDelux\_239, ParkTD\_243, Phlegm\_249, Phox\_245, Phusco\_243, Pier\_243, Pio\_251, Pivoine\_245, Pleione\_248, Primadonna\_238, Pupusa\_247, PurduePete\_244, QBert\_236, Quasimodo\_247, Rahel\_246, Rizal\_233, RoMag\_239, Rocha\_240, Ronan\_240, Roots515\_247, SVoro\_239, Salacia\_245, Sauce\_241, Shaqnato\_235, Shelob\_245, ShiaLabeouf\_242, Shnickers\_243, Shrimp\_246, SilverDipper\_249, SmallFry\_245, SoilZilla\_237, Specks\_248, Sprinklers\_242, Spud\_236, SrishMeg2525\_241, StephanieG\_238, StubbySaigey\_250, Substance289\_240, Teardrop\_242, TinyTim\_242, Tonenili\_266, Trinitium\_240, Turret\_235, ValleyTerrace\_245, Vortrix\_262, Wally\_242, Willis\_245, Yassified\_240, YemiJoy2021\_245, Yucca\_244, Zalkecks\_243, Zeenon\_245, ZygoTaiga\_240,

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

- Tortoise16\_242,

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

- BruhMoment\_15,

## Summary by start number:

### Start 7:

- Found in 1 of 177 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 1 of 150
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BruhMoment\_15 (AP3),

### Start 8:

- Found in 176 of 177 ( 99.4% ) of genes in pham
- Manual Annotations of this start: 148 of 150
- Called 99.4% of time when present
- Phage (with cluster) where this start called: Ablatia\_243 (C1), Ading\_246 (C1), Adlitam\_244 (C1), Amataga\_245 (C1), ArcherS7\_245 (C1), Asterius\_244 (C1), Astraea\_239 (C1), Atlantean\_244 (C1), Audrick\_247 (C1), Ava3\_241 (C1), Babyland\_247 (C1), BackyardAgain\_239 (C1), BadAgartude\_238 (C1), BananaFence\_241 (C1), Bangla1971\_245 (C1), Basquiat\_241 (C1), BeanWater\_237 (C1), Belieber\_236 (C1), Bezza\_232 (C1), BigCity\_252 (C1), Bipolarisk\_242 (C1), Blackbrain\_242 (C1), Blackdragon\_239 (C1), BobaPhatt\_235 (C1), Bonray\_246 (C1), Bowman\_241 (C1), Bread\_240 (C1), Burrough\_245 (C1), Bxz1\_230 (C1), Cactojaque\_238 (C1), Cali\_234 (C1), Capablanca\_249 (C1), Caravan\_234 (C1), Catera\_233 (C1), Chargie21\_241 (C1), CharlieB\_239 (C1), ChaylaJr\_243 (C1), ChickenPhender\_240 (C1), Chomp\_243 (C1), CindyLou\_245 (C1), Cleatunium\_236 (C1), Concombre\_249 (C1), DTDevon\_245 (C1), Daffodil\_250 (C1), Darko\_243 (C1), Delilah\_242 (C1), Delylah\_246 (C1), Demodog\_250 (C1), Derek\_240 (C1), Dessert\_241 (C1), Dietrick\_233 (C1), Domi\_238 (C1), DrPhinkDaddy\_241 (C1), Drazdys\_241 (C1), Duckfeet\_238 (C1), ET08\_230 (C1), EasyJones\_245 (C1), EggyFarm\_252 (C1), EmToTheThree\_244 (C1), EmmaElysia\_249 (C1), Erdmann\_245 (C1), ErnieJ\_237 (C1), Essence\_242 (C1), Ewok\_243 (C1), Finch\_6 (singleton), Fixie\_243 (C1), Fludd\_244 (C1), Fongie\_244 (C1), FoxtrotP1\_242 (C1), FudgeTart\_239 (C1), Gabriel\_247 (C1), Gamgam\_246 (C1), Ghost\_244 (C1), Gizmo\_249 (C1), GlutenPhree\_245 (C1), Grasshills\_251 (C1), Guwapp\_240 (C1), IkeLoa\_238 (C1), InigoMontoya\_248 (C1), Iota\_241 (C1), Issimir\_237 (C1), Izajani\_240 (C1), JPickles\_241 (C1), Janiyr\_247 (C1), Jaygup\_241 (C1), Jedediah\_246 (C1), Jemmno\_244 (C1), Jessibeth14\_244 (C1), Jezreel\_241 (C1), JigglyPuff\_250 (C1), JulietS\_233 (C1), JustHall\_238 (C1), Kamryn\_243 (C1), Kboogie\_248 (C1), Khaleesi\_243 (C1), LRRHood\_236 (C1), Labradorite\_241 (C1), Latch\_244 (C1), Lee7\_243 (C1), LifeSavor\_245 (C1), Littleton\_248 (C1), Loanshark\_241 (C1), LookingGlass\_242 (C1), Lukilu\_233 (C1), Maby2021\_244 (C1), Matsumoto\_242 (C1), McGee\_245 (C1), McWolfish\_241 (C1), Megamind\_241 (C1), Melpomini\_239 (C1), MikeLiesIn\_245 (C1), MoMoMixon\_240 (C1), Momo\_246 (C1), Morizzled23\_241 (C1), Naija\_245 (C1), Napoleon13\_241 (C1), Naval22\_251 (C1), NedWong\_243 (C1), Ngannou\_239 (C1), Nidhogg\_245 (C1), NoodleTree\_240 (C1), Norm\_244 (C1), OrediggerDelux\_239 (C1), ParkTD\_243 (C1), Phlegm\_249 (C1), Phox\_245 (C1), Phusco\_243 (C1), Pier\_243 (C1), Pio\_251 (C1), Pivoine\_245 (C1), Pleione\_248 (C1), Primadonna\_238 (C1), Pupusa\_247 (C1), PurduePete\_244 (C1), QBert\_236 (C1), Quasimodo\_247 (C1), Rahel\_246 (C1), Rizal\_233 (C1), RoMag\_239 (C1), Rocha\_240 (C1), Ronan\_240 (C1), Roots515\_247 (C1), SVoro\_239 (C1), Salacia\_245 (C1), Sauce\_241 (C1), Shaqnato\_235 (C1), Shelob\_245 (C1), ShiaLabeouf\_242 (C1), Shnickers\_243 (C1), Shrimp\_246 (C1), SilverDipper\_249 (C1), SmallFry\_245 (C1), SoilZilla\_237 (C1), Specks\_248 (C1), Sprinklers\_242 (C1), Spud\_236 (C1), SrishMeg2525\_241 (C1), StephanieG\_238 (C1), StubbySaigey\_250 (C1), Substance289\_240 (C1), Teardrop\_242 (C1), TinyTim\_242 (C1), Tonenili\_266

(C1), Trinitium\_240 (C1), Turret\_235 (C1), ValleyTerrace\_245 (C1), Vortrix\_262 (C1), Wally\_242 (C1), Willis\_245 (C1), Yassified\_240 (C1), YemiJoy2021\_245 (C1), Yucca\_244 (C1), Zalkecks\_243 (C1), Zeenon\_245 (C1), ZygoTaiga\_240 (C1),

Start 9:

- Found in 136 of 177 ( 76.8% ) of genes in pham
- Manual Annotations of this start: 1 of 150
- Called 0.7% of time when present
- Phage (with cluster) where this start called: Tortoise16\_242 (C1),

### **Summary by clusters:**

There are 3 clusters represented in this pham: AP3, C1, singleton,

Info for manual annotations of cluster AP3:

- Start number 7 was manually annotated 1 time for cluster AP3.

Info for manual annotations of cluster C1:

- Start number 8 was manually annotated 147 times for cluster C1.
- Start number 9 was manually annotated 1 time for cluster C1.

### **Gene Information:**

Gene: Ablatia\_243 Start: 134421, Stop: 134723, Start Num: 8

Candidate Starts for Ablatia\_243:

(6, 134379), (Start: 8 @134421 has 148 MA's), (Start: 9 @134448 has 1 MA's), (13, 134517), (15, 134583), (16, 134601), (18, 134616), (19, 134655),

Gene: Ading\_246 Start: 136854, Stop: 137156, Start Num: 8

Candidate Starts for Ading\_246:

(6, 136812), (Start: 8 @136854 has 148 MA's), (Start: 9 @136881 has 1 MA's), (13, 136950), (15, 137016), (16, 137034), (18, 137049), (19, 137088),

Gene: Adlitam\_244 Start: 135458, Stop: 135760, Start Num: 8

Candidate Starts for Adlitam\_244:

(6, 135416), (Start: 8 @135458 has 148 MA's), (Start: 9 @135485 has 1 MA's), (13, 135554), (15, 135620), (16, 135638), (18, 135653), (19, 135692),

Gene: Amataga\_245 Start: 134457, Stop: 134759, Start Num: 8

Candidate Starts for Amataga\_245:

(6, 134415), (Start: 8 @134457 has 148 MA's), (Start: 9 @134484 has 1 MA's), (13, 134553), (15, 134619), (16, 134637), (18, 134652), (19, 134691),

Gene: ArcherS7\_245 Start: 136202, Stop: 136504, Start Num: 8

Candidate Starts for ArcherS7\_245:

(6, 136160), (Start: 8 @136202 has 148 MA's), (Start: 9 @136229 has 1 MA's), (13, 136298), (15, 136364), (16, 136382), (18, 136397), (19, 136436),

Gene: Asterius\_244 Start: 134866, Stop: 135168, Start Num: 8

Candidate Starts for Asterius\_244:

(6, 134824), (Start: 8 @134866 has 148 MA's), (Start: 9 @134893 has 1 MA's), (13, 134962), (15, 135028), (16, 135046), (18, 135061), (19, 135100),

Gene: Astraea\_239 Start: 134061, Stop: 134363, Start Num: 8

Candidate Starts for Astraea\_239:

(6, 134019), (Start: 8 @134061 has 148 MA's), (Start: 9 @134088 has 1 MA's), (13, 134157), (15, 134223), (16, 134241), (18, 134256), (19, 134295),

Gene: Atlantean\_244 Start: 134457, Stop: 134759, Start Num: 8

Candidate Starts for Atlantean\_244:

(6, 134415), (Start: 8 @134457 has 148 MA's), (Start: 9 @134484 has 1 MA's), (13, 134553), (15, 134619), (16, 134637), (18, 134652), (19, 134691),

Gene: Audrick\_247 Start: 134347, Stop: 134649, Start Num: 8

Candidate Starts for Audrick\_247:

(6, 134305), (Start: 8 @134347 has 148 MA's), (Start: 9 @134374 has 1 MA's), (13, 134443), (15, 134509), (16, 134527), (18, 134542), (19, 134581),

Gene: Ava3\_241 Start: 134917, Stop: 135219, Start Num: 8

Candidate Starts for Ava3\_241:

(6, 134875), (Start: 8 @134917 has 148 MA's), (10, 134953), (11, 134959), (15, 135079), (16, 135097), (18, 135112), (19, 135151),

Gene: Babyland\_247 Start: 135234, Stop: 135536, Start Num: 8

Candidate Starts for Babyland\_247:

(6, 135192), (Start: 8 @135234 has 148 MA's), (Start: 9 @135261 has 1 MA's), (13, 135330), (15, 135396), (16, 135414), (18, 135429), (19, 135468),

Gene: BackyardAgain\_239 Start: 132607, Stop: 132909, Start Num: 8

Candidate Starts for BackyardAgain\_239:

(6, 132565), (Start: 8 @132607 has 148 MA's), (Start: 9 @132634 has 1 MA's), (13, 132703), (15, 132769), (16, 132787), (18, 132802), (19, 132841),

Gene: BadAgartude\_238 Start: 134559, Stop: 134861, Start Num: 8

Candidate Starts for BadAgartude\_238:

(6, 134517), (Start: 8 @134559 has 148 MA's), (Start: 9 @134586 has 1 MA's), (13, 134655), (15, 134721), (16, 134739), (18, 134754), (19, 134793),

Gene: BananaFence\_241 Start: 134690, Stop: 134992, Start Num: 8

Candidate Starts for BananaFence\_241:

(6, 134648), (Start: 8 @134690 has 148 MA's), (Start: 9 @134717 has 1 MA's), (13, 134786), (15, 134852), (16, 134870), (18, 134885), (19, 134924),

Gene: Bangla1971\_245 Start: 135166, Stop: 135468, Start Num: 8

Candidate Starts for Bangla1971\_245:

(6, 135124), (Start: 8 @135166 has 148 MA's), (Start: 9 @135193 has 1 MA's), (13, 135262), (15, 135328), (16, 135346), (18, 135361), (19, 135400),

Gene: Basquiat\_241 Start: 132976, Stop: 133278, Start Num: 8

Candidate Starts for Basquiat\_241:

(6, 132934), (Start: 8 @132976 has 148 MA's), (Start: 9 @133003 has 1 MA's), (13, 133072), (15, 133138), (16, 133156), (18, 133171), (19, 133210),

Gene: BeanWater\_237 Start: 134303, Stop: 134605, Start Num: 8  
Candidate Starts for BeanWater\_237:  
(6, 134261), (Start: 8 @134303 has 148 MA's), (Start: 9 @134330 has 1 MA's), (13, 134399), (15, 134465), (16, 134483), (18, 134498), (19, 134537),

Gene: Belieber\_236 Start: 133103, Stop: 133405, Start Num: 8  
Candidate Starts for Belieber\_236:  
(6, 133061), (Start: 8 @133103 has 148 MA's), (Start: 9 @133130 has 1 MA's), (13, 133199), (15, 133265), (16, 133283), (18, 133298), (19, 133337),

Gene: Bezza\_232 Start: 134002, Stop: 134304, Start Num: 8  
Candidate Starts for Bezza\_232:  
(6, 133960), (Start: 8 @134002 has 148 MA's), (Start: 9 @134029 has 1 MA's), (13, 134098), (15, 134164), (16, 134182), (18, 134197), (19, 134236),

Gene: BigCity\_252 Start: 137063, Stop: 137365, Start Num: 8  
Candidate Starts for BigCity\_252:  
(6, 137021), (Start: 8 @137063 has 148 MA's), (Start: 9 @137090 has 1 MA's), (13, 137159), (15, 137225), (16, 137243), (18, 137258), (19, 137297),

Gene: Bipolarisk\_242 Start: 135185, Stop: 135487, Start Num: 8  
Candidate Starts for Bipolarisk\_242:  
(6, 135143), (Start: 8 @135185 has 148 MA's), (10, 135221), (11, 135227), (15, 135347), (16, 135365), (18, 135380), (19, 135419),

Gene: Blackbrain\_242 Start: 134753, Stop: 135055, Start Num: 8  
Candidate Starts for Blackbrain\_242:  
(6, 134711), (Start: 8 @134753 has 148 MA's), (Start: 9 @134780 has 1 MA's), (13, 134849), (15, 134915), (16, 134933), (18, 134948), (19, 134987),

Gene: Blackdragon\_239 Start: 134790, Stop: 135092, Start Num: 8  
Candidate Starts for Blackdragon\_239:  
(6, 134748), (Start: 8 @134790 has 148 MA's), (Start: 9 @134817 has 1 MA's), (13, 134886), (15, 134952), (16, 134970), (18, 134985), (19, 135024),

Gene: BobaPhatt\_235 Start: 133871, Stop: 134173, Start Num: 8  
Candidate Starts for BobaPhatt\_235:  
(6, 133829), (Start: 8 @133871 has 148 MA's), (Start: 9 @133898 has 1 MA's), (13, 133967), (15, 134033), (16, 134051), (18, 134066), (19, 134105),

Gene: Bonray\_246 Start: 136553, Stop: 136855, Start Num: 8  
Candidate Starts for Bonray\_246:  
(6, 136511), (Start: 8 @136553 has 148 MA's), (10, 136589), (11, 136595), (15, 136715), (16, 136733), (18, 136748), (19, 136787),

Gene: Bowman\_241 Start: 135668, Stop: 135970, Start Num: 8  
Candidate Starts for Bowman\_241:  
(6, 135626), (Start: 8 @135668 has 148 MA's), (Start: 9 @135695 has 1 MA's), (13, 135764), (15, 135830), (16, 135848), (18, 135863), (19, 135902),

Gene: Bread\_240 Start: 134560, Stop: 134862, Start Num: 8  
Candidate Starts for Bread\_240:

(6, 134518), (Start: 8 @134560 has 148 MA's), (Start: 9 @134587 has 1 MA's), (13, 134656), (16, 134740), (18, 134755), (19, 134794),

Gene: BruhMoment\_15 Start: 6205, Stop: 6585, Start Num: 7

Candidate Starts for BruhMoment\_15:

(3, 5998), (Start: 7 @6205 has 1 MA's), (12, 6295), (14, 6343), (16, 6424), (20, 6535), (21, 6544),

Gene: Burrough\_245 Start: 136330, Stop: 136632, Start Num: 8

Candidate Starts for Burrough\_245:

(6, 136288), (Start: 8 @136330 has 148 MA's), (Start: 9 @136357 has 1 MA's), (13, 136426), (15, 136492), (16, 136510), (18, 136525), (19, 136564),

Gene: Bxz1\_230 Start: 136535, Stop: 136837, Start Num: 8

Candidate Starts for Bxz1\_230:

(6, 136493), (Start: 8 @136535 has 148 MA's), (Start: 9 @136562 has 1 MA's), (13, 136631), (15, 136697), (16, 136715), (18, 136730), (19, 136769),

Gene: Cactojaque\_238 Start: 133699, Stop: 134001, Start Num: 8

Candidate Starts for Cactojaque\_238:

(6, 133657), (Start: 8 @133699 has 148 MA's), (Start: 9 @133726 has 1 MA's), (13, 133795), (15, 133861), (16, 133879), (18, 133894), (19, 133933),

Gene: Cali\_234 Start: 134928, Stop: 135230, Start Num: 8

Candidate Starts for Cali\_234:

(6, 134886), (Start: 8 @134928 has 148 MA's), (Start: 9 @134955 has 1 MA's), (13, 135024), (15, 135090), (16, 135108), (18, 135123), (19, 135162),

Gene: Capablanca\_249 Start: 137181, Stop: 137483, Start Num: 8

Candidate Starts for Capablanca\_249:

(6, 137139), (Start: 8 @137181 has 148 MA's), (10, 137217), (11, 137223), (15, 137343), (16, 137361), (18, 137376), (19, 137415),

Gene: Caravan\_234 Start: 135268, Stop: 135570, Start Num: 8

Candidate Starts for Caravan\_234:

(6, 135226), (Start: 8 @135268 has 148 MA's), (Start: 9 @135295 has 1 MA's), (13, 135364), (16, 135448), (18, 135463), (19, 135502),

Gene: Catera\_233 Start: 133670, Stop: 133972, Start Num: 8

Candidate Starts for Catera\_233:

(6, 133628), (Start: 8 @133670 has 148 MA's), (Start: 9 @133697 has 1 MA's), (13, 133766), (15, 133832), (16, 133850), (18, 133865), (19, 133904),

Gene: Chargie21\_241 Start: 132976, Stop: 133278, Start Num: 8

Candidate Starts for Chargie21\_241:

(6, 132934), (Start: 8 @132976 has 148 MA's), (Start: 9 @133003 has 1 MA's), (13, 133072), (15, 133138), (16, 133156), (18, 133171), (19, 133210),

Gene: CharlieB\_239 Start: 134694, Stop: 134996, Start Num: 8

Candidate Starts for CharlieB\_239:

(6, 134652), (Start: 8 @134694 has 148 MA's), (Start: 9 @134721 has 1 MA's), (13, 134790), (15, 134856), (16, 134874), (18, 134889), (19, 134928),

Gene: ChaylaJr\_243 Start: 134367, Stop: 134669, Start Num: 8

Candidate Starts for ChaylaJr\_243:

(6, 134325), (Start: 8 @134367 has 148 MA's), (Start: 9 @134394 has 1 MA's), (13, 134463), (15, 134529), (16, 134547), (18, 134562), (19, 134601),

Gene: ChickenPhender\_240 Start: 133123, Stop: 133425, Start Num: 8

Candidate Starts for ChickenPhender\_240:

(6, 133081), (Start: 8 @133123 has 148 MA's), (Start: 9 @133150 has 1 MA's), (13, 133219), (15, 133285), (16, 133303), (18, 133318), (19, 133357),

Gene: Chomp\_243 Start: 136559, Stop: 136861, Start Num: 8

Candidate Starts for Chomp\_243:

(6, 136517), (Start: 8 @136559 has 148 MA's), (Start: 9 @136586 has 1 MA's), (13, 136655), (15, 136721), (16, 136739), (18, 136754), (19, 136793),

Gene: CindyLou\_245 Start: 136819, Stop: 137121, Start Num: 8

Candidate Starts for CindyLou\_245:

(6, 136777), (Start: 8 @136819 has 148 MA's), (Start: 9 @136846 has 1 MA's), (13, 136915), (15, 136981), (16, 136999), (18, 137014), (19, 137053),

Gene: Cleatunium\_236 Start: 134380, Stop: 134682, Start Num: 8

Candidate Starts for Cleatunium\_236:

(6, 134338), (Start: 8 @134380 has 148 MA's), (10, 134416), (11, 134422), (15, 134542), (16, 134560), (18, 134575), (19, 134614),

Gene: Concombres\_249 Start: 136715, Stop: 137017, Start Num: 8

Candidate Starts for Concombres\_249:

(6, 136673), (Start: 8 @136715 has 148 MA's), (Start: 9 @136742 has 1 MA's), (13, 136811), (15, 136877), (16, 136895), (18, 136910), (19, 136949),

Gene: DTDevon\_245 Start: 137198, Stop: 137500, Start Num: 8

Candidate Starts for DTDevon\_245:

(6, 137156), (Start: 8 @137198 has 148 MA's), (Start: 9 @137225 has 1 MA's), (13, 137294), (15, 137360), (16, 137378), (18, 137393), (19, 137432),

Gene: Daffodil\_250 Start: 135485, Stop: 135787, Start Num: 8

Candidate Starts for Daffodil\_250:

(6, 135443), (Start: 8 @135485 has 148 MA's), (10, 135521), (11, 135527), (15, 135647), (16, 135665), (18, 135680), (19, 135719),

Gene: Darko\_243 Start: 134694, Stop: 134996, Start Num: 8

Candidate Starts for Darko\_243:

(6, 134652), (Start: 8 @134694 has 148 MA's), (Start: 9 @134721 has 1 MA's), (13, 134790), (15, 134856), (16, 134874), (18, 134889), (19, 134928),

Gene: Delilah\_242 Start: 135578, Stop: 135880, Start Num: 8

Candidate Starts for Delilah\_242:

(6, 135536), (Start: 8 @135578 has 148 MA's), (10, 135614), (11, 135620), (15, 135740), (16, 135758), (18, 135773), (19, 135812),

Gene: Delylah\_246 Start: 135892, Stop: 136194, Start Num: 8

Candidate Starts for Delylah\_246:

(6, 135850), (Start: 8 @135892 has 148 MA's), (Start: 9 @135919 has 1 MA's), (13, 135988), (16, 136072), (18, 136087), (19, 136126),

Gene: Demodog\_250 Start: 136725, Stop: 137027, Start Num: 8

Candidate Starts for Demodog\_250:

(6, 136683), (Start: 8 @136725 has 148 MA's), (Start: 9 @136752 has 1 MA's), (13, 136821), (15, 136887), (16, 136905), (18, 136920), (19, 136959),

Gene: Derek\_240 Start: 135836, Stop: 136138, Start Num: 8

Candidate Starts for Derek\_240:

(6, 135794), (Start: 8 @135836 has 148 MA's), (Start: 9 @135863 has 1 MA's), (13, 135932), (15, 135998), (16, 136016), (18, 136031), (19, 136070),

Gene: Dessert\_241 Start: 134835, Stop: 135137, Start Num: 8

Candidate Starts for Dessert\_241:

(6, 134793), (Start: 8 @134835 has 148 MA's), (Start: 9 @134862 has 1 MA's), (13, 134931), (15, 134997), (16, 135015), (18, 135030), (19, 135069),

Gene: Dietrick\_233 Start: 133699, Stop: 134001, Start Num: 8

Candidate Starts for Dietrick\_233:

(6, 133657), (Start: 8 @133699 has 148 MA's), (Start: 9 @133726 has 1 MA's), (13, 133795), (15, 133861), (16, 133879), (18, 133894), (19, 133933),

Gene: Domi\_238 Start: 135038, Stop: 135340, Start Num: 8

Candidate Starts for Domi\_238:

(6, 134996), (Start: 8 @135038 has 148 MA's), (Start: 9 @135065 has 1 MA's), (13, 135134), (15, 135200), (16, 135218), (18, 135233), (19, 135272),

Gene: DrPhinkDaddy\_241 Start: 136263, Stop: 136565, Start Num: 8

Candidate Starts for DrPhinkDaddy\_241:

(6, 136221), (Start: 8 @136263 has 148 MA's), (10, 136299), (11, 136305), (15, 136425), (16, 136443), (18, 136458), (19, 136497),

Gene: Drazdys\_241 Start: 135843, Stop: 136145, Start Num: 8

Candidate Starts for Drazdys\_241:

(6, 135801), (Start: 8 @135843 has 148 MA's), (Start: 9 @135870 has 1 MA's), (13, 135939), (15, 136005), (16, 136023), (18, 136038), (19, 136077),

Gene: Duckfeet\_238 Start: 134651, Stop: 134953, Start Num: 8

Candidate Starts for Duckfeet\_238:

(6, 134609), (Start: 8 @134651 has 148 MA's), (Start: 9 @134678 has 1 MA's), (13, 134747), (15, 134813), (16, 134831), (18, 134846), (19, 134885),

Gene: ET08\_230 Start: 134178, Stop: 134480, Start Num: 8

Candidate Starts for ET08\_230:

(6, 134136), (Start: 8 @134178 has 148 MA's), (10, 134214), (11, 134220), (15, 134340), (16, 134358), (18, 134373), (19, 134412),

Gene: EasyJones\_245 Start: 134219, Stop: 134521, Start Num: 8

Candidate Starts for EasyJones\_245:

(6, 134177), (Start: 8 @134219 has 148 MA's), (Start: 9 @134246 has 1 MA's), (13, 134315), (15, 134381), (16, 134399), (18, 134414), (19, 134453),

Gene: EggyFarm\_252 Start: 137064, Stop: 137366, Start Num: 8

Candidate Starts for EggyFarm\_252:

(6, 137022), (Start: 8 @137064 has 148 MA's), (Start: 9 @137091 has 1 MA's), (13, 137160), (15, 137226), (16, 137244), (18, 137259), (19, 137298),

Gene: EmToTheThree\_244 Start: 135602, Stop: 135904, Start Num: 8

Candidate Starts for EmToTheThree\_244:

(6, 135560), (Start: 8 @135602 has 148 MA's), (Start: 9 @135629 has 1 MA's), (13, 135698), (15, 135764), (16, 135782), (18, 135797), (19, 135836),

Gene: EmmaElysia\_249 Start: 136714, Stop: 137016, Start Num: 8

Candidate Starts for EmmaElysia\_249:

(6, 136672), (Start: 8 @136714 has 148 MA's), (Start: 9 @136741 has 1 MA's), (13, 136810), (15, 136876), (16, 136894), (18, 136909), (19, 136948),

Gene: Erdmann\_245 Start: 135570, Stop: 135872, Start Num: 8

Candidate Starts for Erdmann\_245:

(6, 135528), (Start: 8 @135570 has 148 MA's), (Start: 9 @135597 has 1 MA's), (13, 135666), (16, 135750), (18, 135765), (19, 135804),

Gene: ErnieJ\_237 Start: 132398, Stop: 132700, Start Num: 8

Candidate Starts for ErnieJ\_237:

(6, 132356), (Start: 8 @132398 has 148 MA's), (Start: 9 @132425 has 1 MA's), (13, 132494), (15, 132560), (16, 132578), (18, 132593), (19, 132632),

Gene: Essence\_242 Start: 135055, Stop: 135357, Start Num: 8

Candidate Starts for Essence\_242:

(5, 134989), (6, 135013), (Start: 8 @135055 has 148 MA's), (Start: 9 @135082 has 1 MA's), (13, 135151), (15, 135217), (16, 135235), (18, 135250), (19, 135289),

Gene: Ewok\_243 Start: 135513, Stop: 135815, Start Num: 8

Candidate Starts for Ewok\_243:

(6, 135471), (Start: 8 @135513 has 148 MA's), (10, 135549), (11, 135555), (15, 135675), (16, 135693), (18, 135708), (19, 135747),

Gene: Finch\_6 Start: 3596, Stop: 3955, Start Num: 8

Candidate Starts for Finch\_6:

(1, 3281), (2, 3314), (4, 3497), (Start: 8 @3596 has 148 MA's), (12, 3647), (22, 3923),

Gene: Fixie\_243 Start: 135835, Stop: 136137, Start Num: 8

Candidate Starts for Fixie\_243:

(6, 135793), (Start: 8 @135835 has 148 MA's), (Start: 9 @135862 has 1 MA's), (13, 135931), (15, 135997), (16, 136015), (18, 136030), (19, 136069),

Gene: Fludd\_244 Start: 133931, Stop: 134233, Start Num: 8

Candidate Starts for Fludd\_244:

(6, 133889), (Start: 8 @133931 has 148 MA's), (Start: 9 @133958 has 1 MA's), (13, 134027), (15, 134093), (16, 134111), (18, 134126), (19, 134165),

Gene: Fongie\_244 Start: 135511, Stop: 135813, Start Num: 8

Candidate Starts for Fongie\_244:

(6, 135469), (Start: 8 @135511 has 148 MA's), (Start: 9 @135538 has 1 MA's), (13, 135607), (15, 135673), (16, 135691), (18, 135706), (19, 135745),

Gene: FoxtrotP1\_242 Start: 136156, Stop: 136458, Start Num: 8

Candidate Starts for FoxtrotP1\_242:

(6, 136114), (Start: 8 @136156 has 148 MA's), (Start: 9 @136183 has 1 MA's), (13, 136252), (16, 136336), (18, 136351), (19, 136390),

Gene: FudgeTart\_239 Start: 134660, Stop: 134962, Start Num: 8

Candidate Starts for FudgeTart\_239:

(6, 134618), (Start: 8 @134660 has 148 MA's), (10, 134696), (11, 134702), (15, 134822), (16, 134840), (18, 134855), (19, 134894),

Gene: Gabriel\_247 Start: 134090, Stop: 134392, Start Num: 8

Candidate Starts for Gabriel\_247:

(6, 134048), (Start: 8 @134090 has 148 MA's), (Start: 9 @134117 has 1 MA's), (13, 134186), (15, 134252), (16, 134270), (18, 134285), (19, 134324),

Gene: Gamgam\_246 Start: 134447, Stop: 134749, Start Num: 8

Candidate Starts for Gamgam\_246:

(6, 134405), (Start: 8 @134447 has 148 MA's), (Start: 9 @134474 has 1 MA's), (13, 134543), (15, 134609), (16, 134627), (18, 134642), (19, 134681),

Gene: Ghost\_244 Start: 135071, Stop: 135373, Start Num: 8

Candidate Starts for Ghost\_244:

(6, 135029), (Start: 8 @135071 has 148 MA's), (Start: 9 @135098 has 1 MA's), (13, 135167), (15, 135233), (16, 135251), (18, 135266), (19, 135305),

Gene: Gizmo\_249 Start: 137487, Stop: 137789, Start Num: 8

Candidate Starts for Gizmo\_249:

(6, 137445), (Start: 8 @137487 has 148 MA's), (Start: 9 @137514 has 1 MA's), (13, 137583), (16, 137667), (18, 137682), (19, 137721),

Gene: GlutenPhree\_245 Start: 134458, Stop: 134760, Start Num: 8

Candidate Starts for GlutenPhree\_245:

(6, 134416), (Start: 8 @134458 has 148 MA's), (Start: 9 @134485 has 1 MA's), (13, 134554), (15, 134620), (16, 134638), (18, 134653), (19, 134692),

Gene: Grasshills\_251 Start: 137063, Stop: 137365, Start Num: 8

Candidate Starts for Grasshills\_251:

(6, 137021), (Start: 8 @137063 has 148 MA's), (Start: 9 @137090 has 1 MA's), (13, 137159), (15, 137225), (16, 137243), (18, 137258), (19, 137297),

Gene: Guwapp\_240 Start: 133905, Stop: 134207, Start Num: 8

Candidate Starts for Guwapp\_240:

(6, 133863), (Start: 8 @133905 has 148 MA's), (Start: 9 @133932 has 1 MA's), (13, 134001), (15, 134067), (16, 134085), (18, 134100), (19, 134139),

Gene: IkeLoa\_238 Start: 134803, Stop: 135105, Start Num: 8

Candidate Starts for IkeLoa\_238:

(6, 134761), (Start: 8 @134803 has 148 MA's), (Start: 9 @134830 has 1 MA's), (13, 134899), (15, 134965), (16, 134983), (18, 134998), (19, 135037),

Gene: InigoMontoya\_248 Start: 135121, Stop: 135423, Start Num: 8

Candidate Starts for InigoMontoya\_248:

(6, 135079), (Start: 8 @135121 has 148 MA's), (Start: 9 @135148 has 1 MA's), (13, 135217), (15, 135283), (16, 135301), (18, 135316), (19, 135355),

Gene: Iota\_241 Start: 134833, Stop: 135135, Start Num: 8

Candidate Starts for Iota\_241:

(6, 134791), (Start: 8 @134833 has 148 MA's), (Start: 9 @134860 has 1 MA's), (13, 134929), (16, 135013), (18, 135028), (19, 135067),

Gene: Issimir\_237 Start: 134759, Stop: 135061, Start Num: 8

Candidate Starts for Issimir\_237:

(6, 134717), (Start: 8 @134759 has 148 MA's), (10, 134795), (11, 134801), (15, 134921), (16, 134939), (18, 134954), (19, 134993),

Gene: Izajani\_240 Start: 135653, Stop: 135955, Start Num: 8

Candidate Starts for Izajani\_240:

(6, 135611), (Start: 8 @135653 has 148 MA's), (10, 135689), (11, 135695), (15, 135815), (16, 135833), (18, 135848), (19, 135887),

Gene: JPickles\_241 Start: 133809, Stop: 134111, Start Num: 8

Candidate Starts for JPickles\_241:

(6, 133767), (Start: 8 @133809 has 148 MA's), (Start: 9 @133836 has 1 MA's), (13, 133905), (15, 133971), (16, 133989), (18, 134004), (19, 134043),

Gene: Janiyra\_247 Start: 135346, Stop: 135648, Start Num: 8

Candidate Starts for Janiyra\_247:

(6, 135304), (Start: 8 @135346 has 148 MA's), (Start: 9 @135373 has 1 MA's), (13, 135442), (15, 135508), (16, 135526), (18, 135541), (19, 135580),

Gene: Jaygup\_241 Start: 134980, Stop: 135282, Start Num: 8

Candidate Starts for Jaygup\_241:

(6, 134938), (Start: 8 @134980 has 148 MA's), (Start: 9 @135007 has 1 MA's), (13, 135076), (15, 135142), (16, 135160), (18, 135175), (19, 135214),

Gene: Jedediah\_246 Start: 136033, Stop: 136335, Start Num: 8

Candidate Starts for Jedediah\_246:

(6, 135991), (Start: 8 @136033 has 148 MA's), (Start: 9 @136060 has 1 MA's), (13, 136129), (15, 136195), (16, 136213), (18, 136228), (19, 136267),

Gene: Jemmno\_244 Start: 134752, Stop: 135054, Start Num: 8

Candidate Starts for Jemmno\_244:

(6, 134710), (Start: 8 @134752 has 148 MA's), (Start: 9 @134779 has 1 MA's), (13, 134848), (15, 134914), (16, 134932), (18, 134947), (19, 134986),

Gene: Jessibeth14\_244 Start: 136228, Stop: 136530, Start Num: 8

Candidate Starts for Jessibeth14\_244:

(6, 136186), (Start: 8 @136228 has 148 MA's), (Start: 9 @136255 has 1 MA's), (13, 136324), (15, 136390), (16, 136408), (18, 136423), (19, 136462),

Gene: Jezreel\_241 Start: 135297, Stop: 135599, Start Num: 8

Candidate Starts for Jezreel\_241:

(6, 135255), (Start: 8 @135297 has 148 MA's), (10, 135333), (11, 135339), (15, 135459), (16, 135477), (18, 135492), (19, 135531),

Gene: JigglyPuff\_250 Start: 136723, Stop: 137025, Start Num: 8

Candidate Starts for JigglyPuff\_250:

(6, 136681), (Start: 8 @136723 has 148 MA's), (Start: 9 @136750 has 1 MA's), (13, 136819), (16, 136903), (18, 136918), (19, 136957),

Gene: JulietS\_233 Start: 132332, Stop: 132634, Start Num: 8

Candidate Starts for JulietS\_233:

(6, 132290), (Start: 8 @132332 has 148 MA's), (Start: 9 @132359 has 1 MA's), (13, 132428), (15, 132494), (16, 132512), (18, 132527), (19, 132566),

Gene: JustHall\_238 Start: 134282, Stop: 134584, Start Num: 8

Candidate Starts for JustHall\_238:

(6, 134240), (Start: 8 @134282 has 148 MA's), (Start: 9 @134309 has 1 MA's), (13, 134378), (15, 134444), (16, 134462), (18, 134477), (19, 134516),

Gene: Kamryn\_243 Start: 135872, Stop: 136174, Start Num: 8

Candidate Starts for Kamryn\_243:

(6, 135830), (Start: 8 @135872 has 148 MA's), (10, 135908), (11, 135914), (15, 136034), (16, 136052), (17, 136061), (18, 136067), (19, 136106),

Gene: Kboogie\_248 Start: 134911, Stop: 135213, Start Num: 8

Candidate Starts for Kboogie\_248:

(6, 134869), (Start: 8 @134911 has 148 MA's), (Start: 9 @134938 has 1 MA's), (13, 135007), (15, 135073), (16, 135091), (18, 135106), (19, 135145),

Gene: Khaleesi\_243 Start: 135695, Stop: 135997, Start Num: 8

Candidate Starts for Khaleesi\_243:

(6, 135653), (Start: 8 @135695 has 148 MA's), (Start: 9 @135722 has 1 MA's), (13, 135791), (15, 135857), (16, 135875), (18, 135890), (19, 135929),

Gene: LRRHood\_236 Start: 133904, Stop: 134206, Start Num: 8

Candidate Starts for LRRHood\_236:

(6, 133862), (Start: 8 @133904 has 148 MA's), (Start: 9 @133931 has 1 MA's), (13, 134000), (15, 134066), (16, 134084), (18, 134099), (19, 134138),

Gene: Labradorite\_241 Start: 134471, Stop: 134773, Start Num: 8

Candidate Starts for Labradorite\_241:

(6, 134429), (Start: 8 @134471 has 148 MA's), (Start: 9 @134498 has 1 MA's), (13, 134567), (15, 134633), (16, 134651), (18, 134666), (19, 134705),

Gene: Latch\_244 Start: 134457, Stop: 134759, Start Num: 8

Candidate Starts for Latch\_244:

(6, 134415), (Start: 8 @134457 has 148 MA's), (Start: 9 @134484 has 1 MA's), (13, 134553), (15, 134619), (16, 134637), (18, 134652), (19, 134691),

Gene: Lee7\_243 Start: 137109, Stop: 137411, Start Num: 8

Candidate Starts for Lee7\_243:

(6, 137067), (Start: 8 @137109 has 148 MA's), (10, 137145), (11, 137151), (15, 137271), (16, 137289), (18, 137304), (19, 137343),

Gene: LifeSavor\_245 Start: 135685, Stop: 135987, Start Num: 8

Candidate Starts for LifeSavor\_245:

(6, 135643), (Start: 8 @135685 has 148 MA's), (Start: 9 @135712 has 1 MA's), (13, 135781), (15, 135847), (16, 135865), (18, 135880), (19, 135919),

Gene: Littleton\_248 Start: 135694, Stop: 135996, Start Num: 8

Candidate Starts for Littleton\_248:

(6, 135652), (Start: 8 @135694 has 148 MA's), (Start: 9 @135721 has 1 MA's), (13, 135790), (15, 135856), (16, 135874), (18, 135889), (19, 135928),

Gene: Loanshark\_241 Start: 135044, Stop: 135346, Start Num: 8

Candidate Starts for Loanshark\_241:

(6, 135002), (Start: 8 @135044 has 148 MA's), (10, 135080), (11, 135086), (15, 135206), (16, 135224), (18, 135239), (19, 135278),

Gene: LookingGlass\_242 Start: 135202, Stop: 135504, Start Num: 8

Candidate Starts for LookingGlass\_242:

(6, 135160), (Start: 8 @135202 has 148 MA's), (Start: 9 @135229 has 1 MA's), (13, 135298), (15, 135364), (16, 135382), (18, 135397), (19, 135436),

Gene: Lukilu\_233 Start: 135920, Stop: 136222, Start Num: 8

Candidate Starts for Lukilu\_233:

(6, 135878), (Start: 8 @135920 has 148 MA's), (Start: 9 @135947 has 1 MA's), (13, 136016), (15, 136082), (16, 136100), (18, 136115), (19, 136154),

Gene: Maby2021\_244 Start: 136148, Stop: 136450, Start Num: 8

Candidate Starts for Maby2021\_244:

(6, 136106), (Start: 8 @136148 has 148 MA's), (Start: 9 @136175 has 1 MA's), (13, 136244), (16, 136328), (18, 136343), (19, 136382),

Gene: Matsumoto\_242 Start: 134899, Stop: 135201, Start Num: 8

Candidate Starts for Matsumoto\_242:

(6, 134857), (Start: 8 @134899 has 148 MA's), (Start: 9 @134926 has 1 MA's), (13, 134995), (15, 135061), (16, 135079), (18, 135094), (19, 135133),

Gene: McGee\_245 Start: 134796, Stop: 135098, Start Num: 8

Candidate Starts for McGee\_245:

(6, 134754), (Start: 8 @134796 has 148 MA's), (Start: 9 @134823 has 1 MA's), (13, 134892), (15, 134958), (16, 134976), (18, 134991), (19, 135030),

Gene: McWolfish\_241 Start: 134906, Stop: 135208, Start Num: 8

Candidate Starts for McWolfish\_241:

(6, 134864), (Start: 8 @134906 has 148 MA's), (Start: 9 @134933 has 1 MA's), (13, 135002), (15, 135068), (16, 135086), (18, 135101), (19, 135140),

Gene: Megamind\_241 Start: 135231, Stop: 135533, Start Num: 8

Candidate Starts for Megamind\_241:

(6, 135189), (Start: 8 @135231 has 148 MA's), (10, 135267), (11, 135273), (15, 135393), (16, 135411), (18, 135426), (19, 135465),

Gene: Melpomini\_239 Start: 133991, Stop: 134293, Start Num: 8

Candidate Starts for Melpomini\_239:

(6, 133949), (Start: 8 @133991 has 148 MA's), (Start: 9 @134018 has 1 MA's), (13, 134087), (15, 134153), (16, 134171), (18, 134186), (19, 134225),

Gene: MikeLiesIn\_245 Start: 136367, Stop: 136669, Start Num: 8

Candidate Starts for MikeLiesIn\_245:

(6, 136325), (Start: 8 @136367 has 148 MA's), (10, 136403), (11, 136409), (15, 136529), (16, 136547), (18, 136562), (19, 136601),

Gene: MoMoMixon\_240 Start: 135372, Stop: 135674, Start Num: 8

Candidate Starts for MoMoMixon\_240:

(6, 135330), (Start: 8 @135372 has 148 MA's), (Start: 9 @135399 has 1 MA's), (13, 135468), (16, 135552), (18, 135567), (19, 135606),

Gene: Momo\_246 Start: 134457, Stop: 134759, Start Num: 8

Candidate Starts for Momo\_246:

(6, 134415), (Start: 8 @134457 has 148 MA's), (Start: 9 @134484 has 1 MA's), (13, 134553), (15, 134619), (16, 134637), (18, 134652), (19, 134691),

Gene: Morizzled23\_241 Start: 133824, Stop: 134126, Start Num: 8

Candidate Starts for Morizzled23\_241:

(6, 133782), (Start: 8 @133824 has 148 MA's), (Start: 9 @133851 has 1 MA's), (13, 133920), (15, 133986), (16, 134004), (18, 134019), (19, 134058),

Gene: Naija\_245 Start: 135160, Stop: 135462, Start Num: 8

Candidate Starts for Naija\_245:

(6, 135118), (Start: 8 @135160 has 148 MA's), (Start: 9 @135187 has 1 MA's), (13, 135256), (15, 135322), (16, 135340), (18, 135355), (19, 135394),

Gene: Napoleon13\_241 Start: 134189, Stop: 134491, Start Num: 8

Candidate Starts for Napoleon13\_241:

(6, 134147), (Start: 8 @134189 has 148 MA's), (Start: 9 @134216 has 1 MA's), (13, 134285), (15, 134351), (16, 134369), (18, 134384), (19, 134423),

Gene: Naval22\_251 Start: 136940, Stop: 137242, Start Num: 8

Candidate Starts for Naval22\_251:

(6, 136898), (Start: 8 @136940 has 148 MA's), (Start: 9 @136967 has 1 MA's), (13, 137036), (16, 137120), (18, 137135), (19, 137174),

Gene: NedWong\_243 Start: 135618, Stop: 135920, Start Num: 8

Candidate Starts for NedWong\_243:

(6, 135576), (Start: 8 @135618 has 148 MA's), (10, 135654), (11, 135660), (15, 135780), (16, 135798), (18, 135813), (19, 135852),

Gene: Ngannou\_239 Start: 134142, Stop: 134444, Start Num: 8

Candidate Starts for Ngannou\_239:

(6, 134100), (Start: 8 @134142 has 148 MA's), (Start: 9 @134169 has 1 MA's), (13, 134238), (15, 134304), (16, 134322), (18, 134337), (19, 134376),

Gene: Nidhogg\_245 Start: 135986, Stop: 136288, Start Num: 8

Candidate Starts for Nidhogg\_245:

(6, 135944), (Start: 8 @135986 has 148 MA's), (10, 136022), (11, 136028), (15, 136148), (16, 136166), (18, 136181), (19, 136220),

Gene: NoodleTree\_240 Start: 130737, Stop: 131039, Start Num: 8

Candidate Starts for NoodleTree\_240:

(6, 130695), (Start: 8 @130737 has 148 MA's), (Start: 9 @130764 has 1 MA's), (13, 130833), (15, 130899), (16, 130917), (18, 130932), (19, 130971),

Gene: Norm\_244 Start: 135887, Stop: 136189, Start Num: 8

Candidate Starts for Norm\_244:

(6, 135845), (Start: 8 @135887 has 148 MA's), (10, 135923), (11, 135929), (15, 136049), (16, 136067), (18, 136082), (19, 136121),

Gene: OrediggerDelux\_239 Start: 136113, Stop: 136415, Start Num: 8

Candidate Starts for OrediggerDelux\_239:

(6, 136071), (Start: 8 @136113 has 148 MA's), (10, 136149), (11, 136155), (15, 136275), (16, 136293), (18, 136308), (19, 136347),

Gene: ParkTD\_243 Start: 135457, Stop: 135759, Start Num: 8

Candidate Starts for ParkTD\_243:

(6, 135415), (Start: 8 @135457 has 148 MA's), (10, 135493), (11, 135499), (15, 135619), (16, 135637), (18, 135652), (19, 135691),

Gene: Phlegm\_249 Start: 135863, Stop: 136165, Start Num: 8

Candidate Starts for Phlegm\_249:

(6, 135821), (Start: 8 @135863 has 148 MA's), (Start: 9 @135890 has 1 MA's), (13, 135959), (15, 136025), (16, 136043), (18, 136058), (19, 136097),

Gene: Phox\_245 Start: 135112, Stop: 135414, Start Num: 8

Candidate Starts for Phox\_245:

(6, 135070), (Start: 8 @135112 has 148 MA's), (10, 135148), (11, 135154), (15, 135274), (16, 135292), (18, 135307), (19, 135346),

Gene: Phusco\_243 Start: 134695, Stop: 134997, Start Num: 8

Candidate Starts for Phusco\_243:

(6, 134653), (Start: 8 @134695 has 148 MA's), (Start: 9 @134722 has 1 MA's), (13, 134791), (15, 134857), (16, 134875), (18, 134890), (19, 134929),

Gene: Pier\_243 Start: 135988, Stop: 136290, Start Num: 8

Candidate Starts for Pier\_243:

(6, 135946), (Start: 8 @135988 has 148 MA's), (10, 136024), (11, 136030), (15, 136150), (16, 136168), (18, 136183), (19, 136222),

Gene: Pio\_251 Start: 137191, Stop: 137493, Start Num: 8

Candidate Starts for Pio\_251:

(6, 137149), (Start: 8 @137191 has 148 MA's), (Start: 9 @137218 has 1 MA's), (13, 137287), (15, 137353), (16, 137371), (18, 137386), (19, 137425),

Gene: Pivoine\_245 Start: 135160, Stop: 135462, Start Num: 8

Candidate Starts for Pivoine\_245:

(6, 135118), (Start: 8 @135160 has 148 MA's), (Start: 9 @135187 has 1 MA's), (13, 135256), (15, 135322), (16, 135340), (18, 135355), (19, 135394),

Gene: Pleione\_248 Start: 135923, Stop: 136225, Start Num: 8

Candidate Starts for Pleione\_248:

(6, 135881), (Start: 8 @135923 has 148 MA's), (Start: 9 @135950 has 1 MA's), (13, 136019), (16, 136103), (18, 136118), (19, 136157),

Gene: Primadonna\_238 Start: 134823, Stop: 135125, Start Num: 8

Candidate Starts for Primadonna\_238:

(6, 134781), (Start: 8 @134823 has 148 MA's), (Start: 9 @134850 has 1 MA's), (13, 134919), (15, 134985), (16, 135003), (18, 135018), (19, 135057),

Gene: Pupusa\_247 Start: 136487, Stop: 136789, Start Num: 8

Candidate Starts for Pupusa\_247:

(6, 136445), (Start: 8 @136487 has 148 MA's), (Start: 9 @136514 has 1 MA's), (13, 136583), (15, 136649), (16, 136667), (18, 136682), (19, 136721),

Gene: PurduePete\_244 Start: 136188, Stop: 136490, Start Num: 8

Candidate Starts for PurduePete\_244:

(6, 136146), (Start: 8 @136188 has 148 MA's), (Start: 9 @136215 has 1 MA's), (13, 136284), (15, 136350), (16, 136368), (18, 136383), (19, 136422),

Gene: QBert\_236 Start: 133511, Stop: 133813, Start Num: 8

Candidate Starts for QBert\_236:

(6, 133469), (Start: 8 @133511 has 148 MA's), (Start: 9 @133538 has 1 MA's), (13, 133607), (15, 133673), (16, 133691), (18, 133706), (19, 133745),

Gene: Quasimodo\_247 Start: 135496, Stop: 135798, Start Num: 8

Candidate Starts for Quasimodo\_247:

(6, 135454), (Start: 8 @135496 has 148 MA's), (Start: 9 @135523 has 1 MA's), (13, 135592), (15, 135658), (16, 135676), (18, 135691), (19, 135730),

Gene: Rahel\_246 Start: 135598, Stop: 135900, Start Num: 8

Candidate Starts for Rahel\_246:

(6, 135556), (Start: 8 @135598 has 148 MA's), (Start: 9 @135625 has 1 MA's), (13, 135694), (15, 135760), (16, 135778), (18, 135793), (19, 135832),

Gene: Rizal\_233 Start: 133413, Stop: 133715, Start Num: 8

Candidate Starts for Rizal\_233:

(6, 133371), (Start: 8 @133413 has 148 MA's), (Start: 9 @133440 has 1 MA's), (13, 133509), (15, 133575), (16, 133593), (18, 133608), (19, 133647),

Gene: RoMag\_239 Start: 135194, Stop: 135496, Start Num: 8

Candidate Starts for RoMag\_239:

(6, 135152), (Start: 8 @135194 has 148 MA's), (Start: 9 @135221 has 1 MA's), (13, 135290), (15, 135356), (16, 135374), (18, 135389), (19, 135428),

Gene: Rocha\_240 Start: 134759, Stop: 135061, Start Num: 8

Candidate Starts for Rocha\_240:

(6, 134717), (Start: 8 @134759 has 148 MA's), (Start: 9 @134786 has 1 MA's), (13, 134855), (15, 134921), (16, 134939), (18, 134954), (19, 134993),

Gene: Ronan\_240 Start: 133586, Stop: 133888, Start Num: 8

Candidate Starts for Ronan\_240:

(6, 133544), (Start: 8 @133586 has 148 MA's), (10, 133622), (11, 133628), (15, 133748), (16, 133766), (18, 133781), (19, 133820),

Gene: Roots515\_247 Start: 136739, Stop: 137041, Start Num: 8

Candidate Starts for Roots515\_247:

(6, 136697), (Start: 8 @136739 has 148 MA's), (10, 136775), (11, 136781), (15, 136901), (16, 136919), (18, 136934), (19, 136973),

Gene: SVoro\_239 Start: 135496, Stop: 135798, Start Num: 8

Candidate Starts for SVoro\_239:

(6, 135454), (Start: 8 @135496 has 148 MA's), (Start: 9 @135523 has 1 MA's), (13, 135592), (15, 135658), (16, 135676), (18, 135691), (19, 135730),

Gene: Salacia\_245 Start: 136614, Stop: 136916, Start Num: 8

Candidate Starts for Salacia\_245:

(6, 136572), (Start: 8 @136614 has 148 MA's), (10, 136650), (11, 136656), (15, 136776), (16, 136794), (18, 136809), (19, 136848),

Gene: Sauce\_241 Start: 134922, Stop: 135224, Start Num: 8

Candidate Starts for Sauce\_241:

(6, 134880), (Start: 8 @134922 has 148 MA's), (Start: 9 @134949 has 1 MA's), (13, 135018), (15, 135084), (16, 135102), (18, 135117), (19, 135156),

Gene: Shaqnato\_235 Start: 134332, Stop: 134634, Start Num: 8

Candidate Starts for Shaqnato\_235:

(6, 134290), (Start: 8 @134332 has 148 MA's), (Start: 9 @134359 has 1 MA's), (13, 134428), (15, 134494), (16, 134512), (18, 134527), (19, 134566),

Gene: Shelob\_245 Start: 137057, Stop: 137359, Start Num: 8

Candidate Starts for Shelob\_245:

(6, 137015), (Start: 8 @137057 has 148 MA's), (10, 137093), (11, 137099), (15, 137219), (16, 137237), (18, 137252), (19, 137291),

Gene: ShiaLabeouf\_242 Start: 134916, Stop: 135218, Start Num: 8

Candidate Starts for ShiaLabeouf\_242:

(6, 134874), (Start: 8 @134916 has 148 MA's), (Start: 9 @134943 has 1 MA's), (13, 135012), (15, 135078), (16, 135096), (18, 135111), (19, 135150),

Gene: Shnickers\_243 Start: 134980, Stop: 135282, Start Num: 8

Candidate Starts for Shnickers\_243:

(6, 134938), (Start: 8 @134980 has 148 MA's), (Start: 9 @135007 has 1 MA's), (13, 135076), (15, 135142), (16, 135160), (18, 135175), (19, 135214),

Gene: Shrimp\_246 Start: 136225, Stop: 136527, Start Num: 8

Candidate Starts for Shrimp\_246:

(6, 136183), (Start: 8 @136225 has 148 MA's), (Start: 9 @136252 has 1 MA's), (13, 136321), (16, 136405), (18, 136420), (19, 136459),

Gene: SilverDipper\_249 Start: 135716, Stop: 136018, Start Num: 8

Candidate Starts for SilverDipper\_249:

(6, 135674), (Start: 8 @135716 has 148 MA's), (Start: 9 @135743 has 1 MA's), (13, 135812), (15, 135878), (16, 135896), (18, 135911), (19, 135950),

Gene: SmallFry\_245 Start: 135074, Stop: 135376, Start Num: 8

Candidate Starts for SmallFry\_245:

(6, 135032), (Start: 8 @135074 has 148 MA's), (Start: 9 @135101 has 1 MA's), (13, 135170), (15, 135236), (16, 135254), (18, 135269), (19, 135308),

Gene: SoilZilla\_237 Start: 134229, Stop: 134531, Start Num: 8

Candidate Starts for SoilZilla\_237:

(6, 134187), (Start: 8 @134229 has 148 MA's), (Start: 9 @134256 has 1 MA's), (13, 134325), (15, 134391), (16, 134409), (18, 134424), (19, 134463),

Gene: Specks\_248 Start: 135565, Stop: 135867, Start Num: 8

Candidate Starts for Specks\_248:

(6, 135523), (Start: 8 @135565 has 148 MA's), (Start: 9 @135592 has 1 MA's), (13, 135661), (15, 135727), (16, 135745), (18, 135760), (19, 135799),

Gene: Sprinklers\_242 Start: 134822, Stop: 135124, Start Num: 8

Candidate Starts for Sprinklers\_242:

(6, 134780), (Start: 8 @134822 has 148 MA's), (Start: 9 @134849 has 1 MA's), (13, 134918), (15, 134984), (16, 135002), (18, 135017), (19, 135056),

Gene: Spud\_236 Start: 134531, Stop: 134833, Start Num: 8

Candidate Starts for Spud\_236:

(6, 134489), (Start: 8 @134531 has 148 MA's), (Start: 9 @134558 has 1 MA's), (13, 134627), (15, 134693), (16, 134711), (18, 134726), (19, 134765),

Gene: SrishMeg2525\_241 Start: 135720, Stop: 136022, Start Num: 8

Candidate Starts for SrishMeg2525\_241:

(6, 135678), (Start: 8 @135720 has 148 MA's), (10, 135756), (11, 135762), (15, 135882), (16, 135900), (18, 135915), (19, 135954),

Gene: StephanieG\_238 Start: 135717, Stop: 136019, Start Num: 8

Candidate Starts for StephanieG\_238:

(6, 135675), (Start: 8 @135717 has 148 MA's), (Start: 9 @135744 has 1 MA's), (13, 135813), (15, 135879), (16, 135897), (18, 135912), (19, 135951),

Gene: StubbySaigey\_250 Start: 135250, Stop: 135552, Start Num: 8

Candidate Starts for StubbySaigey\_250:

(6, 135208), (Start: 8 @135250 has 148 MA's), (Start: 9 @135277 has 1 MA's), (13, 135346), (15, 135412), (16, 135430), (18, 135445), (19, 135484),

Gene: Substance289\_240 Start: 135122, Stop: 135424, Start Num: 8

Candidate Starts for Substance289\_240:

(6, 135080), (Start: 8 @135122 has 148 MA's), (Start: 9 @135149 has 1 MA's), (13, 135218), (15, 135284), (16, 135302), (18, 135317), (19, 135356),

Gene: Teardrop\_242 Start: 134577, Stop: 134879, Start Num: 8

Candidate Starts for Teardrop\_242:

(6, 134535), (Start: 8 @134577 has 148 MA's), (Start: 9 @134604 has 1 MA's), (13, 134673), (15, 134739), (16, 134757), (18, 134772), (19, 134811),

Gene: TinyTim\_242 Start: 134544, Stop: 134846, Start Num: 8

Candidate Starts for TinyTim\_242:

(6, 134502), (Start: 8 @134544 has 148 MA's), (Start: 9 @134571 has 1 MA's), (13, 134640), (16, 134724), (18, 134739), (19, 134778),

Gene: Tonenili\_266 Start: 140370, Stop: 140672, Start Num: 8

Candidate Starts for Tonenili\_266:

(6, 140328), (Start: 8 @140370 has 148 MA's), (10, 140406), (11, 140412), (13, 140466), (15, 140532), (16, 140550), (18, 140565), (19, 140604),

Gene: Tortoise16\_242 Start: 135033, Stop: 135308, Start Num: 9  
Candidate Starts for Tortoise16\_242:  
(6, 134964), (Start: 8 @135006 has 148 MA's), (Start: 9 @135033 has 1 MA's), (13, 135102), (15, 135168), (16, 135186), (18, 135201), (19, 135240),

Gene: Trinitium\_240 Start: 133298, Stop: 133600, Start Num: 8  
Candidate Starts for Trinitium\_240:  
(6, 133256), (Start: 8 @133298 has 148 MA's), (Start: 9 @133325 has 1 MA's), (13, 133394), (15, 133460), (16, 133478), (18, 133493), (19, 133532),

Gene: Turret\_235 Start: 132880, Stop: 133182, Start Num: 8  
Candidate Starts for Turret\_235:  
(6, 132838), (Start: 8 @132880 has 148 MA's), (Start: 9 @132907 has 1 MA's), (13, 132976), (15, 133042), (16, 133060), (18, 133075), (19, 133114),

Gene: ValleyTerrace\_245 Start: 134457, Stop: 134759, Start Num: 8  
Candidate Starts for ValleyTerrace\_245:  
(6, 134415), (Start: 8 @134457 has 148 MA's), (Start: 9 @134484 has 1 MA's), (13, 134553), (15, 134619), (16, 134637), (18, 134652), (19, 134691),

Gene: Vortrix\_262 Start: 139157, Stop: 139459, Start Num: 8  
Candidate Starts for Vortrix\_262:  
(6, 139115), (Start: 8 @139157 has 148 MA's), (10, 139193), (11, 139199), (13, 139253), (15, 139319), (16, 139337), (18, 139352), (19, 139391),

Gene: Wally\_242 Start: 134441, Stop: 134743, Start Num: 8  
Candidate Starts for Wally\_242:  
(6, 134399), (Start: 8 @134441 has 148 MA's), (Start: 9 @134468 has 1 MA's), (13, 134537), (15, 134603), (16, 134621), (18, 134636), (19, 134675),

Gene: Willis\_245 Start: 135380, Stop: 135682, Start Num: 8  
Candidate Starts for Willis\_245:  
(6, 135338), (Start: 8 @135380 has 148 MA's), (10, 135416), (11, 135422), (15, 135542), (16, 135560), (18, 135575), (19, 135614),

Gene: Yassified\_240 Start: 134587, Stop: 134889, Start Num: 8  
Candidate Starts for Yassified\_240:  
(6, 134545), (Start: 8 @134587 has 148 MA's), (10, 134623), (11, 134629), (15, 134749), (16, 134767), (18, 134782), (19, 134821),

Gene: YemiJoy2021\_245 Start: 136111, Stop: 136413, Start Num: 8  
Candidate Starts for YemiJoy2021\_245:  
(6, 136069), (Start: 8 @136111 has 148 MA's), (10, 136147), (11, 136153), (15, 136273), (16, 136291), (18, 136306), (19, 136345),

Gene: Yucca\_244 Start: 136103, Stop: 136405, Start Num: 8  
Candidate Starts for Yucca\_244:  
(6, 136061), (Start: 8 @136103 has 148 MA's), (Start: 9 @136130 has 1 MA's), (13, 136199), (16, 136283), (18, 136298), (19, 136337),

Gene: Zalkecks\_243 Start: 135209, Stop: 135511, Start Num: 8  
Candidate Starts for Zalkecks\_243:

(6, 135167), (Start: 8 @135209 has 148 MA's), (10, 135245), (11, 135251), (15, 135371), (16, 135389), (18, 135404), (19, 135443),

Gene: Zeenon\_245 Start: 135743, Stop: 136045, Start Num: 8

Candidate Starts for Zeenon\_245:

(6, 135701), (Start: 8 @135743 has 148 MA's), (10, 135779), (11, 135785), (15, 135905), (16, 135923), (18, 135938), (19, 135977),

Gene: ZygoTaiga\_240 Start: 136400, Stop: 136702, Start Num: 8

Candidate Starts for ZygoTaiga\_240:

(6, 136358), (Start: 8 @136400 has 148 MA's), (10, 136436), (11, 136442), (15, 136562), (16, 136580), (18, 136595), (19, 136634),