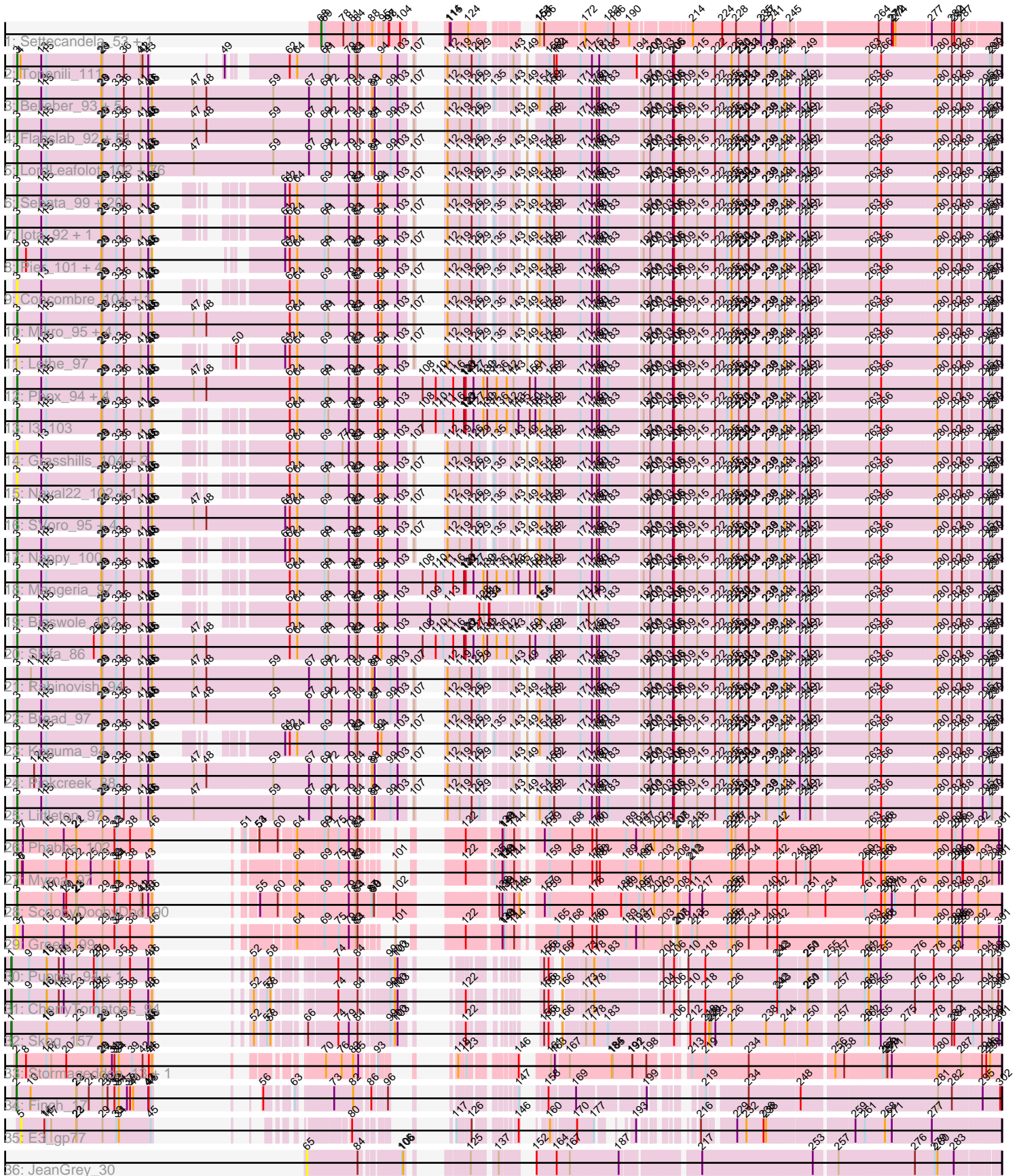


Pham 212295



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 212295 Report

This analysis was run 02/22/25 on database version 588.

Pham number 212295 has 212 members, 28 are drafts.

Phages represented in each track:

- Track 1 : Settecandela\_53, Phrappuccino\_53
- Track 2 : Tonenili\_111
- Track 3 : Belieber\_93, Capablanca\_99, FoxtrotP1\_97, Pleione\_100, Issimir\_96, Yucca\_97
- Track 4 : Flabslab\_92, Roots515\_96, BackyardAgain\_94, ChaylaJr\_92, ErnieJ\_93, Loanshark\_97, Cactojaque\_92, Chargie21\_94, Melpomini\_91, Khaleesi\_96, Megamind\_96, Catera\_94, MikeLiesIn\_98, ScottMcG\_94, Ewok\_98, ParkTD\_98, TinyTim\_97, Zalkecks\_98, EmToTheThree\_100, Ablatia\_95, Bonray\_97, Willis\_98, NedWong\_98, Dietrick\_89, YemiJoy2021\_98, Kboogie\_101, DrPhinkDaddy\_96, Shelob\_99, Bipolarisk\_96, Turret\_92, Basquiat\_94, Delilah\_97, Zeenon\_99, Lukilu\_88, Janiyra\_99, Ava3\_98, Quasimodo\_98, Izajani\_97, Jessibeth14\_96, Morizzled23\_97, ZygoTaiga\_96, EasyJones\_100, Maby2021\_97, Erdmann\_98, SrishMeg2525\_96, Daffodil\_102, Fongie\_95, Spud\_97, Blackbrain\_92, ChickenPhender\_93, Shrimp\_97, Lee7\_95
- Track 5 : LordLeafolot\_102, Atlantean\_97, JPickles\_96, StubbySaigey\_100, CharlieB\_93, CindyLou\_99, Naija\_97, Salacia\_101, FrayBell\_103, Shnickers\_98, BananaFence\_96, NuevoMundo\_103, ValleyTerrace\_98, Napoleon13\_93, LifeSavor\_97, LolaVinca\_99, Audrick\_100, Ngannou\_94, Babyland\_98, Teardrop\_97, McGee\_99, Amataga\_98, Astraea\_95, Guwapp\_97, Essence\_95, SilverDipper\_99, InigoMontoya\_99, Blackdragon\_93, Tyke\_99, Derek\_98, ShiaLabeouf\_97, GlutenPhree\_97, Jemmno\_98, Jedediah\_101, Spec\_94, Gizmo\_101, NoodleTree\_105, Gabriel\_99, EmmaElysia\_97, BadAgartude\_94, Rahel\_97, Trinitium\_94, Primadonna\_91, Darko\_97, Wally\_96, Specks\_103, Pivoine\_97, Pio\_101, Drazdys\_97, Norm\_98, Momo\_97, Jaygup\_98, ArcherS7\_97, Phusco\_98, Ghost\_97, Tortoise16\_95, Tainan\_102, Gamgam\_98, Matsumoto\_95, DTDevon\_98, Phlegm\_100, SmallFry\_98, Chomp\_97, DirtMonster\_91, Patter\_98, Bxz1\_95, Latch\_98, Ading\_98, Adlitam\_98, YoungMoneyMata\_98, Burrough\_97, InterFolia\_106, JustHall\_94, Bangla1971\_99, Breeniome\_97, Rizal\_94, Fludd\_98
- Track 6 : Sebata\_99, BeanWater\_89, Caravan\_92, Halldule\_91, Sauce\_98, LinStu\_97, JulietS\_92, Ronan\_91, LRRHood\_92, Yassified\_94, ET08\_86, Delylah\_100, Dandelion\_104, QBert\_91, JayJay\_103, Grungle\_85, RoMag\_92, Shaq nato\_90, Nidhogg\_98, Sprinklers\_93, MoMoMixon\_98
- Track 7 : Iota\_92, Cali\_93
- Track 8 : Pier\_101, Blubba\_86, Domi\_91, Cane17\_86, Colt\_87
- Track 9 : Concombre\_104, Demodog\_104
- Track 10 : Mikro\_95, IkeLoa\_91, Kamryn\_97, StephanieG\_96, Jezreel\_95
- Track 11 : Lethe\_97

- Track 12 : Phox\_94, HyRo\_89, Alice\_90, Stubby\_90, DeejaClivia\_86
- Track 13 : I3\_103
- Track 14 : Grasshills\_104, EggyFarm\_105, BigCity\_105
- Track 15 : Naval22\_102, JigglyPuff\_105
- Track 16 : SVoro\_95, Asterius\_100, McWolfish\_95, FudgeTart\_97, PurduePete\_97
- Track 17 : Nappy\_100
- Track 18 : Mangeria\_97
- Track 19 : Bigswole\_102
- Track 20 : Shifa\_86
- Track 21 : Rabinovish\_94
- Track 22 : Bread\_97
- Track 23 : Koguma\_94
- Track 24 : Pinkcreek\_88
- Track 25 : Littleton\_97
- Track 26 : Phabba\_102
- Track 27 : Myrna\_97
- Track 28 : ScoobyDoobyDoo\_90
- Track 29 : Greely\_99
- Track 30 : Pupper\_94, SCentae\_93
- Track 31 : CherryTomatoes\_94
- Track 32 : Skog\_157
- Track 33 : Stormageddon\_13, RedWattleHog\_13
- Track 34 : Finch\_17
- Track 35 : E3\_gp77
- Track 36 : JeanGrey\_30

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

The start number called the most often in the published annotations is 3, it was called in 175 of the 184 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ablatia\_95, Ading\_98, Adlitam\_98, Alice\_90, Amataga\_98, ArcherS7\_97, Asterius\_100, Astraea\_95, Atlantean\_97, Audrick\_100, Ava3\_98, Babyland\_98, BackyardAgain\_94, BadAgartude\_94, BananaFence\_96, Bangla1971\_99, Basquiat\_94, BeanWater\_89, Belieber\_93, BigCity\_105, Bigswole\_102, Bipolarisk\_96, Blackbrain\_92, Blackdragon\_93, Blubba\_86, Bonray\_97, Bread\_97, Breeniome\_97, Burrough\_97, Bxz1\_95, Cactojaque\_92, Cali\_93, Cane17\_86, Capablanca\_99, Caravan\_92, Catera\_94, Chargie21\_94, CharlieB\_93, ChaylaJr\_92, ChickenPhender\_93, Chomp\_97, CindyLou\_99, Colt\_87, Concombre\_104, DTDevon\_98, Daffodil\_102, Dandelion\_104, Darko\_97, DeejaClivia\_86, Delilah\_97, Delylah\_100, Demodog\_104, Derek\_98, Dietrick\_89, DirtMonster\_91, Domi\_91, DrPhinkDaddy\_96, Drazdys\_97, ET08\_86, EasyJones\_100, EggyFarm\_105, EmToTheThree\_100, EmmaElysia\_97, Erdmann\_98, ErnieJ\_93, Essence\_95, Ewok\_98, Flabslab\_92, Fludd\_98, Fongie\_95, FoxtrotP1\_97, FrayBell\_103, FudgeTart\_97, Gabriel\_99, Gamgam\_98, Ghost\_97, Gizmo\_101, GlutenPhree\_97, Grasshills\_104, Greely\_99, Grungle\_85, Guwapp\_97, Halldule\_91, HyRo\_89, I3\_103, IkeLoa\_91, InigoMontoya\_99, InterFolia\_106, Iota\_92, Issimir\_96, Izajani\_97, JPickles\_96, Janiyra\_99, JayJay\_103, Jaygup\_98, Jediah\_101, Jemmno\_98, Jessibeth14\_96, Jezreel\_95, JigglyPuff\_105, JulietS\_92, JustHall\_94, Kamryn\_97,

Kboogie\_101, Khaleesi\_96, Koguma\_94, LRRHood\_92, Latch\_98, Lee7\_95, Lethe\_97, LifeSavor\_97, LinStu\_97, Littleton\_97, Loanshark\_97, LolaVinca\_99, LordLeafolot\_102, Lukilu\_88, Maby2021\_97, Mangeria\_97, Matsumoto\_95, McGee\_99, McWolfish\_95, Megamind\_96, Melpomini\_91, MikeLiesIn\_98, Mikro\_95, MoMoMixon\_98, Momo\_97, Morizzled23\_97, Myrna\_97, Naija\_97, Napoleon13\_93, Nappy\_100, Naval22\_102, NedWong\_98, Ngannou\_94, Nidhogg\_98, NoodleTree\_105, Norm\_98, NuevoMundo\_103, ParkTD\_98, Patter\_98, Phabba\_102, Phlegm\_100, Phox\_94, Phusco\_98, Pier\_101, Pinkcreek\_88, Pio\_101, Pivoine\_97, Pleione\_100, Primadonna\_91, PurduePete\_97, QBert\_91, Quasimodo\_98, Rabinovish\_94, Rahel\_97, Rizal\_94, RoMag\_92, Ronan\_91, Roots515\_96, SVoro\_95, Salacia\_101, Sauce\_98, ScoobyDoobyDoo\_90, ScottMcG\_94, Sebata\_99, Shaqnato\_90, Shelob\_99, ShiaLabeouf\_97, Shifa\_86, Shnickers\_98, Shrimp\_97, SilverDipper\_99, SmallFry\_98, Spec\_94, Specks\_103, Sprinklers\_93, Spud\_97, SrishMeg2525\_96, StephanieG\_96, StubbySaigey\_100, Stubby\_90, Tainan\_102, Teardrop\_97, TinyTim\_97, Tonenili\_111, Tortoise16\_95, Trinitium\_94, Turret\_92, Tyke\_99, ValleyTerrace\_98, Wally\_96, Willis\_98, Yassified\_94, YemiJoy2021\_98, YoungMoneyMata\_98, Yucca\_97, Zalkecks\_98, Zeenon\_99, ZygoTaiga\_96,

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

- 

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

- CherryTomatoes\_94, E3\_gp77, Finch\_17, JeanGrey\_30, Phrappuccino\_53, Pupper\_94, RedWattleHog\_13, SCentae\_93, Settecandela\_53, Skog\_157, Stormageddon\_13,

### Summary by start number:

Start 1:

- Found in 4 of 212 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 4 of 184
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CherryTomatoes\_94 (DO), Pupper\_94 (DO), SCentae\_93 (DO), Skog\_157 (DO),

Start 2:

- Found in 3 of 212 ( 1.4% ) of genes in pham
- Manual Annotations of this start: 3 of 184
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Finch\_17 (singleton), RedWattleHog\_13 (DX), Stormageddon\_13 (DX),

Start 3:

- Found in 201 of 212 ( 94.8% ) of genes in pham
- Manual Annotations of this start: 175 of 184
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ablatia\_95 (C1), Ading\_98 (C1), Adlitam\_98 (C1), Alice\_90 (C1), Amataga\_98 (C1), ArcherS7\_97 (C1), Asterius\_100 (C1), Astraea\_95 (C1), Atlantean\_97 (C1), Audrick\_100 (C1), Ava3\_98 (C1), Babyland\_98 (C1), BackyardAgain\_94 (C1), BadAgartude\_94 (C1), BananaFence\_96 (C1), Bangla1971\_99 (C1), Basquiat\_94 (C1), BeanWater\_89 (C1), Belieber\_93 (C1), BigCity\_105 (C1), Bigswole\_102 (C1), Bipolarisk\_96 (C1), Blackbrain\_92 (C1),

Blackdragon\_93 (C1), Blubba\_86 (C1), Bonray\_97 (C1), Bread\_97 (C1),  
 Breeniome\_97 (C1), Burrough\_97 (C1), Bxz1\_95 (C1), Cactojaque\_92 (C1), Cali\_93  
 (C1), Cane17\_86 (C1), Capablanca\_99 (C1), Caravan\_92 (C1), Catera\_94 (C1),  
 Chargie21\_94 (C1), CharlieB\_93 (C1), ChaylaJr\_92 (C1), ChickenPhender\_93 (C1),  
 Chomp\_97 (C1), CindyLou\_99 (C1), Colt\_87 (C1), Concombre\_104 (C1),  
 DTDevon\_98 (C1), Daffodil\_102 (C1), Dandelion\_104 (C1), Darko\_97 (C1),  
 DeejaClivia\_86 (C1), Delilah\_97 (C1), Delylah\_100 (C1), Demodog\_104 (C1),  
 Derek\_98 (C1), Dietrick\_89 (C1), DirtMonster\_91 (C1), Domi\_91 (C1),  
 DrPhinkDaddy\_96 (C1), Drazdys\_97 (C1), ET08\_86 (C1), EasyJones\_100 (C1),  
 EggyFarm\_105 (C1), EmToTheThree\_100 (C1), EmmaElysia\_97 (C1), Erdmann\_98  
 (C1), ErnieJ\_93 (C1), Essence\_95 (C1), Ewok\_98 (C1), Flabslab\_92 (C1), Fludd\_98  
 (C1), Fongie\_95 (C1), FoxtrotP1\_97 (C1), FrayBell\_103 (C1), FudgeTart\_97 (C1),  
 Gabriel\_99 (C1), Gamgam\_98 (C1), Ghost\_97 (C1), Gizmo\_101 (C1),  
 GlutenPhree\_97 (C1), Grasshills\_104 (C1), Greely\_99 (C2), Grungle\_85 (C1),  
 Guwapp\_97 (C1), Halldule\_91 (C1), HyRo\_89 (C1), I3\_103 (C1), IkeLoa\_91 (C1),  
 InigoMontoya\_99 (C1), InterFolia\_106 (C1), Iota\_92 (C1), Issimir\_96 (C1), Izajani\_97  
 (C1), JPickles\_96 (C1), Janiyr\_99 (C1), JayJay\_103 (C1), Jaygup\_98 (C1),  
 Jedediah\_101 (C1), Jemmno\_98 (C1), Jessibeth14\_96 (C1), Jezreel\_95 (C1),  
 JigglyPuff\_105 (C1), JulietS\_92 (C1), JustHall\_94 (C1), Kamryn\_97 (C1),  
 Kboogie\_101 (C1), Khaleesi\_96 (C1), Koguma\_94 (C1), LRRHood\_92 (C1), Latch\_98  
 (C1), Lee7\_95 (C1), Lethe\_97 (C1), LifeSavor\_97 (C1), LinStu\_97 (C1), Littleton\_97  
 (C1), Loanshark\_97 (C1), LolaVinca\_99 (C1), LordLeafolot\_102 (C1), Lukilu\_88 (C1),  
 Maby2021\_97 (C1), Mangeria\_97 (C1), Matsumoto\_95 (C1), McGee\_99 (C1),  
 McWolfish\_95 (C1), Megamind\_96 (C1), Melpomini\_91 (C1), MikeLiesIn\_98 (C1),  
 Mikro\_95 (C1), MoMoMixon\_98 (C1), Momo\_97 (C1), Morizzled23\_97 (C1),  
 Myrna\_97 (C2), Naija\_97 (C1), Napoleon13\_93 (C1), Nappy\_100 (C1), Naval22\_102  
 (C1), NedWong\_98 (C1), Ngannou\_94 (C1), Nidhogg\_98 (C1), NoodleTree\_105 (C1),  
 Norm\_98 (C1), NuevoMundo\_103 (C1), ParkTD\_98 (C1), Patter\_98 (C1),  
 Phabba\_102 (C2), Phlegm\_100 (C1), Phox\_94 (C1), Phusco\_98 (C1), Pier\_101 (C1),  
 Pinkcreek\_88 (C1), Pio\_101 (C1), Pivoine\_97 (C1), Pleione\_100 (C1),  
 Primadonna\_91 (C1), PurduePete\_97 (C1), QBert\_91 (C1), Quasimodo\_98 (C1),  
 Rabinovish\_94 (C1), Rahel\_97 (C1), Rizal\_94 (C1), RoMag\_92 (C1), Ronan\_91 (C1),  
 Roots515\_96 (C1), SVoro\_95 (C1), Salacia\_101 (C1), Sauce\_98 (C1),  
 ScoobyDoobyDoo\_90 (C2), ScottMcG\_94 (C1), Sebata\_99 (C1), Shaq nato\_90 (C1),  
 Shelob\_99 (C1), ShiaLabeouf\_97 (C1), Shifa\_86 (C1), Shnickers\_98 (C1), Shrimp\_97  
 (C1), SilverDipper\_99 (C1), SmallFry\_98 (C1), Spec\_94 (C1), Specks\_103 (C1),  
 Sprinklers\_93 (C1), Spud\_97 (C1), SrishMeg2525\_96 (C1), StephanieG\_96 (C1),  
 StubbySaigey\_100 (C1), Stubby\_90 (C1), Tainan\_102 (C1), Teardrop\_97 (C1),  
 TinyTim\_97 (C1), Tonenili\_111 (C1), Tortoise16\_95 (C1), Trinitium\_94 (C1),  
 Turret\_92 (C1), Tyke\_99 (C1), ValleyTerrace\_98 (C1), Wally\_96 (C1), Willis\_98 (C1),  
 Yassified\_94 (C1), YemiJoy2021\_98 (C1), YoungMoneyMata\_98 (C1), Yucca\_97  
 (C1), Zalkecks\_98 (C1), Zeenon\_99 (C1), ZygoTaiga\_96 (C1),

#### Start 5:

- Found in 1 of 212 ( 0.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: E3\_gp77 (singleton),

#### Start 65:

- Found in 1 of 212 ( 0.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present

- Phage (with cluster) where this start called: JeanGrey\_30 (singleton),

Start 68:

- Found in 2 of 212 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 2 of 184
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phrappuccino\_53 (AA), Settecandela\_53 (AA),

### Summary by clusters:

There are 6 clusters represented in this pham: AA, DO, singleton, DX, C2, C1,

Info for manual annotations of cluster AA:

- Start number 68 was manually annotated 2 times for cluster AA.

Info for manual annotations of cluster C1:

- Start number 3 was manually annotated 172 times for cluster C1.

Info for manual annotations of cluster C2:

- Start number 3 was manually annotated 3 times for cluster C2.

Info for manual annotations of cluster DO:

- Start number 1 was manually annotated 4 times for cluster DO.

Info for manual annotations of cluster DX:

- Start number 2 was manually annotated 2 times for cluster DX.

### Gene Information:

Gene: Ablatia\_95 Start: 43952, Stop: 48061, Start Num: 3

Candidate Starts for Ablatia\_95:

(Start: 3 @43952 has 175 MA's), (13, 44063), (15, 44087), (28, 44351), (29, 44357), (33, 44423), (36, 44459), (41, 44540), (43, 44576), (45, 44588), (46, 44594), (47, 44795), (48, 44855), (59, 45173), (67, 45326), (69, 45395), (72, 45422), (79, 45503), (84, 45545), (88, 45581), (91, 45593), (99, 45650), (103, 45683), (107, 45728), (112, 45746), (119, 45791), (126, 45839), (129, 45872), (143, 45950), (149, 45977), (159, 46046), (162, 46067), (171, 46193), (175, 46244), (180, 46265), (181, 46277), (183, 46319), (197, 46469), (200, 46502), (201, 46505), (203, 46556), (205, 46601), (206, 46607), (209, 46649), (215, 46712), (222, 46790), (225, 46847), (226, 46865), (230, 46898), (231, 46901), (233, 46940), (234, 46943), (238, 47024), (239, 47027), (243, 47087), (244, 47111), (247, 47162), (249, 47186), (252, 47210), (263, 47462), (266, 47519), (280, 47777), (282, 47846), (288, 47894), (295, 47981), (297, 48014), (299, 48017),

Gene: Ading\_98 Start: 45221, Stop: 49333, Start Num: 3

Candidate Starts for Ading\_98:

(Start: 3 @45221 has 175 MA's), (13, 45332), (15, 45356), (28, 45620), (29, 45626), (33, 45692), (36, 45728), (41, 45809), (43, 45845), (45, 45857), (46, 45863), (47, 46064), (59, 46445), (67, 46598), (69, 46667), (72, 46694), (79, 46775), (84, 46817), (88, 46853), (91, 46865), (99, 46922), (103, 46955), (107, 47000), (112, 47018), (119, 47063), (126, 47111), (129, 47144), (135, 47168), (143, 47222), (149, 47249), (154, 47270), (159, 47318), (162, 47339), (171, 47465), (175, 47516), (180, 47537), (181, 47549), (183, 47591), (197, 47741), (200, 47774), (201, 47777), (203, 47828), (205, 47873),

(206, 47879), (209, 47921), (215, 47984), (222, 48062), (225, 48119), (226, 48137), (230, 48170), (231, 48173), (233, 48212), (234, 48215), (238, 48296), (239, 48299), (243, 48359), (244, 48383), (247, 48434), (249, 48458), (252, 48482), (263, 48734), (266, 48791), (280, 49049), (282, 49118), (288, 49166), (295, 49253), (297, 49286), (299, 49289),

Gene: Adlitam\_98 Start: 45238, Stop: 49350, Start Num: 3

Candidate Starts for Adlitam\_98:

(Start: 3 @45238 has 175 MA's), (13, 45349), (15, 45373), (28, 45637), (29, 45643), (33, 45709), (36, 45745), (41, 45826), (43, 45862), (45, 45874), (46, 45880), (47, 46081), (59, 46462), (67, 46615), (69, 46684), (72, 46711), (79, 46792), (84, 46834), (88, 46870), (91, 46882), (99, 46939), (103, 46972), (107, 47017), (112, 47035), (119, 47080), (126, 47128), (129, 47161), (135, 47185), (143, 47239), (149, 47266), (154, 47287), (159, 47335), (162, 47356), (171, 47482), (175, 47533), (180, 47554), (181, 47566), (183, 47608), (197, 47758), (200, 47791), (201, 47794), (203, 47845), (205, 47890), (206, 47896), (209, 47938), (215, 48001), (222, 48079), (225, 48136), (226, 48154), (230, 48187), (231, 48190), (233, 48229), (234, 48232), (238, 48313), (239, 48316), (243, 48376), (244, 48400), (247, 48451), (249, 48475), (252, 48499), (263, 48751), (266, 48808), (280, 49066), (282, 49135), (288, 49183), (295, 49270), (297, 49303), (299, 49306),

Gene: Alice\_90 Start: 42678, Stop: 47213, Start Num: 3

Candidate Starts for Alice\_90:

(Start: 3 @42678 has 175 MA's), (13, 42789), (15, 42813), (28, 43077), (29, 43083), (33, 43149), (36, 43185), (41, 43266), (43, 43302), (45, 43314), (46, 43320), (47, 43521), (48, 43581), (62, 43971), (64, 44007), (69, 44127), (71, 44145), (79, 44241), (83, 44274), (84, 44283), (92, 44379), (94, 44397), (103, 44469), (108, 44589), (110, 44652), (111, 44688), (116, 44736), (120, 44787), (121, 44793), (122, 44796), (127, 44832), (130, 44880), (132, 44898), (136, 44943), (142, 44991), (143, 45024), (150, 45102), (151, 45129), (159, 45198), (162, 45219), (171, 45345), (175, 45396), (180, 45417), (181, 45429), (183, 45471), (197, 45621), (200, 45654), (201, 45657), (203, 45708), (205, 45753), (206, 45759), (209, 45801), (215, 45864), (222, 45942), (225, 45999), (226, 46017), (230, 46050), (231, 46053), (233, 46092), (234, 46095), (238, 46176), (239, 46179), (243, 46239), (244, 46263), (247, 46314), (249, 46338), (252, 46362), (263, 46614), (266, 46671), (280, 46929), (282, 46998), (288, 47046), (295, 47133), (297, 47166), (299, 47169),

Gene: Amataga\_98 Start: 44483, Stop: 48595, Start Num: 3

Candidate Starts for Amataga\_98:

(Start: 3 @44483 has 175 MA's), (13, 44594), (15, 44618), (28, 44882), (29, 44888), (33, 44954), (36, 44990), (41, 45071), (43, 45107), (45, 45119), (46, 45125), (47, 45326), (59, 45707), (67, 45860), (69, 45929), (72, 45956), (79, 46037), (84, 46079), (88, 46115), (91, 46127), (99, 46184), (103, 46217), (107, 46262), (112, 46280), (119, 46325), (126, 46373), (129, 46406), (135, 46430), (143, 46484), (149, 46511), (154, 46532), (159, 46580), (162, 46601), (171, 46727), (175, 46778), (180, 46799), (181, 46811), (183, 46853), (197, 47003), (200, 47036), (201, 47039), (203, 47090), (205, 47135), (206, 47141), (209, 47183), (215, 47246), (222, 47324), (225, 47381), (226, 47399), (230, 47432), (231, 47435), (233, 47474), (234, 47477), (238, 47558), (239, 47561), (243, 47621), (244, 47645), (247, 47696), (249, 47720), (252, 47744), (263, 47996), (266, 48053), (280, 48311), (282, 48380), (288, 48428), (295, 48515), (297, 48548), (299, 48551),

Gene: ArcherS7\_97 Start: 44801, Stop: 48913, Start Num: 3

Candidate Starts for ArcherS7\_97:

(Start: 3 @44801 has 175 MA's), (13, 44912), (15, 44936), (28, 45200), (29, 45206), (33, 45272), (36, 45308), (41, 45389), (43, 45425), (45, 45437), (46, 45443), (47, 45644), (59, 46025), (67, 46178), (69, 46247), (72, 46274), (79, 46355), (84, 46397), (88, 46433), (91, 46445), (99, 46502), (103, 46535), (107, 46580), (112, 46598), (119, 46643), (126, 46691), (129, 46724), (135, 46748), (143, 46802), (149, 46829), (154, 46850), (159, 46898), (162, 46919), (171, 47045), (175, 47096), (180, 47117), (181, 47129), (183, 47171), (197, 47321), (200, 47354), (201, 47357), (203, 47408), (205, 47453),

(206, 47459), (209, 47501), (215, 47564), (222, 47642), (225, 47699), (226, 47717), (230, 47750), (231, 47753), (233, 47792), (234, 47795), (238, 47876), (239, 47879), (243, 47939), (244, 47963), (247, 48014), (249, 48038), (252, 48062), (263, 48314), (266, 48371), (280, 48629), (282, 48698), (288, 48746), (295, 48833), (297, 48866), (299, 48869),

Gene: Asterius\_100 Start: 44379, Stop: 48548, Start Num: 3

Candidate Starts for Asterius\_100:

(Start: 3 @44379 has 175 MA's), (13, 44490), (15, 44514), (28, 44778), (29, 44784), (33, 44850), (36, 44886), (41, 44967), (43, 45003), (45, 45015), (46, 45021), (47, 45222), (48, 45282), (61, 45651), (62, 45672), (64, 45708), (69, 45828), (79, 45942), (83, 45975), (84, 45984), (92, 46080), (94, 46098), (103, 46170), (107, 46215), (112, 46233), (119, 46278), (126, 46326), (129, 46359), (135, 46383), (143, 46437), (149, 46464), (154, 46485), (159, 46533), (162, 46554), (171, 46680), (175, 46731), (180, 46752), (181, 46764), (183, 46806), (197, 46956), (200, 46989), (201, 46992), (203, 47043), (205, 47088), (206, 47094), (209, 47136), (215, 47199), (222, 47277), (225, 47334), (226, 47352), (230, 47385), (231, 47388), (233, 47427), (234, 47430), (238, 47511), (239, 47514), (243, 47574), (244, 47598), (247, 47649), (249, 47673), (252, 47697), (263, 47949), (266, 48006), (280, 48264), (282, 48333), (288, 48381), (295, 48468), (297, 48501), (299, 48504),

Gene: Astraea\_95 Start: 44252, Stop: 48364, Start Num: 3

Candidate Starts for Astraea\_95:

(Start: 3 @44252 has 175 MA's), (13, 44363), (15, 44387), (28, 44651), (29, 44657), (33, 44723), (36, 44759), (41, 44840), (43, 44876), (45, 44888), (46, 44894), (47, 45095), (59, 45476), (67, 45629), (69, 45698), (72, 45725), (79, 45806), (84, 45848), (88, 45884), (91, 45896), (99, 45953), (103, 45986), (107, 46031), (112, 46049), (119, 46094), (126, 46142), (129, 46175), (135, 46199), (143, 46253), (149, 46280), (154, 46301), (159, 46349), (162, 46370), (171, 46496), (175, 46547), (180, 46568), (181, 46580), (183, 46622), (197, 46772), (200, 46805), (201, 46808), (203, 46859), (205, 46904), (206, 46910), (209, 46952), (215, 47015), (222, 47093), (225, 47150), (226, 47168), (230, 47201), (231, 47204), (233, 47243), (234, 47246), (238, 47327), (239, 47330), (243, 47390), (244, 47414), (247, 47465), (249, 47489), (252, 47513), (263, 47765), (266, 47822), (280, 48080), (282, 48149), (288, 48197), (295, 48284), (297, 48317), (299, 48320),

Gene: Atlantean\_97 Start: 44483, Stop: 48595, Start Num: 3

Candidate Starts for Atlantean\_97:

(Start: 3 @44483 has 175 MA's), (13, 44594), (15, 44618), (28, 44882), (29, 44888), (33, 44954), (36, 44990), (41, 45071), (43, 45107), (45, 45119), (46, 45125), (47, 45326), (59, 45707), (67, 45860), (69, 45929), (72, 45956), (79, 46037), (84, 46079), (88, 46115), (91, 46127), (99, 46184), (103, 46217), (107, 46262), (112, 46280), (119, 46325), (126, 46373), (129, 46406), (135, 46430), (143, 46484), (149, 46511), (154, 46532), (159, 46580), (162, 46601), (171, 46727), (175, 46778), (180, 46799), (181, 46811), (183, 46853), (197, 47003), (200, 47036), (201, 47039), (203, 47090), (205, 47135), (206, 47141), (209, 47183), (215, 47246), (222, 47324), (225, 47381), (226, 47399), (230, 47432), (231, 47435), (233, 47474), (234, 47477), (238, 47558), (239, 47561), (243, 47621), (244, 47645), (247, 47696), (249, 47720), (252, 47744), (263, 47996), (266, 48053), (280, 48311), (282, 48380), (288, 48428), (295, 48515), (297, 48548), (299, 48551),

Gene: Audrick\_100 Start: 44462, Stop: 48574, Start Num: 3

Candidate Starts for Audrick\_100:

(Start: 3 @44462 has 175 MA's), (13, 44573), (15, 44597), (28, 44861), (29, 44867), (33, 44933), (36, 44969), (41, 45050), (43, 45086), (45, 45098), (46, 45104), (47, 45305), (59, 45686), (67, 45839), (69, 45908), (72, 45935), (79, 46016), (84, 46058), (88, 46094), (91, 46106), (99, 46163), (103, 46196), (107, 46241), (112, 46259), (119, 46304), (126, 46352), (129, 46385), (135, 46409), (143, 46463), (149, 46490), (154, 46511), (159, 46559), (162, 46580), (171, 46706), (175, 46757), (180, 46778), (181, 46790), (183, 46832), (197, 46982), (200, 47015), (201, 47018), (203, 47069), (205, 47114), (206, 47120), (209, 47162), (215, 47225), (222, 47303), (225, 47360), (226, 47378), (230, 47411),



(231, 47414), (233, 47453), (234, 47456), (238, 47537), (239, 47540), (243, 47600), (244, 47624), (247, 47675), (249, 47699), (252, 47723), (263, 47975), (266, 48032), (280, 48290), (282, 48359), (288, 48407), (295, 48494), (297, 48527), (299, 48530),

Gene: Ava3\_98 Start: 44752, Stop: 48861, Start Num: 3

Candidate Starts for Ava3\_98:

(Start: 3 @44752 has 175 MA's), (13, 44863), (15, 44887), (28, 45151), (29, 45157), (33, 45223), (36, 45259), (41, 45340), (43, 45376), (45, 45388), (46, 45394), (47, 45595), (48, 45655), (59, 45973), (67, 46126), (69, 46195), (72, 46222), (79, 46303), (84, 46345), (88, 46381), (91, 46393), (99, 46450), (103, 46483), (107, 46528), (112, 46546), (119, 46591), (126, 46639), (129, 46672), (143, 46750), (149, 46777), (159, 46846), (162, 46867), (171, 46993), (175, 47044), (180, 47065), (181, 47077), (183, 47119), (197, 47269), (200, 47302), (201, 47305), (203, 47356), (205, 47401), (206, 47407), (209, 47449), (215, 47512), (222, 47590), (225, 47647), (226, 47665), (230, 47698), (231, 47701), (233, 47740), (234, 47743), (238, 47824), (239, 47827), (243, 47887), (244, 47911), (247, 47962), (249, 47986), (252, 48010), (263, 48262), (266, 48319), (280, 48577), (282, 48646), (288, 48694), (295, 48781), (297, 48814), (299, 48817),

Gene: Babyland\_98 Start: 43922, Stop: 48034, Start Num: 3

Candidate Starts for Babyland\_98:

(Start: 3 @43922 has 175 MA's), (13, 44033), (15, 44057), (28, 44321), (29, 44327), (33, 44393), (36, 44429), (41, 44510), (43, 44546), (45, 44558), (46, 44564), (47, 44765), (59, 45146), (67, 45299), (69, 45368), (72, 45395), (79, 45476), (84, 45518), (88, 45554), (91, 45566), (99, 45623), (103, 45656), (107, 45701), (112, 45719), (119, 45764), (126, 45812), (129, 45845), (135, 45869), (143, 45923), (149, 45950), (154, 45971), (159, 46019), (162, 46040), (171, 46166), (175, 46217), (180, 46238), (181, 46250), (183, 46292), (197, 46442), (200, 46475), (201, 46478), (203, 46529), (205, 46574), (206, 46580), (209, 46622), (215, 46685), (222, 46763), (225, 46820), (226, 46838), (230, 46871), (231, 46874), (233, 46913), (234, 46916), (238, 46997), (239, 47000), (243, 47060), (244, 47084), (247, 47135), (249, 47159), (252, 47183), (263, 47435), (266, 47492), (280, 47750), (282, 47819), (288, 47867), (295, 47954), (297, 47987), (299, 47990),

Gene: BackyardAgain\_94 Start: 43755, Stop: 47864, Start Num: 3

Candidate Starts for BackyardAgain\_94:

(Start: 3 @43755 has 175 MA's), (13, 43866), (15, 43890), (28, 44154), (29, 44160), (33, 44226), (36, 44262), (41, 44343), (43, 44379), (45, 44391), (46, 44397), (47, 44598), (48, 44658), (59, 44976), (67, 45129), (69, 45198), (72, 45225), (79, 45306), (84, 45348), (88, 45384), (91, 45396), (99, 45453), (103, 45486), (107, 45531), (112, 45549), (119, 45594), (126, 45642), (129, 45675), (143, 45753), (149, 45780), (159, 45849), (162, 45870), (171, 45996), (175, 46047), (180, 46068), (181, 46080), (183, 46122), (197, 46272), (200, 46305), (201, 46308), (203, 46359), (205, 46404), (206, 46410), (209, 46452), (215, 46515), (222, 46593), (225, 46650), (226, 46668), (230, 46701), (231, 46704), (233, 46743), (234, 46746), (238, 46827), (239, 46830), (243, 46890), (244, 46914), (247, 46965), (249, 46989), (252, 47013), (263, 47265), (266, 47322), (280, 47580), (282, 47649), (288, 47697), (295, 47784), (297, 47817), (299, 47820),

Gene: BadAgartude\_94 Start: 45921, Stop: 50033, Start Num: 3

Candidate Starts for BadAgartude\_94:

(Start: 3 @45921 has 175 MA's), (13, 46032), (15, 46056), (28, 46320), (29, 46326), (33, 46392), (36, 46428), (41, 46509), (43, 46545), (45, 46557), (46, 46563), (47, 46764), (59, 47145), (67, 47298), (69, 47367), (72, 47394), (79, 47475), (84, 47517), (88, 47553), (91, 47565), (99, 47622), (103, 47655), (107, 47700), (112, 47718), (119, 47763), (126, 47811), (129, 47844), (135, 47868), (143, 47922), (149, 47949), (154, 47970), (159, 48018), (162, 48039), (171, 48165), (175, 48216), (180, 48237), (181, 48249), (183, 48291), (197, 48441), (200, 48474), (201, 48477), (203, 48528), (205, 48573), (206, 48579), (209, 48621), (215, 48684), (222, 48762), (225, 48819), (226, 48837), (230, 48870), (231, 48873), (233, 48912), (234, 48915), (238, 48996), (239, 48999), (243, 49059), (244, 49083),

(247, 49134), (249, 49158), (252, 49182), (263, 49434), (266, 49491), (280, 49749), (282, 49818), (288, 49866), (295, 49953), (297, 49986), (299, 49989),

Gene: BananaFence\_96 Start: 44620, Stop: 48732, Start Num: 3

Candidate Starts for BananaFence\_96:

(Start: 3 @44620 has 175 MA's), (13, 44731), (15, 44755), (28, 45019), (29, 45025), (33, 45091), (36, 45127), (41, 45208), (43, 45244), (45, 45256), (46, 45262), (47, 45463), (59, 45844), (67, 45997), (69, 46066), (72, 46093), (79, 46174), (84, 46216), (88, 46252), (91, 46264), (99, 46321), (103, 46354), (107, 46399), (112, 46417), (119, 46462), (126, 46510), (129, 46543), (135, 46567), (143, 46621), (149, 46648), (154, 46669), (159, 46717), (162, 46738), (171, 46864), (175, 46915), (180, 46936), (181, 46948), (183, 46990), (197, 47140), (200, 47173), (201, 47176), (203, 47227), (205, 47272), (206, 47278), (209, 47320), (215, 47383), (222, 47461), (225, 47518), (226, 47536), (230, 47569), (231, 47572), (233, 47611), (234, 47614), (238, 47695), (239, 47698), (243, 47758), (244, 47782), (247, 47833), (249, 47857), (252, 47881), (263, 48133), (266, 48190), (280, 48448), (282, 48517), (288, 48565), (295, 48652), (297, 48685), (299, 48688),

Gene: Bangla1971\_99 Start: 44931, Stop: 49043, Start Num: 3

Candidate Starts for Bangla1971\_99:

(Start: 3 @44931 has 175 MA's), (13, 45042), (15, 45066), (28, 45330), (29, 45336), (33, 45402), (36, 45438), (41, 45519), (43, 45555), (45, 45567), (46, 45573), (47, 45774), (59, 46155), (67, 46308), (69, 46377), (72, 46404), (79, 46485), (84, 46527), (88, 46563), (91, 46575), (99, 46632), (103, 46665), (107, 46710), (112, 46728), (119, 46773), (126, 46821), (129, 46854), (135, 46878), (143, 46932), (149, 46959), (154, 46980), (159, 47028), (162, 47049), (171, 47175), (175, 47226), (180, 47247), (181, 47259), (183, 47301), (197, 47451), (200, 47484), (201, 47487), (203, 47538), (205, 47583), (206, 47589), (209, 47631), (215, 47694), (222, 47772), (225, 47829), (226, 47847), (230, 47880), (231, 47883), (233, 47922), (234, 47925), (238, 48006), (239, 48009), (243, 48069), (244, 48093), (247, 48144), (249, 48168), (252, 48192), (263, 48444), (266, 48501), (280, 48759), (282, 48828), (288, 48876), (295, 48963), (297, 48996), (299, 48999),

Gene: Basquiat\_94 Start: 43491, Stop: 47600, Start Num: 3

Candidate Starts for Basquiat\_94:

(Start: 3 @43491 has 175 MA's), (13, 43602), (15, 43626), (28, 43890), (29, 43896), (33, 43962), (36, 43998), (41, 44079), (43, 44115), (45, 44127), (46, 44133), (47, 44334), (48, 44394), (59, 44712), (67, 44865), (69, 44934), (72, 44961), (79, 45042), (84, 45084), (88, 45120), (91, 45132), (99, 45189), (103, 45222), (107, 45267), (112, 45285), (119, 45330), (126, 45378), (129, 45411), (143, 45489), (149, 45516), (159, 45585), (162, 45606), (171, 45732), (175, 45783), (180, 45804), (181, 45816), (183, 45858), (197, 46008), (200, 46041), (201, 46044), (203, 46095), (205, 46140), (206, 46146), (209, 46188), (215, 46251), (222, 46329), (225, 46386), (226, 46404), (230, 46437), (231, 46440), (233, 46479), (234, 46482), (238, 46563), (239, 46566), (243, 46626), (244, 46650), (247, 46701), (249, 46725), (252, 46749), (263, 47001), (266, 47058), (280, 47316), (282, 47385), (288, 47433), (295, 47520), (297, 47553), (299, 47556),

Gene: BeanWater\_89 Start: 44468, Stop: 48328, Start Num: 3

Candidate Starts for BeanWater\_89:

(Start: 3 @44468 has 175 MA's), (13, 44579), (15, 44603), (28, 44867), (29, 44873), (33, 44939), (36, 44975), (41, 45056), (43, 45092), (45, 45104), (46, 45110), (61, 45431), (62, 45452), (64, 45488), (69, 45608), (79, 45722), (83, 45755), (84, 45764), (92, 45860), (94, 45878), (103, 45950), (107, 45995), (112, 46013), (119, 46058), (126, 46106), (129, 46139), (135, 46163), (143, 46217), (149, 46244), (154, 46265), (159, 46313), (162, 46334), (171, 46460), (175, 46511), (180, 46532), (181, 46544), (183, 46586), (197, 46736), (200, 46769), (201, 46772), (203, 46823), (205, 46868), (206, 46874), (209, 46916), (215, 46979), (222, 47057), (225, 47114), (226, 47132), (230, 47165), (231, 47168), (233, 47207), (234, 47210), (238, 47291), (239, 47294), (243, 47354), (244, 47378), (247, 47429), (249, 47453), (252, 47477), (263, 47729), (266, 47786), (280, 48044), (282, 48113), (288, 48161),

(295, 48248), (297, 48281), (299, 48284),

Gene: Belieber\_93 Start: 43835, Stop: 47947, Start Num: 3

Candidate Starts for Belieber\_93:

(Start: 3 @43835 has 175 MA's), (13, 43946), (15, 43970), (28, 44234), (29, 44240), (33, 44306), (36, 44342), (41, 44423), (43, 44459), (45, 44471), (46, 44477), (47, 44678), (48, 44738), (59, 45059), (67, 45212), (69, 45281), (72, 45308), (79, 45389), (84, 45431), (88, 45467), (91, 45479), (99, 45536), (103, 45569), (107, 45614), (112, 45632), (119, 45677), (126, 45725), (129, 45758), (135, 45782), (143, 45836), (149, 45863), (154, 45884), (159, 45932), (162, 45953), (171, 46079), (175, 46130), (180, 46151), (181, 46163), (183, 46205), (197, 46355), (200, 46388), (201, 46391), (203, 46442), (205, 46487), (206, 46493), (209, 46535), (215, 46598), (222, 46676), (225, 46733), (226, 46751), (230, 46784), (231, 46787), (233, 46826), (234, 46829), (238, 46910), (239, 46913), (243, 46973), (244, 46997), (247, 47048), (249, 47072), (252, 47096), (263, 47348), (266, 47405), (280, 47663), (282, 47732), (288, 47780), (295, 47867), (297, 47900), (299, 47903),

Gene: BigCity\_105 Start: 47262, Stop: 51122, Start Num: 3

Candidate Starts for BigCity\_105:

(Start: 3 @47262 has 175 MA's), (13, 47373), (28, 47661), (29, 47667), (33, 47733), (36, 47769), (41, 47850), (43, 47886), (45, 47898), (46, 47904), (62, 48246), (64, 48282), (69, 48402), (77, 48486), (79, 48516), (83, 48549), (84, 48558), (92, 48654), (94, 48672), (103, 48744), (107, 48789), (112, 48807), (119, 48852), (126, 48900), (129, 48933), (135, 48957), (143, 49011), (149, 49038), (154, 49059), (159, 49107), (162, 49128), (171, 49254), (175, 49305), (180, 49326), (181, 49338), (183, 49380), (197, 49530), (200, 49563), (201, 49566), (203, 49617), (205, 49662), (206, 49668), (209, 49710), (215, 49773), (222, 49851), (225, 49908), (226, 49926), (230, 49959), (231, 49962), (233, 50001), (234, 50004), (238, 50085), (239, 50088), (243, 50148), (244, 50172), (247, 50223), (249, 50247), (252, 50271), (263, 50523), (266, 50580), (280, 50838), (282, 50907), (288, 50955), (295, 51042), (297, 51075), (299, 51078),

Gene: Bigswole\_102 Start: 47610, Stop: 51575, Start Num: 3

Candidate Starts for Bigswole\_102:

(Start: 3 @47610 has 175 MA's), (13, 47721), (15, 47745), (28, 48009), (29, 48015), (33, 48081), (36, 48117), (41, 48198), (43, 48234), (45, 48246), (46, 48252), (62, 48594), (64, 48630), (69, 48750), (71, 48768), (79, 48864), (83, 48897), (84, 48906), (92, 49002), (94, 49020), (103, 49092), (109, 49221), (113, 49293), (128, 49422), (131, 49437), (133, 49446), (134, 49449), (154, 49602), (155, 49605), (171, 49713), (174, 49743), (179, 49770), (183, 49827), (197, 49977), (200, 50010), (201, 50013), (203, 50064), (205, 50109), (206, 50115), (209, 50163), (215, 50226), (222, 50304), (225, 50361), (226, 50379), (230, 50412), (231, 50415), (233, 50454), (234, 50457), (238, 50538), (239, 50541), (243, 50601), (244, 50625), (247, 50676), (249, 50700), (252, 50724), (263, 50976), (266, 51033), (280, 51291), (282, 51360), (288, 51408), (295, 51495), (297, 51528), (299, 51531),

Gene: Bipolarisk\_96 Start: 44770, Stop: 48879, Start Num: 3

Candidate Starts for Bipolarisk\_96:

(Start: 3 @44770 has 175 MA's), (13, 44881), (15, 44905), (28, 45169), (29, 45175), (33, 45241), (36, 45277), (41, 45358), (43, 45394), (45, 45406), (46, 45412), (47, 45613), (48, 45673), (59, 45991), (67, 46144), (69, 46213), (72, 46240), (79, 46321), (84, 46363), (88, 46399), (91, 46411), (99, 46468), (103, 46501), (107, 46546), (112, 46564), (119, 46609), (126, 46657), (129, 46690), (143, 46768), (149, 46795), (159, 46864), (162, 46885), (171, 47011), (175, 47062), (180, 47083), (181, 47095), (183, 47137), (197, 47287), (200, 47320), (201, 47323), (203, 47374), (205, 47419), (206, 47425), (209, 47467), (215, 47530), (222, 47608), (225, 47665), (226, 47683), (230, 47716), (231, 47719), (233, 47758), (234, 47761), (238, 47842), (239, 47845), (243, 47905), (244, 47929), (247, 47980), (249, 48004), (252, 48028), (263, 48280), (266, 48337), (280, 48595), (282, 48664), (288, 48712), (295, 48799), (297, 48832), (299, 48835),

Gene: Blackbrain\_92 Start: 43069, Stop: 47178, Start Num: 3

Candidate Starts for Blackbrain\_92:

(Start: 3 @43069 has 175 MA's), (13, 43180), (15, 43204), (28, 43468), (29, 43474), (33, 43540), (36, 43576), (41, 43657), (43, 43693), (45, 43705), (46, 43711), (47, 43912), (48, 43972), (59, 44290), (67, 44443), (69, 44512), (72, 44539), (79, 44620), (84, 44662), (88, 44698), (91, 44710), (99, 44767), (103, 44800), (107, 44845), (112, 44863), (119, 44908), (126, 44956), (129, 44989), (143, 45067), (149, 45094), (159, 45163), (162, 45184), (171, 45310), (175, 45361), (180, 45382), (181, 45394), (183, 45436), (197, 45586), (200, 45619), (201, 45622), (203, 45673), (205, 45718), (206, 45724), (209, 45766), (215, 45829), (222, 45907), (225, 45964), (226, 45982), (230, 46015), (231, 46018), (233, 46057), (234, 46060), (238, 46141), (239, 46144), (243, 46204), (244, 46228), (247, 46279), (249, 46303), (252, 46327), (263, 46579), (266, 46636), (280, 46894), (282, 46963), (288, 47011), (295, 47098), (297, 47131), (299, 47134),

Gene: Blackdragon\_93 Start: 44043, Stop: 48155, Start Num: 3

Candidate Starts for Blackdragon\_93:

(Start: 3 @44043 has 175 MA's), (13, 44154), (15, 44178), (28, 44442), (29, 44448), (33, 44514), (36, 44550), (41, 44631), (43, 44667), (45, 44679), (46, 44685), (47, 44886), (59, 45267), (67, 45420), (69, 45489), (72, 45516), (79, 45597), (84, 45639), (88, 45675), (91, 45687), (99, 45744), (103, 45777), (107, 45822), (112, 45840), (119, 45885), (126, 45933), (129, 45966), (135, 45990), (143, 46044), (149, 46071), (154, 46092), (159, 46140), (162, 46161), (171, 46287), (175, 46338), (180, 46359), (181, 46371), (183, 46413), (197, 46563), (200, 46596), (201, 46599), (203, 46650), (205, 46695), (206, 46701), (209, 46743), (215, 46806), (222, 46884), (225, 46941), (226, 46959), (230, 46992), (231, 46995), (233, 47034), (234, 47037), (238, 47118), (239, 47121), (243, 47181), (244, 47205), (247, 47256), (249, 47280), (252, 47304), (263, 47556), (266, 47613), (280, 47871), (282, 47940), (288, 47988), (295, 48075), (297, 48108), (299, 48111),

Gene: Blubba\_86 Start: 43400, Stop: 47122, Start Num: 3

Candidate Starts for Blubba\_86:

(Start: 3 @43400 has 175 MA's), (8, 43439), (13, 43511), (15, 43535), (28, 43799), (29, 43805), (33, 43871), (36, 43907), (41, 43988), (43, 44024), (45, 44036), (46, 44042), (61, 44225), (62, 44246), (64, 44282), (69, 44402), (71, 44420), (79, 44516), (83, 44549), (84, 44558), (92, 44654), (94, 44672), (103, 44744), (107, 44789), (112, 44807), (119, 44852), (126, 44900), (129, 44933), (135, 44957), (143, 45011), (149, 45038), (154, 45059), (159, 45107), (162, 45128), (171, 45254), (175, 45305), (180, 45326), (181, 45338), (183, 45380), (197, 45530), (200, 45563), (201, 45566), (203, 45617), (205, 45662), (206, 45668), (209, 45710), (215, 45773), (222, 45851), (225, 45908), (226, 45926), (230, 45959), (231, 45962), (233, 46001), (234, 46004), (238, 46085), (239, 46088), (243, 46148), (244, 46172), (247, 46223), (249, 46247), (252, 46271), (263, 46523), (266, 46580), (280, 46838), (282, 46907), (288, 46955), (295, 47042), (297, 47075), (299, 47078),

Gene: Bonray\_97 Start: 45178, Stop: 49287, Start Num: 3

Candidate Starts for Bonray\_97:

(Start: 3 @45178 has 175 MA's), (13, 45289), (15, 45313), (28, 45577), (29, 45583), (33, 45649), (36, 45685), (41, 45766), (43, 45802), (45, 45814), (46, 45820), (47, 46021), (48, 46081), (59, 46399), (67, 46552), (69, 46621), (72, 46648), (79, 46729), (84, 46771), (88, 46807), (91, 46819), (99, 46876), (103, 46909), (107, 46954), (112, 46972), (119, 47017), (126, 47065), (129, 47098), (143, 47176), (149, 47203), (159, 47272), (162, 47293), (171, 47419), (175, 47470), (180, 47491), (181, 47503), (183, 47545), (197, 47695), (200, 47728), (201, 47731), (203, 47782), (205, 47827), (206, 47833), (209, 47875), (215, 47938), (222, 48016), (225, 48073), (226, 48091), (230, 48124), (231, 48127), (233, 48166), (234, 48169), (238, 48250), (239, 48253), (243, 48313), (244, 48337), (247, 48388), (249, 48412), (252, 48436), (263, 48688), (266, 48745), (280, 49003), (282, 49072), (288, 49120), (295, 49207), (297, 49240), (299, 49243),

Gene: Bread\_97 Start: 44838, Stop: 48947, Start Num: 3

Candidate Starts for Bread\_97:

(Start: 3 @44838 has 175 MA's), (13, 44949), (15, 44973), (28, 45237), (29, 45243), (33, 45309), (36, 45345), (41, 45426), (43, 45462), (45, 45474), (46, 45480), (47, 45681), (48, 45741), (59, 46059), (67, 46212), (69, 46281), (72, 46308), (79, 46389), (84, 46431), (88, 46467), (91, 46479), (99, 46536), (103, 46569), (107, 46614), (112, 46632), (119, 46677), (126, 46725), (129, 46758), (143, 46836), (149, 46863), (154, 46884), (159, 46932), (162, 46953), (171, 47079), (175, 47130), (180, 47151), (181, 47163), (183, 47205), (197, 47355), (200, 47388), (201, 47391), (203, 47442), (205, 47487), (206, 47493), (209, 47535), (215, 47598), (222, 47676), (225, 47733), (226, 47751), (230, 47784), (231, 47787), (233, 47826), (234, 47829), (238, 47910), (239, 47913), (243, 47973), (244, 47997), (247, 48048), (249, 48072), (252, 48096), (263, 48348), (266, 48405), (280, 48663), (282, 48732), (288, 48780), (295, 48867), (297, 48900), (299, 48903),

Gene: Breeniome\_97 Start: 44064, Stop: 48176, Start Num: 3

Candidate Starts for Breeniome\_97:

(Start: 3 @44064 has 175 MA's), (13, 44175), (15, 44199), (28, 44463), (29, 44469), (33, 44535), (36, 44571), (41, 44652), (43, 44688), (45, 44700), (46, 44706), (47, 44907), (59, 45288), (67, 45441), (69, 45510), (72, 45537), (79, 45618), (84, 45660), (88, 45696), (91, 45708), (99, 45765), (103, 45798), (107, 45843), (112, 45861), (119, 45906), (126, 45954), (129, 45987), (135, 46011), (143, 46065), (149, 46092), (154, 46113), (159, 46161), (162, 46182), (171, 46308), (175, 46359), (180, 46380), (181, 46392), (183, 46434), (197, 46584), (200, 46617), (201, 46620), (203, 46671), (205, 46716), (206, 46722), (209, 46764), (215, 46827), (222, 46905), (225, 46962), (226, 46980), (230, 47013), (231, 47016), (233, 47055), (234, 47058), (238, 47139), (239, 47142), (243, 47202), (244, 47226), (247, 47277), (249, 47301), (252, 47325), (263, 47577), (266, 47634), (280, 47892), (282, 47961), (288, 48009), (295, 48096), (297, 48129), (299, 48132),

Gene: Burrough\_97 Start: 45334, Stop: 49446, Start Num: 3

Candidate Starts for Burrough\_97:

(Start: 3 @45334 has 175 MA's), (13, 45445), (15, 45469), (28, 45733), (29, 45739), (33, 45805), (36, 45841), (41, 45922), (43, 45958), (45, 45970), (46, 45976), (47, 46177), (59, 46558), (67, 46711), (69, 46780), (72, 46807), (79, 46888), (84, 46930), (88, 46966), (91, 46978), (99, 47035), (103, 47068), (107, 47113), (112, 47131), (119, 47176), (126, 47224), (129, 47257), (135, 47281), (143, 47335), (149, 47362), (154, 47383), (159, 47431), (162, 47452), (171, 47578), (175, 47629), (180, 47650), (181, 47662), (183, 47704), (197, 47854), (200, 47887), (201, 47890), (203, 47941), (205, 47986), (206, 47992), (209, 48034), (215, 48097), (222, 48175), (225, 48232), (226, 48250), (230, 48283), (231, 48286), (233, 48325), (234, 48328), (238, 48409), (239, 48412), (243, 48472), (244, 48496), (247, 48547), (249, 48571), (252, 48595), (263, 48847), (266, 48904), (280, 49162), (282, 49231), (288, 49279), (295, 49366), (297, 49399), (299, 49402),

Gene: Bxz1\_95 Start: 46385, Stop: 50497, Start Num: 3

Candidate Starts for Bxz1\_95:

(Start: 3 @46385 has 175 MA's), (13, 46496), (15, 46520), (28, 46784), (29, 46790), (33, 46856), (36, 46892), (41, 46973), (43, 47009), (45, 47021), (46, 47027), (47, 47228), (59, 47609), (67, 47762), (69, 47831), (72, 47858), (79, 47939), (84, 47981), (88, 48017), (91, 48029), (99, 48086), (103, 48119), (107, 48164), (112, 48182), (119, 48227), (126, 48275), (129, 48308), (135, 48332), (143, 48386), (149, 48413), (154, 48434), (159, 48482), (162, 48503), (171, 48629), (175, 48680), (180, 48701), (181, 48713), (183, 48755), (197, 48905), (200, 48938), (201, 48941), (203, 48992), (205, 49037), (206, 49043), (209, 49085), (215, 49148), (222, 49226), (225, 49283), (226, 49301), (230, 49334), (231, 49337), (233, 49376), (234, 49379), (238, 49460), (239, 49463), (243, 49523), (244, 49547), (247, 49598), (249, 49622), (252, 49646), (263, 49898), (266, 49955), (280, 50213), (282, 50282), (288, 50330), (295, 50417), (297, 50450), (299, 50453),

Gene: Cactojaque\_92 Start: 43176, Stop: 47285, Start Num: 3

Candidate Starts for Cactojaque\_92:

(Start: 3 @43176 has 175 MA's), (13, 43287), (15, 43311), (28, 43575), (29, 43581), (33, 43647), (36, 43683), (41, 43764), (43, 43800), (45, 43812), (46, 43818), (47, 44019), (48, 44079), (59, 44397), (67, 44550), (69, 44619), (72, 44646), (79, 44727), (84, 44769), (88, 44805), (91, 44817), (99, 44874), (103, 44907), (107, 44952), (112, 44970), (119, 45015), (126, 45063), (129, 45096), (143, 45174), (149, 45201), (159, 45270), (162, 45291), (171, 45417), (175, 45468), (180, 45489), (181, 45501), (183, 45543), (197, 45693), (200, 45726), (201, 45729), (203, 45780), (205, 45825), (206, 45831), (209, 45873), (215, 45936), (222, 46014), (225, 46071), (226, 46089), (230, 46122), (231, 46125), (233, 46164), (234, 46167), (238, 46248), (239, 46251), (243, 46311), (244, 46335), (247, 46386), (249, 46410), (252, 46434), (263, 46686), (266, 46743), (280, 47001), (282, 47070), (288, 47118), (295, 47205), (297, 47238), (299, 47241),

Gene: Cali\_93 Start: 45351, Stop: 49211, Start Num: 3

Candidate Starts for Cali\_93:

(Start: 3 @45351 has 175 MA's), (13, 45462), (15, 45486), (28, 45750), (29, 45756), (33, 45822), (36, 45858), (41, 45939), (45, 45987), (46, 45993), (61, 46314), (62, 46335), (64, 46371), (69, 46491), (71, 46509), (79, 46605), (83, 46638), (84, 46647), (92, 46743), (94, 46761), (103, 46833), (107, 46878), (112, 46896), (119, 46941), (126, 46989), (129, 47022), (135, 47046), (143, 47100), (149, 47127), (154, 47148), (159, 47196), (162, 47217), (171, 47343), (175, 47394), (180, 47415), (181, 47427), (183, 47469), (197, 47619), (200, 47652), (201, 47655), (203, 47706), (205, 47751), (206, 47757), (209, 47799), (215, 47862), (222, 47940), (225, 47997), (226, 48015), (230, 48048), (231, 48051), (233, 48090), (234, 48093), (238, 48174), (239, 48177), (243, 48237), (244, 48261), (247, 48312), (249, 48336), (252, 48360), (263, 48612), (266, 48669), (280, 48927), (282, 48996), (288, 49044), (295, 49131), (297, 49164), (299, 49167),

Gene: Cane17\_86 Start: 43473, Stop: 47195, Start Num: 3

Candidate Starts for Cane17\_86:

(Start: 3 @43473 has 175 MA's), (8, 43512), (13, 43584), (15, 43608), (28, 43872), (29, 43878), (33, 43944), (36, 43980), (41, 44061), (43, 44097), (45, 44109), (46, 44115), (61, 44298), (62, 44319), (64, 44355), (69, 44475), (71, 44493), (79, 44589), (83, 44622), (84, 44631), (92, 44727), (94, 44745), (103, 44817), (107, 44862), (112, 44880), (119, 44925), (126, 44973), (129, 45006), (135, 45030), (143, 45084), (149, 45111), (154, 45132), (159, 45180), (162, 45201), (171, 45327), (175, 45378), (180, 45399), (181, 45411), (183, 45453), (197, 45603), (200, 45636), (201, 45639), (203, 45690), (205, 45735), (206, 45741), (209, 45783), (215, 45846), (222, 45924), (225, 45981), (226, 45999), (230, 46032), (231, 46035), (233, 46074), (234, 46077), (238, 46158), (239, 46161), (243, 46221), (244, 46245), (247, 46296), (249, 46320), (252, 46344), (263, 46596), (266, 46653), (280, 46911), (282, 46980), (288, 47028), (295, 47115), (297, 47148), (299, 47151),

Gene: Capablanca\_99 Start: 45201, Stop: 49310, Start Num: 3

Candidate Starts for Capablanca\_99:

(Start: 3 @45201 has 175 MA's), (13, 45312), (15, 45336), (28, 45600), (29, 45606), (33, 45672), (36, 45708), (41, 45789), (43, 45825), (45, 45837), (46, 45843), (47, 46044), (48, 46104), (59, 46422), (67, 46575), (69, 46644), (72, 46671), (79, 46752), (84, 46794), (88, 46830), (91, 46842), (99, 46899), (103, 46932), (107, 46977), (112, 46995), (119, 47040), (126, 47088), (129, 47121), (135, 47145), (143, 47199), (149, 47226), (154, 47247), (159, 47295), (162, 47316), (171, 47442), (175, 47493), (180, 47514), (181, 47526), (183, 47568), (197, 47718), (200, 47751), (201, 47754), (203, 47805), (205, 47850), (206, 47856), (209, 47898), (215, 47961), (222, 48039), (225, 48096), (226, 48114), (230, 48147), (231, 48150), (233, 48189), (234, 48192), (238, 48273), (239, 48276), (243, 48336), (244, 48360), (247, 48411), (249, 48435), (252, 48459), (263, 48711), (266, 48768), (280, 49026), (282, 49095), (288, 49143), (295, 49230), (297, 49263), (299, 49266),

Gene: Caravan\_92 Start: 44705, Stop: 48565, Start Num: 3

Candidate Starts for Caravan\_92:

(Start: 3 @44705 has 175 MA's), (13, 44816), (15, 44840), (28, 45104), (29, 45110), (33, 45176), (36, 45212), (41, 45293), (43, 45329), (45, 45341), (46, 45347), (61, 45668), (62, 45689), (64, 45725), (69, 45845), (79, 45959), (83, 45992), (84, 46001), (92, 46097), (94, 46115), (103, 46187), (107, 46232), (112, 46250), (119, 46295), (126, 46343), (129, 46376), (135, 46400), (143, 46454), (149, 46481), (154, 46502), (159, 46550), (162, 46571), (171, 46697), (175, 46748), (180, 46769), (181, 46781), (183, 46823), (197, 46973), (200, 47006), (201, 47009), (203, 47060), (205, 47105), (206, 47111), (209, 47153), (215, 47216), (222, 47294), (225, 47351), (226, 47369), (230, 47402), (231, 47405), (233, 47444), (234, 47447), (238, 47528), (239, 47531), (243, 47591), (244, 47615), (247, 47666), (249, 47690), (252, 47714), (263, 47966), (266, 48023), (280, 48281), (282, 48350), (288, 48398), (295, 48485), (297, 48518), (299, 48521),

Gene: Catera\_94 Start: 43341, Stop: 47450, Start Num: 3

Candidate Starts for Catera\_94:

(Start: 3 @43341 has 175 MA's), (13, 43452), (15, 43476), (28, 43740), (29, 43746), (33, 43812), (36, 43848), (41, 43929), (43, 43965), (45, 43977), (46, 43983), (47, 44184), (48, 44244), (59, 44562), (67, 44715), (69, 44784), (72, 44811), (79, 44892), (84, 44934), (88, 44970), (91, 44982), (99, 45039), (103, 45072), (107, 45117), (112, 45135), (119, 45180), (126, 45228), (129, 45261), (143, 45339), (149, 45366), (159, 45435), (162, 45456), (171, 45582), (175, 45633), (180, 45654), (181, 45666), (183, 45708), (197, 45858), (200, 45891), (201, 45894), (203, 45945), (205, 45990), (206, 45996), (209, 46038), (215, 46101), (222, 46179), (225, 46236), (226, 46254), (230, 46287), (231, 46290), (233, 46329), (234, 46332), (238, 46413), (239, 46416), (243, 46476), (244, 46500), (247, 46551), (249, 46575), (252, 46599), (263, 46851), (266, 46908), (280, 47166), (282, 47235), (288, 47283), (295, 47370), (297, 47403), (299, 47406),

Gene: Chargie21\_94 Start: 43491, Stop: 47600, Start Num: 3

Candidate Starts for Chargie21\_94:

(Start: 3 @43491 has 175 MA's), (13, 43602), (15, 43626), (28, 43890), (29, 43896), (33, 43962), (36, 43998), (41, 44079), (43, 44115), (45, 44127), (46, 44133), (47, 44334), (48, 44394), (59, 44712), (67, 44865), (69, 44934), (72, 44961), (79, 45042), (84, 45084), (88, 45120), (91, 45132), (99, 45189), (103, 45222), (107, 45267), (112, 45285), (119, 45330), (126, 45378), (129, 45411), (143, 45489), (149, 45516), (159, 45585), (162, 45606), (171, 45732), (175, 45783), (180, 45804), (181, 45816), (183, 45858), (197, 46008), (200, 46041), (201, 46044), (203, 46095), (205, 46140), (206, 46146), (209, 46188), (215, 46251), (222, 46329), (225, 46386), (226, 46404), (230, 46437), (231, 46440), (233, 46479), (234, 46482), (238, 46563), (239, 46566), (243, 46626), (244, 46650), (247, 46701), (249, 46725), (252, 46749), (263, 47001), (266, 47058), (280, 47316), (282, 47385), (288, 47433), (295, 47520), (297, 47553), (299, 47556),

Gene: CharlieB\_93 Start: 43349, Stop: 47461, Start Num: 3

Candidate Starts for CharlieB\_93:

(Start: 3 @43349 has 175 MA's), (13, 43460), (15, 43484), (28, 43748), (29, 43754), (33, 43820), (36, 43856), (41, 43937), (43, 43973), (45, 43985), (46, 43991), (47, 44192), (59, 44573), (67, 44726), (69, 44795), (72, 44822), (79, 44903), (84, 44945), (88, 44981), (91, 44993), (99, 45050), (103, 45083), (107, 45128), (112, 45146), (119, 45191), (126, 45239), (129, 45272), (135, 45296), (143, 45350), (149, 45377), (154, 45398), (159, 45446), (162, 45467), (171, 45593), (175, 45644), (180, 45665), (181, 45677), (183, 45719), (197, 45869), (200, 45902), (201, 45905), (203, 45956), (205, 46001), (206, 46007), (209, 46049), (215, 46112), (222, 46190), (225, 46247), (226, 46265), (230, 46298), (231, 46301), (233, 46340), (234, 46343), (238, 46424), (239, 46427), (243, 46487), (244, 46511), (247, 46562), (249, 46586), (252, 46610), (263, 46862), (266, 46919), (280, 47177), (282, 47246), (288, 47294), (295, 47381), (297, 47414), (299, 47417),

Gene: ChaylaJr\_92 Start: 42967, Stop: 47076, Start Num: 3

Candidate Starts for ChaylaJr\_92:

(Start: 3 @42967 has 175 MA's), (13, 43078), (15, 43102), (28, 43366), (29, 43372), (33, 43438), (36, 43474), (41, 43555), (43, 43591), (45, 43603), (46, 43609), (47, 43810), (48, 43870), (59, 44188), (67, 44341), (69, 44410), (72, 44437), (79, 44518), (84, 44560), (88, 44596), (91, 44608), (99, 44665), (103, 44698), (107, 44743), (112, 44761), (119, 44806), (126, 44854), (129, 44887), (143, 44965), (149, 44992), (159, 45061), (162, 45082), (171, 45208), (175, 45259), (180, 45280), (181, 45292), (183, 45334), (197, 45484), (200, 45517), (201, 45520), (203, 45571), (205, 45616), (206, 45622), (209, 45664), (215, 45727), (222, 45805), (225, 45862), (226, 45880), (230, 45913), (231, 45916), (233, 45955), (234, 45958), (238, 46039), (239, 46042), (243, 46102), (244, 46126), (247, 46177), (249, 46201), (252, 46225), (263, 46477), (266, 46534), (280, 46792), (282, 46861), (288, 46909), (295, 46996), (297, 47029), (299, 47032),

Gene: CherryTomatoes\_94 Start: 43720, Stop: 46974, Start Num: 1

Candidate Starts for CherryTomatoes\_94:

(Start: 1 @43720 has 4 MA's), (9, 43801), (15, 43876), (16, 43879), (18, 43936), (19, 43960), (23, 44023), (26, 44104), (27, 44119), (29, 44146), (35, 44230), (38, 44278), (43, 44365), (46, 44383), (52, 44422), (57, 44461), (58, 44470), (74, 44659), (84, 44740), (99, 44845), (100, 44866), (103, 44872), (122, 44959), (156, 45082), (158, 45100), (166, 45124), (173, 45211), (178, 45250), (204, 45538), (206, 45583), (210, 45601), (218, 45682), (226, 45805), (242, 46015), (243, 46024), (250, 46120), (251, 46123), (257, 46231), (261, 46357), (262, 46375), (265, 46429), (276, 46591), (278, 46675), (282, 46756), (294, 46891), (299, 46930), (300, 46960),

Gene: ChickenPhender\_93 Start: 43300, Stop: 47409, Start Num: 3

Candidate Starts for ChickenPhender\_93:

(Start: 3 @43300 has 175 MA's), (13, 43411), (15, 43435), (28, 43699), (29, 43705), (33, 43771), (36, 43807), (41, 43888), (43, 43924), (45, 43936), (46, 43942), (47, 44143), (48, 44203), (59, 44521), (67, 44674), (69, 44743), (72, 44770), (79, 44851), (84, 44893), (88, 44929), (91, 44941), (99, 44998), (103, 45031), (107, 45076), (112, 45094), (119, 45139), (126, 45187), (129, 45220), (143, 45298), (149, 45325), (159, 45394), (162, 45415), (171, 45541), (175, 45592), (180, 45613), (181, 45625), (183, 45667), (197, 45817), (200, 45850), (201, 45853), (203, 45904), (205, 45949), (206, 45955), (209, 45997), (215, 46060), (222, 46138), (225, 46195), (226, 46213), (230, 46246), (231, 46249), (233, 46288), (234, 46291), (238, 46372), (239, 46375), (243, 46435), (244, 46459), (247, 46510), (249, 46534), (252, 46558), (263, 46810), (266, 46867), (280, 47125), (282, 47194), (288, 47242), (295, 47329), (297, 47362), (299, 47365),

Gene: Chomp\_97 Start: 45771, Stop: 49883, Start Num: 3

Candidate Starts for Chomp\_97:

(Start: 3 @45771 has 175 MA's), (13, 45882), (15, 45906), (28, 46170), (29, 46176), (33, 46242), (36, 46278), (41, 46359), (43, 46395), (45, 46407), (46, 46413), (47, 46614), (59, 46995), (67, 47148), (69, 47217), (72, 47244), (79, 47325), (84, 47367), (88, 47403), (91, 47415), (99, 47472), (103, 47505), (107, 47550), (112, 47568), (119, 47613), (126, 47661), (129, 47694), (135, 47718), (143, 47772), (149, 47799), (154, 47820), (159, 47868), (162, 47889), (171, 48015), (175, 48066), (180, 48087), (181, 48099), (183, 48141), (197, 48291), (200, 48324), (201, 48327), (203, 48378), (205, 48423), (206, 48429), (209, 48471), (215, 48534), (222, 48612), (225, 48669), (226, 48687), (230, 48720), (231, 48723), (233, 48762), (234, 48765), (238, 48846), (239, 48849), (243, 48909), (244, 48933), (247, 48984), (249, 49008), (252, 49032), (263, 49284), (266, 49341), (280, 49599), (282, 49668), (288, 49716), (295, 49803), (297, 49836), (299, 49839),

Gene: CindyLou\_99 Start: 45812, Stop: 49924, Start Num: 3

Candidate Starts for CindyLou\_99:

(Start: 3 @45812 has 175 MA's), (13, 45923), (15, 45947), (28, 46211), (29, 46217), (33, 46283), (36, 46319), (41, 46400), (43, 46436), (45, 46448), (46, 46454), (47, 46655), (59, 47036), (67, 47189), (69, 47258), (72, 47285), (79, 47366), (84, 47408), (88, 47444), (91, 47456), (99, 47513), (103, 47546), (107, 47591), (112, 47609), (119, 47654), (126, 47702), (129, 47735), (135, 47759), (143, 47813),



(149, 47840), (154, 47861), (159, 47909), (162, 47930), (171, 48056), (175, 48107), (180, 48128), (181, 48140), (183, 48182), (197, 48332), (200, 48365), (201, 48368), (203, 48419), (205, 48464), (206, 48470), (209, 48512), (215, 48575), (222, 48653), (225, 48710), (226, 48728), (230, 48761), (231, 48764), (233, 48803), (234, 48806), (238, 48887), (239, 48890), (243, 48950), (244, 48974), (247, 49025), (249, 49049), (252, 49073), (263, 49325), (266, 49382), (280, 49640), (282, 49709), (288, 49757), (295, 49844), (297, 49877), (299, 49880),

Gene: Colt\_87 Start: 44069, Stop: 47791, Start Num: 3

Candidate Starts for Colt\_87:

(Start: 3 @44069 has 175 MA's), (8, 44108), (13, 44180), (15, 44204), (28, 44468), (29, 44474), (33, 44540), (36, 44576), (41, 44657), (43, 44693), (45, 44705), (46, 44711), (61, 44894), (62, 44915), (64, 44951), (69, 45071), (71, 45089), (79, 45185), (83, 45218), (84, 45227), (92, 45323), (94, 45341), (103, 45413), (107, 45458), (112, 45476), (119, 45521), (126, 45569), (129, 45602), (135, 45626), (143, 45680), (149, 45707), (154, 45728), (159, 45776), (162, 45797), (171, 45923), (175, 45974), (180, 45995), (181, 46007), (183, 46049), (197, 46199), (200, 46232), (201, 46235), (203, 46286), (205, 46331), (206, 46337), (209, 46379), (215, 46442), (222, 46520), (225, 46577), (226, 46595), (230, 46628), (231, 46631), (233, 46670), (234, 46673), (238, 46754), (239, 46757), (243, 46817), (244, 46841), (247, 46892), (249, 46916), (252, 46940), (263, 47192), (266, 47249), (280, 47507), (282, 47576), (288, 47624), (295, 47711), (297, 47744), (299, 47747),

Gene: Concombre\_104 Start: 47487, Stop: 51347, Start Num: 3

Candidate Starts for Concombre\_104:

(Start: 3 @47487 has 175 MA's), (13, 47598), (28, 47886), (29, 47892), (33, 47958), (36, 47994), (41, 48075), (43, 48111), (45, 48123), (46, 48129), (62, 48471), (64, 48507), (69, 48627), (79, 48741), (83, 48774), (84, 48783), (92, 48879), (94, 48897), (103, 48969), (107, 49014), (112, 49032), (119, 49077), (126, 49125), (129, 49158), (135, 49182), (143, 49236), (149, 49263), (154, 49284), (159, 49332), (162, 49353), (171, 49479), (175, 49530), (180, 49551), (181, 49563), (183, 49605), (197, 49755), (200, 49788), (201, 49791), (203, 49842), (205, 49887), (206, 49893), (209, 49935), (215, 49998), (222, 50076), (225, 50133), (226, 50151), (230, 50184), (231, 50187), (233, 50226), (234, 50229), (238, 50310), (239, 50313), (243, 50373), (244, 50397), (247, 50448), (249, 50472), (252, 50496), (263, 50748), (266, 50805), (280, 51063), (282, 51132), (288, 51180), (295, 51267), (297, 51300), (299, 51303),

Gene: DTDevon\_98 Start: 45371, Stop: 49483, Start Num: 3

Candidate Starts for DTDevon\_98:

(Start: 3 @45371 has 175 MA's), (13, 45482), (15, 45506), (28, 45770), (29, 45776), (33, 45842), (36, 45878), (41, 45959), (43, 45995), (45, 46007), (46, 46013), (47, 46214), (59, 46595), (67, 46748), (69, 46817), (72, 46844), (79, 46925), (84, 46967), (88, 47003), (91, 47015), (99, 47072), (103, 47105), (107, 47150), (112, 47168), (119, 47213), (126, 47261), (129, 47294), (135, 47318), (143, 47372), (149, 47399), (154, 47420), (159, 47468), (162, 47489), (171, 47615), (175, 47666), (180, 47687), (181, 47699), (183, 47741), (197, 47891), (200, 47924), (201, 47927), (203, 47978), (205, 48023), (206, 48029), (209, 48071), (215, 48134), (222, 48212), (225, 48269), (226, 48287), (230, 48320), (231, 48323), (233, 48362), (234, 48365), (238, 48446), (239, 48449), (243, 48509), (244, 48533), (247, 48584), (249, 48608), (252, 48632), (263, 48884), (266, 48941), (280, 49199), (282, 49268), (288, 49316), (295, 49403), (297, 49436), (299, 49439),

Gene: Daffodil\_102 Start: 45070, Stop: 49179, Start Num: 3

Candidate Starts for Daffodil\_102:

(Start: 3 @45070 has 175 MA's), (13, 45181), (15, 45205), (28, 45469), (29, 45475), (33, 45541), (36, 45577), (41, 45658), (43, 45694), (45, 45706), (46, 45712), (47, 45913), (48, 45973), (59, 46291), (67, 46444), (69, 46513), (72, 46540), (79, 46621), (84, 46663), (88, 46699), (91, 46711), (99, 46768), (103, 46801), (107, 46846), (112, 46864), (119, 46909), (126, 46957), (129, 46990), (143, 47068), (149, 47095), (159, 47164), (162, 47185), (171, 47311), (175, 47362), (180, 47383), (181, 47395), (183,

47437), (197, 47587), (200, 47620), (201, 47623), (203, 47674), (205, 47719), (206, 47725), (209, 47767), (215, 47830), (222, 47908), (225, 47965), (226, 47983), (230, 48016), (231, 48019), (233, 48058), (234, 48061), (238, 48142), (239, 48145), (243, 48205), (244, 48229), (247, 48280), (249, 48304), (252, 48328), (263, 48580), (266, 48637), (280, 48895), (282, 48964), (288, 49012), (295, 49099), (297, 49132), (299, 49135),

Gene: Dandelion\_104 Start: 47734, Stop: 51594, Start Num: 3

Candidate Starts for Dandelion\_104:

(Start: 3 @47734 has 175 MA's), (13, 47845), (15, 47869), (28, 48133), (29, 48139), (33, 48205), (36, 48241), (41, 48322), (43, 48358), (45, 48370), (46, 48376), (61, 48697), (62, 48718), (64, 48754), (69, 48874), (79, 48988), (83, 49021), (84, 49030), (92, 49126), (94, 49144), (103, 49216), (107, 49261), (112, 49279), (119, 49324), (126, 49372), (129, 49405), (135, 49429), (143, 49483), (149, 49510), (154, 49531), (159, 49579), (162, 49600), (171, 49726), (175, 49777), (180, 49798), (181, 49810), (183, 49852), (197, 50002), (200, 50035), (201, 50038), (203, 50089), (205, 50134), (206, 50140), (209, 50182), (215, 50245), (222, 50323), (225, 50380), (226, 50398), (230, 50431), (231, 50434), (233, 50473), (234, 50476), (238, 50557), (239, 50560), (243, 50620), (244, 50644), (247, 50695), (249, 50719), (252, 50743), (263, 50995), (266, 51052), (280, 51310), (282, 51379), (288, 51427), (295, 51514), (297, 51547), (299, 51550),

Gene: Darko\_97 Start: 45008, Stop: 49120, Start Num: 3

Candidate Starts for Darko\_97:

(Start: 3 @45008 has 175 MA's), (13, 45119), (15, 45143), (28, 45407), (29, 45413), (33, 45479), (36, 45515), (41, 45596), (43, 45632), (45, 45644), (46, 45650), (47, 45851), (59, 46232), (67, 46385), (69, 46454), (72, 46481), (79, 46562), (84, 46604), (88, 46640), (91, 46652), (99, 46709), (103, 46742), (107, 46787), (112, 46805), (119, 46850), (126, 46898), (129, 46931), (135, 46955), (143, 47009), (149, 47036), (154, 47057), (159, 47105), (162, 47126), (171, 47252), (175, 47303), (180, 47324), (181, 47336), (183, 47378), (197, 47528), (200, 47561), (201, 47564), (203, 47615), (205, 47660), (206, 47666), (209, 47708), (215, 47771), (222, 47849), (225, 47906), (226, 47924), (230, 47957), (231, 47960), (233, 47999), (234, 48002), (238, 48083), (239, 48086), (243, 48146), (244, 48170), (247, 48221), (249, 48245), (252, 48269), (263, 48521), (266, 48578), (280, 48836), (282, 48905), (288, 48953), (295, 49040), (297, 49073), (299, 49076),

Gene: DeejaClivia\_86 Start: 41106, Stop: 45644, Start Num: 3

Candidate Starts for DeejaClivia\_86:

(Start: 3 @41106 has 175 MA's), (13, 41217), (15, 41241), (28, 41505), (29, 41511), (33, 41577), (36, 41613), (41, 41694), (43, 41730), (45, 41742), (46, 41748), (47, 41949), (48, 42009), (62, 42402), (64, 42438), (69, 42558), (71, 42576), (79, 42672), (83, 42705), (84, 42714), (92, 42810), (94, 42828), (103, 42900), (108, 43020), (110, 43083), (111, 43119), (116, 43167), (120, 43218), (121, 43224), (122, 43227), (127, 43263), (130, 43311), (132, 43329), (136, 43374), (142, 43422), (143, 43455), (150, 43533), (151, 43560), (159, 43629), (162, 43650), (171, 43776), (175, 43827), (180, 43848), (181, 43860), (183, 43902), (197, 44052), (200, 44085), (201, 44088), (203, 44139), (205, 44184), (206, 44190), (209, 44232), (215, 44295), (222, 44373), (225, 44430), (226, 44448), (230, 44481), (231, 44484), (233, 44523), (234, 44526), (238, 44607), (239, 44610), (243, 44670), (244, 44694), (247, 44745), (249, 44769), (252, 44793), (263, 45045), (266, 45102), (280, 45360), (282, 45429), (288, 45477), (295, 45564), (297, 45597), (299, 45600),

Gene: Delilah\_97 Start: 45071, Stop: 49180, Start Num: 3

Candidate Starts for Delilah\_97:

(Start: 3 @45071 has 175 MA's), (13, 45182), (15, 45206), (28, 45470), (29, 45476), (33, 45542), (36, 45578), (41, 45659), (43, 45695), (45, 45707), (46, 45713), (47, 45914), (48, 45974), (59, 46292), (67, 46445), (69, 46514), (72, 46541), (79, 46622), (84, 46664), (88, 46700), (91, 46712), (99, 46769), (103, 46802), (107, 46847), (112, 46865), (119, 46910), (126, 46958), (129, 46991), (143, 47069), (149, 47096), (159, 47165), (162, 47186), (171, 47312), (175, 47363), (180, 47384), (181, 47396), (183,

47438), (197, 47588), (200, 47621), (201, 47624), (203, 47675), (205, 47720), (206, 47726), (209, 47768), (215, 47831), (222, 47909), (225, 47966), (226, 47984), (230, 48017), (231, 48020), (233, 48059), (234, 48062), (238, 48143), (239, 48146), (243, 48206), (244, 48230), (247, 48281), (249, 48305), (252, 48329), (263, 48581), (266, 48638), (280, 48896), (282, 48965), (288, 49013), (295, 49100), (297, 49133), (299, 49136),

Gene: Delylah\_100 Start: 44864, Stop: 48724, Start Num: 3

Candidate Starts for Delylah\_100:

(Start: 3 @44864 has 175 MA's), (13, 44975), (15, 44999), (28, 45263), (29, 45269), (33, 45335), (36, 45371), (41, 45452), (43, 45488), (45, 45500), (46, 45506), (61, 45827), (62, 45848), (64, 45884), (69, 46004), (79, 46118), (83, 46151), (84, 46160), (92, 46256), (94, 46274), (103, 46346), (107, 46391), (112, 46409), (119, 46454), (126, 46502), (129, 46535), (135, 46559), (143, 46613), (149, 46640), (154, 46661), (159, 46709), (162, 46730), (171, 46856), (175, 46907), (180, 46928), (181, 46940), (183, 46982), (197, 47132), (200, 47165), (201, 47168), (203, 47219), (205, 47264), (206, 47270), (209, 47312), (215, 47375), (222, 47453), (225, 47510), (226, 47528), (230, 47561), (231, 47564), (233, 47603), (234, 47606), (238, 47687), (239, 47690), (243, 47750), (244, 47774), (247, 47825), (249, 47849), (252, 47873), (263, 48125), (266, 48182), (280, 48440), (282, 48509), (288, 48557), (295, 48644), (297, 48677), (299, 48680),

Gene: Demodog\_104 Start: 47487, Stop: 51347, Start Num: 3

Candidate Starts for Demodog\_104:

(Start: 3 @47487 has 175 MA's), (13, 47598), (28, 47886), (29, 47892), (33, 47958), (36, 47994), (41, 48075), (43, 48111), (45, 48123), (46, 48129), (62, 48471), (64, 48507), (69, 48627), (79, 48741), (83, 48774), (84, 48783), (92, 48879), (94, 48897), (103, 48969), (107, 49014), (112, 49032), (119, 49077), (126, 49125), (129, 49158), (135, 49182), (143, 49236), (149, 49263), (154, 49284), (159, 49332), (162, 49353), (171, 49479), (175, 49530), (180, 49551), (181, 49563), (183, 49605), (197, 49755), (200, 49788), (201, 49791), (203, 49842), (205, 49887), (206, 49893), (209, 49935), (215, 49998), (222, 50076), (225, 50133), (226, 50151), (230, 50184), (231, 50187), (233, 50226), (234, 50229), (238, 50310), (239, 50313), (243, 50373), (244, 50397), (247, 50448), (249, 50472), (252, 50496), (263, 50748), (266, 50805), (280, 51063), (282, 51132), (288, 51180), (295, 51267), (297, 51300), (299, 51303),

Gene: Derek\_98 Start: 45573, Stop: 49685, Start Num: 3

Candidate Starts for Derek\_98:

(Start: 3 @45573 has 175 MA's), (13, 45684), (15, 45708), (28, 45972), (29, 45978), (33, 46044), (36, 46080), (41, 46161), (43, 46197), (45, 46209), (46, 46215), (47, 46416), (59, 46797), (67, 46950), (69, 47019), (72, 47046), (79, 47127), (84, 47169), (88, 47205), (91, 47217), (99, 47274), (103, 47307), (107, 47352), (112, 47370), (119, 47415), (126, 47463), (129, 47496), (135, 47520), (143, 47574), (149, 47601), (154, 47622), (159, 47670), (162, 47691), (171, 47817), (175, 47868), (180, 47889), (181, 47901), (183, 47943), (197, 48093), (200, 48126), (201, 48129), (203, 48180), (205, 48225), (206, 48231), (209, 48273), (215, 48336), (222, 48414), (225, 48471), (226, 48489), (230, 48522), (231, 48525), (233, 48564), (234, 48567), (238, 48648), (239, 48651), (243, 48711), (244, 48735), (247, 48786), (249, 48810), (252, 48834), (263, 49086), (266, 49143), (280, 49401), (282, 49470), (288, 49518), (295, 49605), (297, 49638), (299, 49641),

Gene: Dietrick\_89 Start: 43003, Stop: 47112, Start Num: 3

Candidate Starts for Dietrick\_89:

(Start: 3 @43003 has 175 MA's), (13, 43114), (15, 43138), (28, 43402), (29, 43408), (33, 43474), (36, 43510), (41, 43591), (43, 43627), (45, 43639), (46, 43645), (47, 43846), (48, 43906), (59, 44224), (67, 44377), (69, 44446), (72, 44473), (79, 44554), (84, 44596), (88, 44632), (91, 44644), (99, 44701), (103, 44734), (107, 44779), (112, 44797), (119, 44842), (126, 44890), (129, 44923), (143, 45001), (149, 45028), (159, 45097), (162, 45118), (171, 45244), (175, 45295), (180, 45316), (181, 45328), (183, 45370), (197, 45520), (200, 45553), (201, 45556), (203, 45607), (205, 45652), (206, 45658), (209,

45700), (215, 45763), (222, 45841), (225, 45898), (226, 45916), (230, 45949), (231, 45952), (233, 45991), (234, 45994), (238, 46075), (239, 46078), (243, 46138), (244, 46162), (247, 46213), (249, 46237), (252, 46261), (263, 46513), (266, 46570), (280, 46828), (282, 46897), (288, 46945), (295, 47032), (297, 47065), (299, 47068),

Gene: DirtMonster\_91 Start: 44105, Stop: 48217, Start Num: 3

Candidate Starts for DirtMonster\_91:

(Start: 3 @44105 has 175 MA's), (13, 44216), (15, 44240), (28, 44504), (29, 44510), (33, 44576), (36, 44612), (41, 44693), (43, 44729), (45, 44741), (46, 44747), (47, 44948), (59, 45329), (67, 45482), (69, 45551), (72, 45578), (79, 45659), (84, 45701), (88, 45737), (91, 45749), (99, 45806), (103, 45839), (107, 45884), (112, 45902), (119, 45947), (126, 45995), (129, 46028), (135, 46052), (143, 46106), (149, 46133), (154, 46154), (159, 46202), (162, 46223), (171, 46349), (175, 46400), (180, 46421), (181, 46433), (183, 46475), (197, 46625), (200, 46658), (201, 46661), (203, 46712), (205, 46757), (206, 46763), (209, 46805), (215, 46868), (222, 46946), (225, 47003), (226, 47021), (230, 47054), (231, 47057), (233, 47096), (234, 47099), (238, 47180), (239, 47183), (243, 47243), (244, 47267), (247, 47318), (249, 47342), (252, 47366), (263, 47618), (266, 47675), (280, 47933), (282, 48002), (288, 48050), (295, 48137), (297, 48170), (299, 48173),

Gene: Domi\_91 Start: 44414, Stop: 48136, Start Num: 3

Candidate Starts for Domi\_91:

(Start: 3 @44414 has 175 MA's), (8, 44453), (13, 44525), (15, 44549), (28, 44813), (29, 44819), (33, 44885), (36, 44921), (41, 45002), (43, 45038), (45, 45050), (46, 45056), (61, 45239), (62, 45260), (64, 45296), (69, 45416), (71, 45434), (79, 45530), (83, 45563), (84, 45572), (92, 45668), (94, 45686), (103, 45758), (107, 45803), (112, 45821), (119, 45866), (126, 45914), (129, 45947), (135, 45971), (143, 46025), (149, 46052), (154, 46073), (159, 46121), (162, 46142), (171, 46268), (175, 46319), (180, 46340), (181, 46352), (183, 46394), (197, 46544), (200, 46577), (201, 46580), (203, 46631), (205, 46676), (206, 46682), (209, 46724), (215, 46787), (222, 46865), (225, 46922), (226, 46940), (230, 46973), (231, 46976), (233, 47015), (234, 47018), (238, 47099), (239, 47102), (243, 47162), (244, 47186), (247, 47237), (249, 47261), (252, 47285), (263, 47537), (266, 47594), (280, 47852), (282, 47921), (288, 47969), (295, 48056), (297, 48089), (299, 48092),

Gene: DrPhinkDaddy\_96 Start: 45290, Stop: 49399, Start Num: 3

Candidate Starts for DrPhinkDaddy\_96:

(Start: 3 @45290 has 175 MA's), (13, 45401), (15, 45425), (28, 45689), (29, 45695), (33, 45761), (36, 45797), (41, 45878), (43, 45914), (45, 45926), (46, 45932), (47, 46133), (48, 46193), (59, 46511), (67, 46664), (69, 46733), (72, 46760), (79, 46841), (84, 46883), (88, 46919), (91, 46931), (99, 46988), (103, 47021), (107, 47066), (112, 47084), (119, 47129), (126, 47177), (129, 47210), (143, 47288), (149, 47315), (159, 47384), (162, 47405), (171, 47531), (175, 47582), (180, 47603), (181, 47615), (183, 47657), (197, 47807), (200, 47840), (201, 47843), (203, 47894), (205, 47939), (206, 47945), (209, 47987), (215, 48050), (222, 48128), (225, 48185), (226, 48203), (230, 48236), (231, 48239), (233, 48278), (234, 48281), (238, 48362), (239, 48365), (243, 48425), (244, 48449), (247, 48500), (249, 48524), (252, 48548), (263, 48800), (266, 48857), (280, 49115), (282, 49184), (288, 49232), (295, 49319), (297, 49352), (299, 49355),

Gene: Drazdys\_97 Start: 44871, Stop: 48983, Start Num: 3

Candidate Starts for Drazdys\_97:

(Start: 3 @44871 has 175 MA's), (13, 44982), (15, 45006), (28, 45270), (29, 45276), (33, 45342), (36, 45378), (41, 45459), (43, 45495), (45, 45507), (46, 45513), (47, 45714), (59, 46095), (67, 46248), (69, 46317), (72, 46344), (79, 46425), (84, 46467), (88, 46503), (91, 46515), (99, 46572), (103, 46605), (107, 46650), (112, 46668), (119, 46713), (126, 46761), (129, 46794), (135, 46818), (143, 46872), (149, 46899), (154, 46920), (159, 46968), (162, 46989), (171, 47115), (175, 47166), (180, 47187), (181, 47199), (183, 47241), (197, 47391), (200, 47424), (201, 47427), (203, 47478), (205, 47523), (206, 47529), (209, 47571), (215, 47634), (222, 47712), (225, 47769), (226, 47787), (230, 47820),

(231, 47823), (233, 47862), (234, 47865), (238, 47946), (239, 47949), (243, 48009), (244, 48033), (247, 48084), (249, 48108), (252, 48132), (263, 48384), (266, 48441), (280, 48699), (282, 48768), (288, 48816), (295, 48903), (297, 48936), (299, 48939),

Gene: E3\_gp77 Start: 38464, Stop: 41151, Start Num: 5

Candidate Starts for E3\_gp77:

(5, 38464), (14, 38575), (15, 38584), (17, 38608), (22, 38728), (23, 38731), (29, 38854), (33, 38920), (34, 38932), (45, 39079), (80, 39328), (117, 39463), (126, 39514), (146, 39616), (160, 39649), (170, 39748), (177, 39808), (193, 39865), (216, 39976), (229, 40075), (232, 40114), (236, 40186), (238, 40195), (259, 40513), (261, 40552), (268, 40642), (271, 40669), (277, 40858),

Gene: ET08\_86 Start: 43857, Stop: 47717, Start Num: 3

Candidate Starts for ET08\_86:

(Start: 3 @43857 has 175 MA's), (13, 43968), (15, 43992), (28, 44256), (29, 44262), (33, 44328), (36, 44364), (41, 44445), (43, 44481), (45, 44493), (46, 44499), (61, 44820), (62, 44841), (64, 44877), (69, 44997), (79, 45111), (83, 45144), (84, 45153), (92, 45249), (94, 45267), (103, 45339), (107, 45384), (112, 45402), (119, 45447), (126, 45495), (129, 45528), (135, 45552), (143, 45606), (149, 45633), (154, 45654), (159, 45702), (162, 45723), (171, 45849), (175, 45900), (180, 45921), (181, 45933), (183, 45975), (197, 46125), (200, 46158), (201, 46161), (203, 46212), (205, 46257), (206, 46263), (209, 46305), (215, 46368), (222, 46446), (225, 46503), (226, 46521), (230, 46554), (231, 46557), (233, 46596), (234, 46599), (238, 46680), (239, 46683), (243, 46743), (244, 46767), (247, 46818), (249, 46842), (252, 46866), (263, 47118), (266, 47175), (280, 47433), (282, 47502), (288, 47550), (295, 47637), (297, 47670), (299, 47673),

Gene: EasyJones\_100 Start: 44359, Stop: 48468, Start Num: 3

Candidate Starts for EasyJones\_100:

(Start: 3 @44359 has 175 MA's), (13, 44470), (15, 44494), (28, 44758), (29, 44764), (33, 44830), (36, 44866), (41, 44947), (43, 44983), (45, 44995), (46, 45001), (47, 45202), (48, 45262), (59, 45580), (67, 45733), (69, 45802), (72, 45829), (79, 45910), (84, 45952), (88, 45988), (91, 46000), (99, 46057), (103, 46090), (107, 46135), (112, 46153), (119, 46198), (126, 46246), (129, 46279), (143, 46357), (149, 46384), (159, 46453), (162, 46474), (171, 46600), (175, 46651), (180, 46672), (181, 46684), (183, 46726), (197, 46876), (200, 46909), (201, 46912), (203, 46963), (205, 47008), (206, 47014), (209, 47056), (215, 47119), (222, 47197), (225, 47254), (226, 47272), (230, 47305), (231, 47308), (233, 47347), (234, 47350), (238, 47431), (239, 47434), (243, 47494), (244, 47518), (247, 47569), (249, 47593), (252, 47617), (263, 47869), (266, 47926), (280, 48184), (282, 48253), (288, 48301), (295, 48388), (297, 48421), (299, 48424),

Gene: EggyFarm\_105 Start: 47262, Stop: 51122, Start Num: 3

Candidate Starts for EggyFarm\_105:

(Start: 3 @47262 has 175 MA's), (13, 47373), (28, 47661), (29, 47667), (33, 47733), (36, 47769), (41, 47850), (43, 47886), (45, 47898), (46, 47904), (62, 48246), (64, 48282), (69, 48402), (77, 48486), (79, 48516), (83, 48549), (84, 48558), (92, 48654), (94, 48672), (103, 48744), (107, 48789), (112, 48807), (119, 48852), (126, 48900), (129, 48933), (135, 48957), (143, 49011), (149, 49038), (154, 49059), (159, 49107), (162, 49128), (171, 49254), (175, 49305), (180, 49326), (181, 49338), (183, 49380), (197, 49530), (200, 49563), (201, 49566), (203, 49617), (205, 49662), (206, 49668), (209, 49710), (215, 49773), (222, 49851), (225, 49908), (226, 49926), (230, 49959), (231, 49962), (233, 50001), (234, 50004), (238, 50085), (239, 50088), (243, 50148), (244, 50172), (247, 50223), (249, 50247), (252, 50271), (263, 50523), (266, 50580), (280, 50838), (282, 50907), (288, 50955), (295, 51042), (297, 51075), (299, 51078),

Gene: EmToTheThree\_100 Start: 46522, Stop: 50631, Start Num: 3

Candidate Starts for EmToTheThree\_100:

(Start: 3 @46522 has 175 MA's), (13, 46633), (15, 46657), (28, 46921), (29, 46927), (33, 46993), (36, 47029), (41, 47110), (43, 47146), (45, 47158), (46, 47164), (47, 47365), (48, 47425), (59, 47743), (67, 47896), (69, 47965), (72, 47992), (79, 48073), (84, 48115), (88, 48151), (91, 48163), (99, 48220), (103, 48253), (107, 48298), (112, 48316), (119, 48361), (126, 48409), (129, 48442), (143, 48520), (149, 48547), (159, 48616), (162, 48637), (171, 48763), (175, 48814), (180, 48835), (181, 48847), (183, 48889), (197, 49039), (200, 49072), (201, 49075), (203, 49126), (205, 49171), (206, 49177), (209, 49219), (215, 49282), (222, 49360), (225, 49417), (226, 49435), (230, 49468), (231, 49471), (233, 49510), (234, 49513), (238, 49594), (239, 49597), (243, 49657), (244, 49681), (247, 49732), (249, 49756), (252, 49780), (263, 50032), (266, 50089), (280, 50347), (282, 50416), (288, 50464), (295, 50551), (297, 50584), (299, 50587),

Gene: EmmaElysia\_97 Start: 44050, Stop: 48162, Start Num: 3

Candidate Starts for EmmaElysia\_97:

(Start: 3 @44050 has 175 MA's), (13, 44161), (15, 44185), (28, 44449), (29, 44455), (33, 44521), (36, 44557), (41, 44638), (43, 44674), (45, 44686), (46, 44692), (47, 44893), (59, 45274), (67, 45427), (69, 45496), (72, 45523), (79, 45604), (84, 45646), (88, 45682), (91, 45694), (99, 45751), (103, 45784), (107, 45829), (112, 45847), (119, 45892), (126, 45940), (129, 45973), (135, 45997), (143, 46051), (149, 46078), (154, 46099), (159, 46147), (162, 46168), (171, 46294), (175, 46345), (180, 46366), (181, 46378), (183, 46420), (197, 46570), (200, 46603), (201, 46606), (203, 46657), (205, 46702), (206, 46708), (209, 46750), (215, 46813), (222, 46891), (225, 46948), (226, 46966), (230, 46999), (231, 47002), (233, 47041), (234, 47044), (238, 47125), (239, 47128), (243, 47188), (244, 47212), (247, 47263), (249, 47287), (252, 47311), (263, 47563), (266, 47620), (280, 47878), (282, 47947), (288, 47995), (295, 48082), (297, 48115), (299, 48118),

Gene: Erdmann\_98 Start: 45071, Stop: 49180, Start Num: 3

Candidate Starts for Erdmann\_98:

(Start: 3 @45071 has 175 MA's), (13, 45182), (15, 45206), (28, 45470), (29, 45476), (33, 45542), (36, 45578), (41, 45659), (43, 45695), (45, 45707), (46, 45713), (47, 45914), (48, 45974), (59, 46292), (67, 46445), (69, 46514), (72, 46541), (79, 46622), (84, 46664), (88, 46700), (91, 46712), (99, 46769), (103, 46802), (107, 46847), (112, 46865), (119, 46910), (126, 46958), (129, 46991), (143, 47069), (149, 47096), (159, 47165), (162, 47186), (171, 47312), (175, 47363), (180, 47384), (181, 47396), (183, 47438), (197, 47588), (200, 47621), (201, 47624), (203, 47675), (205, 47720), (206, 47726), (209, 47768), (215, 47831), (222, 47909), (225, 47966), (226, 47984), (230, 48017), (231, 48020), (233, 48059), (234, 48062), (238, 48143), (239, 48146), (243, 48206), (244, 48230), (247, 48281), (249, 48305), (252, 48329), (263, 48581), (266, 48638), (280, 48896), (282, 48965), (288, 49013), (295, 49100), (297, 49133), (299, 49136),

Gene: ErnieJ\_93 Start: 43281, Stop: 47390, Start Num: 3

Candidate Starts for ErnieJ\_93:

(Start: 3 @43281 has 175 MA's), (13, 43392), (15, 43416), (28, 43680), (29, 43686), (33, 43752), (36, 43788), (41, 43869), (43, 43905), (45, 43917), (46, 43923), (47, 44124), (48, 44184), (59, 44502), (67, 44655), (69, 44724), (72, 44751), (79, 44832), (84, 44874), (88, 44910), (91, 44922), (99, 44979), (103, 45012), (107, 45057), (112, 45075), (119, 45120), (126, 45168), (129, 45201), (143, 45279), (149, 45306), (159, 45375), (162, 45396), (171, 45522), (175, 45573), (180, 45594), (181, 45606), (183, 45648), (197, 45798), (200, 45831), (201, 45834), (203, 45885), (205, 45930), (206, 45936), (209, 45978), (215, 46041), (222, 46119), (225, 46176), (226, 46194), (230, 46227), (231, 46230), (233, 46269), (234, 46272), (238, 46353), (239, 46356), (243, 46416), (244, 46440), (247, 46491), (249, 46515), (252, 46539), (263, 46791), (266, 46848), (280, 47106), (282, 47175), (288, 47223), (295, 47310), (297, 47343), (299, 47346),

Gene: Essence\_95 Start: 45037, Stop: 49149, Start Num: 3

Candidate Starts for Essence\_95:

(Start: 3 @45037 has 175 MA's), (13, 45148), (15, 45172), (28, 45436), (29, 45442), (33, 45508), (36, 45544), (41, 45625), (43, 45661), (45, 45673), (46, 45679), (47, 45880), (59, 46261), (67, 46414), (69, 46483), (72, 46510), (79, 46591), (84, 46633), (88, 46669), (91, 46681), (99, 46738), (103, 46771), (107, 46816), (112, 46834), (119, 46879), (126, 46927), (129, 46960), (135, 46984), (143, 47038), (149, 47065), (154, 47086), (159, 47134), (162, 47155), (171, 47281), (175, 47332), (180, 47353), (181, 47365), (183, 47407), (197, 47557), (200, 47590), (201, 47593), (203, 47644), (205, 47689), (206, 47695), (209, 47737), (215, 47800), (222, 47878), (225, 47935), (226, 47953), (230, 47986), (231, 47989), (233, 48028), (234, 48031), (238, 48112), (239, 48115), (243, 48175), (244, 48199), (247, 48250), (249, 48274), (252, 48298), (263, 48550), (266, 48607), (280, 48865), (282, 48934), (288, 48982), (295, 49069), (297, 49102), (299, 49105),

Gene: Ewok\_98 Start: 44698, Stop: 48807, Start Num: 3

Candidate Starts for Ewok\_98:

(Start: 3 @44698 has 175 MA's), (13, 44809), (15, 44833), (28, 45097), (29, 45103), (33, 45169), (36, 45205), (41, 45286), (43, 45322), (45, 45334), (46, 45340), (47, 45541), (48, 45601), (59, 45919), (67, 46072), (69, 46141), (72, 46168), (79, 46249), (84, 46291), (88, 46327), (91, 46339), (99, 46396), (103, 46429), (107, 46474), (112, 46492), (119, 46537), (126, 46585), (129, 46618), (143, 46696), (149, 46723), (159, 46792), (162, 46813), (171, 46939), (175, 46990), (180, 47011), (181, 47023), (183, 47065), (197, 47215), (200, 47248), (201, 47251), (203, 47302), (205, 47347), (206, 47353), (209, 47395), (215, 47458), (222, 47536), (225, 47593), (226, 47611), (230, 47644), (231, 47647), (233, 47686), (234, 47689), (238, 47770), (239, 47773), (243, 47833), (244, 47857), (247, 47908), (249, 47932), (252, 47956), (263, 48208), (266, 48265), (280, 48523), (282, 48592), (288, 48640), (295, 48727), (297, 48760), (299, 48763),

Gene: Finch\_17 Start: 15514, Stop: 18483, Start Num: 2

Candidate Starts for Finch\_17:

(Start: 2 @15514 has 3 MA's), (10, 15580), (22, 15796), (23, 15799), (24, 15856), (29, 15922), (30, 15946), (32, 15979), (33, 15988), (34, 16000), (37, 16033), (38, 16048), (40, 16063), (43, 16135), (44, 16138), (45, 16147), (56, 16171), (63, 16252), (73, 16384), (82, 16474), (86, 16525), (96, 16582), (147, 16777), (158, 16825), (169, 16936), (199, 17182), (219, 17302), (234, 17440), (248, 17647), (281, 18202), (282, 18265), (295, 18394), (302, 18475),

Gene: Flabslab\_92 Start: 43037, Stop: 47146, Start Num: 3

Candidate Starts for Flabslab\_92:

(Start: 3 @43037 has 175 MA's), (13, 43148), (15, 43172), (28, 43436), (29, 43442), (33, 43508), (36, 43544), (41, 43625), (43, 43661), (45, 43673), (46, 43679), (47, 43880), (48, 43940), (59, 44258), (67, 44411), (69, 44480), (72, 44507), (79, 44588), (84, 44630), (88, 44666), (91, 44678), (99, 44735), (103, 44768), (107, 44813), (112, 44831), (119, 44876), (126, 44924), (129, 44957), (143, 45035), (149, 45062), (159, 45131), (162, 45152), (171, 45278), (175, 45329), (180, 45350), (181, 45362), (183, 45404), (197, 45554), (200, 45587), (201, 45590), (203, 45641), (205, 45686), (206, 45692), (209, 45734), (215, 45797), (222, 45875), (225, 45932), (226, 45950), (230, 45983), (231, 45986), (233, 46025), (234, 46028), (238, 46109), (239, 46112), (243, 46172), (244, 46196), (247, 46247), (249, 46271), (252, 46295), (263, 46547), (266, 46604), (280, 46862), (282, 46931), (288, 46979), (295, 47066), (297, 47099), (299, 47102),

Gene: Fludd\_98 Start: 43923, Stop: 48035, Start Num: 3

Candidate Starts for Fludd\_98:

(Start: 3 @43923 has 175 MA's), (13, 44034), (15, 44058), (28, 44322), (29, 44328), (33, 44394), (36, 44430), (41, 44511), (43, 44547), (45, 44559), (46, 44565), (47, 44766), (59, 45147), (67, 45300), (69, 45369), (72, 45396), (79, 45477), (84, 45519), (88, 45555), (91, 45567), (99, 45624), (103, 45657), (107, 45702), (112, 45720), (119, 45765), (126, 45813), (129, 45846), (135, 45870), (143, 45924), (149, 45951), (154, 45972), (159, 46020), (162, 46041), (171, 46167), (175, 46218), (180, 46239), (181, 46251), (183, 46293), (197, 46443), (200, 46476), (201, 46479), (203, 46530), (205, 46575),

(206, 46581), (209, 46623), (215, 46686), (222, 46764), (225, 46821), (226, 46839), (230, 46872), (231, 46875), (233, 46914), (234, 46917), (238, 46998), (239, 47001), (243, 47061), (244, 47085), (247, 47136), (249, 47160), (252, 47184), (263, 47436), (266, 47493), (280, 47751), (282, 47820), (288, 47868), (295, 47955), (297, 47988), (299, 47991),

Gene: Fongie\_95 Start: 44911, Stop: 49020, Start Num: 3

Candidate Starts for Fongie\_95:

(Start: 3 @44911 has 175 MA's), (13, 45022), (15, 45046), (28, 45310), (29, 45316), (33, 45382), (36, 45418), (41, 45499), (43, 45535), (45, 45547), (46, 45553), (47, 45754), (48, 45814), (59, 46132), (67, 46285), (69, 46354), (72, 46381), (79, 46462), (84, 46504), (88, 46540), (91, 46552), (99, 46609), (103, 46642), (107, 46687), (112, 46705), (119, 46750), (126, 46798), (129, 46831), (143, 46909), (149, 46936), (159, 47005), (162, 47026), (171, 47152), (175, 47203), (180, 47224), (181, 47236), (183, 47278), (197, 47428), (200, 47461), (201, 47464), (203, 47515), (205, 47560), (206, 47566), (209, 47608), (215, 47671), (222, 47749), (225, 47806), (226, 47824), (230, 47857), (231, 47860), (233, 47899), (234, 47902), (238, 47983), (239, 47986), (243, 48046), (244, 48070), (247, 48121), (249, 48145), (252, 48169), (263, 48421), (266, 48478), (280, 48736), (282, 48805), (288, 48853), (295, 48940), (297, 48973), (299, 48976),

Gene: FoxtrotP1\_97 Start: 46241, Stop: 50350, Start Num: 3

Candidate Starts for FoxtrotP1\_97:

(Start: 3 @46241 has 175 MA's), (13, 46352), (15, 46376), (28, 46640), (29, 46646), (33, 46712), (36, 46748), (41, 46829), (43, 46865), (45, 46877), (46, 46883), (47, 47084), (48, 47144), (59, 47462), (67, 47615), (69, 47684), (72, 47711), (79, 47792), (84, 47834), (88, 47870), (91, 47882), (99, 47939), (103, 47972), (107, 48017), (112, 48035), (119, 48080), (126, 48128), (129, 48161), (135, 48185), (143, 48239), (149, 48266), (154, 48287), (159, 48335), (162, 48356), (171, 48482), (175, 48533), (180, 48554), (181, 48566), (183, 48608), (197, 48758), (200, 48791), (201, 48794), (203, 48845), (205, 48890), (206, 48896), (209, 48938), (215, 49001), (222, 49079), (225, 49136), (226, 49154), (230, 49187), (231, 49190), (233, 49229), (234, 49232), (238, 49313), (239, 49316), (243, 49376), (244, 49400), (247, 49451), (249, 49475), (252, 49499), (263, 49751), (266, 49808), (280, 50066), (282, 50135), (288, 50183), (295, 50270), (297, 50303), (299, 50306),

Gene: FrayBell\_103 Start: 46523, Stop: 50635, Start Num: 3

Candidate Starts for FrayBell\_103:

(Start: 3 @46523 has 175 MA's), (13, 46634), (15, 46658), (28, 46922), (29, 46928), (33, 46994), (36, 47030), (41, 47111), (43, 47147), (45, 47159), (46, 47165), (47, 47366), (59, 47747), (67, 47900), (69, 47969), (72, 47996), (79, 48077), (84, 48119), (88, 48155), (91, 48167), (99, 48224), (103, 48257), (107, 48302), (112, 48320), (119, 48365), (126, 48413), (129, 48446), (135, 48470), (143, 48524), (149, 48551), (154, 48572), (159, 48620), (162, 48641), (171, 48767), (175, 48818), (180, 48839), (181, 48851), (183, 48893), (197, 49043), (200, 49076), (201, 49079), (203, 49130), (205, 49175), (206, 49181), (209, 49223), (215, 49286), (222, 49364), (225, 49421), (226, 49439), (230, 49472), (231, 49475), (233, 49514), (234, 49517), (238, 49598), (239, 49601), (243, 49661), (244, 49685), (247, 49736), (249, 49760), (252, 49784), (263, 50036), (266, 50093), (280, 50351), (282, 50420), (288, 50468), (295, 50555), (297, 50588), (299, 50591),

Gene: FudgeTart\_97 Start: 44279, Stop: 48448, Start Num: 3

Candidate Starts for FudgeTart\_97:

(Start: 3 @44279 has 175 MA's), (13, 44390), (15, 44414), (28, 44678), (29, 44684), (33, 44750), (36, 44786), (41, 44867), (43, 44903), (45, 44915), (46, 44921), (47, 45122), (48, 45182), (61, 45551), (62, 45572), (64, 45608), (69, 45728), (79, 45842), (83, 45875), (84, 45884), (92, 45980), (94, 45998), (103, 46070), (107, 46115), (112, 46133), (119, 46178), (126, 46226), (129, 46259), (135, 46283), (143, 46337), (149, 46364), (154, 46385), (159, 46433), (162, 46454), (171, 46580), (175, 46631), (180, 46652), (181, 46664), (183, 46706), (197, 46856), (200, 46889), (201, 46892), (203, 46943), (205, 46988), (206, 46994), (209, 47036), (215, 47099), (222, 47177), (225, 47234), (226, 47252), (230,



47285), (231, 47288), (233, 47327), (234, 47330), (238, 47411), (239, 47414), (243, 47474), (244, 47498), (247, 47549), (249, 47573), (252, 47597), (263, 47849), (266, 47906), (280, 48164), (282, 48233), (288, 48281), (295, 48368), (297, 48401), (299, 48404),

Gene: Gabriel\_99 Start: 44443, Stop: 48555, Start Num: 3

Candidate Starts for Gabriel\_99:

(Start: 3 @44443 has 175 MA's), (13, 44554), (15, 44578), (28, 44842), (29, 44848), (33, 44914), (36, 44950), (41, 45031), (43, 45067), (45, 45079), (46, 45085), (47, 45286), (59, 45667), (67, 45820), (69, 45889), (72, 45916), (79, 45997), (84, 46039), (88, 46075), (91, 46087), (99, 46144), (103, 46177), (107, 46222), (112, 46240), (119, 46285), (126, 46333), (129, 46366), (135, 46390), (143, 46444), (149, 46471), (154, 46492), (159, 46540), (162, 46561), (171, 46687), (175, 46738), (180, 46759), (181, 46771), (183, 46813), (197, 46963), (200, 46996), (201, 46999), (203, 47050), (205, 47095), (206, 47101), (209, 47143), (215, 47206), (222, 47284), (225, 47341), (226, 47359), (230, 47392), (231, 47395), (233, 47434), (234, 47437), (238, 47518), (239, 47521), (243, 47581), (244, 47605), (247, 47656), (249, 47680), (252, 47704), (263, 47956), (266, 48013), (280, 48271), (282, 48340), (288, 48388), (295, 48475), (297, 48508), (299, 48511),

Gene: Gamgam\_98 Start: 44483, Stop: 48595, Start Num: 3

Candidate Starts for Gamgam\_98:

(Start: 3 @44483 has 175 MA's), (13, 44594), (15, 44618), (28, 44882), (29, 44888), (33, 44954), (36, 44990), (41, 45071), (43, 45107), (45, 45119), (46, 45125), (47, 45326), (59, 45707), (67, 45860), (69, 45929), (72, 45956), (79, 46037), (84, 46079), (88, 46115), (91, 46127), (99, 46184), (103, 46217), (107, 46262), (112, 46280), (119, 46325), (126, 46373), (129, 46406), (135, 46430), (143, 46484), (149, 46511), (154, 46532), (159, 46580), (162, 46601), (171, 46727), (175, 46778), (180, 46799), (181, 46811), (183, 46853), (197, 47003), (200, 47036), (201, 47039), (203, 47090), (205, 47135), (206, 47141), (209, 47183), (215, 47246), (222, 47324), (225, 47381), (226, 47399), (230, 47432), (231, 47435), (233, 47474), (234, 47477), (238, 47558), (239, 47561), (243, 47621), (244, 47645), (247, 47696), (249, 47720), (252, 47744), (263, 47996), (266, 48053), (280, 48311), (282, 48380), (288, 48428), (295, 48515), (297, 48548), (299, 48551),

Gene: Ghost\_97 Start: 44483, Stop: 48595, Start Num: 3

Candidate Starts for Ghost\_97:

(Start: 3 @44483 has 175 MA's), (13, 44594), (15, 44618), (28, 44882), (29, 44888), (33, 44954), (36, 44990), (41, 45071), (43, 45107), (45, 45119), (46, 45125), (47, 45326), (59, 45707), (67, 45860), (69, 45929), (72, 45956), (79, 46037), (84, 46079), (88, 46115), (91, 46127), (99, 46184), (103, 46217), (107, 46262), (112, 46280), (119, 46325), (126, 46373), (129, 46406), (135, 46430), (143, 46484), (149, 46511), (154, 46532), (159, 46580), (162, 46601), (171, 46727), (175, 46778), (180, 46799), (181, 46811), (183, 46853), (197, 47003), (200, 47036), (201, 47039), (203, 47090), (205, 47135), (206, 47141), (209, 47183), (215, 47246), (222, 47324), (225, 47381), (226, 47399), (230, 47432), (231, 47435), (233, 47474), (234, 47477), (238, 47558), (239, 47561), (243, 47621), (244, 47645), (247, 47696), (249, 47720), (252, 47744), (263, 47996), (266, 48053), (280, 48311), (282, 48380), (288, 48428), (295, 48515), (297, 48548), (299, 48551),

Gene: Gizmo\_101 Start: 46218, Stop: 50330, Start Num: 3

Candidate Starts for Gizmo\_101:

(Start: 3 @46218 has 175 MA's), (13, 46329), (15, 46353), (28, 46617), (29, 46623), (33, 46689), (36, 46725), (41, 46806), (43, 46842), (45, 46854), (46, 46860), (47, 47061), (59, 47442), (67, 47595), (69, 47664), (72, 47691), (79, 47772), (84, 47814), (88, 47850), (91, 47862), (99, 47919), (103, 47952), (107, 47997), (112, 48015), (119, 48060), (126, 48108), (129, 48141), (135, 48165), (143, 48219), (149, 48246), (154, 48267), (159, 48315), (162, 48336), (171, 48462), (175, 48513), (180, 48534), (181, 48546), (183, 48588), (197, 48738), (200, 48771), (201, 48774), (203, 48825), (205, 48870), (206, 48876), (209, 48918), (215, 48981), (222, 49059), (225, 49116), (226, 49134), (230, 49167), (231, 49170), (233, 49209), (234, 49212), (238, 49293), (239, 49296), (243, 49356), (244, 49380),

(247, 49431), (249, 49455), (252, 49479), (263, 49731), (266, 49788), (280, 50046), (282, 50115), (288, 50163), (295, 50250), (297, 50283), (299, 50286),

Gene: GlutenPhree\_97 Start: 44483, Stop: 48595, Start Num: 3

Candidate Starts for GlutenPhree\_97:

(Start: 3 @44483 has 175 MA's), (13, 44594), (15, 44618), (28, 44882), (29, 44888), (33, 44954), (36, 44990), (41, 45071), (43, 45107), (45, 45119), (46, 45125), (47, 45326), (59, 45707), (67, 45860), (69, 45929), (72, 45956), (79, 46037), (84, 46079), (88, 46115), (91, 46127), (99, 46184), (103, 46217), (107, 46262), (112, 46280), (119, 46325), (126, 46373), (129, 46406), (135, 46430), (143, 46484), (149, 46511), (154, 46532), (159, 46580), (162, 46601), (171, 46727), (175, 46778), (180, 46799), (181, 46811), (183, 46853), (197, 47003), (200, 47036), (201, 47039), (203, 47090), (205, 47135), (206, 47141), (209, 47183), (215, 47246), (222, 47324), (225, 47381), (226, 47399), (230, 47432), (231, 47435), (233, 47474), (234, 47477), (238, 47558), (239, 47561), (243, 47621), (244, 47645), (247, 47696), (249, 47720), (252, 47744), (263, 47996), (266, 48053), (280, 48311), (282, 48380), (288, 48428), (295, 48515), (297, 48548), (299, 48551),

Gene: Grasshills\_104 Start: 47262, Stop: 51122, Start Num: 3

Candidate Starts for Grasshills\_104:

(Start: 3 @47262 has 175 MA's), (13, 47373), (28, 47661), (29, 47667), (33, 47733), (36, 47769), (41, 47850), (43, 47886), (45, 47898), (46, 47904), (62, 48246), (64, 48282), (69, 48402), (77, 48486), (79, 48516), (83, 48549), (84, 48558), (92, 48654), (94, 48672), (103, 48744), (107, 48789), (112, 48807), (119, 48852), (126, 48900), (129, 48933), (135, 48957), (143, 49011), (149, 49038), (154, 49059), (159, 49107), (162, 49128), (171, 49254), (175, 49305), (180, 49326), (181, 49338), (183, 49380), (197, 49530), (200, 49563), (201, 49566), (203, 49617), (205, 49662), (206, 49668), (209, 49710), (215, 49773), (222, 49851), (225, 49908), (226, 49926), (230, 49959), (231, 49962), (233, 50001), (234, 50004), (238, 50085), (239, 50088), (243, 50148), (244, 50172), (247, 50223), (249, 50247), (252, 50271), (263, 50523), (266, 50580), (280, 50838), (282, 50907), (288, 50955), (295, 51042), (297, 51075), (299, 51078),

Gene: Greely\_99 Start: 46059, Stop: 49655, Start Num: 3

Candidate Starts for Greely\_99:

(Start: 3 @46059 has 175 MA's), (7, 46083), (15, 46194), (19, 46278), (21, 46335), (22, 46338), (29, 46464), (32, 46521), (33, 46530), (38, 46596), (46, 46701), (64, 46899), (69, 47010), (75, 47076), (79, 47124), (83, 47157), (84, 47166), (101, 47232), (122, 47343), (139, 47487), (140, 47496), (141, 47499), (144, 47526), (165, 47652), (168, 47718), (176, 47811), (180, 47832), (189, 47973), (193, 48021), (197, 48051), (203, 48135), (207, 48180), (208, 48186), (213, 48237), (215, 48261), (225, 48393), (226, 48411), (227, 48429), (234, 48483), (240, 48570), (242, 48618), (263, 49053), (266, 49101), (268, 49116), (280, 49353), (282, 49422), (285, 49440), (286, 49455), (289, 49473), (292, 49548), (301, 49644),

Gene: Grungle\_85 Start: 41901, Stop: 45761, Start Num: 3

Candidate Starts for Grungle\_85:

(Start: 3 @41901 has 175 MA's), (13, 42012), (15, 42036), (28, 42300), (29, 42306), (33, 42372), (36, 42408), (41, 42489), (43, 42525), (45, 42537), (46, 42543), (61, 42864), (62, 42885), (64, 42921), (69, 43041), (79, 43155), (83, 43188), (84, 43197), (92, 43293), (94, 43311), (103, 43383), (107, 43428), (112, 43446), (119, 43491), (126, 43539), (129, 43572), (135, 43596), (143, 43650), (149, 43677), (154, 43698), (159, 43746), (162, 43767), (171, 43893), (175, 43944), (180, 43965), (181, 43977), (183, 44019), (197, 44169), (200, 44202), (201, 44205), (203, 44256), (205, 44301), (206, 44307), (209, 44349), (215, 44412), (222, 44490), (225, 44547), (226, 44565), (230, 44598), (231, 44601), (233, 44640), (234, 44643), (238, 44724), (239, 44727), (243, 44787), (244, 44811), (247, 44862), (249, 44886), (252, 44910), (263, 45162), (266, 45219), (280, 45477), (282, 45546), (288, 45594), (295, 45681), (297, 45714), (299, 45717),

Gene: Guwapp\_97 Start: 44608, Stop: 48720, Start Num: 3

Candidate Starts for Guwapp\_97:

(Start: 3 @44608 has 175 MA's), (13, 44719), (15, 44743), (28, 45007), (29, 45013), (33, 45079), (36, 45115), (41, 45196), (43, 45232), (45, 45244), (46, 45250), (47, 45451), (59, 45832), (67, 45985), (69, 46054), (72, 46081), (79, 46162), (84, 46204), (88, 46240), (91, 46252), (99, 46309), (103, 46342), (107, 46387), (112, 46405), (119, 46450), (126, 46498), (129, 46531), (135, 46555), (143, 46609), (149, 46636), (154, 46657), (159, 46705), (162, 46726), (171, 46852), (175, 46903), (180, 46924), (181, 46936), (183, 46978), (197, 47128), (200, 47161), (201, 47164), (203, 47215), (205, 47260), (206, 47266), (209, 47308), (215, 47371), (222, 47449), (225, 47506), (226, 47524), (230, 47557), (231, 47560), (233, 47599), (234, 47602), (238, 47683), (239, 47686), (243, 47746), (244, 47770), (247, 47821), (249, 47845), (252, 47869), (263, 48121), (266, 48178), (280, 48436), (282, 48505), (288, 48553), (295, 48640), (297, 48673), (299, 48676),

Gene: Halldule\_91 Start: 42931, Stop: 46791, Start Num: 3

Candidate Starts for Halldule\_91:

(Start: 3 @42931 has 175 MA's), (13, 43042), (15, 43066), (28, 43330), (29, 43336), (33, 43402), (36, 43438), (41, 43519), (43, 43555), (45, 43567), (46, 43573), (61, 43894), (62, 43915), (64, 43951), (69, 44071), (79, 44185), (83, 44218), (84, 44227), (92, 44323), (94, 44341), (103, 44413), (107, 44458), (112, 44476), (119, 44521), (126, 44569), (129, 44602), (135, 44626), (143, 44680), (149, 44707), (154, 44728), (159, 44776), (162, 44797), (171, 44923), (175, 44974), (180, 44995), (181, 45007), (183, 45049), (197, 45199), (200, 45232), (201, 45235), (203, 45286), (205, 45331), (206, 45337), (209, 45379), (215, 45442), (222, 45520), (225, 45577), (226, 45595), (230, 45628), (231, 45631), (233, 45670), (234, 45673), (238, 45754), (239, 45757), (243, 45817), (244, 45841), (247, 45892), (249, 45916), (252, 45940), (263, 46192), (266, 46249), (280, 46507), (282, 46576), (288, 46624), (295, 46711), (297, 46744), (299, 46747),

Gene: HyRo\_89 Start: 43430, Stop: 47965, Start Num: 3

Candidate Starts for HyRo\_89:

(Start: 3 @43430 has 175 MA's), (13, 43541), (15, 43565), (28, 43829), (29, 43835), (33, 43901), (36, 43937), (41, 44018), (43, 44054), (45, 44066), (46, 44072), (47, 44273), (48, 44333), (62, 44723), (64, 44759), (69, 44879), (71, 44897), (79, 44993), (83, 45026), (84, 45035), (92, 45131), (94, 45149), (103, 45221), (108, 45341), (110, 45404), (111, 45440), (116, 45488), (120, 45539), (121, 45545), (122, 45548), (127, 45584), (130, 45632), (132, 45650), (136, 45695), (142, 45743), (143, 45776), (150, 45854), (151, 45881), (159, 45950), (162, 45971), (171, 46097), (175, 46148), (180, 46169), (181, 46181), (183, 46223), (197, 46373), (200, 46406), (201, 46409), (203, 46460), (205, 46505), (206, 46511), (209, 46553), (215, 46616), (222, 46694), (225, 46751), (226, 46769), (230, 46802), (231, 46805), (233, 46844), (234, 46847), (238, 46928), (239, 46931), (243, 46991), (244, 47015), (247, 47066), (249, 47090), (252, 47114), (263, 47366), (266, 47423), (280, 47681), (282, 47750), (288, 47798), (295, 47885), (297, 47918), (299, 47921),

Gene: I3\_103 Start: 45365, Stop: 49591, Start Num: 3

Candidate Starts for I3\_103:

(Start: 3 @45365 has 175 MA's), (13, 45476), (15, 45500), (28, 45764), (29, 45770), (33, 45836), (36, 45872), (41, 45953), (45, 46001), (46, 46007), (62, 46349), (64, 46385), (69, 46505), (71, 46523), (79, 46619), (83, 46652), (84, 46661), (92, 46757), (94, 46775), (103, 46847), (108, 46967), (110, 47030), (111, 47066), (116, 47114), (120, 47165), (121, 47171), (122, 47174), (127, 47210), (130, 47258), (132, 47276), (136, 47321), (142, 47369), (143, 47402), (145, 47426), (150, 47480), (151, 47507), (154, 47528), (159, 47576), (162, 47597), (171, 47723), (175, 47774), (180, 47795), (181, 47807), (183, 47849), (197, 47999), (200, 48032), (201, 48035), (203, 48086), (205, 48131), (206, 48137), (209, 48179), (215, 48242), (222, 48320), (225, 48377), (226, 48395), (230, 48428), (231, 48431), (233, 48470), (234, 48473), (238, 48554), (239, 48557), (243, 48617), (244, 48641), (247, 48692), (249, 48716), (252, 48740), (263, 48992), (266, 49049), (280, 49307), (282, 49376), (288, 49424), (295, 49511), (297, 49544), (299, 49547),

Gene: IkeLoa\_91 Start: 43600, Stop: 47769, Start Num: 3

Candidate Starts for IkeLoa\_91:

(Start: 3 @43600 has 175 MA's), (13, 43711), (15, 43735), (28, 43999), (29, 44005), (33, 44071), (36, 44107), (41, 44188), (43, 44224), (45, 44236), (46, 44242), (47, 44443), (48, 44503), (62, 44893), (64, 44929), (69, 45049), (71, 45067), (79, 45163), (83, 45196), (84, 45205), (92, 45301), (94, 45319), (103, 45391), (107, 45436), (112, 45454), (119, 45499), (126, 45547), (129, 45580), (135, 45604), (143, 45658), (149, 45685), (154, 45706), (159, 45754), (162, 45775), (171, 45901), (175, 45952), (180, 45973), (181, 45985), (183, 46027), (197, 46177), (200, 46210), (201, 46213), (203, 46264), (205, 46309), (206, 46315), (209, 46357), (215, 46420), (222, 46498), (225, 46555), (226, 46573), (230, 46606), (231, 46609), (233, 46648), (234, 46651), (238, 46732), (239, 46735), (243, 46795), (244, 46819), (247, 46870), (249, 46894), (252, 46918), (263, 47170), (266, 47227), (280, 47485), (282, 47554), (288, 47602), (295, 47689), (297, 47722), (299, 47725),

Gene: InigoMontoya\_99 Start: 44444, Stop: 48556, Start Num: 3

Candidate Starts for InigoMontoya\_99:

(Start: 3 @44444 has 175 MA's), (13, 44555), (15, 44579), (28, 44843), (29, 44849), (33, 44915), (36, 44951), (41, 45032), (43, 45068), (45, 45080), (46, 45086), (47, 45287), (59, 45668), (67, 45821), (69, 45890), (72, 45917), (79, 45998), (84, 46040), (88, 46076), (91, 46088), (99, 46145), (103, 46178), (107, 46223), (112, 46241), (119, 46286), (126, 46334), (129, 46367), (135, 46391), (143, 46445), (149, 46472), (154, 46493), (159, 46541), (162, 46562), (171, 46688), (175, 46739), (180, 46760), (181, 46772), (183, 46814), (197, 46964), (200, 46997), (201, 47000), (203, 47051), (205, 47096), (206, 47102), (209, 47144), (215, 47207), (222, 47285), (225, 47342), (226, 47360), (230, 47393), (231, 47396), (233, 47435), (234, 47438), (238, 47519), (239, 47522), (243, 47582), (244, 47606), (247, 47657), (249, 47681), (252, 47705), (263, 47957), (266, 48014), (280, 48272), (282, 48341), (288, 48389), (295, 48476), (297, 48509), (299, 48512),

Gene: InterFolia\_106 Start: 47458, Stop: 51570, Start Num: 3

Candidate Starts for InterFolia\_106:

(Start: 3 @47458 has 175 MA's), (13, 47569), (15, 47593), (28, 47857), (29, 47863), (33, 47929), (36, 47965), (41, 48046), (43, 48082), (45, 48094), (46, 48100), (47, 48301), (59, 48682), (67, 48835), (69, 48904), (72, 48931), (79, 49012), (84, 49054), (88, 49090), (91, 49102), (99, 49159), (103, 49192), (107, 49237), (112, 49255), (119, 49300), (126, 49348), (129, 49381), (135, 49405), (143, 49459), (149, 49486), (154, 49507), (159, 49555), (162, 49576), (171, 49702), (175, 49753), (180, 49774), (181, 49786), (183, 49828), (197, 49978), (200, 50011), (201, 50014), (203, 50065), (205, 50110), (206, 50116), (209, 50158), (215, 50221), (222, 50299), (225, 50356), (226, 50374), (230, 50407), (231, 50410), (233, 50449), (234, 50452), (238, 50533), (239, 50536), (243, 50596), (244, 50620), (247, 50671), (249, 50695), (252, 50719), (263, 50971), (266, 51028), (280, 51286), (282, 51355), (288, 51403), (295, 51490), (297, 51523), (299, 51526),

Gene: Iota\_92 Start: 44260, Stop: 48120, Start Num: 3

Candidate Starts for Iota\_92:

(Start: 3 @44260 has 175 MA's), (13, 44371), (15, 44395), (28, 44659), (29, 44665), (33, 44731), (36, 44767), (41, 44848), (45, 44896), (46, 44902), (61, 45223), (62, 45244), (64, 45280), (69, 45400), (71, 45418), (79, 45514), (83, 45547), (84, 45556), (92, 45652), (94, 45670), (103, 45742), (107, 45787), (112, 45805), (119, 45850), (126, 45898), (129, 45931), (135, 45955), (143, 46009), (149, 46036), (154, 46057), (159, 46105), (162, 46126), (171, 46252), (175, 46303), (180, 46324), (181, 46336), (183, 46378), (197, 46528), (200, 46561), (201, 46564), (203, 46615), (205, 46660), (206, 46666), (209, 46708), (215, 46771), (222, 46849), (225, 46906), (226, 46924), (230, 46957), (231, 46960), (233, 46999), (234, 47002), (238, 47083), (239, 47086), (243, 47146), (244, 47170), (247, 47221), (249, 47245), (252, 47269), (263, 47521), (266, 47578), (280, 47836), (282, 47905), (288, 47953), (295, 48040), (297, 48073), (299, 48076),

Gene: Issimir\_96 Start: 45014, Stop: 49123, Start Num: 3

Candidate Starts for Issimir\_96:

(Start: 3 @45014 has 175 MA's), (13, 45125), (15, 45149), (28, 45413), (29, 45419), (33, 45485), (36, 45521), (41, 45602), (43, 45638), (45, 45650), (46, 45656), (47, 45857), (48, 45917), (59, 46235), (67, 46388), (69, 46457), (72, 46484), (79, 46565), (84, 46607), (88, 46643), (91, 46655), (99, 46712), (103, 46745), (107, 46790), (112, 46808), (119, 46853), (126, 46901), (129, 46934), (135, 46958), (143, 47012), (149, 47039), (154, 47060), (159, 47108), (162, 47129), (171, 47255), (175, 47306), (180, 47327), (181, 47339), (183, 47381), (197, 47531), (200, 47564), (201, 47567), (203, 47618), (205, 47663), (206, 47669), (209, 47711), (215, 47774), (222, 47852), (225, 47909), (226, 47927), (230, 47960), (231, 47963), (233, 48002), (234, 48005), (238, 48086), (239, 48089), (243, 48149), (244, 48173), (247, 48224), (249, 48248), (252, 48272), (263, 48524), (266, 48581), (280, 48839), (282, 48908), (288, 48956), (295, 49043), (297, 49076), (299, 49079),

Gene: Izajani\_97 Start: 45251, Stop: 49360, Start Num: 3

Candidate Starts for Izajani\_97:

(Start: 3 @45251 has 175 MA's), (13, 45362), (15, 45386), (28, 45650), (29, 45656), (33, 45722), (36, 45758), (41, 45839), (43, 45875), (45, 45887), (46, 45893), (47, 46094), (48, 46154), (59, 46472), (67, 46625), (69, 46694), (72, 46721), (79, 46802), (84, 46844), (88, 46880), (91, 46892), (99, 46949), (103, 46982), (107, 47027), (112, 47045), (119, 47090), (126, 47138), (129, 47171), (143, 47249), (149, 47276), (159, 47345), (162, 47366), (171, 47492), (175, 47543), (180, 47564), (181, 47576), (183, 47618), (197, 47768), (200, 47801), (201, 47804), (203, 47855), (205, 47900), (206, 47906), (209, 47948), (215, 48011), (222, 48089), (225, 48146), (226, 48164), (230, 48197), (231, 48200), (233, 48239), (234, 48242), (238, 48323), (239, 48326), (243, 48386), (244, 48410), (247, 48461), (249, 48485), (252, 48509), (263, 48761), (266, 48818), (280, 49076), (282, 49145), (288, 49193), (295, 49280), (297, 49313), (299, 49316),

Gene: JPickles\_96 Start: 43714, Stop: 47826, Start Num: 3

Candidate Starts for JPickles\_96:

(Start: 3 @43714 has 175 MA's), (13, 43825), (15, 43849), (28, 44113), (29, 44119), (33, 44185), (36, 44221), (41, 44302), (43, 44338), (45, 44350), (46, 44356), (47, 44557), (59, 44938), (67, 45091), (69, 45160), (72, 45187), (79, 45268), (84, 45310), (88, 45346), (91, 45358), (99, 45415), (103, 45448), (107, 45493), (112, 45511), (119, 45556), (126, 45604), (129, 45637), (135, 45661), (143, 45715), (149, 45742), (154, 45763), (159, 45811), (162, 45832), (171, 45958), (175, 46009), (180, 46030), (181, 46042), (183, 46084), (197, 46234), (200, 46267), (201, 46270), (203, 46321), (205, 46366), (206, 46372), (209, 46414), (215, 46477), (222, 46555), (225, 46612), (226, 46630), (230, 46663), (231, 46666), (233, 46705), (234, 46708), (238, 46789), (239, 46792), (243, 46852), (244, 46876), (247, 46927), (249, 46951), (252, 46975), (263, 47227), (266, 47284), (280, 47542), (282, 47611), (288, 47659), (295, 47746), (297, 47779), (299, 47782),

Gene: Janiyra\_99 Start: 44529, Stop: 48638, Start Num: 3

Candidate Starts for Janiyra\_99:

(Start: 3 @44529 has 175 MA's), (13, 44640), (15, 44664), (28, 44928), (29, 44934), (33, 45000), (36, 45036), (41, 45117), (43, 45153), (45, 45165), (46, 45171), (47, 45372), (48, 45432), (59, 45750), (67, 45903), (69, 45972), (72, 45999), (79, 46080), (84, 46122), (88, 46158), (91, 46170), (99, 46227), (103, 46260), (107, 46305), (112, 46323), (119, 46368), (126, 46416), (129, 46449), (143, 46527), (149, 46554), (159, 46623), (162, 46644), (171, 46770), (175, 46821), (180, 46842), (181, 46854), (183, 46896), (197, 47046), (200, 47079), (201, 47082), (203, 47133), (205, 47178), (206, 47184), (209, 47226), (215, 47289), (222, 47367), (225, 47424), (226, 47442), (230, 47475), (231, 47478), (233, 47517), (234, 47520), (238, 47601), (239, 47604), (243, 47664), (244, 47688), (247, 47739), (249, 47763), (252, 47787), (263, 48039), (266, 48096), (280, 48354), (282, 48423), (288, 48471), (295, 48558), (297, 48591), (299, 48594),

Gene: JayJay\_103 Start: 46545, Stop: 50405, Start Num: 3

Candidate Starts for JayJay\_103:

(Start: 3 @46545 has 175 MA's), (13, 46656), (15, 46680), (28, 46944), (29, 46950), (33, 47016), (36, 47052), (41, 47133), (43, 47169), (45, 47181), (46, 47187), (61, 47508), (62, 47529), (64, 47565), (69, 47685), (79, 47799), (83, 47832), (84, 47841), (92, 47937), (94, 47955), (103, 48027), (107, 48072), (112, 48090), (119, 48135), (126, 48183), (129, 48216), (135, 48240), (143, 48294), (149, 48321), (154, 48342), (159, 48390), (162, 48411), (171, 48537), (175, 48588), (180, 48609), (181, 48621), (183, 48663), (197, 48813), (200, 48846), (201, 48849), (203, 48900), (205, 48945), (206, 48951), (209, 48993), (215, 49056), (222, 49134), (225, 49191), (226, 49209), (230, 49242), (231, 49245), (233, 49284), (234, 49287), (238, 49368), (239, 49371), (243, 49431), (244, 49455), (247, 49506), (249, 49530), (252, 49554), (263, 49806), (266, 49863), (280, 50121), (282, 50190), (288, 50238), (295, 50325), (297, 50358), (299, 50361),

Gene: Jaygup\_98 Start: 45239, Stop: 49351, Start Num: 3

Candidate Starts for Jaygup\_98:

(Start: 3 @45239 has 175 MA's), (13, 45350), (15, 45374), (28, 45638), (29, 45644), (33, 45710), (36, 45746), (41, 45827), (43, 45863), (45, 45875), (46, 45881), (47, 46082), (59, 46463), (67, 46616), (69, 46685), (72, 46712), (79, 46793), (84, 46835), (88, 46871), (91, 46883), (99, 46940), (103, 46973), (107, 47018), (112, 47036), (119, 47081), (126, 47129), (129, 47162), (135, 47186), (143, 47240), (149, 47267), (154, 47288), (159, 47336), (162, 47357), (171, 47483), (175, 47534), (180, 47555), (181, 47567), (183, 47609), (197, 47759), (200, 47792), (201, 47795), (203, 47846), (205, 47891), (206, 47897), (209, 47939), (215, 48002), (222, 48080), (225, 48137), (226, 48155), (230, 48188), (231, 48191), (233, 48230), (234, 48233), (238, 48314), (239, 48317), (243, 48377), (244, 48401), (247, 48452), (249, 48476), (252, 48500), (263, 48752), (266, 48809), (280, 49067), (282, 49136), (288, 49184), (295, 49271), (297, 49304), (299, 49307),

Gene: JeanGrey\_30 Start: 18216, Stop: 20945, Start Num: 65

Candidate Starts for JeanGrey\_30:

(65, 18216), (84, 18456), (105, 18618), (106, 18624), (125, 18753), (137, 18852), (152, 18933), (164, 19029), (167, 19092), (187, 19317), (217, 19635), (253, 20133), (257, 20223), (276, 20586), (279, 20673), (280, 20685), (283, 20757),

Gene: Jedediah\_101 Start: 45772, Stop: 49884, Start Num: 3

Candidate Starts for Jedediah\_101:

(Start: 3 @45772 has 175 MA's), (13, 45883), (15, 45907), (28, 46171), (29, 46177), (33, 46243), (36, 46279), (41, 46360), (43, 46396), (45, 46408), (46, 46414), (47, 46615), (59, 46996), (67, 47149), (69, 47218), (72, 47245), (79, 47326), (84, 47368), (88, 47404), (91, 47416), (99, 47473), (103, 47506), (107, 47551), (112, 47569), (119, 47614), (126, 47662), (129, 47695), (135, 47719), (143, 47773), (149, 47800), (154, 47821), (159, 47869), (162, 47890), (171, 48016), (175, 48067), (180, 48088), (181, 48100), (183, 48142), (197, 48292), (200, 48325), (201, 48328), (203, 48379), (205, 48424), (206, 48430), (209, 48472), (215, 48535), (222, 48613), (225, 48670), (226, 48688), (230, 48721), (231, 48724), (233, 48763), (234, 48766), (238, 48847), (239, 48850), (243, 48910), (244, 48934), (247, 48985), (249, 49009), (252, 49033), (263, 49285), (266, 49342), (280, 49600), (282, 49669), (288, 49717), (295, 49804), (297, 49837), (299, 49840),

Gene: Jemmno\_98 Start: 45219, Stop: 49331, Start Num: 3

Candidate Starts for Jemmno\_98:

(Start: 3 @45219 has 175 MA's), (13, 45330), (15, 45354), (28, 45618), (29, 45624), (33, 45690), (36, 45726), (41, 45807), (43, 45843), (45, 45855), (46, 45861), (47, 46062), (59, 46443), (67, 46596), (69, 46665), (72, 46692), (79, 46773), (84, 46815), (88, 46851), (91, 46863), (99, 46920), (103, 46953), (107, 46998), (112, 47016), (119, 47061), (126, 47109), (129, 47142), (135, 47166), (143, 47220), (149, 47247), (154, 47268), (159, 47316), (162, 47337), (171, 47463), (175, 47514), (180, 47535), (181, 47547), (183, 47589), (197, 47739), (200, 47772), (201, 47775), (203, 47826), (205, 47871), (206, 47877), (209, 47919), (215, 47982), (222, 48060), (225, 48117), (226, 48135), (230, 48168),

(231, 48171), (233, 48210), (234, 48213), (238, 48294), (239, 48297), (243, 48357), (244, 48381), (247, 48432), (249, 48456), (252, 48480), (263, 48732), (266, 48789), (280, 49047), (282, 49116), (288, 49164), (295, 49251), (297, 49284), (299, 49287),

Gene: Jessibeth14\_96 Start: 44856, Stop: 48965, Start Num: 3

Candidate Starts for Jessibeth14\_96:

(Start: 3 @44856 has 175 MA's), (13, 44967), (15, 44991), (28, 45255), (29, 45261), (33, 45327), (36, 45363), (41, 45444), (43, 45480), (45, 45492), (46, 45498), (47, 45699), (48, 45759), (59, 46077), (67, 46230), (69, 46299), (72, 46326), (79, 46407), (84, 46449), (88, 46485), (91, 46497), (99, 46554), (103, 46587), (107, 46632), (112, 46650), (119, 46695), (126, 46743), (129, 46776), (143, 46854), (149, 46881), (159, 46950), (162, 46971), (171, 47097), (175, 47148), (180, 47169), (181, 47181), (183, 47223), (197, 47373), (200, 47406), (201, 47409), (203, 47460), (205, 47505), (206, 47511), (209, 47553), (215, 47616), (222, 47694), (225, 47751), (226, 47769), (230, 47802), (231, 47805), (233, 47844), (234, 47847), (238, 47928), (239, 47931), (243, 47991), (244, 48015), (247, 48066), (249, 48090), (252, 48114), (263, 48366), (266, 48423), (280, 48681), (282, 48750), (288, 48798), (295, 48885), (297, 48918), (299, 48921),

Gene: Jezreel\_95 Start: 44934, Stop: 49103, Start Num: 3

Candidate Starts for Jezreel\_95:

(Start: 3 @44934 has 175 MA's), (13, 45045), (15, 45069), (28, 45333), (29, 45339), (33, 45405), (36, 45441), (41, 45522), (43, 45558), (45, 45570), (46, 45576), (47, 45777), (48, 45837), (62, 46227), (64, 46263), (69, 46383), (71, 46401), (79, 46497), (83, 46530), (84, 46539), (92, 46635), (94, 46653), (103, 46725), (107, 46770), (112, 46788), (119, 46833), (126, 46881), (129, 46914), (135, 46938), (143, 46992), (149, 47019), (154, 47040), (159, 47088), (162, 47109), (171, 47235), (175, 47286), (180, 47307), (181, 47319), (183, 47361), (197, 47511), (200, 47544), (201, 47547), (203, 47598), (205, 47643), (206, 47649), (209, 47691), (215, 47754), (222, 47832), (225, 47889), (226, 47907), (230, 47940), (231, 47943), (233, 47982), (234, 47985), (238, 48066), (239, 48069), (243, 48129), (244, 48153), (247, 48204), (249, 48228), (252, 48252), (263, 48504), (266, 48561), (280, 48819), (282, 48888), (288, 48936), (295, 49023), (297, 49056), (299, 49059),

Gene: JigglyPuff\_105 Start: 47434, Stop: 51294, Start Num: 3

Candidate Starts for JigglyPuff\_105:

(Start: 3 @47434 has 175 MA's), (13, 47545), (15, 47569), (28, 47833), (29, 47839), (33, 47905), (36, 47941), (41, 48022), (43, 48058), (45, 48070), (46, 48076), (62, 48418), (64, 48454), (69, 48574), (71, 48592), (79, 48688), (83, 48721), (84, 48730), (92, 48826), (94, 48844), (103, 48916), (107, 48961), (112, 48979), (119, 49024), (126, 49072), (129, 49105), (135, 49129), (143, 49183), (149, 49210), (154, 49231), (159, 49279), (162, 49300), (171, 49426), (175, 49477), (180, 49498), (181, 49510), (183, 49552), (197, 49702), (200, 49735), (201, 49738), (203, 49789), (205, 49834), (206, 49840), (209, 49882), (215, 49945), (222, 50023), (225, 50080), (226, 50098), (230, 50131), (231, 50134), (233, 50173), (234, 50176), (238, 50257), (239, 50260), (243, 50320), (244, 50344), (247, 50395), (249, 50419), (252, 50443), (263, 50695), (266, 50752), (280, 51010), (282, 51079), (288, 51127), (295, 51214), (297, 51247), (299, 51250),

Gene: JulietS\_92 Start: 42782, Stop: 46642, Start Num: 3

Candidate Starts for JulietS\_92:

(Start: 3 @42782 has 175 MA's), (13, 42893), (15, 42917), (28, 43181), (29, 43187), (33, 43253), (36, 43289), (41, 43370), (43, 43406), (45, 43418), (46, 43424), (61, 43745), (62, 43766), (64, 43802), (69, 43922), (79, 44036), (83, 44069), (84, 44078), (92, 44174), (94, 44192), (103, 44264), (107, 44309), (112, 44327), (119, 44372), (126, 44420), (129, 44453), (135, 44477), (143, 44531), (149, 44558), (154, 44579), (159, 44627), (162, 44648), (171, 44774), (175, 44825), (180, 44846), (181, 44858), (183, 44900), (197, 45050), (200, 45083), (201, 45086), (203, 45137), (205, 45182), (206, 45188), (209, 45230), (215, 45293), (222, 45371), (225, 45428), (226, 45446), (230, 45479), (231, 45482), (233, 45521), (234, 45524), (238, 45605), (239, 45608), (243, 45668), (244, 45692), (247, 45743),

(249, 45767), (252, 45791), (263, 46043), (266, 46100), (280, 46358), (282, 46427), (288, 46475), (295, 46562), (297, 46595), (299, 46598),

Gene: JustHall\_94 Start: 44391, Stop: 48503, Start Num: 3

Candidate Starts for JustHall\_94:

(Start: 3 @44391 has 175 MA's), (13, 44502), (15, 44526), (28, 44790), (29, 44796), (33, 44862), (36, 44898), (41, 44979), (43, 45015), (45, 45027), (46, 45033), (47, 45234), (59, 45615), (67, 45768), (69, 45837), (72, 45864), (79, 45945), (84, 45987), (88, 46023), (91, 46035), (99, 46092), (103, 46125), (107, 46170), (112, 46188), (119, 46233), (126, 46281), (129, 46314), (135, 46338), (143, 46392), (149, 46419), (154, 46440), (159, 46488), (162, 46509), (171, 46635), (175, 46686), (180, 46707), (181, 46719), (183, 46761), (197, 46911), (200, 46944), (201, 46947), (203, 46998), (205, 47043), (206, 47049), (209, 47091), (215, 47154), (222, 47232), (225, 47289), (226, 47307), (230, 47340), (231, 47343), (233, 47382), (234, 47385), (238, 47466), (239, 47469), (243, 47529), (244, 47553), (247, 47604), (249, 47628), (252, 47652), (263, 47904), (266, 47961), (280, 48219), (282, 48288), (288, 48336), (295, 48423), (297, 48456), (299, 48459),

Gene: Kamryn\_97 Start: 45595, Stop: 49764, Start Num: 3

Candidate Starts for Kamryn\_97:

(Start: 3 @45595 has 175 MA's), (13, 45706), (15, 45730), (28, 45994), (29, 46000), (33, 46066), (36, 46102), (41, 46183), (43, 46219), (45, 46231), (46, 46237), (47, 46438), (48, 46498), (62, 46888), (64, 46924), (69, 47044), (71, 47062), (79, 47158), (83, 47191), (84, 47200), (92, 47296), (94, 47314), (103, 47386), (107, 47431), (112, 47449), (119, 47494), (126, 47542), (129, 47575), (135, 47599), (143, 47653), (149, 47680), (154, 47701), (159, 47749), (162, 47770), (171, 47896), (175, 47947), (180, 47968), (181, 47980), (183, 48022), (197, 48172), (200, 48205), (201, 48208), (203, 48259), (205, 48304), (206, 48310), (209, 48352), (215, 48415), (222, 48493), (225, 48550), (226, 48568), (230, 48601), (231, 48604), (233, 48643), (234, 48646), (238, 48727), (239, 48730), (243, 48790), (244, 48814), (247, 48865), (249, 48889), (252, 48913), (263, 49165), (266, 49222), (280, 49480), (282, 49549), (288, 49597), (295, 49684), (297, 49717), (299, 49720),

Gene: Kboogie\_101 Start: 44035, Stop: 48144, Start Num: 3

Candidate Starts for Kboogie\_101:

(Start: 3 @44035 has 175 MA's), (13, 44146), (15, 44170), (28, 44434), (29, 44440), (33, 44506), (36, 44542), (41, 44623), (43, 44659), (45, 44671), (46, 44677), (47, 44878), (48, 44938), (59, 45256), (67, 45409), (69, 45478), (72, 45505), (79, 45586), (84, 45628), (88, 45664), (91, 45676), (99, 45733), (103, 45766), (107, 45811), (112, 45829), (119, 45874), (126, 45922), (129, 45955), (143, 46033), (149, 46060), (159, 46129), (162, 46150), (171, 46276), (175, 46327), (180, 46348), (181, 46360), (183, 46402), (197, 46552), (200, 46585), (201, 46588), (203, 46639), (205, 46684), (206, 46690), (209, 46732), (215, 46795), (222, 46873), (225, 46930), (226, 46948), (230, 46981), (231, 46984), (233, 47023), (234, 47026), (238, 47107), (239, 47110), (243, 47170), (244, 47194), (247, 47245), (249, 47269), (252, 47293), (263, 47545), (266, 47602), (280, 47860), (282, 47929), (288, 47977), (295, 48064), (297, 48097), (299, 48100),

Gene: Khaleesi\_96 Start: 44818, Stop: 48927, Start Num: 3

Candidate Starts for Khaleesi\_96:

(Start: 3 @44818 has 175 MA's), (13, 44929), (15, 44953), (28, 45217), (29, 45223), (33, 45289), (36, 45325), (41, 45406), (43, 45442), (45, 45454), (46, 45460), (47, 45661), (48, 45721), (59, 46039), (67, 46192), (69, 46261), (72, 46288), (79, 46369), (84, 46411), (88, 46447), (91, 46459), (99, 46516), (103, 46549), (107, 46594), (112, 46612), (119, 46657), (126, 46705), (129, 46738), (143, 46816), (149, 46843), (159, 46912), (162, 46933), (171, 47059), (175, 47110), (180, 47131), (181, 47143), (183, 47185), (197, 47335), (200, 47368), (201, 47371), (203, 47422), (205, 47467), (206, 47473), (209, 47515), (215, 47578), (222, 47656), (225, 47713), (226, 47731), (230, 47764), (231, 47767), (233, 47806), (234, 47809), (238, 47890), (239, 47893), (243, 47953), (244, 47977), (247, 48028), (249, 48052), (252, 48076), (263, 48328), (266, 48385), (280, 48643), (282, 48712), (288, 48760), (295,



48847), (297, 48880), (299, 48883),

Gene: Koguma\_94 Start: 43002, Stop: 46862, Start Num: 3

Candidate Starts for Koguma\_94:

(Start: 3 @43002 has 175 MA's), (13, 43113), (15, 43137), (28, 43401), (29, 43407), (33, 43473), (36, 43509), (41, 43590), (45, 43638), (46, 43644), (61, 43965), (62, 43986), (64, 44022), (69, 44142), (79, 44256), (83, 44289), (84, 44298), (92, 44394), (94, 44412), (103, 44484), (107, 44529), (112, 44547), (119, 44592), (126, 44640), (129, 44673), (135, 44697), (143, 44751), (149, 44778), (154, 44799), (159, 44847), (162, 44868), (171, 44994), (175, 45045), (180, 45066), (181, 45078), (183, 45120), (197, 45270), (200, 45303), (201, 45306), (203, 45357), (205, 45402), (206, 45408), (209, 45450), (215, 45513), (222, 45591), (225, 45648), (226, 45666), (230, 45699), (231, 45702), (233, 45741), (234, 45744), (238, 45825), (239, 45828), (243, 45888), (244, 45912), (247, 45963), (249, 45987), (252, 46011), (263, 46263), (266, 46320), (280, 46578), (282, 46647), (288, 46695), (295, 46782), (297, 46815), (299, 46818),

Gene: LRRHood\_92 Start: 44821, Stop: 48681, Start Num: 3

Candidate Starts for LRRHood\_92:

(Start: 3 @44821 has 175 MA's), (13, 44932), (15, 44956), (28, 45220), (29, 45226), (33, 45292), (36, 45328), (41, 45409), (43, 45445), (45, 45457), (46, 45463), (61, 45784), (62, 45805), (64, 45841), (69, 45961), (79, 46075), (83, 46108), (84, 46117), (92, 46213), (94, 46231), (103, 46303), (107, 46348), (112, 46366), (119, 46411), (126, 46459), (129, 46492), (135, 46516), (143, 46570), (149, 46597), (154, 46618), (159, 46666), (162, 46687), (171, 46813), (175, 46864), (180, 46885), (181, 46897), (183, 46939), (197, 47089), (200, 47122), (201, 47125), (203, 47176), (205, 47221), (206, 47227), (209, 47269), (215, 47332), (222, 47410), (225, 47467), (226, 47485), (230, 47518), (231, 47521), (233, 47560), (234, 47563), (238, 47644), (239, 47647), (243, 47707), (244, 47731), (247, 47782), (249, 47806), (252, 47830), (263, 48082), (266, 48139), (280, 48397), (282, 48466), (288, 48514), (295, 48601), (297, 48634), (299, 48637),

Gene: Latch\_98 Start: 44483, Stop: 48595, Start Num: 3

Candidate Starts for Latch\_98:

(Start: 3 @44483 has 175 MA's), (13, 44594), (15, 44618), (28, 44882), (29, 44888), (33, 44954), (36, 44990), (41, 45071), (43, 45107), (45, 45119), (46, 45125), (47, 45326), (59, 45707), (67, 45860), (69, 45929), (72, 45956), (79, 46037), (84, 46079), (88, 46115), (91, 46127), (99, 46184), (103, 46217), (107, 46262), (112, 46280), (119, 46325), (126, 46373), (129, 46406), (135, 46430), (143, 46484), (149, 46511), (154, 46532), (159, 46580), (162, 46601), (171, 46727), (175, 46778), (180, 46799), (181, 46811), (183, 46853), (197, 47003), (200, 47036), (201, 47039), (203, 47090), (205, 47135), (206, 47141), (209, 47183), (215, 47246), (222, 47324), (225, 47381), (226, 47399), (230, 47432), (231, 47435), (233, 47474), (234, 47477), (238, 47558), (239, 47561), (243, 47621), (244, 47645), (247, 47696), (249, 47720), (252, 47744), (263, 47996), (266, 48053), (280, 48311), (282, 48380), (288, 48428), (295, 48515), (297, 48548), (299, 48551),

Gene: Lee7\_95 Start: 45452, Stop: 49561, Start Num: 3

Candidate Starts for Lee7\_95:

(Start: 3 @45452 has 175 MA's), (13, 45563), (15, 45587), (28, 45851), (29, 45857), (33, 45923), (36, 45959), (41, 46040), (43, 46076), (45, 46088), (46, 46094), (47, 46295), (48, 46355), (59, 46673), (67, 46826), (69, 46895), (72, 46922), (79, 47003), (84, 47045), (88, 47081), (91, 47093), (99, 47150), (103, 47183), (107, 47228), (112, 47246), (119, 47291), (126, 47339), (129, 47372), (143, 47450), (149, 47477), (159, 47546), (162, 47567), (171, 47693), (175, 47744), (180, 47765), (181, 47777), (183, 47819), (197, 47969), (200, 48002), (201, 48005), (203, 48056), (205, 48101), (206, 48107), (209, 48149), (215, 48212), (222, 48290), (225, 48347), (226, 48365), (230, 48398), (231, 48401), (233, 48440), (234, 48443), (238, 48524), (239, 48527), (243, 48587), (244, 48611), (247, 48662), (249, 48686), (252, 48710), (263, 48962), (266, 49019), (280, 49277), (282, 49346), (288, 49394), (295, 49481), (297, 49514), (299, 49517),

Gene: Lethe\_97 Start: 45266, Stop: 49126, Start Num: 3

Candidate Starts for Lethe\_97:

(Start: 3 @45266 has 175 MA's), (13, 45377), (15, 45401), (28, 45665), (29, 45671), (33, 45737), (36, 45773), (41, 45854), (43, 45890), (45, 45902), (46, 45908), (50, 46040), (61, 46229), (62, 46250), (64, 46286), (69, 46406), (79, 46520), (83, 46553), (84, 46562), (92, 46658), (94, 46676), (103, 46748), (107, 46793), (112, 46811), (119, 46856), (126, 46904), (129, 46937), (135, 46961), (143, 47015), (149, 47042), (154, 47063), (159, 47111), (162, 47132), (171, 47258), (175, 47309), (180, 47330), (181, 47342), (183, 47384), (197, 47534), (200, 47567), (201, 47570), (203, 47621), (205, 47666), (206, 47672), (209, 47714), (215, 47777), (222, 47855), (225, 47912), (226, 47930), (230, 47963), (231, 47966), (233, 48005), (234, 48008), (238, 48089), (239, 48092), (243, 48152), (244, 48176), (247, 48227), (249, 48251), (252, 48275), (263, 48527), (266, 48584), (280, 48842), (282, 48911), (288, 48959), (295, 49046), (297, 49079), (299, 49082),

Gene: LifeSavor\_97 Start: 45171, Stop: 49283, Start Num: 3

Candidate Starts for LifeSavor\_97:

(Start: 3 @45171 has 175 MA's), (13, 45282), (15, 45306), (28, 45570), (29, 45576), (33, 45642), (36, 45678), (41, 45759), (43, 45795), (45, 45807), (46, 45813), (47, 46014), (59, 46395), (67, 46548), (69, 46617), (72, 46644), (79, 46725), (84, 46767), (88, 46803), (91, 46815), (99, 46872), (103, 46905), (107, 46950), (112, 46968), (119, 47013), (126, 47061), (129, 47094), (135, 47118), (143, 47172), (149, 47199), (154, 47220), (159, 47268), (162, 47289), (171, 47415), (175, 47466), (180, 47487), (181, 47499), (183, 47541), (197, 47691), (200, 47724), (201, 47727), (203, 47778), (205, 47823), (206, 47829), (209, 47871), (215, 47934), (222, 48012), (225, 48069), (226, 48087), (230, 48120), (231, 48123), (233, 48162), (234, 48165), (238, 48246), (239, 48249), (243, 48309), (244, 48333), (247, 48384), (249, 48408), (252, 48432), (263, 48684), (266, 48741), (280, 48999), (282, 49068), (288, 49116), (295, 49203), (297, 49236), (299, 49239),

Gene: LinStu\_97 Start: 45409, Stop: 49269, Start Num: 3

Candidate Starts for LinStu\_97:

(Start: 3 @45409 has 175 MA's), (13, 45520), (15, 45544), (28, 45808), (29, 45814), (33, 45880), (36, 45916), (41, 45997), (43, 46033), (45, 46045), (46, 46051), (61, 46372), (62, 46393), (64, 46429), (69, 46549), (79, 46663), (83, 46696), (84, 46705), (92, 46801), (94, 46819), (103, 46891), (107, 46936), (112, 46954), (119, 46999), (126, 47047), (129, 47080), (135, 47104), (143, 47158), (149, 47185), (154, 47206), (159, 47254), (162, 47275), (171, 47401), (175, 47452), (180, 47473), (181, 47485), (183, 47527), (197, 47677), (200, 47710), (201, 47713), (203, 47764), (205, 47809), (206, 47815), (209, 47857), (215, 47920), (222, 47998), (225, 48055), (226, 48073), (230, 48106), (231, 48109), (233, 48148), (234, 48151), (238, 48232), (239, 48235), (243, 48295), (244, 48319), (247, 48370), (249, 48394), (252, 48418), (263, 48670), (266, 48727), (280, 48985), (282, 49054), (288, 49102), (295, 49189), (297, 49222), (299, 49225),

Gene: Littleton\_97 Start: 44390, Stop: 48502, Start Num: 3

Candidate Starts for Littleton\_97:

(Start: 3 @44390 has 175 MA's), (13, 44501), (15, 44525), (28, 44789), (29, 44795), (33, 44861), (36, 44897), (41, 44978), (43, 45014), (45, 45026), (46, 45032), (47, 45233), (59, 45614), (67, 45767), (69, 45836), (72, 45863), (79, 45944), (84, 45986), (88, 46022), (91, 46034), (99, 46091), (103, 46124), (107, 46169), (112, 46187), (119, 46232), (126, 46280), (129, 46313), (143, 46391), (149, 46418), (154, 46439), (159, 46487), (162, 46508), (171, 46634), (175, 46685), (180, 46706), (181, 46718), (183, 46760), (197, 46910), (200, 46943), (201, 46946), (203, 46997), (205, 47042), (206, 47048), (209, 47090), (215, 47153), (222, 47231), (225, 47288), (226, 47306), (230, 47339), (231, 47342), (233, 47381), (234, 47384), (238, 47465), (239, 47468), (243, 47528), (244, 47552), (247, 47603), (249, 47627), (252, 47651), (263, 47903), (266, 47960), (280, 48218), (282, 48287), (288, 48335), (295, 48422), (297, 48455), (299, 48458),

Gene: Loanshark\_97 Start: 45041, Stop: 49150, Start Num: 3

Candidate Starts for Loanshark\_97:

(Start: 3 @45041 has 175 MA's), (13, 45152), (15, 45176), (28, 45440), (29, 45446), (33, 45512), (36, 45548), (41, 45629), (43, 45665), (45, 45677), (46, 45683), (47, 45884), (48, 45944), (59, 46262), (67, 46415), (69, 46484), (72, 46511), (79, 46592), (84, 46634), (88, 46670), (91, 46682), (99, 46739), (103, 46772), (107, 46817), (112, 46835), (119, 46880), (126, 46928), (129, 46961), (143, 47039), (149, 47066), (159, 47135), (162, 47156), (171, 47282), (175, 47333), (180, 47354), (181, 47366), (183, 47408), (197, 47558), (200, 47591), (201, 47594), (203, 47645), (205, 47690), (206, 47696), (209, 47738), (215, 47801), (222, 47879), (225, 47936), (226, 47954), (230, 47987), (231, 47990), (233, 48029), (234, 48032), (238, 48113), (239, 48116), (243, 48176), (244, 48200), (247, 48251), (249, 48275), (252, 48299), (263, 48551), (266, 48608), (280, 48866), (282, 48935), (288, 48983), (295, 49070), (297, 49103), (299, 49106),

Gene: LolaVinca\_99 Start: 46177, Stop: 50289, Start Num: 3

Candidate Starts for LolaVinca\_99:

(Start: 3 @46177 has 175 MA's), (13, 46288), (15, 46312), (28, 46576), (29, 46582), (33, 46648), (36, 46684), (41, 46765), (43, 46801), (45, 46813), (46, 46819), (47, 47020), (59, 47401), (67, 47554), (69, 47623), (72, 47650), (79, 47731), (84, 47773), (88, 47809), (91, 47821), (99, 47878), (103, 47911), (107, 47956), (112, 47974), (119, 48019), (126, 48067), (129, 48100), (135, 48124), (143, 48178), (149, 48205), (154, 48226), (159, 48274), (162, 48295), (171, 48421), (175, 48472), (180, 48493), (181, 48505), (183, 48547), (197, 48697), (200, 48730), (201, 48733), (203, 48784), (205, 48829), (206, 48835), (209, 48877), (215, 48940), (222, 49018), (225, 49075), (226, 49093), (230, 49126), (231, 49129), (233, 49168), (234, 49171), (238, 49252), (239, 49255), (243, 49315), (244, 49339), (247, 49390), (249, 49414), (252, 49438), (263, 49690), (266, 49747), (280, 50005), (282, 50074), (288, 50122), (295, 50209), (297, 50242), (299, 50245),

Gene: LordLeafolot\_102 Start: 47141, Stop: 51253, Start Num: 3

Candidate Starts for LordLeafolot\_102:

(Start: 3 @47141 has 175 MA's), (13, 47252), (15, 47276), (28, 47540), (29, 47546), (33, 47612), (36, 47648), (41, 47729), (43, 47765), (45, 47777), (46, 47783), (47, 47984), (59, 48365), (67, 48518), (69, 48587), (72, 48614), (79, 48695), (84, 48737), (88, 48773), (91, 48785), (99, 48842), (103, 48875), (107, 48920), (112, 48938), (119, 48983), (126, 49031), (129, 49064), (135, 49088), (143, 49142), (149, 49169), (154, 49190), (159, 49238), (162, 49259), (171, 49385), (175, 49436), (180, 49457), (181, 49469), (183, 49511), (197, 49661), (200, 49694), (201, 49697), (203, 49748), (205, 49793), (206, 49799), (209, 49841), (215, 49904), (222, 49982), (225, 50039), (226, 50057), (230, 50090), (231, 50093), (233, 50132), (234, 50135), (238, 50216), (239, 50219), (243, 50279), (244, 50303), (247, 50354), (249, 50378), (252, 50402), (263, 50654), (266, 50711), (280, 50969), (282, 51038), (288, 51086), (295, 51173), (297, 51206), (299, 51209),

Gene: Lukilu\_88 Start: 44682, Stop: 48791, Start Num: 3

Candidate Starts for Lukilu\_88:

(Start: 3 @44682 has 175 MA's), (13, 44793), (15, 44817), (28, 45081), (29, 45087), (33, 45153), (36, 45189), (41, 45270), (43, 45306), (45, 45318), (46, 45324), (47, 45525), (48, 45585), (59, 45903), (67, 46056), (69, 46125), (72, 46152), (79, 46233), (84, 46275), (88, 46311), (91, 46323), (99, 46380), (103, 46413), (107, 46458), (112, 46476), (119, 46521), (126, 46569), (129, 46602), (143, 46680), (149, 46707), (159, 46776), (162, 46797), (171, 46923), (175, 46974), (180, 46995), (181, 47007), (183, 47049), (197, 47199), (200, 47232), (201, 47235), (203, 47286), (205, 47331), (206, 47337), (209, 47379), (215, 47442), (222, 47520), (225, 47577), (226, 47595), (230, 47628), (231, 47631), (233, 47670), (234, 47673), (238, 47754), (239, 47757), (243, 47817), (244, 47841), (247, 47892), (249, 47916), (252, 47940), (263, 48192), (266, 48249), (280, 48507), (282, 48576), (288, 48624), (295, 48711), (297, 48744), (299, 48747),

Gene: Maby2021\_97 Start: 44916, Stop: 49025, Start Num: 3

Candidate Starts for Maby2021\_97:

(Start: 3 @44916 has 175 MA's), (13, 45027), (15, 45051), (28, 45315), (29, 45321), (33, 45387), (36, 45423), (41, 45504), (43, 45540), (45, 45552), (46, 45558), (47, 45759), (48, 45819), (59, 46137), (67, 46290), (69, 46359), (72, 46386), (79, 46467), (84, 46509), (88, 46545), (91, 46557), (99, 46614), (103, 46647), (107, 46692), (112, 46710), (119, 46755), (126, 46803), (129, 46836), (143, 46914), (149, 46941), (159, 47010), (162, 47031), (171, 47157), (175, 47208), (180, 47229), (181, 47241), (183, 47283), (197, 47433), (200, 47466), (201, 47469), (203, 47520), (205, 47565), (206, 47571), (209, 47613), (215, 47676), (222, 47754), (225, 47811), (226, 47829), (230, 47862), (231, 47865), (233, 47904), (234, 47907), (238, 47988), (239, 47991), (243, 48051), (244, 48075), (247, 48126), (249, 48150), (252, 48174), (263, 48426), (266, 48483), (280, 48741), (282, 48810), (288, 48858), (295, 48945), (297, 48978), (299, 48981),

Gene: Mangeria\_97 Start: 45021, Stop: 49247, Start Num: 3

Candidate Starts for Mangeria\_97:

(Start: 3 @45021 has 175 MA's), (13, 45132), (15, 45156), (28, 45420), (29, 45426), (33, 45492), (36, 45528), (41, 45609), (43, 45645), (45, 45657), (46, 45663), (62, 46005), (64, 46041), (69, 46161), (71, 46179), (79, 46275), (83, 46308), (84, 46317), (92, 46413), (94, 46431), (103, 46503), (108, 46623), (110, 46686), (111, 46722), (116, 46770), (120, 46821), (121, 46827), (122, 46830), (127, 46866), (130, 46914), (132, 46932), (136, 46977), (142, 47025), (143, 47058), (145, 47082), (150, 47136), (151, 47163), (154, 47184), (159, 47232), (162, 47253), (171, 47379), (175, 47430), (180, 47451), (181, 47463), (183, 47505), (197, 47655), (200, 47688), (201, 47691), (203, 47742), (205, 47787), (206, 47793), (209, 47835), (215, 47898), (222, 47976), (225, 48033), (226, 48051), (230, 48084), (231, 48087), (233, 48126), (234, 48129), (238, 48210), (239, 48213), (243, 48273), (244, 48297), (247, 48348), (249, 48372), (252, 48396), (263, 48648), (266, 48705), (280, 48963), (282, 49032), (288, 49080), (295, 49167), (297, 49200), (299, 49203),

Gene: Matsumoto\_95 Start: 44799, Stop: 48911, Start Num: 3

Candidate Starts for Matsumoto\_95:

(Start: 3 @44799 has 175 MA's), (13, 44910), (15, 44934), (28, 45198), (29, 45204), (33, 45270), (36, 45306), (41, 45387), (43, 45423), (45, 45435), (46, 45441), (47, 45642), (59, 46023), (67, 46176), (69, 46245), (72, 46272), (79, 46353), (84, 46395), (88, 46431), (91, 46443), (99, 46500), (103, 46533), (107, 46578), (112, 46596), (119, 46641), (126, 46689), (129, 46722), (135, 46746), (143, 46800), (149, 46827), (154, 46848), (159, 46896), (162, 46917), (171, 47043), (175, 47094), (180, 47115), (181, 47127), (183, 47169), (197, 47319), (200, 47352), (201, 47355), (203, 47406), (205, 47451), (206, 47457), (209, 47499), (215, 47562), (222, 47640), (225, 47697), (226, 47715), (230, 47748), (231, 47751), (233, 47790), (234, 47793), (238, 47874), (239, 47877), (243, 47937), (244, 47961), (247, 48012), (249, 48036), (252, 48060), (263, 48312), (266, 48369), (280, 48627), (282, 48696), (288, 48744), (295, 48831), (297, 48864), (299, 48867),

Gene: McGee\_99 Start: 43667, Stop: 47779, Start Num: 3

Candidate Starts for McGee\_99:

(Start: 3 @43667 has 175 MA's), (13, 43778), (15, 43802), (28, 44066), (29, 44072), (33, 44138), (36, 44174), (41, 44255), (43, 44291), (45, 44303), (46, 44309), (47, 44510), (59, 44891), (67, 45044), (69, 45113), (72, 45140), (79, 45221), (84, 45263), (88, 45299), (91, 45311), (99, 45368), (103, 45401), (107, 45446), (112, 45464), (119, 45509), (126, 45557), (129, 45590), (135, 45614), (143, 45668), (149, 45695), (154, 45716), (159, 45764), (162, 45785), (171, 45911), (175, 45962), (180, 45983), (181, 45995), (183, 46037), (197, 46187), (200, 46220), (201, 46223), (203, 46274), (205, 46319), (206, 46325), (209, 46367), (215, 46430), (222, 46508), (225, 46565), (226, 46583), (230, 46616), (231, 46619), (233, 46658), (234, 46661), (238, 46742), (239, 46745), (243, 46805), (244, 46829), (247, 46880), (249, 46904), (252, 46928), (263, 47180), (266, 47237), (280, 47495), (282, 47564), (288, 47612), (295, 47699), (297, 47732), (299, 47735),

Gene: McWolfish\_95 Start: 44641, Stop: 48810, Start Num: 3

Candidate Starts for McWolfish\_95:

(Start: 3 @44641 has 175 MA's), (13, 44752), (15, 44776), (28, 45040), (29, 45046), (33, 45112), (36, 45148), (41, 45229), (43, 45265), (45, 45277), (46, 45283), (47, 45484), (48, 45544), (61, 45913), (62, 45934), (64, 45970), (69, 46090), (79, 46204), (83, 46237), (84, 46246), (92, 46342), (94, 46360), (103, 46432), (107, 46477), (112, 46495), (119, 46540), (126, 46588), (129, 46621), (135, 46645), (143, 46699), (149, 46726), (154, 46747), (159, 46795), (162, 46816), (171, 46942), (175, 46993), (180, 47014), (181, 47026), (183, 47068), (197, 47218), (200, 47251), (201, 47254), (203, 47305), (205, 47350), (206, 47356), (209, 47398), (215, 47461), (222, 47539), (225, 47596), (226, 47614), (230, 47647), (231, 47650), (233, 47689), (234, 47692), (238, 47773), (239, 47776), (243, 47836), (244, 47860), (247, 47911), (249, 47935), (252, 47959), (263, 48211), (266, 48268), (280, 48526), (282, 48595), (288, 48643), (295, 48730), (297, 48763), (299, 48766),

Gene: Megamind\_96 Start: 44737, Stop: 48846, Start Num: 3

Candidate Starts for Megamind\_96:

(Start: 3 @44737 has 175 MA's), (13, 44848), (15, 44872), (28, 45136), (29, 45142), (33, 45208), (36, 45244), (41, 45325), (43, 45361), (45, 45373), (46, 45379), (47, 45580), (48, 45640), (59, 45958), (67, 46111), (69, 46180), (72, 46207), (79, 46288), (84, 46330), (88, 46366), (91, 46378), (99, 46435), (103, 46468), (107, 46513), (112, 46531), (119, 46576), (126, 46624), (129, 46657), (143, 46735), (149, 46762), (159, 46831), (162, 46852), (171, 46978), (175, 47029), (180, 47050), (181, 47062), (183, 47104), (197, 47254), (200, 47287), (201, 47290), (203, 47341), (205, 47386), (206, 47392), (209, 47434), (215, 47497), (222, 47575), (225, 47632), (226, 47650), (230, 47683), (231, 47686), (233, 47725), (234, 47728), (238, 47809), (239, 47812), (243, 47872), (244, 47896), (247, 47947), (249, 47971), (252, 47995), (263, 48247), (266, 48304), (280, 48562), (282, 48631), (288, 48679), (295, 48766), (297, 48799), (299, 48802),

Gene: Melpomini\_91 Start: 42444, Stop: 46553, Start Num: 3

Candidate Starts for Melpomini\_91:

(Start: 3 @42444 has 175 MA's), (13, 42555), (15, 42579), (28, 42843), (29, 42849), (33, 42915), (36, 42951), (41, 43032), (43, 43068), (45, 43080), (46, 43086), (47, 43287), (48, 43347), (59, 43665), (67, 43818), (69, 43887), (72, 43914), (79, 43995), (84, 44037), (88, 44073), (91, 44085), (99, 44142), (103, 44175), (107, 44220), (112, 44238), (119, 44283), (126, 44331), (129, 44364), (143, 44442), (149, 44469), (159, 44538), (162, 44559), (171, 44685), (175, 44736), (180, 44757), (181, 44769), (183, 44811), (197, 44961), (200, 44994), (201, 44997), (203, 45048), (205, 45093), (206, 45099), (209, 45141), (215, 45204), (222, 45282), (225, 45339), (226, 45357), (230, 45390), (231, 45393), (233, 45432), (234, 45435), (238, 45516), (239, 45519), (243, 45579), (244, 45603), (247, 45654), (249, 45678), (252, 45702), (263, 45954), (266, 46011), (280, 46269), (282, 46338), (288, 46386), (295, 46473), (297, 46506), (299, 46509),

Gene: MikeLiesIn\_98 Start: 45084, Stop: 49193, Start Num: 3

Candidate Starts for MikeLiesIn\_98:

(Start: 3 @45084 has 175 MA's), (13, 45195), (15, 45219), (28, 45483), (29, 45489), (33, 45555), (36, 45591), (41, 45672), (43, 45708), (45, 45720), (46, 45726), (47, 45927), (48, 45987), (59, 46305), (67, 46458), (69, 46527), (72, 46554), (79, 46635), (84, 46677), (88, 46713), (91, 46725), (99, 46782), (103, 46815), (107, 46860), (112, 46878), (119, 46923), (126, 46971), (129, 47004), (143, 47082), (149, 47109), (159, 47178), (162, 47199), (171, 47325), (175, 47376), (180, 47397), (181, 47409), (183, 47451), (197, 47601), (200, 47634), (201, 47637), (203, 47688), (205, 47733), (206, 47739), (209, 47781), (215, 47844), (222, 47922), (225, 47979), (226, 47997), (230, 48030), (231, 48033), (233, 48072), (234, 48075), (238, 48156), (239, 48159), (243, 48219), (244, 48243), (247, 48294), (249, 48318), (252, 48342), (263, 48594), (266, 48651), (280, 48909), (282, 48978), (288, 49026), (295, 49113), (297, 49146), (299, 49149),

Gene: Mikro\_95 Start: 46159, Stop: 50328, Start Num: 3

Candidate Starts for Mikro\_95:

(Start: 3 @46159 has 175 MA's), (13, 46270), (15, 46294), (28, 46558), (29, 46564), (33, 46630), (36, 46666), (41, 46747), (43, 46783), (45, 46795), (46, 46801), (47, 47002), (48, 47062), (62, 47452), (64, 47488), (69, 47608), (71, 47626), (79, 47722), (83, 47755), (84, 47764), (92, 47860), (94, 47878), (103, 47950), (107, 47995), (112, 48013), (119, 48058), (126, 48106), (129, 48139), (135, 48163), (143, 48217), (149, 48244), (154, 48265), (159, 48313), (162, 48334), (171, 48460), (175, 48511), (180, 48532), (181, 48544), (183, 48586), (197, 48736), (200, 48769), (201, 48772), (203, 48823), (205, 48868), (206, 48874), (209, 48916), (215, 48979), (222, 49057), (225, 49114), (226, 49132), (230, 49165), (231, 49168), (233, 49207), (234, 49210), (238, 49291), (239, 49294), (243, 49354), (244, 49378), (247, 49429), (249, 49453), (252, 49477), (263, 49729), (266, 49786), (280, 50044), (282, 50113), (288, 50161), (295, 50248), (297, 50281), (299, 50284),

Gene: MoMoMixon\_98 Start: 44809, Stop: 48669, Start Num: 3

Candidate Starts for MoMoMixon\_98:

(Start: 3 @44809 has 175 MA's), (13, 44920), (15, 44944), (28, 45208), (29, 45214), (33, 45280), (36, 45316), (41, 45397), (43, 45433), (45, 45445), (46, 45451), (61, 45772), (62, 45793), (64, 45829), (69, 45949), (79, 46063), (83, 46096), (84, 46105), (92, 46201), (94, 46219), (103, 46291), (107, 46336), (112, 46354), (119, 46399), (126, 46447), (129, 46480), (135, 46504), (143, 46558), (149, 46585), (154, 46606), (159, 46654), (162, 46675), (171, 46801), (175, 46852), (180, 46873), (181, 46885), (183, 46927), (197, 47077), (200, 47110), (201, 47113), (203, 47164), (205, 47209), (206, 47215), (209, 47257), (215, 47320), (222, 47398), (225, 47455), (226, 47473), (230, 47506), (231, 47509), (233, 47548), (234, 47551), (238, 47632), (239, 47635), (243, 47695), (244, 47719), (247, 47770), (249, 47794), (252, 47818), (263, 48070), (266, 48127), (280, 48385), (282, 48454), (288, 48502), (295, 48589), (297, 48622), (299, 48625),

Gene: Momo\_97 Start: 44483, Stop: 48595, Start Num: 3

Candidate Starts for Momo\_97:

(Start: 3 @44483 has 175 MA's), (13, 44594), (15, 44618), (28, 44882), (29, 44888), (33, 44954), (36, 44990), (41, 45071), (43, 45107), (45, 45119), (46, 45125), (47, 45326), (59, 45707), (67, 45860), (69, 45929), (72, 45956), (79, 46037), (84, 46079), (88, 46115), (91, 46127), (99, 46184), (103, 46217), (107, 46262), (112, 46280), (119, 46325), (126, 46373), (129, 46406), (135, 46430), (143, 46484), (149, 46511), (154, 46532), (159, 46580), (162, 46601), (171, 46727), (175, 46778), (180, 46799), (181, 46811), (183, 46853), (197, 47003), (200, 47036), (201, 47039), (203, 47090), (205, 47135), (206, 47141), (209, 47183), (215, 47246), (222, 47324), (225, 47381), (226, 47399), (230, 47432), (231, 47435), (233, 47474), (234, 47477), (238, 47558), (239, 47561), (243, 47621), (244, 47645), (247, 47696), (249, 47720), (252, 47744), (263, 47996), (266, 48053), (280, 48311), (282, 48380), (288, 48428), (295, 48515), (297, 48548), (299, 48551),

Gene: Morizzled23\_97 Start: 43964, Stop: 48073, Start Num: 3

Candidate Starts for Morizzled23\_97:

(Start: 3 @43964 has 175 MA's), (13, 44075), (15, 44099), (28, 44363), (29, 44369), (33, 44435), (36, 44471), (41, 44552), (43, 44588), (45, 44600), (46, 44606), (47, 44807), (48, 44867), (59, 45185), (67, 45338), (69, 45407), (72, 45434), (79, 45515), (84, 45557), (88, 45593), (91, 45605), (99, 45662), (103, 45695), (107, 45740), (112, 45758), (119, 45803), (126, 45851), (129, 45884), (143, 45962), (149, 45989), (159, 46058), (162, 46079), (171, 46205), (175, 46256), (180, 46277), (181, 46289), (183, 46331), (197, 46481), (200, 46514), (201, 46517), (203, 46568), (205, 46613), (206, 46619), (209, 46661), (215, 46724), (222, 46802), (225, 46859), (226, 46877), (230, 46910), (231, 46913), (233, 46952), (234, 46955), (238, 47036), (239, 47039), (243, 47099), (244, 47123), (247, 47174), (249, 47198), (252, 47222), (263, 47474), (266, 47531), (280, 47789), (282, 47858), (288, 47906), (295, 47993), (297, 48026), (299, 48029),

Gene: Myrna\_97 Start: 46700, Stop: 50335, Start Num: 3

Candidate Starts for Myrna\_97:

(Start: 3 @46700 has 175 MA's), (6, 46721), (7, 46724), (15, 46835), (20, 46931), (22, 46979), (25, 47048), (29, 47105), (32, 47162), (33, 47171), (34, 47183), (38, 47237), (43, 47324), (64, 47552), (69, 47663), (75, 47729), (79, 47777), (83, 47810), (84, 47819), (101, 47885), (122, 47996), (135, 48101), (139, 48140), (140, 48149), (141, 48152), (144, 48179), (159, 48269), (168, 48371), (176, 48464), (180, 48485), (182, 48500), (189, 48626), (196, 48695), (197, 48710), (203, 48800), (208, 48869), (212, 48911), (213, 48920), (226, 49094), (227, 49109), (234, 49163), (242, 49298), (246, 49388), (249, 49433), (252, 49457), (260, 49703), (263, 49733), (266, 49781), (268, 49796), (280, 50033), (282, 50102), (285, 50120), (289, 50153), (290, 50156), (293, 50240), (299, 50291), (301, 50324),

Gene: Naija\_97 Start: 44483, Stop: 48595, Start Num: 3

Candidate Starts for Naija\_97:

(Start: 3 @44483 has 175 MA's), (13, 44594), (15, 44618), (28, 44882), (29, 44888), (33, 44954), (36, 44990), (41, 45071), (43, 45107), (45, 45119), (46, 45125), (47, 45326), (59, 45707), (67, 45860), (69, 45929), (72, 45956), (79, 46037), (84, 46079), (88, 46115), (91, 46127), (99, 46184), (103, 46217), (107, 46262), (112, 46280), (119, 46325), (126, 46373), (129, 46406), (135, 46430), (143, 46484), (149, 46511), (154, 46532), (159, 46580), (162, 46601), (171, 46727), (175, 46778), (180, 46799), (181, 46811), (183, 46853), (197, 47003), (200, 47036), (201, 47039), (203, 47090), (205, 47135), (206, 47141), (209, 47183), (215, 47246), (222, 47324), (225, 47381), (226, 47399), (230, 47432), (231, 47435), (233, 47474), (234, 47477), (238, 47558), (239, 47561), (243, 47621), (244, 47645), (247, 47696), (249, 47720), (252, 47744), (263, 47996), (266, 48053), (280, 48311), (282, 48380), (288, 48428), (295, 48515), (297, 48548), (299, 48551),

Gene: Napoleon13\_93 Start: 42879, Stop: 46991, Start Num: 3

Candidate Starts for Napoleon13\_93:

(Start: 3 @42879 has 175 MA's), (13, 42990), (15, 43014), (28, 43278), (29, 43284), (33, 43350), (36, 43386), (41, 43467), (43, 43503), (45, 43515), (46, 43521), (47, 43722), (59, 44103), (67, 44256), (69, 44325), (72, 44352), (79, 44433), (84, 44475), (88, 44511), (91, 44523), (99, 44580), (103, 44613), (107, 44658), (112, 44676), (119, 44721), (126, 44769), (129, 44802), (135, 44826), (143, 44880), (149, 44907), (154, 44928), (159, 44976), (162, 44997), (171, 45123), (175, 45174), (180, 45195), (181, 45207), (183, 45249), (197, 45399), (200, 45432), (201, 45435), (203, 45486), (205, 45531), (206, 45537), (209, 45579), (215, 45642), (222, 45720), (225, 45777), (226, 45795), (230, 45828), (231, 45831), (233, 45870), (234, 45873), (238, 45954), (239, 45957), (243, 46017), (244, 46041), (247, 46092), (249, 46116), (252, 46140), (263, 46392), (266, 46449), (280, 46707), (282, 46776), (288, 46824), (295, 46911), (297, 46944), (299, 46947),

Gene: Nappy\_100 Start: 46245, Stop: 50108, Start Num: 3

Candidate Starts for Nappy\_100:

(Start: 3 @46245 has 175 MA's), (13, 46356), (15, 46380), (28, 46644), (29, 46650), (33, 46716), (36, 46752), (41, 46833), (43, 46869), (45, 46881), (46, 46887), (61, 47208), (62, 47229), (64, 47265), (69, 47385), (71, 47403), (79, 47499), (83, 47532), (84, 47541), (92, 47637), (94, 47655), (103, 47730), (107, 47775), (112, 47793), (119, 47838), (126, 47886), (129, 47919), (135, 47943), (143, 47997), (149, 48024), (154, 48045), (159, 48093), (162, 48114), (171, 48240), (175, 48291), (180, 48312), (181, 48324), (183, 48366), (197, 48516), (200, 48549), (201, 48552), (203, 48603), (205, 48648), (206, 48654), (209, 48696), (215, 48759), (222, 48837), (225, 48894), (226, 48912), (230, 48945), (231, 48948), (233, 48987), (234, 48990), (238, 49071), (239, 49074), (243, 49134), (244, 49158), (247, 49209), (249, 49233), (252, 49257), (263, 49509), (266, 49566), (280, 49824), (282, 49893), (288, 49941), (295, 50028), (297, 50061), (299, 50064),

Gene: Naval22\_102 Start: 46675, Stop: 50535, Start Num: 3

Candidate Starts for Naval22\_102:

(Start: 3 @46675 has 175 MA's), (13, 46786), (15, 46810), (28, 47074), (29, 47080), (33, 47146), (36, 47182), (41, 47263), (43, 47299), (45, 47311), (46, 47317), (62, 47659), (64, 47695), (69, 47815), (71, 47833), (79, 47929), (83, 47962), (84, 47971), (92, 48067), (94, 48085), (103, 48157), (107, 48202),

(112, 48220), (119, 48265), (126, 48313), (129, 48346), (135, 48370), (143, 48424), (149, 48451), (154, 48472), (159, 48520), (162, 48541), (171, 48667), (175, 48718), (180, 48739), (181, 48751), (183, 48793), (197, 48943), (200, 48976), (201, 48979), (203, 49030), (205, 49075), (206, 49081), (209, 49123), (215, 49186), (222, 49264), (225, 49321), (226, 49339), (230, 49372), (231, 49375), (233, 49414), (234, 49417), (238, 49498), (239, 49501), (243, 49561), (244, 49585), (247, 49636), (249, 49660), (252, 49684), (263, 49936), (266, 49993), (280, 50251), (282, 50320), (288, 50368), (295, 50455), (297, 50488), (299, 50491),

Gene: NedWong\_98 Start: 45071, Stop: 49180, Start Num: 3

Candidate Starts for NedWong\_98:

(Start: 3 @45071 has 175 MA's), (13, 45182), (15, 45206), (28, 45470), (29, 45476), (33, 45542), (36, 45578), (41, 45659), (43, 45695), (45, 45707), (46, 45713), (47, 45914), (48, 45974), (59, 46292), (67, 46445), (69, 46514), (72, 46541), (79, 46622), (84, 46664), (88, 46700), (91, 46712), (99, 46769), (103, 46802), (107, 46847), (112, 46865), (119, 46910), (126, 46958), (129, 46991), (143, 47069), (149, 47096), (159, 47165), (162, 47186), (171, 47312), (175, 47363), (180, 47384), (181, 47396), (183, 47438), (197, 47588), (200, 47621), (201, 47624), (203, 47675), (205, 47720), (206, 47726), (209, 47768), (215, 47831), (222, 47909), (225, 47966), (226, 47984), (230, 48017), (231, 48020), (233, 48059), (234, 48062), (238, 48143), (239, 48146), (243, 48206), (244, 48230), (247, 48281), (249, 48305), (252, 48329), (263, 48581), (266, 48638), (280, 48896), (282, 48965), (288, 49013), (295, 49100), (297, 49133), (299, 49136),

Gene: Ngannou\_94 Start: 43465, Stop: 47577, Start Num: 3

Candidate Starts for Ngannou\_94:

(Start: 3 @43465 has 175 MA's), (13, 43576), (15, 43600), (28, 43864), (29, 43870), (33, 43936), (36, 43972), (41, 44053), (43, 44089), (45, 44101), (46, 44107), (47, 44308), (59, 44689), (67, 44842), (69, 44911), (72, 44938), (79, 45019), (84, 45061), (88, 45097), (91, 45109), (99, 45166), (103, 45199), (107, 45244), (112, 45262), (119, 45307), (126, 45355), (129, 45388), (135, 45412), (143, 45466), (149, 45493), (154, 45514), (159, 45562), (162, 45583), (171, 45709), (175, 45760), (180, 45781), (181, 45793), (183, 45835), (197, 45985), (200, 46018), (201, 46021), (203, 46072), (205, 46117), (206, 46123), (209, 46165), (215, 46228), (222, 46306), (225, 46363), (226, 46381), (230, 46414), (231, 46417), (233, 46456), (234, 46459), (238, 46540), (239, 46543), (243, 46603), (244, 46627), (247, 46678), (249, 46702), (252, 46726), (263, 46978), (266, 47035), (280, 47293), (282, 47362), (288, 47410), (295, 47497), (297, 47530), (299, 47533),

Gene: Nidhogg\_98 Start: 45059, Stop: 48919, Start Num: 3

Candidate Starts for Nidhogg\_98:

(Start: 3 @45059 has 175 MA's), (13, 45170), (15, 45194), (28, 45458), (29, 45464), (33, 45530), (36, 45566), (41, 45647), (43, 45683), (45, 45695), (46, 45701), (61, 46022), (62, 46043), (64, 46079), (69, 46199), (79, 46313), (83, 46346), (84, 46355), (92, 46451), (94, 46469), (103, 46541), (107, 46586), (112, 46604), (119, 46649), (126, 46697), (129, 46730), (135, 46754), (143, 46808), (149, 46835), (154, 46856), (159, 46904), (162, 46925), (171, 47051), (175, 47102), (180, 47123), (181, 47135), (183, 47177), (197, 47327), (200, 47360), (201, 47363), (203, 47414), (205, 47459), (206, 47465), (209, 47507), (215, 47570), (222, 47648), (225, 47705), (226, 47723), (230, 47756), (231, 47759), (233, 47798), (234, 47801), (238, 47882), (239, 47885), (243, 47945), (244, 47969), (247, 48020), (249, 48044), (252, 48068), (263, 48320), (266, 48377), (280, 48635), (282, 48704), (288, 48752), (295, 48839), (297, 48872), (299, 48875),

Gene: NoodleTree\_105 Start: 46281, Stop: 50393, Start Num: 3

Candidate Starts for NoodleTree\_105:

(Start: 3 @46281 has 175 MA's), (13, 46392), (15, 46416), (28, 46680), (29, 46686), (33, 46752), (36, 46788), (41, 46869), (43, 46905), (45, 46917), (46, 46923), (47, 47124), (59, 47505), (67, 47658), (69, 47727), (72, 47754), (79, 47835), (84, 47877), (88, 47913), (91, 47925), (99, 47982), (103, 48015), (107, 48060), (112, 48078), (119, 48123), (126, 48171), (129, 48204), (135, 48228), (143, 48282),



(149, 48309), (154, 48330), (159, 48378), (162, 48399), (171, 48525), (175, 48576), (180, 48597), (181, 48609), (183, 48651), (197, 48801), (200, 48834), (201, 48837), (203, 48888), (205, 48933), (206, 48939), (209, 48981), (215, 49044), (222, 49122), (225, 49179), (226, 49197), (230, 49230), (231, 49233), (233, 49272), (234, 49275), (238, 49356), (239, 49359), (243, 49419), (244, 49443), (247, 49494), (249, 49518), (252, 49542), (263, 49794), (266, 49851), (280, 50109), (282, 50178), (288, 50226), (295, 50313), (297, 50346), (299, 50349),

Gene: Norm\_98 Start: 45844, Stop: 49956, Start Num: 3

Candidate Starts for Norm\_98:

(Start: 3 @45844 has 175 MA's), (13, 45955), (15, 45979), (28, 46243), (29, 46249), (33, 46315), (36, 46351), (41, 46432), (43, 46468), (45, 46480), (46, 46486), (47, 46687), (59, 47068), (67, 47221), (69, 47290), (72, 47317), (79, 47398), (84, 47440), (88, 47476), (91, 47488), (99, 47545), (103, 47578), (107, 47623), (112, 47641), (119, 47686), (126, 47734), (129, 47767), (135, 47791), (143, 47845), (149, 47872), (154, 47893), (159, 47941), (162, 47962), (171, 48088), (175, 48139), (180, 48160), (181, 48172), (183, 48214), (197, 48364), (200, 48397), (201, 48400), (203, 48451), (205, 48496), (206, 48502), (209, 48544), (215, 48607), (222, 48685), (225, 48742), (226, 48760), (230, 48793), (231, 48796), (233, 48835), (234, 48838), (238, 48919), (239, 48922), (243, 48982), (244, 49006), (247, 49057), (249, 49081), (252, 49105), (263, 49357), (266, 49414), (280, 49672), (282, 49741), (288, 49789), (295, 49876), (297, 49909), (299, 49912),

Gene: NuevoMundo\_103 Start: 47196, Stop: 51308, Start Num: 3

Candidate Starts for NuevoMundo\_103:

(Start: 3 @47196 has 175 MA's), (13, 47307), (15, 47331), (28, 47595), (29, 47601), (33, 47667), (36, 47703), (41, 47784), (43, 47820), (45, 47832), (46, 47838), (47, 48039), (59, 48420), (67, 48573), (69, 48642), (72, 48669), (79, 48750), (84, 48792), (88, 48828), (91, 48840), (99, 48897), (103, 48930), (107, 48975), (112, 48993), (119, 49038), (126, 49086), (129, 49119), (135, 49143), (143, 49197), (149, 49224), (154, 49245), (159, 49293), (162, 49314), (171, 49440), (175, 49491), (180, 49512), (181, 49524), (183, 49566), (197, 49716), (200, 49749), (201, 49752), (203, 49803), (205, 49848), (206, 49854), (209, 49896), (215, 49959), (222, 50037), (225, 50094), (226, 50112), (230, 50145), (231, 50148), (233, 50187), (234, 50190), (238, 50271), (239, 50274), (243, 50334), (244, 50358), (247, 50409), (249, 50433), (252, 50457), (263, 50709), (266, 50766), (280, 51024), (282, 51093), (288, 51141), (295, 51228), (297, 51261), (299, 51264),

Gene: ParkTD\_98 Start: 45067, Stop: 49176, Start Num: 3

Candidate Starts for ParkTD\_98:

(Start: 3 @45067 has 175 MA's), (13, 45178), (15, 45202), (28, 45466), (29, 45472), (33, 45538), (36, 45574), (41, 45655), (43, 45691), (45, 45703), (46, 45709), (47, 45910), (48, 45970), (59, 46288), (67, 46441), (69, 46510), (72, 46537), (79, 46618), (84, 46660), (88, 46696), (91, 46708), (99, 46765), (103, 46798), (107, 46843), (112, 46861), (119, 46906), (126, 46954), (129, 46987), (143, 47065), (149, 47092), (159, 47161), (162, 47182), (171, 47308), (175, 47359), (180, 47380), (181, 47392), (183, 47434), (197, 47584), (200, 47617), (201, 47620), (203, 47671), (205, 47716), (206, 47722), (209, 47764), (215, 47827), (222, 47905), (225, 47962), (226, 47980), (230, 48013), (231, 48016), (233, 48055), (234, 48058), (238, 48139), (239, 48142), (243, 48202), (244, 48226), (247, 48277), (249, 48301), (252, 48325), (263, 48577), (266, 48634), (280, 48892), (282, 48961), (288, 49009), (295, 49096), (297, 49129), (299, 49132),

Gene: Patter\_98 Start: 44500, Stop: 48612, Start Num: 3

Candidate Starts for Patter\_98:

(Start: 3 @44500 has 175 MA's), (13, 44611), (15, 44635), (28, 44899), (29, 44905), (33, 44971), (36, 45007), (41, 45088), (43, 45124), (45, 45136), (46, 45142), (47, 45343), (59, 45724), (67, 45877), (69, 45946), (72, 45973), (79, 46054), (84, 46096), (88, 46132), (91, 46144), (99, 46201), (103, 46234), (107, 46279), (112, 46297), (119, 46342), (126, 46390), (129, 46423), (135, 46447), (143, 46501), (149, 46528), (154, 46549), (159, 46597), (162, 46618), (171, 46744), (175, 46795), (180, 46816),

(181, 46828), (183, 46870), (197, 47020), (200, 47053), (201, 47056), (203, 47107), (205, 47152), (206, 47158), (209, 47200), (215, 47263), (222, 47341), (225, 47398), (226, 47416), (230, 47449), (231, 47452), (233, 47491), (234, 47494), (238, 47575), (239, 47578), (243, 47638), (244, 47662), (247, 47713), (249, 47737), (252, 47761), (263, 48013), (266, 48070), (280, 48328), (282, 48397), (288, 48445), (295, 48532), (297, 48565), (299, 48568),

Gene: Phabba\_102 Start: 45879, Stop: 49508, Start Num: 3

Candidate Starts for Phabba\_102:

(Start: 3 @45879 has 175 MA's), (7, 45903), (15, 46014), (19, 46098), (21, 46155), (22, 46158), (29, 46284), (32, 46341), (33, 46350), (38, 46416), (46, 46521), (51, 46545), (53, 46584), (54, 46587), (60, 46671), (64, 46725), (69, 46839), (71, 46857), (75, 46905), (79, 46953), (83, 46986), (84, 46995), (122, 47172), (139, 47316), (140, 47325), (141, 47328), (144, 47355), (157, 47424), (159, 47445), (168, 47547), (176, 47640), (180, 47661), (189, 47802), (193, 47850), (197, 47886), (202, 47937), (203, 47970), (207, 48033), (208, 48039), (213, 48090), (215, 48114), (225, 48246), (226, 48264), (227, 48282), (234, 48336), (242, 48471), (263, 48906), (266, 48954), (268, 48969), (280, 49206), (282, 49275), (285, 49293), (289, 49326), (292, 49401), (301, 49497),

Gene: Phlegm\_100 Start: 44483, Stop: 48595, Start Num: 3

Candidate Starts for Phlegm\_100:

(Start: 3 @44483 has 175 MA's), (13, 44594), (15, 44618), (28, 44882), (29, 44888), (33, 44954), (36, 44990), (41, 45071), (43, 45107), (45, 45119), (46, 45125), (47, 45326), (59, 45707), (67, 45860), (69, 45929), (72, 45956), (79, 46037), (84, 46079), (88, 46115), (91, 46127), (99, 46184), (103, 46217), (107, 46262), (112, 46280), (119, 46325), (126, 46373), (129, 46406), (135, 46430), (143, 46484), (149, 46511), (154, 46532), (159, 46580), (162, 46601), (171, 46727), (175, 46778), (180, 46799), (181, 46811), (183, 46853), (197, 47003), (200, 47036), (201, 47039), (203, 47090), (205, 47135), (206, 47141), (209, 47183), (215, 47246), (222, 47324), (225, 47381), (226, 47399), (230, 47432), (231, 47435), (233, 47474), (234, 47477), (238, 47558), (239, 47561), (243, 47621), (244, 47645), (247, 47696), (249, 47720), (252, 47744), (263, 47996), (266, 48053), (280, 48311), (282, 48380), (288, 48428), (295, 48515), (297, 48548), (299, 48551),

Gene: Phox\_94 Start: 44924, Stop: 49459, Start Num: 3

Candidate Starts for Phox\_94:

(Start: 3 @44924 has 175 MA's), (13, 45035), (15, 45059), (28, 45323), (29, 45329), (33, 45395), (36, 45431), (41, 45512), (43, 45548), (45, 45560), (46, 45566), (47, 45767), (48, 45827), (62, 46217), (64, 46253), (69, 46373), (71, 46391), (79, 46487), (83, 46520), (84, 46529), (92, 46625), (94, 46643), (103, 46715), (108, 46835), (110, 46898), (111, 46934), (116, 46982), (120, 47033), (121, 47039), (122, 47042), (127, 47078), (130, 47126), (132, 47144), (136, 47189), (142, 47237), (143, 47270), (150, 47348), (151, 47375), (159, 47444), (162, 47465), (171, 47591), (175, 47642), (180, 47663), (181, 47675), (183, 47717), (197, 47867), (200, 47900), (201, 47903), (203, 47954), (205, 47999), (206, 48005), (209, 48047), (215, 48110), (222, 48188), (225, 48245), (226, 48263), (230, 48296), (231, 48299), (233, 48338), (234, 48341), (238, 48422), (239, 48425), (243, 48485), (244, 48509), (247, 48560), (249, 48584), (252, 48608), (263, 48860), (266, 48917), (280, 49175), (282, 49244), (288, 49292), (295, 49379), (297, 49412), (299, 49415),

Gene: Phrappuccino\_53 Start: 34080, Stop: 36638, Start Num: 68

Candidate Starts for Phrappuccino\_53:

(Start: 68 @34080 has 2 MA's), (69, 34092), (78, 34179), (81, 34224), (84, 34245), (88, 34305), (95, 34344), (97, 34365), (98, 34368), (104, 34419), (114, 34491), (115, 34497), (124, 34569), (153, 34722), (154, 34725), (156, 34746), (172, 34917), (183, 35013), (186, 35040), (190, 35115), (214, 35340), (224, 35472), (228, 35523), (235, 35637), (237, 35652), (241, 35691), (245, 35760), (264, 36114), (271, 36168), (272, 36174), (274, 36186), (277, 36345), (282, 36435), (284, 36447), (287, 36480),

Gene: Phusco\_98 Start: 45248, Stop: 49360, Start Num: 3

Candidate Starts for Phusco\_98:

(Start: 3 @45248 has 175 MA's), (13, 45359), (15, 45383), (28, 45647), (29, 45653), (33, 45719), (36, 45755), (41, 45836), (43, 45872), (45, 45884), (46, 45890), (47, 46091), (59, 46472), (67, 46625), (69, 46694), (72, 46721), (79, 46802), (84, 46844), (88, 46880), (91, 46892), (99, 46949), (103, 46982), (107, 47027), (112, 47045), (119, 47090), (126, 47138), (129, 47171), (135, 47195), (143, 47249), (149, 47276), (154, 47297), (159, 47345), (162, 47366), (171, 47492), (175, 47543), (180, 47564), (181, 47576), (183, 47618), (197, 47768), (200, 47801), (201, 47804), (203, 47855), (205, 47900), (206, 47906), (209, 47948), (215, 48011), (222, 48089), (225, 48146), (226, 48164), (230, 48197), (231, 48200), (233, 48239), (234, 48242), (238, 48323), (239, 48326), (243, 48386), (244, 48410), (247, 48461), (249, 48485), (252, 48509), (263, 48761), (266, 48818), (280, 49076), (282, 49145), (288, 49193), (295, 49280), (297, 49313), (299, 49316),

Gene: Pier\_101 Start: 46081, Stop: 49803, Start Num: 3

Candidate Starts for Pier\_101:

(Start: 3 @46081 has 175 MA's), (8, 46120), (13, 46192), (15, 46216), (28, 46480), (29, 46486), (33, 46552), (36, 46588), (41, 46669), (43, 46705), (45, 46717), (46, 46723), (61, 46906), (62, 46927), (64, 46963), (69, 47083), (71, 47101), (79, 47197), (83, 47230), (84, 47239), (92, 47335), (94, 47353), (103, 47425), (107, 47470), (112, 47488), (119, 47533), (126, 47581), (129, 47614), (135, 47638), (143, 47692), (149, 47719), (154, 47740), (159, 47788), (162, 47809), (171, 47935), (175, 47986), (180, 48007), (181, 48019), (183, 48061), (197, 48211), (200, 48244), (201, 48247), (203, 48298), (205, 48343), (206, 48349), (209, 48391), (215, 48454), (222, 48532), (225, 48589), (226, 48607), (230, 48640), (231, 48643), (233, 48682), (234, 48685), (238, 48766), (239, 48769), (243, 48829), (244, 48853), (247, 48904), (249, 48928), (252, 48952), (263, 49204), (266, 49261), (280, 49519), (282, 49588), (288, 49636), (295, 49723), (297, 49756), (299, 49759),

Gene: Pinkcreek\_88 Start: 42010, Stop: 46119, Start Num: 3

Candidate Starts for Pinkcreek\_88:

(Start: 3 @42010 has 175 MA's), (12, 42088), (13, 42121), (15, 42145), (28, 42409), (29, 42415), (33, 42481), (36, 42517), (41, 42598), (43, 42634), (45, 42646), (46, 42652), (47, 42853), (48, 42913), (59, 43231), (67, 43384), (69, 43453), (72, 43480), (79, 43561), (84, 43603), (88, 43639), (91, 43651), (99, 43708), (103, 43741), (107, 43786), (112, 43804), (119, 43849), (126, 43897), (129, 43930), (143, 44008), (149, 44035), (159, 44104), (162, 44125), (171, 44251), (175, 44302), (180, 44323), (181, 44335), (183, 44377), (197, 44527), (200, 44560), (201, 44563), (203, 44614), (205, 44659), (206, 44665), (209, 44707), (215, 44770), (222, 44848), (225, 44905), (226, 44923), (230, 44956), (231, 44959), (233, 44998), (234, 45001), (238, 45082), (239, 45085), (243, 45145), (244, 45169), (247, 45220), (249, 45244), (252, 45268), (263, 45520), (266, 45577), (280, 45835), (282, 45904), (288, 45952), (295, 46039), (297, 46072), (299, 46075),

Gene: Pio\_101 Start: 46807, Stop: 50919, Start Num: 3

Candidate Starts for Pio\_101:

(Start: 3 @46807 has 175 MA's), (13, 46918), (15, 46942), (28, 47206), (29, 47212), (33, 47278), (36, 47314), (41, 47395), (43, 47431), (45, 47443), (46, 47449), (47, 47650), (59, 48031), (67, 48184), (69, 48253), (72, 48280), (79, 48361), (84, 48403), (88, 48439), (91, 48451), (99, 48508), (103, 48541), (107, 48586), (112, 48604), (119, 48649), (126, 48697), (129, 48730), (135, 48754), (143, 48808), (149, 48835), (154, 48856), (159, 48904), (162, 48925), (171, 49051), (175, 49102), (180, 49123), (181, 49135), (183, 49177), (197, 49327), (200, 49360), (201, 49363), (203, 49414), (205, 49459), (206, 49465), (209, 49507), (215, 49570), (222, 49648), (225, 49705), (226, 49723), (230, 49756), (231, 49759), (233, 49798), (234, 49801), (238, 49882), (239, 49885), (243, 49945), (244, 49969), (247, 50020), (249, 50044), (252, 50068), (263, 50320), (266, 50377), (280, 50635), (282, 50704), (288, 50752), (295, 50839), (297, 50872), (299, 50875),

Gene: Pivoine\_97 Start: 44483, Stop: 48595, Start Num: 3

Candidate Starts for Pivoine\_97:

(Start: 3 @44483 has 175 MA's), (13, 44594), (15, 44618), (28, 44882), (29, 44888), (33, 44954), (36, 44990), (41, 45071), (43, 45107), (45, 45119), (46, 45125), (47, 45326), (59, 45707), (67, 45860), (69, 45929), (72, 45956), (79, 46037), (84, 46079), (88, 46115), (91, 46127), (99, 46184), (103, 46217), (107, 46262), (112, 46280), (119, 46325), (126, 46373), (129, 46406), (135, 46430), (143, 46484), (149, 46511), (154, 46532), (159, 46580), (162, 46601), (171, 46727), (175, 46778), (180, 46799), (181, 46811), (183, 46853), (197, 47003), (200, 47036), (201, 47039), (203, 47090), (205, 47135), (206, 47141), (209, 47183), (215, 47246), (222, 47324), (225, 47381), (226, 47399), (230, 47432), (231, 47435), (233, 47474), (234, 47477), (238, 47558), (239, 47561), (243, 47621), (244, 47645), (247, 47696), (249, 47720), (252, 47744), (263, 47996), (266, 48053), (280, 48311), (282, 48380), (288, 48428), (295, 48515), (297, 48548), (299, 48551),

Gene: Pleione\_100 Start: 45085, Stop: 49194, Start Num: 3

Candidate Starts for Pleione\_100:

(Start: 3 @45085 has 175 MA's), (13, 45196), (15, 45220), (28, 45484), (29, 45490), (33, 45556), (36, 45592), (41, 45673), (43, 45709), (45, 45721), (46, 45727), (47, 45928), (48, 45988), (59, 46306), (67, 46459), (69, 46528), (72, 46555), (79, 46636), (84, 46678), (88, 46714), (91, 46726), (99, 46783), (103, 46816), (107, 46861), (112, 46879), (119, 46924), (126, 46972), (129, 47005), (135, 47029), (143, 47083), (149, 47110), (154, 47131), (159, 47179), (162, 47200), (171, 47326), (175, 47377), (180, 47398), (181, 47410), (183, 47452), (197, 47602), (200, 47635), (201, 47638), (203, 47689), (205, 47734), (206, 47740), (209, 47782), (215, 47845), (222, 47923), (225, 47980), (226, 47998), (230, 48031), (231, 48034), (233, 48073), (234, 48076), (238, 48157), (239, 48160), (243, 48220), (244, 48244), (247, 48295), (249, 48319), (252, 48343), (263, 48595), (266, 48652), (280, 48910), (282, 48979), (288, 49027), (295, 49114), (297, 49147), (299, 49150),

Gene: Primadonna\_91 Start: 43965, Stop: 48077, Start Num: 3

Candidate Starts for Primadonna\_91:

(Start: 3 @43965 has 175 MA's), (13, 44076), (15, 44100), (28, 44364), (29, 44370), (33, 44436), (36, 44472), (41, 44553), (43, 44589), (45, 44601), (46, 44607), (47, 44808), (59, 45189), (67, 45342), (69, 45411), (72, 45438), (79, 45519), (84, 45561), (88, 45597), (91, 45609), (99, 45666), (103, 45699), (107, 45744), (112, 45762), (119, 45807), (126, 45855), (129, 45888), (135, 45912), (143, 45966), (149, 45993), (154, 46014), (159, 46062), (162, 46083), (171, 46209), (175, 46260), (180, 46281), (181, 46293), (183, 46335), (197, 46485), (200, 46518), (201, 46521), (203, 46572), (205, 46617), (206, 46623), (209, 46665), (215, 46728), (222, 46806), (225, 46863), (226, 46881), (230, 46914), (231, 46917), (233, 46956), (234, 46959), (238, 47040), (239, 47043), (243, 47103), (244, 47127), (247, 47178), (249, 47202), (252, 47226), (263, 47478), (266, 47535), (280, 47793), (282, 47862), (288, 47910), (295, 47997), (297, 48030), (299, 48033),

Gene: Pupper\_94 Start: 43847, Stop: 47095, Start Num: 1

Candidate Starts for Pupper\_94:

(Start: 1 @43847 has 4 MA's), (9, 43928), (15, 44003), (16, 44006), (18, 44063), (19, 44087), (23, 44150), (26, 44231), (27, 44246), (29, 44273), (35, 44357), (38, 44405), (43, 44492), (46, 44510), (52, 44549), (58, 44597), (74, 44786), (84, 44867), (99, 44972), (100, 44993), (103, 44999), (156, 45209), (158, 45227), (166, 45251), (173, 45338), (178, 45377), (183, 45440), (204, 45659), (206, 45704), (210, 45722), (218, 45803), (226, 45926), (242, 46136), (243, 46145), (250, 46241), (251, 46244), (255, 46304), (257, 46352), (261, 46478), (262, 46496), (265, 46550), (276, 46712), (278, 46796), (282, 46877), (294, 47012), (299, 47051), (300, 47081),

Gene: PurduePete\_97 Start: 45279, Stop: 49448, Start Num: 3

Candidate Starts for PurduePete\_97:

(Start: 3 @45279 has 175 MA's), (13, 45390), (15, 45414), (28, 45678), (29, 45684), (33, 45750), (36, 45786), (41, 45867), (43, 45903), (45, 45915), (46, 45921), (47, 46122), (48, 46182), (61, 46551), (62, 46572), (64, 46608), (69, 46728), (79, 46842), (83, 46875), (84, 46884), (92, 46980), (94, 46998), (103,

47070), (107, 47115), (112, 47133), (119, 47178), (126, 47226), (129, 47259), (135, 47283), (143, 47337), (149, 47364), (154, 47385), (159, 47433), (162, 47454), (171, 47580), (175, 47631), (180, 47652), (181, 47664), (183, 47706), (197, 47856), (200, 47889), (201, 47892), (203, 47943), (205, 47988), (206, 47994), (209, 48036), (215, 48099), (222, 48177), (225, 48234), (226, 48252), (230, 48285), (231, 48288), (233, 48327), (234, 48330), (238, 48411), (239, 48414), (243, 48474), (244, 48498), (247, 48549), (249, 48573), (252, 48597), (263, 48849), (266, 48906), (280, 49164), (282, 49233), (288, 49281), (295, 49368), (297, 49401), (299, 49404),

Gene: QBert\_91 Start: 44601, Stop: 48461, Start Num: 3

Candidate Starts for QBert\_91:

(Start: 3 @44601 has 175 MA's), (13, 44712), (15, 44736), (28, 45000), (29, 45006), (33, 45072), (36, 45108), (41, 45189), (43, 45225), (45, 45237), (46, 45243), (61, 45564), (62, 45585), (64, 45621), (69, 45741), (79, 45855), (83, 45888), (84, 45897), (92, 45993), (94, 46011), (103, 46083), (107, 46128), (112, 46146), (119, 46191), (126, 46239), (129, 46272), (135, 46296), (143, 46350), (149, 46377), (154, 46398), (159, 46446), (162, 46467), (171, 46593), (175, 46644), (180, 46665), (181, 46677), (183, 46719), (197, 46869), (200, 46902), (201, 46905), (203, 46956), (205, 47001), (206, 47007), (209, 47049), (215, 47112), (222, 47190), (225, 47247), (226, 47265), (230, 47298), (231, 47301), (233, 47340), (234, 47343), (238, 47424), (239, 47427), (243, 47487), (244, 47511), (247, 47562), (249, 47586), (252, 47610), (263, 47862), (266, 47919), (280, 48177), (282, 48246), (288, 48294), (295, 48381), (297, 48414), (299, 48417),

Gene: Quasimodo\_98 Start: 45028, Stop: 49137, Start Num: 3

Candidate Starts for Quasimodo\_98:

(Start: 3 @45028 has 175 MA's), (13, 45139), (15, 45163), (28, 45427), (29, 45433), (33, 45499), (36, 45535), (41, 45616), (43, 45652), (45, 45664), (46, 45670), (47, 45871), (48, 45931), (59, 46249), (67, 46402), (69, 46471), (72, 46498), (79, 46579), (84, 46621), (88, 46657), (91, 46669), (99, 46726), (103, 46759), (107, 46804), (112, 46822), (119, 46867), (126, 46915), (129, 46948), (143, 47026), (149, 47053), (159, 47122), (162, 47143), (171, 47269), (175, 47320), (180, 47341), (181, 47353), (183, 47395), (197, 47545), (200, 47578), (201, 47581), (203, 47632), (205, 47677), (206, 47683), (209, 47725), (215, 47788), (222, 47866), (225, 47923), (226, 47941), (230, 47974), (231, 47977), (233, 48016), (234, 48019), (238, 48100), (239, 48103), (243, 48163), (244, 48187), (247, 48238), (249, 48262), (252, 48286), (263, 48538), (266, 48595), (280, 48853), (282, 48922), (288, 48970), (295, 49057), (297, 49090), (299, 49093),

Gene: Rabinovish\_94 Start: 45095, Stop: 49204, Start Num: 3

Candidate Starts for Rabinovish\_94:

(Start: 3 @45095 has 175 MA's), (11, 45158), (13, 45206), (15, 45230), (28, 45494), (29, 45500), (33, 45566), (36, 45602), (41, 45683), (43, 45719), (45, 45731), (46, 45737), (47, 45938), (48, 45998), (59, 46316), (67, 46469), (69, 46538), (72, 46565), (79, 46646), (84, 46688), (88, 46724), (91, 46736), (99, 46793), (103, 46826), (107, 46871), (112, 46889), (119, 46934), (126, 46982), (129, 47015), (143, 47093), (149, 47120), (159, 47189), (162, 47210), (171, 47336), (175, 47387), (180, 47408), (181, 47420), (183, 47462), (197, 47612), (200, 47645), (201, 47648), (203, 47699), (205, 47744), (206, 47750), (209, 47792), (215, 47855), (222, 47933), (225, 47990), (226, 48008), (230, 48041), (231, 48044), (233, 48083), (234, 48086), (238, 48167), (239, 48170), (243, 48230), (244, 48254), (247, 48305), (249, 48329), (252, 48353), (263, 48605), (266, 48662), (280, 48920), (282, 48989), (288, 49037), (295, 49124), (297, 49157), (299, 49160),

Gene: Rahel\_97 Start: 44840, Stop: 48952, Start Num: 3

Candidate Starts for Rahel\_97:

(Start: 3 @44840 has 175 MA's), (13, 44951), (15, 44975), (28, 45239), (29, 45245), (33, 45311), (36, 45347), (41, 45428), (43, 45464), (45, 45476), (46, 45482), (47, 45683), (59, 46064), (67, 46217), (69, 46286), (72, 46313), (79, 46394), (84, 46436), (88, 46472), (91, 46484), (99, 46541), (103, 46574), (107, 46619), (112, 46637), (119, 46682), (126, 46730), (129, 46763), (135, 46787), (143, 46841),

(149, 46868), (154, 46889), (159, 46937), (162, 46958), (171, 47084), (175, 47135), (180, 47156), (181, 47168), (183, 47210), (197, 47360), (200, 47393), (201, 47396), (203, 47447), (205, 47492), (206, 47498), (209, 47540), (215, 47603), (222, 47681), (225, 47738), (226, 47756), (230, 47789), (231, 47792), (233, 47831), (234, 47834), (238, 47915), (239, 47918), (243, 47978), (244, 48002), (247, 48053), (249, 48077), (252, 48101), (263, 48353), (266, 48410), (280, 48668), (282, 48737), (288, 48785), (295, 48872), (297, 48905), (299, 48908),

Gene: RedWattleHog\_13 Start: 15163, Stop: 18432, Start Num: 2

Candidate Starts for RedWattleHog\_13:

(Start: 2 @15163 has 3 MA's), (8, 15208), (15, 15301), (17, 15325), (20, 15397), (28, 15565), (29, 15571), (31, 15616), (32, 15628), (33, 15637), (34, 15649), (39, 15706), (42, 15757), (44, 15787), (46, 15802), (70, 16048), (76, 16117), (82, 16171), (85, 16195), (93, 16240), (118, 16321), (123, 16348), (146, 16486), (161, 16561), (163, 16579), (167, 16636), (184, 16831), (185, 16837), (191, 16927), (192, 16930), (198, 16978), (213, 17119), (219, 17185), (234, 17362), (256, 17695), (258, 17737), (267, 17905), (269, 17920), (270, 17926), (271, 17947), (280, 18154), (287, 18262), (294, 18349), (296, 18364), (298, 18382),

Gene: Rizal\_94 Start: 43988, Stop: 48100, Start Num: 3

Candidate Starts for Rizal\_94:

(Start: 3 @43988 has 175 MA's), (13, 44099), (15, 44123), (28, 44387), (29, 44393), (33, 44459), (36, 44495), (41, 44576), (43, 44612), (45, 44624), (46, 44630), (47, 44831), (59, 45212), (67, 45365), (69, 45434), (72, 45461), (79, 45542), (84, 45584), (88, 45620), (91, 45632), (99, 45689), (103, 45722), (107, 45767), (112, 45785), (119, 45830), (126, 45878), (129, 45911), (135, 45935), (143, 45989), (149, 46016), (154, 46037), (159, 46085), (162, 46106), (171, 46232), (175, 46283), (180, 46304), (181, 46316), (183, 46358), (197, 46508), (200, 46541), (201, 46544), (203, 46595), (205, 46640), (206, 46646), (209, 46688), (215, 46751), (222, 46829), (225, 46886), (226, 46904), (230, 46937), (231, 46940), (233, 46979), (234, 46982), (238, 47063), (239, 47066), (243, 47126), (244, 47150), (247, 47201), (249, 47225), (252, 47249), (263, 47501), (266, 47558), (280, 47816), (282, 47885), (288, 47933), (295, 48020), (297, 48053), (299, 48056),

Gene: RoMag\_92 Start: 44442, Stop: 48302, Start Num: 3

Candidate Starts for RoMag\_92:

(Start: 3 @44442 has 175 MA's), (13, 44553), (15, 44577), (28, 44841), (29, 44847), (33, 44913), (36, 44949), (41, 45030), (43, 45066), (45, 45078), (46, 45084), (61, 45405), (62, 45426), (64, 45462), (69, 45582), (79, 45696), (83, 45729), (84, 45738), (92, 45834), (94, 45852), (103, 45924), (107, 45969), (112, 45987), (119, 46032), (126, 46080), (129, 46113), (135, 46137), (143, 46191), (149, 46218), (154, 46239), (159, 46287), (162, 46308), (171, 46434), (175, 46485), (180, 46506), (181, 46518), (183, 46560), (197, 46710), (200, 46743), (201, 46746), (203, 46797), (205, 46842), (206, 46848), (209, 46890), (215, 46953), (222, 47031), (225, 47088), (226, 47106), (230, 47139), (231, 47142), (233, 47181), (234, 47184), (238, 47265), (239, 47268), (243, 47328), (244, 47352), (247, 47403), (249, 47427), (252, 47451), (263, 47703), (266, 47760), (280, 48018), (282, 48087), (288, 48135), (295, 48222), (297, 48255), (299, 48258),

Gene: Ronan\_91 Start: 42329, Stop: 46189, Start Num: 3

Candidate Starts for Ronan\_91:

(Start: 3 @42329 has 175 MA's), (13, 42440), (15, 42464), (28, 42728), (29, 42734), (33, 42800), (36, 42836), (41, 42917), (43, 42953), (45, 42965), (46, 42971), (61, 43292), (62, 43313), (64, 43349), (69, 43469), (79, 43583), (83, 43616), (84, 43625), (92, 43721), (94, 43739), (103, 43811), (107, 43856), (112, 43874), (119, 43919), (126, 43967), (129, 44000), (135, 44024), (143, 44078), (149, 44105), (154, 44126), (159, 44174), (162, 44195), (171, 44321), (175, 44372), (180, 44393), (181, 44405), (183, 44447), (197, 44597), (200, 44630), (201, 44633), (203, 44684), (205, 44729), (206, 44735), (209, 44777), (215, 44840), (222, 44918), (225, 44975), (226, 44993), (230, 45026), (231, 45029), (233, 45068), (234, 45071), (238, 45152), (239, 45155), (243, 45215), (244, 45239), (247, 45290),

(249, 45314), (252, 45338), (263, 45590), (266, 45647), (280, 45905), (282, 45974), (288, 46022), (295, 46109), (297, 46142), (299, 46145),

Gene: Roots515\_96 Start: 45264, Stop: 49373, Start Num: 3

Candidate Starts for Roots515\_96:

(Start: 3 @45264 has 175 MA's), (13, 45375), (15, 45399), (28, 45663), (29, 45669), (33, 45735), (36, 45771), (41, 45852), (43, 45888), (45, 45900), (46, 45906), (47, 46107), (48, 46167), (59, 46485), (67, 46638), (69, 46707), (72, 46734), (79, 46815), (84, 46857), (88, 46893), (91, 46905), (99, 46962), (103, 46995), (107, 47040), (112, 47058), (119, 47103), (126, 47151), (129, 47184), (143, 47262), (149, 47289), (159, 47358), (162, 47379), (171, 47505), (175, 47556), (180, 47577), (181, 47589), (183, 47631), (197, 47781), (200, 47814), (201, 47817), (203, 47868), (205, 47913), (206, 47919), (209, 47961), (215, 48024), (222, 48102), (225, 48159), (226, 48177), (230, 48210), (231, 48213), (233, 48252), (234, 48255), (238, 48336), (239, 48339), (243, 48399), (244, 48423), (247, 48474), (249, 48498), (252, 48522), (263, 48774), (266, 48831), (280, 49089), (282, 49158), (288, 49206), (295, 49293), (297, 49326), (299, 49329),

Gene: SCentae\_93 Start: 43993, Stop: 47241, Start Num: 1

Candidate Starts for SCentae\_93:

(Start: 1 @43993 has 4 MA's), (9, 44074), (15, 44149), (16, 44152), (18, 44209), (19, 44233), (23, 44296), (26, 44377), (27, 44392), (29, 44419), (35, 44503), (38, 44551), (43, 44638), (46, 44656), (52, 44695), (58, 44743), (74, 44932), (84, 45013), (99, 45118), (100, 45139), (103, 45145), (156, 45355), (158, 45373), (166, 45397), (173, 45484), (178, 45523), (183, 45586), (204, 45805), (206, 45850), (210, 45868), (218, 45949), (226, 46072), (242, 46282), (243, 46291), (250, 46387), (251, 46390), (255, 46450), (257, 46498), (261, 46624), (262, 46642), (265, 46696), (276, 46858), (278, 46942), (282, 47023), (294, 47158), (299, 47197), (300, 47227),

Gene: SVoro\_95 Start: 45229, Stop: 49398, Start Num: 3

Candidate Starts for SVoro\_95:

(Start: 3 @45229 has 175 MA's), (13, 45340), (15, 45364), (28, 45628), (29, 45634), (33, 45700), (36, 45736), (41, 45817), (43, 45853), (45, 45865), (46, 45871), (47, 46072), (48, 46132), (61, 46501), (62, 46522), (64, 46558), (69, 46678), (79, 46792), (83, 46825), (84, 46834), (92, 46930), (94, 46948), (103, 47020), (107, 47065), (112, 47083), (119, 47128), (126, 47176), (129, 47209), (135, 47233), (143, 47287), (149, 47314), (154, 47335), (159, 47383), (162, 47404), (171, 47530), (175, 47581), (180, 47602), (181, 47614), (183, 47656), (197, 47806), (200, 47839), (201, 47842), (203, 47893), (205, 47938), (206, 47944), (209, 47986), (215, 48049), (222, 48127), (225, 48184), (226, 48202), (230, 48235), (231, 48238), (233, 48277), (234, 48280), (238, 48361), (239, 48364), (243, 48424), (244, 48448), (247, 48499), (249, 48523), (252, 48547), (263, 48799), (266, 48856), (280, 49114), (282, 49183), (288, 49231), (295, 49318), (297, 49351), (299, 49354),

Gene: Salacia\_101 Start: 45319, Stop: 49431, Start Num: 3

Candidate Starts for Salacia\_101:

(Start: 3 @45319 has 175 MA's), (13, 45430), (15, 45454), (28, 45718), (29, 45724), (33, 45790), (36, 45826), (41, 45907), (43, 45943), (45, 45955), (46, 45961), (47, 46162), (59, 46543), (67, 46696), (69, 46765), (72, 46792), (79, 46873), (84, 46915), (88, 46951), (91, 46963), (99, 47020), (103, 47053), (107, 47098), (112, 47116), (119, 47161), (126, 47209), (129, 47242), (135, 47266), (143, 47320), (149, 47347), (154, 47368), (159, 47416), (162, 47437), (171, 47563), (175, 47614), (180, 47635), (181, 47647), (183, 47689), (197, 47839), (200, 47872), (201, 47875), (203, 47926), (205, 47971), (206, 47977), (209, 48019), (215, 48082), (222, 48160), (225, 48217), (226, 48235), (230, 48268), (231, 48271), (233, 48310), (234, 48313), (238, 48394), (239, 48397), (243, 48457), (244, 48481), (247, 48532), (249, 48556), (252, 48580), (263, 48832), (266, 48889), (280, 49147), (282, 49216), (288, 49264), (295, 49351), (297, 49384), (299, 49387),

Gene: Sauce\_98 Start: 44368, Stop: 48228, Start Num: 3

Candidate Starts for Sauce\_98:

(Start: 3 @44368 has 175 MA's), (13, 44479), (15, 44503), (28, 44767), (29, 44773), (33, 44839), (36, 44875), (41, 44956), (43, 44992), (45, 45004), (46, 45010), (61, 45331), (62, 45352), (64, 45388), (69, 45508), (79, 45622), (83, 45655), (84, 45664), (92, 45760), (94, 45778), (103, 45850), (107, 45895), (112, 45913), (119, 45958), (126, 46006), (129, 46039), (135, 46063), (143, 46117), (149, 46144), (154, 46165), (159, 46213), (162, 46234), (171, 46360), (175, 46411), (180, 46432), (181, 46444), (183, 46486), (197, 46636), (200, 46669), (201, 46672), (203, 46723), (205, 46768), (206, 46774), (209, 46816), (215, 46879), (222, 46957), (225, 47014), (226, 47032), (230, 47065), (231, 47068), (233, 47107), (234, 47110), (238, 47191), (239, 47194), (243, 47254), (244, 47278), (247, 47329), (249, 47353), (252, 47377), (263, 47629), (266, 47686), (280, 47944), (282, 48013), (288, 48061), (295, 48148), (297, 48181), (299, 48184),

Gene: ScoobyDoobyDoo\_90 Start: 42672, Stop: 46445, Start Num: 3

Candidate Starts for ScoobyDoobyDoo\_90:

(Start: 3 @42672 has 175 MA's), (15, 42807), (17, 42831), (19, 42891), (20, 42903), (21, 42948), (22, 42951), (23, 42954), (29, 43077), (32, 43134), (33, 43143), (38, 43209), (41, 43260), (42, 43269), (43, 43296), (46, 43314), (55, 43374), (60, 43449), (64, 43509), (69, 43623), (79, 43737), (83, 43770), (84, 43779), (87, 43839), (89, 43845), (90, 43851), (102, 43944), (138, 44250), (139, 44265), (141, 44277), (144, 44304), (148, 44325), (157, 44373), (159, 44394), (176, 44592), (188, 44730), (189, 44754), (195, 44817), (197, 44838), (202, 44889), (203, 44916), (208, 44979), (211, 45018), (217, 45078), (225, 45186), (226, 45204), (227, 45219), (240, 45360), (242, 45408), (251, 45555), (254, 45633), (261, 45819), (266, 45891), (268, 45906), (271, 45939), (273, 45954), (276, 46050), (280, 46143), (282, 46212), (289, 46263), (292, 46338),

Gene: ScottMcG\_94 Start: 44239, Stop: 48348, Start Num: 3

Candidate Starts for ScottMcG\_94:

(Start: 3 @44239 has 175 MA's), (13, 44350), (15, 44374), (28, 44638), (29, 44644), (33, 44710), (36, 44746), (41, 44827), (43, 44863), (45, 44875), (46, 44881), (47, 45082), (48, 45142), (59, 45460), (67, 45613), (69, 45682), (72, 45709), (79, 45790), (84, 45832), (88, 45868), (91, 45880), (99, 45937), (103, 45970), (107, 46015), (112, 46033), (119, 46078), (126, 46126), (129, 46159), (143, 46237), (149, 46264), (159, 46333), (162, 46354), (171, 46480), (175, 46531), (180, 46552), (181, 46564), (183, 46606), (197, 46756), (200, 46789), (201, 46792), (203, 46843), (205, 46888), (206, 46894), (209, 46936), (215, 46999), (222, 47077), (225, 47134), (226, 47152), (230, 47185), (231, 47188), (233, 47227), (234, 47230), (238, 47311), (239, 47314), (243, 47374), (244, 47398), (247, 47449), (249, 47473), (252, 47497), (263, 47749), (266, 47806), (280, 48064), (282, 48133), (288, 48181), (295, 48268), (297, 48301), (299, 48304),

Gene: Sebata\_99 Start: 45968, Stop: 49828, Start Num: 3

Candidate Starts for Sebata\_99:

(Start: 3 @45968 has 175 MA's), (13, 46079), (15, 46103), (28, 46367), (29, 46373), (33, 46439), (36, 46475), (41, 46556), (43, 46592), (45, 46604), (46, 46610), (61, 46931), (62, 46952), (64, 46988), (69, 47108), (79, 47222), (83, 47255), (84, 47264), (92, 47360), (94, 47378), (103, 47450), (107, 47495), (112, 47513), (119, 47558), (126, 47606), (129, 47639), (135, 47663), (143, 47717), (149, 47744), (154, 47765), (159, 47813), (162, 47834), (171, 47960), (175, 48011), (180, 48032), (181, 48044), (183, 48086), (197, 48236), (200, 48269), (201, 48272), (203, 48323), (205, 48368), (206, 48374), (209, 48416), (215, 48479), (222, 48557), (225, 48614), (226, 48632), (230, 48665), (231, 48668), (233, 48707), (234, 48710), (238, 48791), (239, 48794), (243, 48854), (244, 48878), (247, 48929), (249, 48953), (252, 48977), (263, 49229), (266, 49286), (280, 49544), (282, 49613), (288, 49661), (295, 49748), (297, 49781), (299, 49784),

Gene: Settecandela\_53 Start: 34080, Stop: 36638, Start Num: 68

Candidate Starts for Settecandela\_53:



(Start: 68 @34080 has 2 MA's), (69, 34092), (78, 34179), (81, 34224), (84, 34245), (88, 34305), (95, 34344), (97, 34365), (98, 34368), (104, 34419), (114, 34491), (115, 34497), (124, 34569), (153, 34722), (154, 34725), (156, 34746), (172, 34917), (183, 35013), (186, 35040), (190, 35115), (214, 35340), (224, 35472), (228, 35523), (235, 35637), (237, 35652), (241, 35691), (245, 35760), (264, 36114), (271, 36168), (272, 36174), (274, 36186), (277, 36345), (282, 36435), (284, 36447), (287, 36480),

Gene: Shaqnato\_90 Start: 43243, Stop: 47103, Start Num: 3

Candidate Starts for Shaqnato\_90:

(Start: 3 @43243 has 175 MA's), (13, 43354), (15, 43378), (28, 43642), (29, 43648), (33, 43714), (36, 43750), (41, 43831), (43, 43867), (45, 43879), (46, 43885), (61, 44206), (62, 44227), (64, 44263), (69, 44383), (79, 44497), (83, 44530), (84, 44539), (92, 44635), (94, 44653), (103, 44725), (107, 44770), (112, 44788), (119, 44833), (126, 44881), (129, 44914), (135, 44938), (143, 44992), (149, 45019), (154, 45040), (159, 45088), (162, 45109), (171, 45235), (175, 45286), (180, 45307), (181, 45319), (183, 45361), (197, 45511), (200, 45544), (201, 45547), (203, 45598), (205, 45643), (206, 45649), (209, 45691), (215, 45754), (222, 45832), (225, 45889), (226, 45907), (230, 45940), (231, 45943), (233, 45982), (234, 45985), (238, 46066), (239, 46069), (243, 46129), (244, 46153), (247, 46204), (249, 46228), (252, 46252), (263, 46504), (266, 46561), (280, 46819), (282, 46888), (288, 46936), (295, 47023), (297, 47056), (299, 47059),

Gene: Shelob\_99 Start: 46063, Stop: 50172, Start Num: 3

Candidate Starts for Shelob\_99:

(Start: 3 @46063 has 175 MA's), (13, 46174), (15, 46198), (28, 46462), (29, 46468), (33, 46534), (36, 46570), (41, 46651), (43, 46687), (45, 46699), (46, 46705), (47, 46906), (48, 46966), (59, 47284), (67, 47437), (69, 47506), (72, 47533), (79, 47614), (84, 47656), (88, 47692), (91, 47704), (99, 47761), (103, 47794), (107, 47839), (112, 47857), (119, 47902), (126, 47950), (129, 47983), (143, 48061), (149, 48088), (159, 48157), (162, 48178), (171, 48304), (175, 48355), (180, 48376), (181, 48388), (183, 48430), (197, 48580), (200, 48613), (201, 48616), (203, 48667), (205, 48712), (206, 48718), (209, 48760), (215, 48823), (222, 48901), (225, 48958), (226, 48976), (230, 49009), (231, 49012), (233, 49051), (234, 49054), (238, 49135), (239, 49138), (243, 49198), (244, 49222), (247, 49273), (249, 49297), (252, 49321), (263, 49573), (266, 49630), (280, 49888), (282, 49957), (288, 50005), (295, 50092), (297, 50125), (299, 50128),

Gene: ShiaLabeouf\_97 Start: 45275, Stop: 49387, Start Num: 3

Candidate Starts for ShiaLabeouf\_97:

(Start: 3 @45275 has 175 MA's), (13, 45386), (15, 45410), (28, 45674), (29, 45680), (33, 45746), (36, 45782), (41, 45863), (43, 45899), (45, 45911), (46, 45917), (47, 46118), (59, 46499), (67, 46652), (69, 46721), (72, 46748), (79, 46829), (84, 46871), (88, 46907), (91, 46919), (99, 46976), (103, 47009), (107, 47054), (112, 47072), (119, 47117), (126, 47165), (129, 47198), (135, 47222), (143, 47276), (149, 47303), (154, 47324), (159, 47372), (162, 47393), (171, 47519), (175, 47570), (180, 47591), (181, 47603), (183, 47645), (197, 47795), (200, 47828), (201, 47831), (203, 47882), (205, 47927), (206, 47933), (209, 47975), (215, 48038), (222, 48116), (225, 48173), (226, 48191), (230, 48224), (231, 48227), (233, 48266), (234, 48269), (238, 48350), (239, 48353), (243, 48413), (244, 48437), (247, 48488), (249, 48512), (252, 48536), (263, 48788), (266, 48845), (280, 49103), (282, 49172), (288, 49220), (295, 49307), (297, 49340), (299, 49343),

Gene: Shifa\_86 Start: 42697, Stop: 47232, Start Num: 3

Candidate Starts for Shifa\_86:

(Start: 3 @42697 has 175 MA's), (13, 42808), (15, 42832), (26, 43060), (28, 43096), (29, 43102), (33, 43168), (36, 43204), (41, 43285), (43, 43321), (45, 43333), (46, 43339), (47, 43540), (48, 43600), (62, 43990), (64, 44026), (69, 44146), (71, 44164), (79, 44260), (83, 44293), (84, 44302), (92, 44398), (94, 44416), (103, 44488), (108, 44608), (110, 44671), (111, 44707), (116, 44755), (120, 44806), (121, 44812), (122, 44815), (127, 44851), (130, 44899), (132, 44917), (136, 44962), (142, 45010), (143,

45043), (150, 45121), (151, 45148), (159, 45217), (162, 45238), (171, 45364), (175, 45415), (180, 45436), (181, 45448), (183, 45490), (197, 45640), (200, 45673), (201, 45676), (203, 45727), (205, 45772), (206, 45778), (209, 45820), (215, 45883), (222, 45961), (225, 46018), (226, 46036), (230, 46069), (231, 46072), (233, 46111), (234, 46114), (238, 46195), (239, 46198), (243, 46258), (244, 46282), (247, 46333), (249, 46357), (252, 46381), (263, 46633), (266, 46690), (280, 46948), (282, 47017), (288, 47065), (295, 47152), (297, 47185), (299, 47188),

Gene: Shnickers\_98 Start: 45239, Stop: 49351, Start Num: 3

Candidate Starts for Shnickers\_98:

(Start: 3 @45239 has 175 MA's), (13, 45350), (15, 45374), (28, 45638), (29, 45644), (33, 45710), (36, 45746), (41, 45827), (43, 45863), (45, 45875), (46, 45881), (47, 46082), (59, 46463), (67, 46616), (69, 46685), (72, 46712), (79, 46793), (84, 46835), (88, 46871), (91, 46883), (99, 46940), (103, 46973), (107, 47018), (112, 47036), (119, 47081), (126, 47129), (129, 47162), (135, 47186), (143, 47240), (149, 47267), (154, 47288), (159, 47336), (162, 47357), (171, 47483), (175, 47534), (180, 47555), (181, 47567), (183, 47609), (197, 47759), (200, 47792), (201, 47795), (203, 47846), (205, 47891), (206, 47897), (209, 47939), (215, 48002), (222, 48080), (225, 48137), (226, 48155), (230, 48188), (231, 48191), (233, 48230), (234, 48233), (238, 48314), (239, 48317), (243, 48377), (244, 48401), (247, 48452), (249, 48476), (252, 48500), (263, 48752), (266, 48809), (280, 49067), (282, 49136), (288, 49184), (295, 49271), (297, 49304), (299, 49307),

Gene: Shrimp\_97 Start: 45075, Stop: 49184, Start Num: 3

Candidate Starts for Shrimp\_97:

(Start: 3 @45075 has 175 MA's), (13, 45186), (15, 45210), (28, 45474), (29, 45480), (33, 45546), (36, 45582), (41, 45663), (43, 45699), (45, 45711), (46, 45717), (47, 45918), (48, 45978), (59, 46296), (67, 46449), (69, 46518), (72, 46545), (79, 46626), (84, 46668), (88, 46704), (91, 46716), (99, 46773), (103, 46806), (107, 46851), (112, 46869), (119, 46914), (126, 46962), (129, 46995), (143, 47073), (149, 47100), (159, 47169), (162, 47190), (171, 47316), (175, 47367), (180, 47388), (181, 47400), (183, 47442), (197, 47592), (200, 47625), (201, 47628), (203, 47679), (205, 47724), (206, 47730), (209, 47772), (215, 47835), (222, 47913), (225, 47970), (226, 47988), (230, 48021), (231, 48024), (233, 48063), (234, 48066), (238, 48147), (239, 48150), (243, 48210), (244, 48234), (247, 48285), (249, 48309), (252, 48333), (263, 48585), (266, 48642), (280, 48900), (282, 48969), (288, 49017), (295, 49104), (297, 49137), (299, 49140),

Gene: SilverDipper\_99 Start: 44483, Stop: 48595, Start Num: 3

Candidate Starts for SilverDipper\_99:

(Start: 3 @44483 has 175 MA's), (13, 44594), (15, 44618), (28, 44882), (29, 44888), (33, 44954), (36, 44990), (41, 45071), (43, 45107), (45, 45119), (46, 45125), (47, 45326), (59, 45707), (67, 45860), (69, 45929), (72, 45956), (79, 46037), (84, 46079), (88, 46115), (91, 46127), (99, 46184), (103, 46217), (107, 46262), (112, 46280), (119, 46325), (126, 46373), (129, 46406), (135, 46430), (143, 46484), (149, 46511), (154, 46532), (159, 46580), (162, 46601), (171, 46727), (175, 46778), (180, 46799), (181, 46811), (183, 46853), (197, 47003), (200, 47036), (201, 47039), (203, 47090), (205, 47135), (206, 47141), (209, 47183), (215, 47246), (222, 47324), (225, 47381), (226, 47399), (230, 47432), (231, 47435), (233, 47474), (234, 47477), (238, 47558), (239, 47561), (243, 47621), (244, 47645), (247, 47696), (249, 47720), (252, 47744), (263, 47996), (266, 48053), (280, 48311), (282, 48380), (288, 48428), (295, 48515), (297, 48548), (299, 48551),

Gene: Skog\_157 Start: 73546, Stop: 76794, Start Num: 1

Candidate Starts for Skog\_157:

(Start: 1 @73546 has 4 MA's), (15, 73705), (16, 73708), (23, 73852), (28, 73969), (29, 73975), (35, 74059), (43, 74194), (45, 74206), (46, 74212), (52, 74251), (57, 74290), (58, 74299), (66, 74380), (74, 74488), (79, 74527), (84, 74569), (99, 74674), (100, 74695), (103, 74701), (122, 74788), (156, 74911), (158, 74929), (166, 74953), (173, 75040), (178, 75079), (183, 75145), (206, 75406), (212, 75436), (218, 75508), (220, 75526), (221, 75535), (223, 75556), (226, 75631), (238, 75787), (244, 75874),

(250, 75946), (257, 76057), (261, 76183), (262, 76201), (265, 76255), (275, 76369), (278, 76501),  
(282, 76582), (284, 76594), (291, 76678), (294, 76717), (299, 76750), (301, 76783),

Gene: SmallFry\_98 Start: 44464, Stop: 48576, Start Num: 3

Candidate Starts for SmallFry\_98:

(Start: 3 @44464 has 175 MA's), (13, 44575), (15, 44599), (28, 44863), (29, 44869), (33, 44935), (36, 44971), (41, 45052), (43, 45088), (45, 45100), (46, 45106), (47, 45307), (59, 45688), (67, 45841), (69, 45910), (72, 45937), (79, 46018), (84, 46060), (88, 46096), (91, 46108), (99, 46165), (103, 46198), (107, 46243), (112, 46261), (119, 46306), (126, 46354), (129, 46387), (135, 46411), (143, 46465), (149, 46492), (154, 46513), (159, 46561), (162, 46582), (171, 46708), (175, 46759), (180, 46780), (181, 46792), (183, 46834), (197, 46984), (200, 47017), (201, 47020), (203, 47071), (205, 47116), (206, 47122), (209, 47164), (215, 47227), (222, 47305), (225, 47362), (226, 47380), (230, 47413), (231, 47416), (233, 47455), (234, 47458), (238, 47539), (239, 47542), (243, 47602), (244, 47626), (247, 47677), (249, 47701), (252, 47725), (263, 47977), (266, 48034), (280, 48292), (282, 48361), (288, 48409), (295, 48496), (297, 48529), (299, 48532),

Gene: Spec\_94 Start: 45004, Stop: 49116, Start Num: 3

Candidate Starts for Spec\_94:

(Start: 3 @45004 has 175 MA's), (13, 45115), (15, 45139), (28, 45403), (29, 45409), (33, 45475), (36, 45511), (41, 45592), (43, 45628), (45, 45640), (46, 45646), (47, 45847), (59, 46228), (67, 46381), (69, 46450), (72, 46477), (79, 46558), (84, 46600), (88, 46636), (91, 46648), (99, 46705), (103, 46738), (107, 46783), (112, 46801), (119, 46846), (126, 46894), (129, 46927), (135, 46951), (143, 47005), (149, 47032), (154, 47053), (159, 47101), (162, 47122), (171, 47248), (175, 47299), (180, 47320), (181, 47332), (183, 47374), (197, 47524), (200, 47557), (201, 47560), (203, 47611), (205, 47656), (206, 47662), (209, 47704), (215, 47767), (222, 47845), (225, 47902), (226, 47920), (230, 47953), (231, 47956), (233, 47995), (234, 47998), (238, 48079), (239, 48082), (243, 48142), (244, 48166), (247, 48217), (249, 48241), (252, 48265), (263, 48517), (266, 48574), (280, 48832), (282, 48901), (288, 48949), (295, 49036), (297, 49069), (299, 49072),

Gene: Specks\_103 Start: 47138, Stop: 51250, Start Num: 3

Candidate Starts for Specks\_103:

(Start: 3 @47138 has 175 MA's), (13, 47249), (15, 47273), (28, 47537), (29, 47543), (33, 47609), (36, 47645), (41, 47726), (43, 47762), (45, 47774), (46, 47780), (47, 47981), (59, 48362), (67, 48515), (69, 48584), (72, 48611), (79, 48692), (84, 48734), (88, 48770), (91, 48782), (99, 48839), (103, 48872), (107, 48917), (112, 48935), (119, 48980), (126, 49028), (129, 49061), (135, 49085), (143, 49139), (149, 49166), (154, 49187), (159, 49235), (162, 49256), (171, 49382), (175, 49433), (180, 49454), (181, 49466), (183, 49508), (197, 49658), (200, 49691), (201, 49694), (203, 49745), (205, 49790), (206, 49796), (209, 49838), (215, 49901), (222, 49979), (225, 50036), (226, 50054), (230, 50087), (231, 50090), (233, 50129), (234, 50132), (238, 50213), (239, 50216), (243, 50276), (244, 50300), (247, 50351), (249, 50375), (252, 50399), (263, 50651), (266, 50708), (280, 50966), (282, 51035), (288, 51083), (295, 51170), (297, 51203), (299, 51206),

Gene: Sprinklers\_93 Start: 43740, Stop: 47600, Start Num: 3

Candidate Starts for Sprinklers\_93:

(Start: 3 @43740 has 175 MA's), (13, 43851), (15, 43875), (28, 44139), (29, 44145), (33, 44211), (36, 44247), (41, 44328), (43, 44364), (45, 44376), (46, 44382), (61, 44703), (62, 44724), (64, 44760), (69, 44880), (79, 44994), (83, 45027), (84, 45036), (92, 45132), (94, 45150), (103, 45222), (107, 45267), (112, 45285), (119, 45330), (126, 45378), (129, 45411), (135, 45435), (143, 45489), (149, 45516), (154, 45537), (159, 45585), (162, 45606), (171, 45732), (175, 45783), (180, 45804), (181, 45816), (183, 45858), (197, 46008), (200, 46041), (201, 46044), (203, 46095), (205, 46140), (206, 46146), (209, 46188), (215, 46251), (222, 46329), (225, 46386), (226, 46404), (230, 46437), (231, 46440), (233, 46479), (234, 46482), (238, 46563), (239, 46566), (243, 46626), (244, 46650), (247, 46701), (249, 46725), (252, 46749), (263, 47001), (266, 47058), (280, 47316), (282, 47385), (288, 47433),

(295, 47520), (297, 47553), (299, 47556),

Gene: Spud\_97 Start: 45003, Stop: 49112, Start Num: 3

Candidate Starts for Spud\_97:

(Start: 3 @45003 has 175 MA's), (13, 45114), (15, 45138), (28, 45402), (29, 45408), (33, 45474), (36, 45510), (41, 45591), (43, 45627), (45, 45639), (46, 45645), (47, 45846), (48, 45906), (59, 46224), (67, 46377), (69, 46446), (72, 46473), (79, 46554), (84, 46596), (88, 46632), (91, 46644), (99, 46701), (103, 46734), (107, 46779), (112, 46797), (119, 46842), (126, 46890), (129, 46923), (143, 47001), (149, 47028), (159, 47097), (162, 47118), (171, 47244), (175, 47295), (180, 47316), (181, 47328), (183, 47370), (197, 47520), (200, 47553), (201, 47556), (203, 47607), (205, 47652), (206, 47658), (209, 47700), (215, 47763), (222, 47841), (225, 47898), (226, 47916), (230, 47949), (231, 47952), (233, 47991), (234, 47994), (238, 48075), (239, 48078), (243, 48138), (244, 48162), (247, 48213), (249, 48237), (252, 48261), (263, 48513), (266, 48570), (280, 48828), (282, 48897), (288, 48945), (295, 49032), (297, 49065), (299, 49068),

Gene: SrishMeg2525\_96 Start: 45178, Stop: 49287, Start Num: 3

Candidate Starts for SrishMeg2525\_96:

(Start: 3 @45178 has 175 MA's), (13, 45289), (15, 45313), (28, 45577), (29, 45583), (33, 45649), (36, 45685), (41, 45766), (43, 45802), (45, 45814), (46, 45820), (47, 46021), (48, 46081), (59, 46399), (67, 46552), (69, 46621), (72, 46648), (79, 46729), (84, 46771), (88, 46807), (91, 46819), (99, 46876), (103, 46909), (107, 46954), (112, 46972), (119, 47017), (126, 47065), (129, 47098), (143, 47176), (149, 47203), (159, 47272), (162, 47293), (171, 47419), (175, 47470), (180, 47491), (181, 47503), (183, 47545), (197, 47695), (200, 47728), (201, 47731), (203, 47782), (205, 47827), (206, 47833), (209, 47875), (215, 47938), (222, 48016), (225, 48073), (226, 48091), (230, 48124), (231, 48127), (233, 48166), (234, 48169), (238, 48250), (239, 48253), (243, 48313), (244, 48337), (247, 48388), (249, 48412), (252, 48436), (263, 48688), (266, 48745), (280, 49003), (282, 49072), (288, 49120), (295, 49207), (297, 49240), (299, 49243),

Gene: StephanieG\_96 Start: 45902, Stop: 50071, Start Num: 3

Candidate Starts for StephanieG\_96:

(Start: 3 @45902 has 175 MA's), (13, 46013), (15, 46037), (28, 46301), (29, 46307), (33, 46373), (36, 46409), (41, 46490), (43, 46526), (45, 46538), (46, 46544), (47, 46745), (48, 46805), (62, 47195), (64, 47231), (69, 47351), (71, 47369), (79, 47465), (83, 47498), (84, 47507), (92, 47603), (94, 47621), (103, 47693), (107, 47738), (112, 47756), (119, 47801), (126, 47849), (129, 47882), (135, 47906), (143, 47960), (149, 47987), (154, 48008), (159, 48056), (162, 48077), (171, 48203), (175, 48254), (180, 48275), (181, 48287), (183, 48329), (197, 48479), (200, 48512), (201, 48515), (203, 48566), (205, 48611), (206, 48617), (209, 48659), (215, 48722), (222, 48800), (225, 48857), (226, 48875), (230, 48908), (231, 48911), (233, 48950), (234, 48953), (238, 49034), (239, 49037), (243, 49097), (244, 49121), (247, 49172), (249, 49196), (252, 49220), (263, 49472), (266, 49529), (280, 49787), (282, 49856), (288, 49904), (295, 49991), (297, 50024), (299, 50027),

Gene: Stormageddon\_13 Start: 15160, Stop: 18429, Start Num: 2

Candidate Starts for Stormageddon\_13:

(Start: 2 @15160 has 3 MA's), (8, 15205), (15, 15298), (17, 15322), (20, 15394), (28, 15562), (29, 15568), (31, 15613), (32, 15625), (33, 15634), (34, 15646), (39, 15703), (42, 15754), (44, 15784), (46, 15799), (70, 16045), (76, 16114), (82, 16168), (85, 16192), (93, 16237), (118, 16318), (123, 16345), (146, 16483), (161, 16558), (163, 16576), (167, 16633), (184, 16828), (185, 16834), (191, 16924), (192, 16927), (198, 16975), (213, 17116), (219, 17182), (234, 17359), (256, 17692), (258, 17734), (267, 17902), (269, 17917), (270, 17923), (271, 17944), (280, 18151), (287, 18259), (294, 18346), (296, 18361), (298, 18379),

Gene: Stubby\_90 Start: 43088, Stop: 47623, Start Num: 3

Candidate Starts for Stubby\_90:

(Start: 3 @43088 has 175 MA's), (13, 43199), (15, 43223), (28, 43487), (29, 43493), (33, 43559), (36, 43595), (41, 43676), (43, 43712), (45, 43724), (46, 43730), (47, 43931), (48, 43991), (62, 44381), (64, 44417), (69, 44537), (71, 44555), (79, 44651), (83, 44684), (84, 44693), (92, 44789), (94, 44807), (103, 44879), (108, 44999), (110, 45062), (111, 45098), (116, 45146), (120, 45197), (121, 45203), (122, 45206), (127, 45242), (130, 45290), (132, 45308), (136, 45353), (142, 45401), (143, 45434), (150, 45512), (151, 45539), (159, 45608), (162, 45629), (171, 45755), (175, 45806), (180, 45827), (181, 45839), (183, 45881), (197, 46031), (200, 46064), (201, 46067), (203, 46118), (205, 46163), (206, 46169), (209, 46211), (215, 46274), (222, 46352), (225, 46409), (226, 46427), (230, 46460), (231, 46463), (233, 46502), (234, 46505), (238, 46586), (239, 46589), (243, 46649), (244, 46673), (247, 46724), (249, 46748), (252, 46772), (263, 47024), (266, 47081), (280, 47339), (282, 47408), (288, 47456), (295, 47543), (297, 47576), (299, 47579),

Gene: StubbySaigey\_100 Start: 43771, Stop: 47883, Start Num: 3

Candidate Starts for StubbySaigey\_100:

(Start: 3 @43771 has 175 MA's), (13, 43882), (15, 43906), (28, 44170), (29, 44176), (33, 44242), (36, 44278), (41, 44359), (43, 44395), (45, 44407), (46, 44413), (47, 44614), (59, 44995), (67, 45148), (69, 45217), (72, 45244), (79, 45325), (84, 45367), (88, 45403), (91, 45415), (99, 45472), (103, 45505), (107, 45550), (112, 45568), (119, 45613), (126, 45661), (129, 45694), (135, 45718), (143, 45772), (149, 45799), (154, 45820), (159, 45868), (162, 45889), (171, 46015), (175, 46066), (180, 46087), (181, 46099), (183, 46141), (197, 46291), (200, 46324), (201, 46327), (203, 46378), (205, 46423), (206, 46429), (209, 46471), (215, 46534), (222, 46612), (225, 46669), (226, 46687), (230, 46720), (231, 46723), (233, 46762), (234, 46765), (238, 46846), (239, 46849), (243, 46909), (244, 46933), (247, 46984), (249, 47008), (252, 47032), (263, 47284), (266, 47341), (280, 47599), (282, 47668), (288, 47716), (295, 47803), (297, 47836), (299, 47839),

Gene: Tainan\_102 Start: 46461, Stop: 50573, Start Num: 3

Candidate Starts for Tainan\_102:

(Start: 3 @46461 has 175 MA's), (13, 46572), (15, 46596), (28, 46860), (29, 46866), (33, 46932), (36, 46968), (41, 47049), (43, 47085), (45, 47097), (46, 47103), (47, 47304), (59, 47685), (67, 47838), (69, 47907), (72, 47934), (79, 48015), (84, 48057), (88, 48093), (91, 48105), (99, 48162), (103, 48195), (107, 48240), (112, 48258), (119, 48303), (126, 48351), (129, 48384), (135, 48408), (143, 48462), (149, 48489), (154, 48510), (159, 48558), (162, 48579), (171, 48705), (175, 48756), (180, 48777), (181, 48789), (183, 48831), (197, 48981), (200, 49014), (201, 49017), (203, 49068), (205, 49113), (206, 49119), (209, 49161), (215, 49224), (222, 49302), (225, 49359), (226, 49377), (230, 49410), (231, 49413), (233, 49452), (234, 49455), (238, 49536), (239, 49539), (243, 49599), (244, 49623), (247, 49674), (249, 49698), (252, 49722), (263, 49974), (266, 50031), (280, 50289), (282, 50358), (288, 50406), (295, 50493), (297, 50526), (299, 50529),

Gene: Teardrop\_97 Start: 44462, Stop: 48574, Start Num: 3

Candidate Starts for Teardrop\_97:

(Start: 3 @44462 has 175 MA's), (13, 44573), (15, 44597), (28, 44861), (29, 44867), (33, 44933), (36, 44969), (41, 45050), (43, 45086), (45, 45098), (46, 45104), (47, 45305), (59, 45686), (67, 45839), (69, 45908), (72, 45935), (79, 46016), (84, 46058), (88, 46094), (91, 46106), (99, 46163), (103, 46196), (107, 46241), (112, 46259), (119, 46304), (126, 46352), (129, 46385), (135, 46409), (143, 46463), (149, 46490), (154, 46511), (159, 46559), (162, 46580), (171, 46706), (175, 46757), (180, 46778), (181, 46790), (183, 46832), (197, 46982), (200, 47015), (201, 47018), (203, 47069), (205, 47114), (206, 47120), (209, 47162), (215, 47225), (222, 47303), (225, 47360), (226, 47378), (230, 47411), (231, 47414), (233, 47453), (234, 47456), (238, 47537), (239, 47540), (243, 47600), (244, 47624), (247, 47675), (249, 47699), (252, 47723), (263, 47975), (266, 48032), (280, 48290), (282, 48359), (288, 48407), (295, 48494), (297, 48527), (299, 48530),

Gene: TinyTim\_97 Start: 45071, Stop: 49180, Start Num: 3

Candidate Starts for TinyTim\_97:

(Start: 3 @45071 has 175 MA's), (13, 45182), (15, 45206), (28, 45470), (29, 45476), (33, 45542), (36, 45578), (41, 45659), (43, 45695), (45, 45707), (46, 45713), (47, 45914), (48, 45974), (59, 46292), (67, 46445), (69, 46514), (72, 46541), (79, 46622), (84, 46664), (88, 46700), (91, 46712), (99, 46769), (103, 46802), (107, 46847), (112, 46865), (119, 46910), (126, 46958), (129, 46991), (143, 47069), (149, 47096), (159, 47165), (162, 47186), (171, 47312), (175, 47363), (180, 47384), (181, 47396), (183, 47438), (197, 47588), (200, 47621), (201, 47624), (203, 47675), (205, 47720), (206, 47726), (209, 47768), (215, 47831), (222, 47909), (225, 47966), (226, 47984), (230, 48017), (231, 48020), (233, 48059), (234, 48062), (238, 48143), (239, 48146), (243, 48206), (244, 48230), (247, 48281), (249, 48305), (252, 48329), (263, 48581), (266, 48638), (280, 48896), (282, 48965), (288, 49013), (295, 49100), (297, 49133), (299, 49136),

Gene: Tonenili\_111 Start: 49216, Stop: 52926, Start Num: 3

Candidate Starts for Tonenili\_111:

(Start: 3 @49216 has 175 MA's), (4, 49231), (13, 49327), (15, 49351), (28, 49615), (29, 49621), (36, 49723), (41, 49804), (42, 49813), (43, 49840), (49, 49858), (62, 50062), (64, 50098), (69, 50218), (71, 50236), (79, 50332), (83, 50365), (84, 50374), (94, 50488), (103, 50560), (107, 50605), (112, 50623), (119, 50668), (126, 50716), (129, 50749), (143, 50827), (149, 50854), (159, 50923), (162, 50944), (164, 50956), (171, 51070), (175, 51121), (181, 51154), (183, 51196), (194, 51334), (200, 51385), (201, 51388), (203, 51424), (205, 51472), (206, 51478), (215, 51577), (222, 51655), (226, 51730), (230, 51763), (231, 51766), (233, 51805), (234, 51808), (238, 51889), (239, 51892), (243, 51952), (244, 51976), (249, 52051), (263, 52327), (266, 52384), (280, 52642), (282, 52711), (288, 52759), (297, 52879), (299, 52882),

Gene: Tortoise16\_95 Start: 45063, Stop: 49175, Start Num: 3

Candidate Starts for Tortoise16\_95:

(Start: 3 @45063 has 175 MA's), (13, 45174), (15, 45198), (28, 45462), (29, 45468), (33, 45534), (36, 45570), (41, 45651), (43, 45687), (45, 45699), (46, 45705), (47, 45906), (59, 46287), (67, 46440), (69, 46509), (72, 46536), (79, 46617), (84, 46659), (88, 46695), (91, 46707), (99, 46764), (103, 46797), (107, 46842), (112, 46860), (119, 46905), (126, 46953), (129, 46986), (135, 47010), (143, 47064), (149, 47091), (154, 47112), (159, 47160), (162, 47181), (171, 47307), (175, 47358), (180, 47379), (181, 47391), (183, 47433), (197, 47583), (200, 47616), (201, 47619), (203, 47670), (205, 47715), (206, 47721), (209, 47763), (215, 47826), (222, 47904), (225, 47961), (226, 47979), (230, 48012), (231, 48015), (233, 48054), (234, 48057), (238, 48138), (239, 48141), (243, 48201), (244, 48225), (247, 48276), (249, 48300), (252, 48324), (263, 48576), (266, 48633), (280, 48891), (282, 48960), (288, 49008), (295, 49095), (297, 49128), (299, 49131),

Gene: Trinitium\_94 Start: 43509, Stop: 47621, Start Num: 3

Candidate Starts for Trinitium\_94:

(Start: 3 @43509 has 175 MA's), (13, 43620), (15, 43644), (28, 43908), (29, 43914), (33, 43980), (36, 44016), (41, 44097), (43, 44133), (45, 44145), (46, 44151), (47, 44352), (59, 44733), (67, 44886), (69, 44955), (72, 44982), (79, 45063), (84, 45105), (88, 45141), (91, 45153), (99, 45210), (103, 45243), (107, 45288), (112, 45306), (119, 45351), (126, 45399), (129, 45432), (135, 45456), (143, 45510), (149, 45537), (154, 45558), (159, 45606), (162, 45627), (171, 45753), (175, 45804), (180, 45825), (181, 45837), (183, 45879), (197, 46029), (200, 46062), (201, 46065), (203, 46116), (205, 46161), (206, 46167), (209, 46209), (215, 46272), (222, 46350), (225, 46407), (226, 46425), (230, 46458), (231, 46461), (233, 46500), (234, 46503), (238, 46584), (239, 46587), (243, 46647), (244, 46671), (247, 46722), (249, 46746), (252, 46770), (263, 47022), (266, 47079), (280, 47337), (282, 47406), (288, 47454), (295, 47541), (297, 47574), (299, 47577),

Gene: Turret\_92 Start: 42951, Stop: 47060, Start Num: 3

Candidate Starts for Turret\_92:

(Start: 3 @42951 has 175 MA's), (13, 43062), (15, 43086), (28, 43350), (29, 43356), (33, 43422), (36, 43458), (41, 43539), (43, 43575), (45, 43587), (46, 43593), (47, 43794), (48, 43854), (59, 44172), (67,

44325), (69, 44394), (72, 44421), (79, 44502), (84, 44544), (88, 44580), (91, 44592), (99, 44649), (103, 44682), (107, 44727), (112, 44745), (119, 44790), (126, 44838), (129, 44871), (143, 44949), (149, 44976), (159, 45045), (162, 45066), (171, 45192), (175, 45243), (180, 45264), (181, 45276), (183, 45318), (197, 45468), (200, 45501), (201, 45504), (203, 45555), (205, 45600), (206, 45606), (209, 45648), (215, 45711), (222, 45789), (225, 45846), (226, 45864), (230, 45897), (231, 45900), (233, 45939), (234, 45942), (238, 46023), (239, 46026), (243, 46086), (244, 46110), (247, 46161), (249, 46185), (252, 46209), (263, 46461), (266, 46518), (280, 46776), (282, 46845), (288, 46893), (295, 46980), (297, 47013), (299, 47016),

Gene: Tyke\_99 Start: 46604, Stop: 50716, Start Num: 3

Candidate Starts for Tyke\_99:

(Start: 3 @46604 has 175 MA's), (13, 46715), (15, 46739), (28, 47003), (29, 47009), (33, 47075), (36, 47111), (41, 47192), (43, 47228), (45, 47240), (46, 47246), (47, 47447), (59, 47828), (67, 47981), (69, 48050), (72, 48077), (79, 48158), (84, 48200), (88, 48236), (91, 48248), (99, 48305), (103, 48338), (107, 48383), (112, 48401), (119, 48446), (126, 48494), (129, 48527), (135, 48551), (143, 48605), (149, 48632), (154, 48653), (159, 48701), (162, 48722), (171, 48848), (175, 48899), (180, 48920), (181, 48932), (183, 48974), (197, 49124), (200, 49157), (201, 49160), (203, 49211), (205, 49256), (206, 49262), (209, 49304), (215, 49367), (222, 49445), (225, 49502), (226, 49520), (230, 49553), (231, 49556), (233, 49595), (234, 49598), (238, 49679), (239, 49682), (243, 49742), (244, 49766), (247, 49817), (249, 49841), (252, 49865), (263, 50117), (266, 50174), (280, 50432), (282, 50501), (288, 50549), (295, 50636), (297, 50669), (299, 50672),

Gene: ValleyTerrace\_98 Start: 44483, Stop: 48595, Start Num: 3

Candidate Starts for ValleyTerrace\_98:

(Start: 3 @44483 has 175 MA's), (13, 44594), (15, 44618), (28, 44882), (29, 44888), (33, 44954), (36, 44990), (41, 45071), (43, 45107), (45, 45119), (46, 45125), (47, 45326), (59, 45707), (67, 45860), (69, 45929), (72, 45956), (79, 46037), (84, 46079), (88, 46115), (91, 46127), (99, 46184), (103, 46217), (107, 46262), (112, 46280), (119, 46325), (126, 46373), (129, 46406), (135, 46430), (143, 46484), (149, 46511), (154, 46532), (159, 46580), (162, 46601), (171, 46727), (175, 46778), (180, 46799), (181, 46811), (183, 46853), (197, 47003), (200, 47036), (201, 47039), (203, 47090), (205, 47135), (206, 47141), (209, 47183), (215, 47246), (222, 47324), (225, 47381), (226, 47399), (230, 47432), (231, 47435), (233, 47474), (234, 47477), (238, 47558), (239, 47561), (243, 47621), (244, 47645), (247, 47696), (249, 47720), (252, 47744), (263, 47996), (266, 48053), (280, 48311), (282, 48380), (288, 48428), (295, 48515), (297, 48548), (299, 48551),

Gene: Wally\_96 Start: 43611, Stop: 47723, Start Num: 3

Candidate Starts for Wally\_96:

(Start: 3 @43611 has 175 MA's), (13, 43722), (15, 43746), (28, 44010), (29, 44016), (33, 44082), (36, 44118), (41, 44199), (43, 44235), (45, 44247), (46, 44253), (47, 44454), (59, 44835), (67, 44988), (69, 45057), (72, 45084), (79, 45165), (84, 45207), (88, 45243), (91, 45255), (99, 45312), (103, 45345), (107, 45390), (112, 45408), (119, 45453), (126, 45501), (129, 45534), (135, 45558), (143, 45612), (149, 45639), (154, 45660), (159, 45708), (162, 45729), (171, 45855), (175, 45906), (180, 45927), (181, 45939), (183, 45981), (197, 46131), (200, 46164), (201, 46167), (203, 46218), (205, 46263), (206, 46269), (209, 46311), (215, 46374), (222, 46452), (225, 46509), (226, 46527), (230, 46560), (231, 46563), (233, 46602), (234, 46605), (238, 46686), (239, 46689), (243, 46749), (244, 46773), (247, 46824), (249, 46848), (252, 46872), (263, 47124), (266, 47181), (280, 47439), (282, 47508), (288, 47556), (295, 47643), (297, 47676), (299, 47679),

Gene: Willis\_98 Start: 44966, Stop: 49075, Start Num: 3

Candidate Starts for Willis\_98:

(Start: 3 @44966 has 175 MA's), (13, 45077), (15, 45101), (28, 45365), (29, 45371), (33, 45437), (36, 45473), (41, 45554), (43, 45590), (45, 45602), (46, 45608), (47, 45809), (48, 45869), (59, 46187), (67, 46340), (69, 46409), (72, 46436), (79, 46517), (84, 46559), (88, 46595), (91, 46607), (99, 46664), (103,

46697), (107, 46742), (112, 46760), (119, 46805), (126, 46853), (129, 46886), (143, 46964), (149, 46991), (159, 47060), (162, 47081), (171, 47207), (175, 47258), (180, 47279), (181, 47291), (183, 47333), (197, 47483), (200, 47516), (201, 47519), (203, 47570), (205, 47615), (206, 47621), (209, 47663), (215, 47726), (222, 47804), (225, 47861), (226, 47879), (230, 47912), (231, 47915), (233, 47954), (234, 47957), (238, 48038), (239, 48041), (243, 48101), (244, 48125), (247, 48176), (249, 48200), (252, 48224), (263, 48476), (266, 48533), (280, 48791), (282, 48860), (288, 48908), (295, 48995), (297, 49028), (299, 49031),

Gene: Yassified\_94 Start: 43787, Stop: 47647, Start Num: 3

Candidate Starts for Yassified\_94:

(Start: 3 @43787 has 175 MA's), (13, 43898), (15, 43922), (28, 44186), (29, 44192), (33, 44258), (36, 44294), (41, 44375), (43, 44411), (45, 44423), (46, 44429), (61, 44750), (62, 44771), (64, 44807), (69, 44927), (79, 45041), (83, 45074), (84, 45083), (92, 45179), (94, 45197), (103, 45269), (107, 45314), (112, 45332), (119, 45377), (126, 45425), (129, 45458), (135, 45482), (143, 45536), (149, 45563), (154, 45584), (159, 45632), (162, 45653), (171, 45779), (175, 45830), (180, 45851), (181, 45863), (183, 45905), (197, 46055), (200, 46088), (201, 46091), (203, 46142), (205, 46187), (206, 46193), (209, 46235), (215, 46298), (222, 46376), (225, 46433), (226, 46451), (230, 46484), (231, 46487), (233, 46526), (234, 46529), (238, 46610), (239, 46613), (243, 46673), (244, 46697), (247, 46748), (249, 46772), (252, 46796), (263, 47048), (266, 47105), (280, 47363), (282, 47432), (288, 47480), (295, 47567), (297, 47600), (299, 47603),

Gene: YemiJoy2021\_98 Start: 45068, Stop: 49177, Start Num: 3

Candidate Starts for YemiJoy2021\_98:

(Start: 3 @45068 has 175 MA's), (13, 45179), (15, 45203), (28, 45467), (29, 45473), (33, 45539), (36, 45575), (41, 45656), (43, 45692), (45, 45704), (46, 45710), (47, 45911), (48, 45971), (59, 46289), (67, 46442), (69, 46511), (72, 46538), (79, 46619), (84, 46661), (88, 46697), (91, 46709), (99, 46766), (103, 46799), (107, 46844), (112, 46862), (119, 46907), (126, 46955), (129, 46988), (143, 47066), (149, 47093), (159, 47162), (162, 47183), (171, 47309), (175, 47360), (180, 47381), (181, 47393), (183, 47435), (197, 47585), (200, 47618), (201, 47621), (203, 47672), (205, 47717), (206, 47723), (209, 47765), (215, 47828), (222, 47906), (225, 47963), (226, 47981), (230, 48014), (231, 48017), (233, 48056), (234, 48059), (238, 48140), (239, 48143), (243, 48203), (244, 48227), (247, 48278), (249, 48302), (252, 48326), (263, 48578), (266, 48635), (280, 48893), (282, 48962), (288, 49010), (295, 49097), (297, 49130), (299, 49133),

Gene: YoungMoneyMata\_98 Start: 44234, Stop: 48346, Start Num: 3

Candidate Starts for YoungMoneyMata\_98:

(Start: 3 @44234 has 175 MA's), (13, 44345), (15, 44369), (28, 44633), (29, 44639), (33, 44705), (36, 44741), (41, 44822), (43, 44858), (45, 44870), (46, 44876), (47, 45077), (59, 45458), (67, 45611), (69, 45680), (72, 45707), (79, 45788), (84, 45830), (88, 45866), (91, 45878), (99, 45935), (103, 45968), (107, 46013), (112, 46031), (119, 46076), (126, 46124), (129, 46157), (135, 46181), (143, 46235), (149, 46262), (154, 46283), (159, 46331), (162, 46352), (171, 46478), (175, 46529), (180, 46550), (181, 46562), (183, 46604), (197, 46754), (200, 46787), (201, 46790), (203, 46841), (205, 46886), (206, 46892), (209, 46934), (215, 46997), (222, 47075), (225, 47132), (226, 47150), (230, 47183), (231, 47186), (233, 47225), (234, 47228), (238, 47309), (239, 47312), (243, 47372), (244, 47396), (247, 47447), (249, 47471), (252, 47495), (263, 47747), (266, 47804), (280, 48062), (282, 48131), (288, 48179), (295, 48266), (297, 48299), (299, 48302),

Gene: Yucca\_97 Start: 44990, Stop: 49099, Start Num: 3

Candidate Starts for Yucca\_97:

(Start: 3 @44990 has 175 MA's), (13, 45101), (15, 45125), (28, 45389), (29, 45395), (33, 45461), (36, 45497), (41, 45578), (43, 45614), (45, 45626), (46, 45632), (47, 45833), (48, 45893), (59, 46211), (67, 46364), (69, 46433), (72, 46460), (79, 46541), (84, 46583), (88, 46619), (91, 46631), (99, 46688), (103, 46721), (107, 46766), (112, 46784), (119, 46829), (126, 46877), (129, 46910), (135, 46934), (143,



46988), (149, 47015), (154, 47036), (159, 47084), (162, 47105), (171, 47231), (175, 47282), (180, 47303), (181, 47315), (183, 47357), (197, 47507), (200, 47540), (201, 47543), (203, 47594), (205, 47639), (206, 47645), (209, 47687), (215, 47750), (222, 47828), (225, 47885), (226, 47903), (230, 47936), (231, 47939), (233, 47978), (234, 47981), (238, 48062), (239, 48065), (243, 48125), (244, 48149), (247, 48200), (249, 48224), (252, 48248), (263, 48500), (266, 48557), (280, 48815), (282, 48884), (288, 48932), (295, 49019), (297, 49052), (299, 49055),

Gene: Zalkecks\_98 Start: 44756, Stop: 48865, Start Num: 3

Candidate Starts for Zalkecks\_98:

(Start: 3 @44756 has 175 MA's), (13, 44867), (15, 44891), (28, 45155), (29, 45161), (33, 45227), (36, 45263), (41, 45344), (43, 45380), (45, 45392), (46, 45398), (47, 45599), (48, 45659), (59, 45977), (67, 46130), (69, 46199), (72, 46226), (79, 46307), (84, 46349), (88, 46385), (91, 46397), (99, 46454), (103, 46487), (107, 46532), (112, 46550), (119, 46595), (126, 46643), (129, 46676), (143, 46754), (149, 46781), (159, 46850), (162, 46871), (171, 46997), (175, 47048), (180, 47069), (181, 47081), (183, 47123), (197, 47273), (200, 47306), (201, 47309), (203, 47360), (205, 47405), (206, 47411), (209, 47453), (215, 47516), (222, 47594), (225, 47651), (226, 47669), (230, 47702), (231, 47705), (233, 47744), (234, 47747), (238, 47828), (239, 47831), (243, 47891), (244, 47915), (247, 47966), (249, 47990), (252, 48014), (263, 48266), (266, 48323), (280, 48581), (282, 48650), (288, 48698), (295, 48785), (297, 48818), (299, 48821),

Gene: Zeenon\_99 Start: 44686, Stop: 48798, Start Num: 3

Candidate Starts for Zeenon\_99:

(Start: 3 @44686 has 175 MA's), (13, 44797), (15, 44821), (28, 45085), (29, 45091), (33, 45157), (36, 45193), (41, 45274), (43, 45310), (45, 45322), (46, 45328), (47, 45529), (48, 45589), (59, 45910), (67, 46063), (69, 46132), (72, 46159), (79, 46240), (84, 46282), (88, 46318), (91, 46330), (99, 46387), (103, 46420), (107, 46465), (112, 46483), (119, 46528), (126, 46576), (129, 46609), (143, 46687), (149, 46714), (159, 46783), (162, 46804), (171, 46930), (175, 46981), (180, 47002), (181, 47014), (183, 47056), (197, 47206), (200, 47239), (201, 47242), (203, 47293), (205, 47338), (206, 47344), (209, 47386), (215, 47449), (222, 47527), (225, 47584), (226, 47602), (230, 47635), (231, 47638), (233, 47677), (234, 47680), (238, 47761), (239, 47764), (243, 47824), (244, 47848), (247, 47899), (249, 47923), (252, 47947), (263, 48199), (266, 48256), (280, 48514), (282, 48583), (288, 48631), (295, 48718), (297, 48751), (299, 48754),

Gene: ZygoTaiga\_96 Start: 45843, Stop: 49952, Start Num: 3

Candidate Starts for ZygoTaiga\_96:

(Start: 3 @45843 has 175 MA's), (13, 45954), (15, 45978), (28, 46242), (29, 46248), (33, 46314), (36, 46350), (41, 46431), (43, 46467), (45, 46479), (46, 46485), (47, 46686), (48, 46746), (59, 47064), (67, 47217), (69, 47286), (72, 47313), (79, 47394), (84, 47436), (88, 47472), (91, 47484), (99, 47541), (103, 47574), (107, 47619), (112, 47637), (119, 47682), (126, 47730), (129, 47763), (143, 47841), (149, 47868), (159, 47937), (162, 47958), (171, 48084), (175, 48135), (180, 48156), (181, 48168), (183, 48210), (197, 48360), (200, 48393), (201, 48396), (203, 48447), (205, 48492), (206, 48498), (209, 48540), (215, 48603), (222, 48681), (225, 48738), (226, 48756), (230, 48789), (231, 48792), (233, 48831), (234, 48834), (238, 48915), (239, 48918), (243, 48978), (244, 49002), (247, 49053), (249, 49077), (252, 49101), (263, 49353), (266, 49410), (280, 49668), (282, 49737), (288, 49785), (295, 49872), (297, 49905), (299, 49908),