







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 296180 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296180 has 293 members, 39 are drafts.

Phages represented in each track:

- Track 1 : Ranunculus\_20
- Track 2 : Tank\_20, Wilde\_20
- Track 3 : Rizwana\_19
- Track 4 : Hive\_26, BetaFish\_26, Beagle\_27, Pointis\_26, PhuzzTulsa\_24, RIPWilbur\_24, DogYard\_26, Pureglobe5\_28, Popstraw\_24, Kubulix\_27
- Track 5 : Forrestell\_23, MellowYellow\_23
- Track 6 : Odyssey395\_28
- Track 7 : NyleyClemson\_22, RazzB\_22
- Track 8 : Ren19\_19, Nikan\_21
- Track 9 : Ollypop\_24
- Track 10 : BruhMoment\_21
- Track 11 : SilentRX\_21
- Track 12 : AWGoat\_19
- Track 13 : BayC\_13, Salete\_13, Maih\_13
- Track 14 : TP1604\_13, BabyGotBac\_13, Asis\_13
- Track 15 : Abt2graduatex2\_13
- Track 16 : Xkcd426\_14
- Track 17 : RainyPolka\_13
- Track 18 : YDN12\_14
- Track 19 : Mischief19\_14
- Track 20 : Sixsevenium\_20, Bakery\_20
- Track 21 : Jambalaya\_19, TillyBobJoe\_19, Savbucketdawg\_19, Shinji\_19, Portcullis\_19, JohnPork\_19
- Track 22 : Mutzi\_21
- Track 23 : Danyall\_21, VanDeWege\_22, CherryCola\_22, Twister6\_21, RogerDodger\_22, Valary\_22, CoveyB\_21
- Track 24 : Salvador\_19, SmokingBunny\_19, Nubi\_19, Evamon\_19, Togo\_19
- Track 25 : KimmyK\_21, PinkCoffee\_21, ClamChowder\_21, Fugax\_21, Barb\_21
- Track 26 : Halo3\_20
- Track 27 : Gezellig\_19, Egi03\_19, Fireball\_20, Sendy\_20, Wizard\_19
- Track 28 : Phlop\_19, PullumCavea\_19
- Track 29 : YungMoney\_21
- Track 30 : Arri\_22
- Track 31 : Clown\_23
- Track 32 : Baumdotcom\_20, Saronaya\_20, Gustavo\_20
- Track 33 : Lennon\_22, Bibwit\_21, Sedona\_22, Stultus\_20, Sitar\_22, Ailee\_20
- Track 34 : Flatwoods\_21, Gaea\_20, Tycho\_20, Kroos\_21, Kwobi\_22, Bizzy\_21

- Track 35 : Fosterous\_18, Love\_22, MoontowerMania\_19, Brandonk123\_22, Shivanishola\_20, Kamashten\_21, BobBob\_18, Sanjuju\_18, Jabberwocky\_18, Charming\_18, Thing3\_21, Brawn1\_18, Paries\_21, Tangent\_18, Geodirt\_19
- Track 36 : Kewpiedoll\_21, ChadMasterC\_20, FuegoCuervo\_23, McCrothy\_21, Vivi2\_20, Barsten\_21, Fitzgerald\_18, Galadriel\_22, McKinley\_21
- Track 37 : Derg\_16, LilHam\_18, SchottB\_19, Stichling\_19
- Track 38 : Ashertheman\_21, StorminNorm\_20, Tangerine\_20
- Track 39 : Ribeye\_21
- Track 40 : Rofo\_20
- Track 41 : Affeca\_20, Angelicage\_20
- Track 42 : RiverRaider\_21
- Track 43 : Keitabear\_22
- Track 44 : Baddon\_20
- Track 45 : JKSyngboy\_19
- Track 46 : Nordenberg\_15
- Track 47 : YorkOnyx\_21
- Track 48 : Leonard\_21, Ali17\_19, Phinally\_21
- Track 49 : Belphegor\_18
- Track 50 : EMoore\_16
- Track 51 : MelBins\_22
- Track 52 : Hans\_23
- Track 53 : Phauci\_14
- Track 54 : Inspectinfecti\_22
- Track 55 : Chickadee\_20, Tiamoceli\_21
- Track 56 : Kwekel\_20
- Track 57 : Twonlo\_18
- Track 58 : GTE6\_20
- Track 59 : RoadKill\_18, Dexdert\_21, EdmundFerry\_19
- Track 60 : Scioto\_21, Natkenzie\_21, Sampson\_21, Abblin\_21
- Track 61 : Pumpkiney\_23
- Track 62 : DoctorFroggo\_21, Zipp\_21, Delrey21\_21, Verity\_21
- Track 63 : Zitch\_23
- Track 64 : BigHunkinEater\_23
- Track 65 : APunk\_23
- Track 66 : ViaConlectus\_22
- Track 67 : Tardus\_22
- Track 68 : Lilbeanie\_18
- Track 69 : Ganandorf\_26, Quhwah\_30, Jefe\_27, BrazzalePHS\_26, Pulchra\_28, Cranjis\_28, Jollipop\_27, PiperSansNom\_27, Hermeonysus\_26, BeagleBug\_26, Onika\_26, Busephilis\_26, Savannah\_26, Selwyn23\_28, Lucretia\_27, PhedwardCullen\_26, PierreOrion\_27, Antares\_27, Scumberland\_28, Shotgun\_26, Germa\_28, Phorgeous\_26, CrazyRich\_26, Honeyfin\_28, Yeti\_27, Piperis\_27
- Track 70 : Paschalis\_26, Rockwell\_26, Ramiel05\_26, Glorp\_28, Kowalski\_26
- Track 71 : LittleFortune\_28
- Track 72 : Crisis\_28, KaiHaiDragon\_27, EarickHC\_27, Phrancesco\_27
- Track 73 : Shrubaron\_27, RobsFeet\_28
- Track 74 : ClearAsMud\_29
- Track 75 : Skugga\_25
- Track 76 : Jayden\_28
- Track 77 : Ariadne\_35, Smarties\_35
- Track 78 : Megan\_21
- Track 79 : Gina\_28, Teamocil\_28
- Track 80 : Merry\_, Sunny\_

- Track 81 : NoodlelyBoi\_27
- Track 82 : Nicole72\_22
- Track 83 : SirFrank\_26
- Track 84 : Fireman\_27, Tyrumbra\_25
- Track 85 : Metamorphoo\_27
- Track 86 : Zapato\_26
- Track 87 : Sillytadpoles\_24, Llemily\_24, Statler\_26, Phabia\_25, Zagie\_25, Quammi\_23, Rowlf\_21, Zhafia\_27, Wheelie\_24, Jehoshaphat\_27, Teehee\_26, Nike\_25, Viceroy\_24, Lonelysoil\_24, Squash\_27, Wayne3\_26, Rudy\_23, DonaldDuck\_24, Casend\_26
- Track 88 : KillerQueen\_25, Kelcole\_23, CandC\_23, RobinRose\_26, Tempo\_24, Romm\_26, Fregley\_25
- Track 89 : Phinky\_31
- Track 90 : Gazebo\_24, Mentos\_29, Mashley\_23, Hyperion\_24, Tissue\_25
- Track 91 : MorillMayhem\_24, BabyDotz\_24, BaconCheese\_28, Mila11\_28
- Track 92 : Fizzles\_25
- Track 93 : FrankDeliGuy\_22, Judebell\_27
- Track 94 : StrawberryJamm\_27, Namago\_25, Kyva\_27, Grassboy\_26, SallyK\_26
- Track 95 : BirdInFrench\_24, Wilca\_24
- Track 96 : SlySloth\_27
- Track 97 : SadLad\_29
- Track 98 : Pepe25\_23
- Track 99 : RubyRalph\_27, Fransoyer\_27
- Track 100 : Altheas\_27
- Track 101 : OneinaGillian\_24
- Track 102 : Marcie\_29
- Track 103 : Blab\_23
- Track 104 : AluminumJesus\_23
- Track 105 : EverythinBagel\_24
- Track 106 : WheelerS25\_30
- Track 107 : Matzah\_23, Cinna\_22
- Track 108 : Terij\_23
- Track 109 : Cressida\_24
- Track 110 : Kozie\_23
- Track 111 : MementoMori\_23
- Track 112 : Margaery\_22
- Track 113 : Boise\_16, RomansRevenge\_16
- Track 114 : Rasputia\_56
- Track 115 : Dewdrop\_60, Leaf\_60
- Track 116 : Hendrix\_57
- Track 117 : FuzzBuster\_31
- Track 118 : MisoSoup\_18
- Track 119 : Kithara\_25
- Track 120 : phiAsp2\_14
- Track 121 : TurkishDelight\_17
- Track 122 : Sunfish\_32

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

The start number called the most often in the published annotations is 20, it was called in 165 of the 254 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- APunk\_23, Abblin\_21, Affeca\_20, Ailee\_20, Ali17\_19, Angelicage\_20, Antares\_27, Ariadne\_35, Arri\_22, Ashertheman\_21, Baddon\_20, Bakery\_20, Barb\_21, Barsten\_21, Baumdotcom\_20, BeagleBug\_26, Belphegor\_18, Bibwit\_21, BigHunkinEater\_23, Bizzy\_21, BobBob\_18, Brandonk123\_22, Brawn1\_18, BrazzalePHS\_26, Busephilis\_26, ChadMasterC\_20, Charming\_18, CherryCola\_22, Chickadee\_20, Cinna\_22, ClamChowder\_21, ClearAsMud\_29, Clown\_23, CoveyB\_21, Cranjjs\_28, CrazyRich\_26, Cressida\_24, Crisis\_28, Danyall\_21, Delrey21\_21, Derg\_16, Dexdert\_21, DoctorFroggo\_21, EMOore\_16, EarickHC\_27, EdmundFerry\_19, Egi03\_19, Evamon\_19, Fireball\_20, Fireman\_27, Fitzgerald\_18, Flatwoods\_21, Fosterous\_18, FuegoCuervo\_23, Fugax\_21, GTE6\_20, Gaea\_20, Galadriel\_22, Ganandorf\_26, Geodirt\_19, Germa\_28, Gezellig\_19, Gina\_28, Glorp\_28, Gustavo\_20, Halo3\_20, Hans\_23, Hermeonysus\_26, Honeyfin\_28, Inspectinfecti\_22, JKSyngboy\_19, Jabberwocky\_18, Jambalaya\_19, Jayden\_28, Jefe\_27, JohnPork\_19, Jollipop\_27, KaiHaiDragon\_27, Kamashten\_21, Keitabear\_22, Kewpiedoll\_21, KimmyK\_21, Kowalski\_26, Kozi\_23, Kroos\_21, Kwekel\_20, Kwobi\_22, Lennon\_22, Leonard\_21, LilHam\_18, Lilbeanie\_18, LittleFortune\_28, Love\_22, Lucretia\_27, Margaery\_22, Matzah\_23, McCrothy\_21, McKinley\_21, Megan\_21, MelBins\_22, MementoMori\_23, Metamorphoo\_27, MisoSoup\_18, MoontowerMania\_19, Mutzi\_21, Natkenzie\_21, Nicole72\_22, NoodlelyBoi\_27, Nordenberg\_15, Nubi\_19, Onika\_26, Paries\_21, Paschalis\_26, Phauci\_14, PhedwardCullen\_26, Phinally\_21, Phlop\_19, Phorgeous\_26, Phrancesco\_27, PierreOrion\_27, PinkCoffee\_21, PiperSansNom\_27, Piperis\_27, Portcullis\_19, Pulchra\_28, PullumCavea\_19, Pumpkiney\_23, Quhwah\_30, Ramiel05\_26, Ribeye\_21, RiverRaider\_21, RoadKill\_18, RobsFeet\_28, Rockwell\_26, Rofo\_20, RogerDodger\_22, Salvador\_19, Sampson\_21, Sanjuju\_18, Saronaya\_20, Savannah\_26, Savbucketdawg\_19, SchottB\_19, Scioto\_21, Scumberland\_28, Sedona\_22, Selwyn23\_28, Sendy\_20, Shinji\_19, Shivanishola\_20, Shotgun\_26, Shrubaron\_27, SirFrank\_26, Sitar\_22, Sixsevenium\_20, Skugga\_25, Smarties\_35, SmokingBunny\_19, Stichling\_19, StorminNorm\_20, Stultus\_20, Tangent\_18, Tangerine\_20, Tardus\_22, Teamocil\_28, Terij\_23, Thing3\_21, Tiamoceli\_21, TillyBobJoe\_19, Togo\_19, Twister6\_21, Twonlo\_18, Tycho\_20, Tyumbra\_25, Valary\_22, VanDeWege\_22, Verity\_21, ViaConlectus\_22, Vivi2\_20, Wizard\_19, Yeti\_27, YorkOnyx\_21, YungMoney\_21, Zapato\_26, Zipp\_21, Zitch\_23,

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

- FuzzBuster\_31, Merry\_, Sunny\_

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

- AWGoat\_19, Abt2graduatex2\_13, Altheas\_27, AluminumJesus\_23, Asis\_13, BabyDotz\_24, BabyGotBac\_13, BaconCheese\_28, BayC\_13, Beagle\_27, BetaFish\_26, BirdInFrench\_24, Blab\_23, Boise\_16, BruhMoment\_21, CandC\_23, Casend\_26, Dewdrop\_60, DogYard\_26, DonaldDuck\_24, EverythinBagel\_24, Fizzles\_25, Forrestell\_23, FrankDeliGuy\_22, Fransoyer\_27, Fregley\_25, Gazebo\_24, Grassboy\_26, Hendrix\_57, Hive\_26, Hyperion\_24, Jehoshaphat\_27, Judebell\_27, Kelcole\_23, KillerQueen\_25, Kithara\_25, Kubulix\_27, Kyva\_27, Leaf\_60, Lemily\_24, Lonelysoil\_24, Maih\_13, Marcie\_29, Mashley\_23, MellowYellow\_23, Mentos\_29, Mila11\_28, Mischief19\_14, MorillMayhem\_24, Namago\_25, Nikan\_21, Nike\_25, NyleyClemson\_22, Odyssey395\_28, Ollypop\_24, OneinaGillian\_24, Pepe25\_23, Phabia\_25, Phinky\_31, PhuzzTulsa\_24, Pointis\_26, Popstraw\_24, Pureglobe5\_28,

Quammi\_23, RIPWilbur\_24, RainyPolka\_13, Ranunculus\_20, Rasputia\_56, RazzB\_22, Ren19\_19, Rizwana\_19, RobinRose\_26, RomansRevenge\_16, Romm\_26, Rowlf\_21, RubyRalph\_27, Rudy\_23, SadLad\_29, Saletе\_13, SallyK\_26, SilentRX\_21, Sillytadpoles\_24, SlySloth\_27, Squash\_27, Statler\_26, StrawberryJamm\_27, Sunfish\_32, TP1604\_13, Tank\_20, Teehee\_26, Tempo\_24, Tissue\_25, TurkishDelight\_17, Viceroy\_24, Wayne3\_26, WheelerS25\_30, Wheelie\_24, Wilca\_24, Wilde\_20, Xkcd426\_14, YDN12\_14, Zagie\_25, Zhafia\_27, phiAsp2\_14,

### Summary by start number:

#### Start 8:

- Found in 1 of 293 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 254
- Called 100.0% of time when present
- Phage (with cluster) where this start called: FuzzBuster\_31 (GM),

#### Start 15:

- Found in 2 of 293 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 2 of 254
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Merry\_ (EC), Sunny\_ (EC),

#### Start 19:

- Found in 12 of 293 ( 4.1% ) of genes in pham
- Manual Annotations of this start: 4 of 254
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Dewdrop\_60 (GC), Hendrix\_57 (GC), Leaf\_60 (GC), Rasputia\_56 (GC),

#### Start 20:

- Found in 189 of 293 ( 64.5% ) of genes in pham
- Manual Annotations of this start: 165 of 254
- Called 98.4% of time when present
- Phage (with cluster) where this start called: APunk\_23 (DE4), Abblin\_21 (DE4), Affeca\_20 (DE1), Ailee\_20 (DE1), Ali17\_19 (DE2), Angelicage\_20 (DE1), Antares\_27 (EC), Ariadne\_35 (EC), Arri\_22 (DC1), Ashertheman\_21 (DE1), Baddon\_20 (DE1), Bakery\_20 (DC1), Barb\_21 (DC1), Barsten\_21 (DE1), Baumdotcom\_20 (DE1), BeagleBug\_26 (EC), Belphegor\_18 (DE2), Bibwit\_21 (DE1), BigHunkinEater\_23 (DE4), Bizzy\_21 (DE1), BobBob\_18 (DE1), Brandonk123\_22 (DE1), Brawn1\_18 (DE1), BrazzalePHS\_26 (EC), Busephilis\_26 (EC), ChadMasterC\_20 (DE1), Charming\_18 (DE1), CherryCola\_22 (DC1), Chickadee\_20 (DE3), Cinna\_22 (EI), ClamChowder\_21 (DC1), ClearAsMud\_29 (EC), Clown\_23 (DC2), CoveyB\_21 (DC1), Cranjis\_28 (EC), CrazyRich\_26 (EC), Cressida\_24 (EI), Crisis\_28 (EC), Danyall\_21 (DC1), Delrey21\_21 (DE4), Derg\_16 (DE1), Dexdert\_21 (DE3), DoctorFroggo\_21 (DE4), EMOore\_16 (DE2), EarickHC\_27 (EC), EdmundFerry\_19 (DE3), Egi03\_19 (DC1), Evamon\_19 (DC1), Fireball\_20 (DC1), Fireman\_27 (EC), Fitzgerald\_18 (DE1), Flatwoods\_21 (DE1), Fosterous\_18 (DE1), FuegoCuervo\_23 (DE1), Fugax\_21 (DC1), GTE6\_20 (DE3), Gaea\_20 (DE1), Galadriel\_22 (DE1), Ganandorf\_26 (EC), Geodirt\_19 (DE1), Germa\_28 (EC), Gezellig\_19 (DC1), Gina\_28 (EC), Glorp\_28 (EC), Gustavo\_20 (DE1), Halo3\_20 (DC1), Hans\_23 (DE2), Hermeonysus\_26 (EC), Honeyfin\_28 (EC), Inspectinfecti\_22 (DE2), JKSyngboy\_19 (DE1), Jaberwocky\_18 (DE1), Jambalaya\_19 (DC1), Jayden\_28 (EC), Jefe\_27 (EC), JohnPork\_19 (DC),

Jollipop\_27 (EC), KaiHaiDragon\_27 (EC), Kamashten\_21 (DE1), Keitabear\_22 (DE1), Kewpiedoll\_21 (DE1), KimmyK\_21 (DC1), Kowalski\_26 (EC), Kozie\_23 (EI), Kroos\_21 (DE1), Kwekel\_20 (DE3), Kwobi\_22 (DE1), Lennon\_22 (DE1), Leonard\_21 (DE2), LilHam\_18 (DE1), Lilbeanie\_18 (DE5), LittleFortune\_28 (EC), Love\_22 (DE1), Lucretia\_27 (EC), Margaery\_22 (EI), Matzah\_23 (EI), McCrothy\_21 (DE1), McKinley\_21 (DE1), Megan\_21 (EC), MelBins\_22 (DE2), MementoMori\_23 (EI), Metamorphoo\_27 (EC), MisoSoup\_18 (GM), MoontowerMania\_19 (DE1), Mutzi\_21 (DC1), Natkenzie\_21 (DE4), Nicole72\_22 (EC), NoodlelyBoi\_27 (EC), Nordenberg\_15 (DE1), Nubi\_19 (DC1), Onika\_26 (EC), Paries\_21 (DE1), Paschalis\_26 (EC), Phauci\_14 (DE2), PhedwardCullen\_26 (EC), Phinally\_21 (DE2), Phlop\_19 (DC1), Phorgeous\_26 (EC), Phrancesco\_27 (EC), PierreOrion\_27 (EC), PinkCoffee\_21 (DC1), PiperSansNom\_27 (EC), Piperis\_27 (EC), Portcullis\_19 (DC1), Pulchra\_28 (EC), PullumCavea\_19 (DC1), Pumpkiney\_23 (DE4), Quhwah\_30 (EC), Ramiel05\_26 (EC), Ribeye\_21 (DE1), RiverRaider\_21 (DE1), RoadKill\_18 (DE3), RobsFeet\_28 (EC), Rockwell\_26 (EC), Rofo\_20 (DE1), RogerDodger\_22 (DC1), Salvador\_19 (DC1), Sampson\_21 (DE4), Sanjuju\_18 (DE1), Saronaya\_20 (DE1), Savannah\_26 (EC), Savbucketdawg\_19 (DC1), SchottB\_19 (DE1), Scioto\_21 (DE4), Scumberland\_28 (EC), Sedona\_22 (DE1), Selwyn23\_28 (EC), Sendy\_20 (DC), Shinji\_19 (DC1), Shivanishola\_20 (DE1), Shotgun\_26 (EC), Shrubaron\_27 (EC), SirFrank\_26 (EC), Sitar\_22 (DE1), Sixsevenium\_20 (DC), Skugga\_25 (EC), Smarties\_35 (EC), SmokingBunny\_19 (DC1), Stichling\_19 (DE1), StorminNorm\_20 (DE1), Stultus\_20 (DE1), Tangent\_18 (DE1), Tangerine\_20 (DE1), Tardus\_22 (DE4), Teamocil\_28 (EC), Terij\_23 (EI), Thing3\_21 (DE1), Tiamoceli\_21 (DE3), TillyBobJoe\_19 (DC1), Togo\_19 (DC1), Twister6\_21 (DC1), Twonlo\_18 (DE3), Tycho\_20 (DE1), Tyumbra\_25 (EC), Valary\_22 (DC1), VanDeWege\_22 (DC1), Verity\_21 (DE4), ViaConlectus\_22 (DE4), Vivi2\_20 (DE1), Wizard\_19 (DC1), Yeti\_27 (EC), YorkOnyx\_21 (DE1), YungMoney\_21 (DC1), Zapato\_26 (EC), Zipp\_21 (DE4), Zitch\_23 (DE4),

#### Start 21:

- Found in 1 of 293 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 254
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kithara\_25 (singleton),

#### Start 29:

- Found in 2 of 293 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 1 of 254
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Boise\_16 (FT), RomansRevenge\_16 (FT),

#### Start 33:

- Found in 27 of 293 ( 9.2% ) of genes in pham
- Manual Annotations of this start: 17 of 254
- Called 92.6% of time when present
- Phage (with cluster) where this start called: AWGoat\_19 (AP4), Beagle\_27 (AP2), BetaFish\_26 (AP2), BruhMoment\_21 (AP3), DogYard\_26 (AP2), Forrestell\_23 (AP2), Hive\_26 (AP2), Kubulix\_27 (AP2), MellowYellow\_23 (AP2), Nikan\_21 (AP2), NyleyClemson\_22 (AP2), Odyssey395\_28 (AP2), Ollypop\_24 (AP2), PhuzzTulsa\_24 (AP2), Pointis\_26 (AP2), Popstraw\_24 (AP2), Pureglobe5\_28 (AP2), RIPWilbur\_24 (AP2), Ranunculus\_20 (AP), RazzB\_22 (AP2), Ren19\_19 (AP2), Rizwana\_19 (AP1), SilentRX\_21 (AP4), Tank\_20 (AP1), Wilde\_20 (AP1),

Start 35:

- Found in 17 of 293 ( 5.8% ) of genes in pham
- Manual Annotations of this start: 15 of 254
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Altheas\_27 (EG), BirdInFrench\_24 (EG), CandC\_23 (EG), Fransoyer\_27 (EG), Fregley\_25 (EG), Kelcole\_23 (EG), KillerQueen\_25 (EG), Marcie\_29 (EG), OneinaGillian\_24 (EG), Pepe25\_23 (EG), Phinky\_31 (EG), RobinRose\_26 (EG), Romm\_26 (EG), RubyRalph\_27 (EG), SadLad\_29 (EG), Tempo\_24 (EG), Wilca\_24 (EG),

Start 36:

- Found in 41 of 293 ( 14.0% ) of genes in pham
- Manual Annotations of this start: 35 of 254
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AluminumJesus\_23 (EG), BabyDotz\_24 (EG), BaconCheese\_28 (EG), Blab\_23 (EG), Casend\_26 (EG), DonaldDuck\_24 (EG), EverythinBagel\_24 (EG), Fizzles\_25 (EG), FrankDeliGuy\_22 (EG), Gazebo\_24 (EG), Grassboy\_26 (EG), Hyperion\_24 (EG), Jehoshaphat\_27 (EG), Judebell\_27 (EG), Kyva\_27 (EG), Llemily\_24 (EG), Lonelysoil\_24 (EG), Mashley\_23 (EG), Mentos\_29 (EG), Mila11\_28 (EG), MorillMayhem\_24 (EG), Namago\_25 (EG), Nike\_25 (EG), Phabia\_25 (EG), Quammi\_23 (EG), Rowlf\_21 (EG), Rudy\_23 (EG), SallyK\_26 (EG), Sillytadpoles\_24 (EG), SlySloth\_27 (EG), Squash\_27 (EG), Statler\_26 (EG), StrawberryJamm\_27 (EG), Teehee\_26 (EG), Tissue\_25 (EG), Viceroy\_24 (EG), Wayne3\_26 (EG), WheelerS25\_30 (EG), Wheelie\_24 (EG), Zagie\_25 (EG), Zhafia\_27 (EG),

Start 37:

- Found in 1 of 293 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 254
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sunfish\_32 (singleton),

Start 44:

- Found in 12 of 293 ( 4.1% ) of genes in pham
- Manual Annotations of this start: 12 of 254
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abt2graduatex2\_13 (BG), Asis\_13 (BG), BabyGotBac\_13 (BG), BayC\_13 (BG), Maih\_13 (BG), Mischief19\_14 (BG), RainyPolka\_13 (BG), Salete\_13 (BG), TP1604\_13 (BG), TurkishDelight\_17 (singleton), Xkcd426\_14 (BG), YDN12\_14 (BG),

Start 49:

- Found in 3 of 293 ( 1.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: phiAsp2\_14 (singleton),

**Summary by clusters:**

There are 21 clusters represented in this pham: AP1, singleton, BG, EI, AP2, DE1, EG, DE3, DE4, DC, AP4, DE5, AP, GC, EC, AP3, FT, GM, DC2, DE2, DC1,

Info for manual annotations of cluster AP:

- Start number 33 was manually annotated 1 time for cluster AP.

Info for manual annotations of cluster AP1:

- Start number 33 was manually annotated 3 times for cluster AP1.

Info for manual annotations of cluster AP2:

- Start number 33 was manually annotated 10 times for cluster AP2.

Info for manual annotations of cluster AP3:

- Start number 33 was manually annotated 1 time for cluster AP3.

Info for manual annotations of cluster AP4:

- Start number 33 was manually annotated 2 times for cluster AP4.

Info for manual annotations of cluster BG:

- Start number 44 was manually annotated 11 times for cluster BG.

Info for manual annotations of cluster DC1:

- Start number 20 was manually annotated 32 times for cluster DC1.

Info for manual annotations of cluster DC2:

- Start number 20 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DE1:

- Start number 20 was manually annotated 53 times for cluster DE1.

Info for manual annotations of cluster DE2:

- Start number 20 was manually annotated 9 times for cluster DE2.

Info for manual annotations of cluster DE3:

- Start number 20 was manually annotated 7 times for cluster DE3.

Info for manual annotations of cluster DE4:

- Start number 20 was manually annotated 9 times for cluster DE4.

Info for manual annotations of cluster DE5:

- Start number 20 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster EC:

- Start number 15 was manually annotated 2 times for cluster EC.
- Start number 20 was manually annotated 46 times for cluster EC.

Info for manual annotations of cluster EG:

- Start number 35 was manually annotated 15 times for cluster EG.
- Start number 36 was manually annotated 35 times for cluster EG.

Info for manual annotations of cluster EI:

- Start number 20 was manually annotated 7 times for cluster EI.

Info for manual annotations of cluster FT:

- Start number 29 was manually annotated 1 time for cluster FT.

Info for manual annotations of cluster GC:

- Start number 19 was manually annotated 4 times for cluster GC.

Info for manual annotations of cluster GM:

- Start number 8 was manually annotated 1 time for cluster GM.

### **Gene Information:**

Gene: APunk\_23 Start: 16314, Stop: 18233, Start Num: 20

Candidate Starts for APunk\_23:

(Start: 20 @16314 has 165 MA's), (55, 16530), (61, 16545), (81, 16719), (107, 16866), (117, 16935), (118, 16941), (129, 16995), (133, 17019), (181, 17271), (184, 17289), (186, 17295), (194, 17358), (197, 17370), (198, 17373), (199, 17385), (219, 17475), (224, 17502), (250, 17661), (261, 17739), (279, 17835), (312, 18105), (322, 18150),

Gene: AWGoat\_19 Start: 13739, Stop: 15430, Start Num: 33

Candidate Starts for AWGoat\_19:

(23, 13679), (25, 13691), (27, 13694), (Start: 33 @13739 has 17 MA's), (184, 14555), (192, 14609), (198, 14639), (199, 14651), (220, 14735), (221, 14738), (222, 14741), (233, 14810), (245, 14882), (254, 14930), (273, 15047), (283, 15113), (302, 15230), (313, 15317), (315, 15323),

Gene: Abblin\_21 Start: 15527, Stop: 17449, Start Num: 20

Candidate Starts for Abblin\_21:

(Start: 20 @15527 has 165 MA's), (55, 15743), (61, 15758), (81, 15932), (106, 16070), (107, 16079), (117, 16148), (118, 16154), (129, 16208), (133, 16232), (181, 16484), (184, 16502), (186, 16508), (194, 16571), (197, 16583), (198, 16586), (199, 16598), (219, 16688), (224, 16715), (250, 16874), (261, 16952), (279, 17048), (283, 17084), (295, 17204), (299, 17237), (312, 17321), (322, 17366),

Gene: Abt2graduatex2\_13 Start: 13868, Stop: 15571, Start Num: 44

Candidate Starts for Abt2graduatex2\_13:

(Start: 44 @13868 has 12 MA's), (47, 13877), (63, 13964), (78, 14111), (80, 14135), (112, 14318), (122, 14372), (127, 14402), (132, 14432), (133, 14435), (149, 14483), (157, 14519), (167, 14564), (173, 14606), (180, 14675), (219, 14855), (232, 14933), (233, 14936), (258, 15086), (262, 15128), (273, 15188), (278, 15209), (297, 15341), (306, 15398), (310, 15419), (314, 15461), (316, 15467), (334, 15542),

Gene: Affeca\_20 Start: 15348, Stop: 17258, Start Num: 20

Candidate Starts for Affeca\_20:

(Start: 20 @15348 has 165 MA's), (61, 15579), (64, 15597), (98, 15867), (123, 16005), (135, 16074), (144, 16107), (184, 16332), (186, 16338), (197, 16413), (198, 16416), (199, 16428), (212, 16464), (219, 16515), (239, 16638), (244, 16674), (267, 16818), (277, 16869), (296, 17013), (297, 17016), (298, 17019), (305, 17067), (312, 17124),

Gene: Ailee\_20 Start: 15256, Stop: 17172, Start Num: 20

Candidate Starts for Ailee\_20:

(Start: 20 @15256 has 165 MA's), (61, 15487), (64, 15505), (98, 15781), (123, 15919), (135, 15988), (144, 16021), (184, 16246), (186, 16252), (194, 16315), (197, 16327), (198, 16330), (199, 16342), (219, 16429), (239, 16552), (244, 16588), (267, 16732), (277, 16783), (296, 16927), (297, 16930), (298, 16933), (305, 16981), (312, 17038), (336, 17155),

Gene: Ali17\_19 Start: 14661, Stop: 16580, Start Num: 20

Candidate Starts for Ali17\_19:

(Start: 20 @14661 has 165 MA's), (53, 14862), (73, 14985), (98, 15156), (107, 15201), (111, 15222), (123, 15279), (152, 15405), (162, 15456), (166, 15465), (172, 15516), (174, 15567), (184, 15630), (186, 15636), (194, 15699), (199, 15726), (219, 15813), (249, 15996), (260, 16071), (263, 16086), (267, 16110), (273, 16143), (277, 16161), (284, 16218), (295, 16329), (307, 16398), (308, 16410), (312, 16446), (326, 16512),

Gene: Altheas\_27 Start: 14496, Stop: 16319, Start Num: 35

Candidate Starts for Altheas\_27:

(Start: 35 @14496 has 15 MA's), (39, 14508), (48, 14568), (52, 14607), (130, 15129), (150, 15204), (159, 15252), (165, 15276), (167, 15282), (182, 15399), (198, 15498), (217, 15579), (234, 15672), (235, 15687), (242, 15735), (248, 15759), (253, 15792), (257, 15807), (259, 15831), (266, 15879), (275, 15921), (294, 16056), (295, 16068), (297, 16077), (307, 16137), (325, 16239),

Gene: AluminumJesus\_23 Start: 13874, Stop: 15679, Start Num: 36

Candidate Starts for AluminumJesus\_23:

(Start: 36 @13874 has 35 MA's), (39, 13883), (52, 13982), (94, 14288), (130, 14489), (133, 14504), (150, 14564), (159, 14612), (167, 14642), (181, 14756), (182, 14759), (183, 14765), (198, 14858), (217, 14939), (234, 15032), (235, 15047), (242, 15095), (248, 15119), (257, 15167), (259, 15191), (266, 15239), (275, 15281), (294, 15416), (295, 15428), (297, 15437), (307, 15497), (316, 15566), (325, 15599),

Gene: Angelicage\_20 Start: 15771, Stop: 17681, Start Num: 20

Candidate Starts for Angelicage\_20:

(Start: 20 @15771 has 165 MA's), (61, 16002), (64, 16020), (98, 16290), (123, 16428), (135, 16497), (144, 16530), (184, 16755), (186, 16761), (197, 16836), (198, 16839), (199, 16851), (212, 16887), (219, 16938), (239, 17061), (244, 17097), (267, 17241), (277, 17292), (296, 17436), (297, 17439), (298, 17442), (305, 17490), (312, 17547),

Gene: Antares\_27 Start: 14003, Stop: 15859, Start Num: 20

Candidate Starts for Antares\_27:

(Start: 20 @14003 has 165 MA's), (113, 14579), (120, 14624), (127, 14660), (143, 14729), (150, 14750), (151, 14753), (157, 14783), (175, 14903), (188, 14984), (211, 15098), (214, 15125), (243, 15314), (264, 15440), (284, 15554), (285, 15569), (298, 15617), (302, 15647), (304, 15659), (307, 15674), (309, 15689), (315, 15740), (320, 15758), (325, 15776),

Gene: Ariadne\_35 Start: 15581, Stop: 17596, Start Num: 20

Candidate Starts for Ariadne\_35:

(Start: 20 @15581 has 165 MA's), (113, 16160), (120, 16205), (127, 16241), (131, 16265), (143, 16310), (150, 16331), (154, 16349), (175, 16484), (209, 16814), (210, 16817), (214, 16874), (216, 16898), (239, 17036), (243, 17063), (263, 17174), (284, 17303), (285, 17318), (287, 17327), (295, 17354), (298, 17366), (302, 17396), (307, 17423), (320, 17507), (325, 17525),

Gene: Arri\_22 Start: 12537, Stop: 14423, Start Num: 20

Candidate Starts for Arri\_22:

(Start: 20 @12537 has 165 MA's), (62, 12774), (64, 12786), (70, 12840), (100, 13062), (130, 13224), (137, 13257), (186, 13509), (196, 13581), (212, 13638), (214, 13650), (232, 13767), (239, 13812), (240, 13815), (260, 13938), (262, 13950), (273, 14010), (287, 14112), (295, 14163), (297, 14172), (308, 14244), (311, 14274), (326, 14346), (331, 14370),

Gene: Ashertheman\_21 Start: 14855, Stop: 16762, Start Num: 20

Candidate Starts for Ashertheman\_21:

(Start: 20 @14855 has 165 MA's), (45, 14990), (61, 15086), (98, 15368), (111, 15437), (117, 15485), (123, 15509), (129, 15545), (135, 15578), (140, 15602), (166, 15695), (184, 15836), (186, 15842), (194, 15905), (197, 15917), (198, 15920), (199, 15932), (219, 16019), (239, 16142), (244, 16178), (260, 16283), (267, 16322), (277, 16373), (295, 16511), (296, 16517), (297, 16520), (305, 16571), (312, 16628), (313, 16640), (316, 16649), (337, 16748),

Gene: Asis\_13 Start: 13751, Stop: 15445, Start Num: 44

Candidate Starts for Asis\_13:

(Start: 44 @13751 has 12 MA's), (47, 13760), (66, 13862), (78, 13994), (80, 14018), (92, 14114), (112, 14195), (119, 14240), (122, 14249), (128, 14282), (132, 14309), (133, 14312), (149, 14360), (156, 14393), (157, 14396), (165, 14435), (167, 14441), (175, 14519), (180, 14552), (195, 14642), (216, 14717), (219, 14732), (229, 14798), (232, 14810), (233, 14813), (252, 14930), (258, 14963), (262, 15005), (281, 15122), (297, 15218), (306, 15275), (310, 15296), (314, 15338), (316, 15344), (325, 15377), (328, 15401), (334, 15419), (337, 15434),

Gene: BabyDotz\_24 Start: 14116, Stop: 15948, Start Num: 36

Candidate Starts for BabyDotz\_24:

(Start: 36 @14116 has 35 MA's), (39, 14125), (52, 14224), (103, 14590), (130, 14758), (133, 14773), (150, 14833), (159, 14881), (160, 14887), (167, 14911), (181, 15025), (182, 15028), (183, 15034), (198, 15127), (217, 15208), (234, 15301), (235, 15316), (242, 15364), (248, 15388), (257, 15436), (259, 15460), (266, 15508), (275, 15550), (294, 15685), (295, 15697), (297, 15706), (307, 15766), (316, 15835), (325, 15868),

Gene: BabyGotBac\_13 Start: 13751, Stop: 15445, Start Num: 44

Candidate Starts for BabyGotBac\_13:

(Start: 44 @13751 has 12 MA's), (47, 13760), (66, 13862), (78, 13994), (80, 14018), (92, 14114), (112, 14195), (119, 14240), (122, 14249), (128, 14282), (132, 14309), (133, 14312), (149, 14360), (156, 14393), (157, 14396), (165, 14435), (167, 14441), (175, 14519), (180, 14552), (195, 14642), (216, 14717), (219, 14732), (229, 14798), (232, 14810), (233, 14813), (252, 14930), (258, 14963), (262, 15005), (281, 15122), (297, 15218), (306, 15275), (310, 15296), (314, 15338), (316, 15344), (325, 15377), (328, 15401), (334, 15419), (337, 15434),

Gene: BaconCheese\_28 Start: 15365, Stop: 17197, Start Num: 36

Candidate Starts for BaconCheese\_28:

(Start: 36 @15365 has 35 MA's), (39, 15374), (52, 15473), (103, 15839), (130, 16007), (133, 16022), (150, 16082), (159, 16130), (160, 16136), (167, 16160), (181, 16274), (182, 16277), (183, 16283), (198, 16376), (217, 16457), (234, 16550), (235, 16565), (242, 16613), (248, 16637), (257, 16685), (259, 16709), (266, 16757), (275, 16799), (294, 16934), (295, 16946), (297, 16955), (307, 17015), (316, 17084), (325, 17117),

Gene: Baddon\_20 Start: 15702, Stop: 17609, Start Num: 20

Candidate Starts for Baddon\_20:

(Start: 20 @15702 has 165 MA's), (45, 15837), (50, 15870), (61, 15933), (98, 16215), (111, 16284), (117, 16332), (123, 16356), (135, 16425), (140, 16449), (166, 16542), (184, 16683), (186, 16689), (194, 16752), (197, 16764), (198, 16767), (199, 16779), (219, 16866), (239, 16989), (244, 17025), (250, 17058), (255, 17088), (260, 17130), (267, 17169), (277, 17220), (296, 17364), (297, 17367), (305, 17418), (312, 17475), (313, 17487), (316, 17496), (322, 17520),

Gene: Bakery\_20 Start: 11735, Stop: 13636, Start Num: 20

Candidate Starts for Bakery\_20:

(Start: 20 @11735 has 165 MA's), (62, 11972), (64, 11984), (70, 12038), (130, 12425), (137, 12458), (144, 12482), (166, 12563), (170, 12590), (186, 12728), (212, 12857), (214, 12869), (219, 12908), (232, 12986), (239, 13031), (240, 13034), (244, 13055), (252, 13097), (255, 13118), (260, 13160),

(262, 13172), (308, 13466), (311, 13496), (315, 13520), (323, 13550),

Gene: Barb\_21 Start: 12512, Stop: 14410, Start Num: 20

Candidate Starts for Barb\_21:

(Start: 20 @12512 has 165 MA's), (62, 12749), (64, 12761), (70, 12815), (130, 13208), (137, 13241), (144, 13265), (186, 13505), (212, 13634), (214, 13646), (232, 13763), (239, 13808), (240, 13811), (252, 13871), (254, 13889), (260, 13934), (262, 13946), (263, 13949), (266, 13970), (283, 14069), (287, 14108), (297, 14168), (308, 14240), (311, 14270), (315, 14294), (322, 14321), (323, 14324), (327, 14351),

Gene: Barsten\_21 Start: 15284, Stop: 17188, Start Num: 20

Candidate Starts for Barsten\_21:

(Start: 20 @15284 has 165 MA's), (61, 15515), (64, 15533), (98, 15800), (123, 15938), (135, 16007), (144, 16040), (184, 16265), (186, 16271), (194, 16334), (197, 16346), (198, 16349), (199, 16361), (219, 16448), (239, 16571), (244, 16607), (267, 16751), (277, 16802), (296, 16946), (297, 16949), (298, 16952), (305, 17000), (312, 17057),

Gene: Baumdotcom\_20 Start: 14471, Stop: 16378, Start Num: 20

Candidate Starts for Baumdotcom\_20:

(Start: 20 @14471 has 165 MA's), (45, 14606), (61, 14702), (98, 14984), (111, 15053), (117, 15101), (123, 15125), (129, 15161), (135, 15194), (140, 15218), (166, 15311), (184, 15452), (186, 15458), (194, 15521), (197, 15533), (198, 15536), (199, 15548), (219, 15635), (239, 15758), (244, 15794), (260, 15899), (267, 15938), (277, 15989), (295, 16127), (296, 16133), (297, 16136), (305, 16187), (312, 16244), (313, 16256), (316, 16265),

Gene: BayC\_13 Start: 13751, Stop: 15445, Start Num: 44

Candidate Starts for BayC\_13:

(Start: 44 @13751 has 12 MA's), (47, 13760), (66, 13862), (78, 13994), (80, 14018), (92, 14114), (112, 14195), (119, 14240), (122, 14249), (128, 14282), (132, 14309), (133, 14312), (149, 14360), (156, 14393), (157, 14396), (165, 14435), (167, 14441), (175, 14519), (180, 14552), (195, 14642), (219, 14732), (229, 14798), (232, 14810), (233, 14813), (252, 14930), (258, 14963), (262, 15005), (281, 15122), (297, 15218), (306, 15275), (314, 15338), (316, 15344), (325, 15377), (328, 15401), (334, 15419), (337, 15434),

Gene: Beagle\_27 Start: 14234, Stop: 15961, Start Num: 33

Candidate Starts for Beagle\_27:

(22, 14171), (Start: 33 @14234 has 17 MA's), (134, 14843), (189, 15131), (192, 15143), (198, 15173), (220, 15269), (221, 15272), (222, 15275), (230, 15335), (259, 15497), (269, 15557), (270, 15563), (273, 15581), (283, 15644), (300, 15755), (315, 15854),

Gene: BeagleBug\_26 Start: 13781, Stop: 15640, Start Num: 20

Candidate Starts for BeagleBug\_26:

(Start: 20 @13781 has 165 MA's), (113, 14360), (120, 14405), (127, 14441), (143, 14510), (150, 14531), (151, 14534), (157, 14564), (175, 14684), (188, 14765), (211, 14879), (214, 14906), (243, 15095), (264, 15221), (284, 15335), (285, 15350), (298, 15398), (302, 15428), (304, 15440), (307, 15455), (309, 15470), (315, 15521), (320, 15539), (325, 15557),

Gene: Belphegor\_18 Start: 13765, Stop: 15693, Start Num: 20

Candidate Starts for Belphegor\_18:

(Start: 20 @13765 has 165 MA's), (53, 13969), (63, 14008), (73, 14092), (99, 14272), (123, 14392), (140, 14485), (162, 14569), (166, 14578), (172, 14629), (174, 14680), (184, 14743), (186, 14749), (194, 14812), (199, 14839), (219, 14926), (260, 15184), (263, 15199), (267, 15223), (277, 15274), (284, 15331), (293, 15427), (295, 15442), (307, 15511), (308, 15523), (312, 15559), (324, 15610),

Gene: BetaFish\_26 Start: 14437, Stop: 16164, Start Num: 33

Candidate Starts for BetaFish\_26:

(22, 14374), (Start: 33 @14437 has 17 MA's), (134, 15046), (189, 15334), (192, 15346), (198, 15376), (220, 15472), (221, 15475), (222, 15478), (230, 15538), (259, 15700), (269, 15760), (270, 15766), (273, 15784), (283, 15847), (300, 15958), (315, 16057),

Gene: Bibwit\_21 Start: 15528, Stop: 17423, Start Num: 20

Candidate Starts for Bibwit\_21:

(Start: 20 @15528 has 165 MA's), (61, 15759), (64, 15777), (98, 16032), (123, 16170), (135, 16239), (144, 16272), (184, 16497), (186, 16503), (194, 16566), (197, 16578), (198, 16581), (199, 16593), (219, 16680), (239, 16803), (244, 16839), (267, 16983), (277, 17034), (296, 17178), (297, 17181), (298, 17184), (305, 17232), (312, 17289), (336, 17406),

Gene: BigHunkinEater\_23 Start: 14639, Stop: 16555, Start Num: 20

Candidate Starts for BigHunkinEater\_23:

(Start: 20 @14639 has 165 MA's), (55, 14855), (61, 14870), (81, 15044), (107, 15191), (117, 15257), (118, 15263), (129, 15317), (133, 15341), (138, 15365), (181, 15593), (184, 15611), (186, 15617), (194, 15680), (197, 15692), (198, 15695), (199, 15707), (219, 15797), (224, 15824), (250, 15983), (261, 16061), (279, 16157), (312, 16427), (315, 16445), (323, 16475),

Gene: BirdInFrench\_24 Start: 12993, Stop: 14771, Start Num: 35

Candidate Starts for BirdInFrench\_24:

(Start: 35 @12993 has 15 MA's), (39, 13005), (83, 13350), (108, 13464), (130, 13590), (150, 13656), (159, 13704), (167, 13734), (198, 13947), (217, 14028), (219, 14037), (232, 14115), (234, 14121), (235, 14136), (259, 14280), (264, 14322), (275, 14373), (295, 14520), (297, 14529), (321, 14679), (325, 14691), (335, 14751),

Gene: Bizzy\_21 Start: 14750, Stop: 16663, Start Num: 20

Candidate Starts for Bizzy\_21:

(Start: 20 @14750 has 165 MA's), (45, 14885), (61, 14981), (98, 15269), (111, 15338), (117, 15386), (123, 15410), (129, 15446), (135, 15479), (140, 15503), (166, 15596), (184, 15737), (186, 15743), (194, 15806), (197, 15818), (198, 15821), (199, 15833), (219, 15920), (239, 16043), (244, 16079), (250, 16112), (260, 16184), (267, 16223), (277, 16274), (295, 16412), (296, 16418), (297, 16421), (305, 16472), (312, 16529), (313, 16541), (316, 16550),

Gene: Blab\_23 Start: 13751, Stop: 15577, Start Num: 36

Candidate Starts for Blab\_23:

(Start: 36 @13751 has 35 MA's), (39, 13760), (52, 13859), (94, 14186), (130, 14387), (133, 14402), (150, 14462), (159, 14510), (167, 14540), (181, 14654), (182, 14657), (183, 14663), (198, 14756), (217, 14837), (234, 14930), (235, 14945), (242, 14993), (248, 15017), (257, 15065), (259, 15089), (266, 15137), (275, 15179), (294, 15314), (297, 15335), (307, 15395), (316, 15464), (325, 15497),

Gene: BobBob\_18 Start: 14138, Stop: 16045, Start Num: 20

Candidate Starts for BobBob\_18:

(Start: 20 @14138 has 165 MA's), (61, 14369), (64, 14387), (98, 14654), (123, 14792), (135, 14861), (144, 14894), (184, 15119), (186, 15125), (194, 15188), (197, 15200), (198, 15203), (199, 15215), (219, 15302), (227, 15356), (239, 15425), (244, 15461), (267, 15605), (277, 15656), (296, 15800), (297, 15803), (298, 15806), (305, 15854), (312, 15911),

Gene: Boise\_16 Start: 11444, Stop: 13249, Start Num: 29

Candidate Starts for Boise\_16:

(Start: 29 @11444 has 1 MA's), (Start: 33 @11492 has 17 MA's), (49, 11582), (79, 11834), (82, 11849), (95, 11942), (118, 12053), (121, 12062), (134, 12131), (152, 12176), (160, 12218), (176, 12323), (186, 12380), (198, 12458), (219, 12548), (221, 12557), (235, 12647), (254, 12749), (273, 12866), (283, 12929), (298, 13013), (307, 13070), (308, 13082), (315, 13136),

Gene: Brandonk123\_22 Start: 14830, Stop: 16737, Start Num: 20

Candidate Starts for Brandonk123\_22:

(Start: 20 @14830 has 165 MA's), (61, 15061), (64, 15079), (98, 15346), (123, 15484), (135, 15553), (144, 15586), (184, 15811), (186, 15817), (194, 15880), (197, 15892), (198, 15895), (199, 15907), (219, 15994), (227, 16048), (239, 16117), (244, 16153), (267, 16297), (277, 16348), (296, 16492), (297, 16495), (298, 16498), (305, 16546), (312, 16603),

Gene: Brawn1\_18 Start: 14513, Stop: 16420, Start Num: 20

Candidate Starts for Brawn1\_18:

(Start: 20 @14513 has 165 MA's), (61, 14744), (64, 14762), (98, 15029), (123, 15167), (135, 15236), (144, 15269), (184, 15494), (186, 15500), (194, 15563), (197, 15575), (198, 15578), (199, 15590), (219, 15677), (227, 15731), (239, 15800), (244, 15836), (267, 15980), (277, 16031), (296, 16175), (297, 16178), (298, 16181), (305, 16229), (312, 16286),

Gene: BrazzalePHS\_26 Start: 13795, Stop: 15654, Start Num: 20

Candidate Starts for BrazzalePHS\_26:

(Start: 20 @13795 has 165 MA's), (113, 14374), (120, 14419), (127, 14455), (143, 14524), (150, 14545), (151, 14548), (157, 14578), (175, 14698), (188, 14779), (211, 14893), (214, 14920), (243, 15109), (264, 15235), (284, 15349), (285, 15364), (298, 15412), (302, 15442), (304, 15454), (307, 15469), (309, 15484), (315, 15535), (320, 15553), (325, 15571),

Gene: BruhMoment\_21 Start: 13658, Stop: 15379, Start Num: 33

Candidate Starts for BruhMoment\_21:

(23, 13598), (Start: 33 @13658 has 17 MA's), (118, 14171), (134, 14249), (139, 14264), (192, 14558), (198, 14588), (220, 14684), (221, 14687), (222, 14690), (233, 14759), (254, 14879), (262, 14936), (267, 14963), (273, 14996), (290, 15116), (299, 15170), (303, 15188), (312, 15254), (315, 15272), (323, 15302),

Gene: Busephilis\_26 Start: 13734, Stop: 15590, Start Num: 20

Candidate Starts for Busephilis\_26:

(Start: 20 @13734 has 165 MA's), (113, 14310), (120, 14355), (127, 14391), (143, 14460), (150, 14481), (151, 14484), (157, 14514), (175, 14634), (188, 14715), (211, 14829), (214, 14856), (243, 15045), (264, 15171), (284, 15285), (285, 15300), (298, 15348), (302, 15378), (304, 15390), (307, 15405), (309, 15420), (315, 15471), (320, 15489), (325, 15507),

Gene: CandC\_23 Start: 12598, Stop: 14376, Start Num: 35

Candidate Starts for CandC\_23:

(Start: 35 @12598 has 15 MA's), (39, 12610), (83, 12952), (108, 13069), (130, 13195), (159, 13309), (167, 13339), (198, 13552), (217, 13633), (219, 13642), (232, 13720), (234, 13726), (235, 13741), (259, 13885), (264, 13927), (275, 13978), (295, 14125), (297, 14134), (321, 14284), (325, 14296),

Gene: Casend\_26 Start: 14462, Stop: 16294, Start Num: 36

Candidate Starts for Casend\_26:

(Start: 36 @14462 has 35 MA's), (39, 14471), (52, 14570), (103, 14936), (130, 15104), (133, 15119), (150, 15179), (159, 15227), (160, 15233), (167, 15257), (182, 15374), (183, 15380), (198, 15473), (217, 15554), (234, 15647), (235, 15662), (242, 15710), (248, 15734), (257, 15782), (259, 15806), (266, 15854), (275, 15896), (294, 16031), (295, 16043), (297, 16052), (307, 16112), (316, 16181), (325, 16214),

Gene: ChadMasterC\_20 Start: 15249, Stop: 17144, Start Num: 20

Candidate Starts for ChadMasterC\_20:

(Start: 20 @15249 has 165 MA's), (61, 15480), (64, 15498), (98, 15753), (123, 15891), (135, 15960), (144, 15993), (184, 16218), (186, 16224), (194, 16287), (197, 16299), (198, 16302), (199, 16314), (219, 16401), (239, 16524), (244, 16560), (267, 16704), (277, 16755), (296, 16899), (297, 16902), (298, 16905), (305, 16953), (312, 17010),

Gene: Charming\_18 Start: 14140, Stop: 16047, Start Num: 20

Candidate Starts for Charming\_18:

(Start: 20 @14140 has 165 MA's), (61, 14371), (64, 14389), (98, 14656), (123, 14794), (135, 14863), (144, 14896), (184, 15121), (186, 15127), (194, 15190), (197, 15202), (198, 15205), (199, 15217), (219, 15304), (227, 15358), (239, 15427), (244, 15463), (267, 15607), (277, 15658), (296, 15802), (297, 15805), (298, 15808), (305, 15856), (312, 15913),

Gene: CherryCola\_22 Start: 12733, Stop: 14619, Start Num: 20

Candidate Starts for CherryCola\_22:

(Start: 20 @12733 has 165 MA's), (62, 12970), (64, 12982), (70, 13036), (100, 13258), (130, 13420), (137, 13453), (186, 13705), (196, 13777), (212, 13834), (214, 13846), (232, 13963), (239, 14008), (240, 14011), (260, 14134), (262, 14146), (273, 14206), (295, 14359), (297, 14368), (308, 14440), (311, 14470), (326, 14542), (331, 14566),

Gene: Chickadee\_20 Start: 13744, Stop: 15633, Start Num: 20

Candidate Starts for Chickadee\_20:

(Start: 19 @13735 has 4 MA's), (Start: 20 @13744 has 165 MA's), (32, 13810), (61, 13978), (64, 13996), (100, 14269), (117, 14365), (160, 14557), (164, 14572), (174, 14650), (186, 14719), (194, 14782), (197, 14794), (198, 14797), (216, 14881), (219, 14896), (235, 14995), (244, 15049), (260, 15154), (277, 15244), (286, 15325), (295, 15382), (308, 15463), (312, 15499), (326, 15565),

Gene: Cinna\_22 Start: 13276, Stop: 15141, Start Num: 20

Candidate Starts for Cinna\_22:

(Start: 20 @13276 has 165 MA's), (75, 13630), (89, 13756), (118, 13894), (127, 13936), (147, 14017), (150, 14026), (162, 14083), (166, 14095), (184, 14227), (187, 14248), (188, 14254), (211, 14368), (225, 14467), (226, 14485), (243, 14584), (247, 14599), (256, 14641), (263, 14695), (264, 14710), (273, 14752), (277, 14767), (279, 14779), (284, 14824), (295, 14887), (299, 14920),

Gene: ClamChowder\_21 Start: 12512, Stop: 14410, Start Num: 20

Candidate Starts for ClamChowder\_21:

(Start: 20 @12512 has 165 MA's), (62, 12749), (64, 12761), (70, 12815), (130, 13208), (137, 13241), (144, 13265), (186, 13505), (212, 13634), (214, 13646), (232, 13763), (239, 13808), (240, 13811), (252, 13871), (254, 13889), (260, 13934), (262, 13946), (263, 13949), (266, 13970), (283, 14069), (287, 14108), (297, 14168), (308, 14240), (311, 14270), (315, 14294), (322, 14321), (323, 14324), (327, 14351),

Gene: ClearAsMud\_29 Start: 14527, Stop: 16377, Start Num: 20

Candidate Starts for ClearAsMud\_29:

(Start: 20 @14527 has 165 MA's), (113, 15103), (120, 15148), (127, 15184), (143, 15253), (150, 15274), (151, 15277), (157, 15307), (175, 15427), (214, 15649), (220, 15694), (243, 15838), (271, 15994), (284, 16078), (298, 16141), (302, 16171), (304, 16183), (307, 16198), (309, 16213), (315, 16264), (320, 16282),

Gene: Clown\_23 Start: 14522, Stop: 16378, Start Num: 20

Candidate Starts for Clown\_23:

(17, 14495), (Start: 20 @14522 has 165 MA's), (24, 14543), (41, 14624), (61, 14756), (64, 14774), (71, 14840), (125, 15146), (137, 15212), (140, 15227), (145, 15239), (186, 15479), (196, 15551), (212, 15608), (214, 15620), (219, 15659), (232, 15737), (237, 15767), (239, 15782), (260, 15908), (262, 15920), (263, 15923), (283, 16043), (284, 16052), (295, 16133), (304, 16187), (308, 16214), (322, 16295), (323, 16298),

Gene: CoveyB\_21 Start: 12369, Stop: 14255, Start Num: 20

Candidate Starts for CoveyB\_21:

(Start: 20 @12369 has 165 MA's), (62, 12606), (64, 12618), (70, 12672), (100, 12894), (130, 13056), (137, 13089), (186, 13341), (196, 13413), (212, 13470), (214, 13482), (232, 13599), (239, 13644), (240, 13647), (260, 13770), (262, 13782), (273, 13842), (295, 13995), (297, 14004), (308, 14076), (311, 14106), (326, 14178), (331, 14202),

Gene: Cranjjs\_28 Start: 13958, Stop: 15814, Start Num: 20

Candidate Starts for Cranjjs\_28:

(Start: 20 @13958 has 165 MA's), (113, 14534), (120, 14579), (127, 14615), (143, 14684), (150, 14705), (151, 14708), (157, 14738), (175, 14858), (188, 14939), (211, 15053), (214, 15080), (243, 15269), (264, 15395), (284, 15509), (285, 15524), (298, 15572), (302, 15602), (304, 15614), (307, 15629), (309, 15644), (315, 15695), (320, 15713), (325, 15731),

Gene: CrazyRich\_26 Start: 13768, Stop: 15624, Start Num: 20

Candidate Starts for CrazyRich\_26:

(Start: 20 @13768 has 165 MA's), (113, 14344), (120, 14389), (127, 14425), (143, 14494), (150, 14515), (151, 14518), (157, 14548), (175, 14668), (188, 14749), (211, 14863), (214, 14890), (243, 15079), (264, 15205), (284, 15319), (285, 15334), (298, 15382), (302, 15412), (304, 15424), (307, 15439), (309, 15454), (315, 15505), (320, 15523), (325, 15541),

Gene: Cressida\_24 Start: 13311, Stop: 15185, Start Num: 20

Candidate Starts for Cressida\_24:

(Start: 20 @13311 has 165 MA's), (89, 13797), (97, 13836), (118, 13935), (127, 13977), (147, 14058), (150, 14067), (162, 14124), (166, 14136), (184, 14268), (187, 14289), (188, 14295), (211, 14409), (225, 14508), (226, 14526), (243, 14625), (247, 14640), (256, 14682), (263, 14736), (264, 14751), (273, 14793), (277, 14808), (279, 14820), (284, 14865), (295, 14928), (302, 14970), (308, 15009), (309, 15012), (325, 15099),

Gene: Crisis\_28 Start: 13753, Stop: 15609, Start Num: 20

Candidate Starts for Crisis\_28:

(Start: 20 @13753 has 165 MA's), (113, 14329), (120, 14374), (127, 14410), (143, 14479), (150, 14500), (151, 14503), (157, 14533), (175, 14653), (188, 14734), (211, 14848), (214, 14875), (243, 15064), (264, 15190), (270, 15214), (284, 15304), (285, 15319), (298, 15367), (302, 15397), (304, 15409), (307, 15424), (309, 15439), (315, 15490), (320, 15508), (325, 15526),

Gene: Danyall\_21 Start: 12369, Stop: 14255, Start Num: 20

Candidate Starts for Danyall\_21:

(Start: 20 @12369 has 165 MA's), (62, 12606), (64, 12618), (70, 12672), (100, 12894), (130, 13056), (137, 13089), (186, 13341), (196, 13413), (212, 13470), (214, 13482), (232, 13599), (239, 13644), (240, 13647), (260, 13770), (262, 13782), (273, 13842), (295, 13995), (297, 14004), (308, 14076), (311, 14106), (326, 14178), (331, 14202),

Gene: Delrey21\_21 Start: 14990, Stop: 16909, Start Num: 20

Candidate Starts for Delrey21\_21:

(Start: 20 @14990 has 165 MA's), (41, 15089), (55, 15206), (59, 15218), (61, 15221), (81, 15395), (103, 15509), (107, 15542), (117, 15608), (118, 15614), (129, 15668), (133, 15692), (142, 15728),

(181, 15944), (184, 15962), (186, 15968), (194, 16031), (197, 16043), (198, 16046), (199, 16058), (219, 16148), (224, 16175), (250, 16334), (261, 16412), (268, 16448), (279, 16508), (284, 16553), (295, 16664), (299, 16697), (312, 16781), (315, 16799), (323, 16829),

Gene: Derg\_16 Start: 14345, Stop: 16255, Start Num: 20

Candidate Starts for Derg\_16:

(Start: 20 @14345 has 165 MA's), (45, 14480), (61, 14576), (98, 14861), (111, 14930), (117, 14978), (123, 15002), (129, 15038), (135, 15071), (140, 15095), (166, 15188), (184, 15329), (186, 15335), (194, 15398), (197, 15410), (198, 15413), (199, 15425), (219, 15512), (239, 15635), (244, 15671), (250, 15704), (260, 15776), (267, 15815), (277, 15866), (296, 16010), (297, 16013), (305, 16064), (312, 16121), (313, 16133), (316, 16142),

Gene: Dewdrop\_60 Start: 29654, Stop: 31561, Start Num: 19

Candidate Starts for Dewdrop\_60:

(1, 29438), (4, 29510), (6, 29543), (7, 29546), (Start: 19 @29654 has 4 MA's), (74, 29993), (90, 30131), (95, 30161), (115, 30269), (123, 30314), (201, 30755), (233, 30929), (238, 30959), (239, 30971), (243, 30998), (256, 31055), (259, 31082), (263, 31109), (268, 31136), (272, 31160), (279, 31202), (281, 31232), (284, 31247), (308, 31391), (323, 31475), (331, 31517),

Gene: Dexpert\_21 Start: 14191, Stop: 16077, Start Num: 20

Candidate Starts for Dexpert\_21:

(Start: 19 @14182 has 4 MA's), (Start: 20 @14191 has 165 MA's), (32, 14257), (61, 14425), (64, 14443), (100, 14713), (117, 14809), (164, 15016), (174, 15094), (186, 15163), (194, 15226), (197, 15238), (198, 15241), (216, 15325), (219, 15340), (235, 15439), (244, 15493), (260, 15598), (277, 15688), (286, 15769), (295, 15826), (298, 15838), (307, 15895), (308, 15907), (312, 15943), (326, 16009),

Gene: DoctorFroggo\_21 Start: 14990, Stop: 16909, Start Num: 20

Candidate Starts for DoctorFroggo\_21:

(Start: 20 @14990 has 165 MA's), (41, 15089), (55, 15206), (59, 15218), (61, 15221), (81, 15395), (103, 15509), (107, 15542), (117, 15608), (118, 15614), (129, 15668), (133, 15692), (142, 15728), (181, 15944), (184, 15962), (186, 15968), (194, 16031), (197, 16043), (198, 16046), (199, 16058), (219, 16148), (224, 16175), (250, 16334), (261, 16412), (268, 16448), (279, 16508), (284, 16553), (295, 16664), (299, 16697), (312, 16781), (315, 16799), (323, 16829),

Gene: DogYard\_26 Start: 14304, Stop: 16031, Start Num: 33

Candidate Starts for DogYard\_26:

(22, 14241), (Start: 33 @14304 has 17 MA's), (134, 14913), (189, 15201), (192, 15213), (198, 15243), (220, 15339), (221, 15342), (222, 15345), (230, 15405), (259, 15567), (269, 15627), (270, 15633), (273, 15651), (283, 15714), (300, 15825), (315, 15924),

Gene: DonaldDuck\_24 Start: 13808, Stop: 15640, Start Num: 36

Candidate Starts for DonaldDuck\_24:

(Start: 36 @13808 has 35 MA's), (39, 13817), (52, 13916), (103, 14282), (130, 14450), (133, 14465), (150, 14525), (159, 14573), (160, 14579), (167, 14603), (182, 14720), (183, 14726), (198, 14819), (217, 14900), (234, 14993), (235, 15008), (242, 15056), (248, 15080), (257, 15128), (259, 15152), (266, 15200), (275, 15242), (294, 15377), (295, 15389), (297, 15398), (307, 15458), (316, 15527), (325, 15560),

Gene: EMoore\_16 Start: 13023, Stop: 14942, Start Num: 20

Candidate Starts for EMoore\_16:

(Start: 20 @13023 has 165 MA's), (63, 13263), (104, 13551), (162, 13818), (166, 13827), (169, 13845), (172, 13878), (184, 13992), (186, 13998), (194, 14061), (199, 14088), (219, 14175), (249, 14358),

(260, 14433), (262, 14445), (267, 14472), (277, 14523), (284, 14580), (295, 14691), (307, 14760), (308, 14772), (312, 14808), (313, 14820), (315, 14826),

Gene: EarickHC\_27 Start: 13679, Stop: 15535, Start Num: 20

Candidate Starts for EarickHC\_27:

(Start: 20 @13679 has 165 MA's), (113, 14255), (120, 14300), (127, 14336), (143, 14405), (150, 14426), (151, 14429), (157, 14459), (175, 14579), (188, 14660), (211, 14774), (214, 14801), (243, 14990), (264, 15116), (270, 15140), (284, 15230), (285, 15245), (298, 15293), (302, 15323), (304, 15335), (307, 15350), (309, 15365), (315, 15416), (320, 15434), (325, 15452),

Gene: EdmundFerry\_19 Start: 13775, Stop: 15661, Start Num: 20

Candidate Starts for EdmundFerry\_19:

(Start: 19 @13766 has 4 MA's), (Start: 20 @13775 has 165 MA's), (32, 13841), (61, 14009), (64, 14027), (100, 14297), (117, 14393), (164, 14600), (174, 14678), (186, 14747), (194, 14810), (197, 14822), (198, 14825), (216, 14909), (219, 14924), (235, 15023), (244, 15077), (260, 15182), (277, 15272), (286, 15353), (295, 15410), (298, 15422), (307, 15479), (308, 15491), (312, 15527), (326, 15593),

Gene: Egi03\_19 Start: 11979, Stop: 13871, Start Num: 20

Candidate Starts for Egi03\_19:

(Start: 20 @11979 has 165 MA's), (62, 12216), (64, 12228), (70, 12282), (100, 12507), (130, 12669), (137, 12702), (145, 12729), (212, 13095), (214, 13107), (232, 13224), (239, 13269), (240, 13272), (252, 13332), (254, 13350), (260, 13395), (262, 13407), (263, 13410), (283, 13530), (287, 13569), (297, 13629), (308, 13701), (311, 13731), (315, 13755), (322, 13782), (323, 13785), (327, 13812),

Gene: Evamon\_19 Start: 11844, Stop: 13742, Start Num: 20

Candidate Starts for Evamon\_19:

(Start: 20 @11844 has 165 MA's), (62, 12081), (64, 12093), (70, 12147), (100, 12378), (130, 12540), (137, 12573), (186, 12837), (212, 12966), (214, 12978), (232, 13095), (239, 13140), (240, 13143), (252, 13203), (254, 13221), (258, 13236), (260, 13266), (262, 13278), (263, 13281), (283, 13401), (287, 13440), (297, 13500), (308, 13572), (311, 13602), (315, 13626), (322, 13653), (323, 13656), (327, 13683),

Gene: EverythinBagel\_24 Start: 14211, Stop: 16028, Start Num: 36

Candidate Starts for EverythinBagel\_24:

(Start: 36 @14211 has 35 MA's), (39, 14220), (52, 14319), (94, 14637), (130, 14838), (133, 14853), (150, 14913), (159, 14961), (167, 14991), (181, 15105), (182, 15108), (183, 15114), (190, 15168), (198, 15207), (217, 15288), (234, 15381), (235, 15396), (242, 15444), (248, 15468), (257, 15516), (259, 15540), (266, 15588), (275, 15630), (294, 15765), (297, 15786), (304, 15831), (307, 15846), (316, 15915), (325, 15948),

Gene: Fireball\_20 Start: 11982, Stop: 13874, Start Num: 20

Candidate Starts for Fireball\_20:

(Start: 20 @11982 has 165 MA's), (62, 12219), (64, 12231), (70, 12285), (100, 12510), (130, 12672), (137, 12705), (145, 12732), (212, 13098), (214, 13110), (232, 13227), (239, 13272), (240, 13275), (252, 13335), (254, 13353), (260, 13398), (262, 13410), (263, 13413), (283, 13533), (287, 13572), (297, 13632), (308, 13704), (311, 13734), (315, 13758), (322, 13785), (323, 13788), (327, 13815),

Gene: Fireman\_27 Start: 13483, Stop: 15504, Start Num: 20

Candidate Starts for Fireman\_27:

(Start: 20 @13483 has 165 MA's), (113, 14068), (127, 14149), (131, 14173), (143, 14218), (150, 14239), (175, 14392), (207, 14650), (209, 14722), (214, 14782), (216, 14806), (239, 14944), (242, 14968), (243, 14971), (263, 15082), (284, 15211), (285, 15226), (287, 15235), (295, 15262), (298,

15274), (302, 15304), (307, 15331), (325, 15433),

Gene: Fitzgerald\_18 Start: 14566, Stop: 16473, Start Num: 20

Candidate Starts for Fitzgerald\_18:

(Start: 20 @14566 has 165 MA's), (61, 14797), (64, 14815), (98, 15082), (123, 15220), (135, 15289), (144, 15322), (184, 15547), (186, 15553), (194, 15616), (197, 15628), (198, 15631), (199, 15643), (219, 15730), (239, 15853), (244, 15889), (267, 16033), (277, 16084), (296, 16228), (297, 16231), (298, 16234), (305, 16282), (312, 16339),

Gene: Fizzles\_25 Start: 13768, Stop: 15600, Start Num: 36

Candidate Starts for Fizzles\_25:

(Start: 36 @13768 has 35 MA's), (38, 13774), (39, 13777), (61, 13915), (130, 14410), (138, 14449), (145, 14470), (159, 14533), (165, 14557), (167, 14563), (182, 14680), (198, 14779), (213, 14821), (217, 14860), (234, 14953), (235, 14968), (242, 15016), (246, 15031), (257, 15088), (259, 15112), (266, 15160), (273, 15196), (277, 15211), (294, 15337), (295, 15349), (297, 15358), (325, 15520),

Gene: Flatwoods\_21 Start: 14757, Stop: 16682, Start Num: 20

Candidate Starts for Flatwoods\_21:

(Start: 20 @14757 has 165 MA's), (45, 14892), (61, 14988), (98, 15288), (111, 15357), (117, 15405), (123, 15429), (129, 15465), (135, 15498), (140, 15522), (166, 15615), (184, 15756), (186, 15762), (194, 15825), (197, 15837), (198, 15840), (199, 15852), (219, 15939), (239, 16062), (244, 16098), (250, 16131), (260, 16203), (267, 16242), (277, 16293), (295, 16431), (296, 16437), (297, 16440), (305, 16491), (312, 16548), (313, 16560), (316, 16569),

Gene: Forrestell\_23 Start: 12942, Stop: 14669, Start Num: 33

Candidate Starts for Forrestell\_23:

(22, 12879), (Start: 33 @12942 has 17 MA's), (134, 13551), (181, 13779), (189, 13839), (192, 13851), (198, 13881), (220, 13977), (221, 13980), (222, 13983), (230, 14043), (259, 14205), (267, 14256), (269, 14265), (273, 14289), (283, 14352), (295, 14427), (296, 14433), (298, 14439), (299, 14460), (315, 14562),

Gene: Fosterous\_18 Start: 15029, Stop: 16936, Start Num: 20

Candidate Starts for Fosterous\_18:

(Start: 20 @15029 has 165 MA's), (61, 15260), (64, 15278), (98, 15545), (123, 15683), (135, 15752), (144, 15785), (184, 16010), (186, 16016), (194, 16079), (197, 16091), (198, 16094), (199, 16106), (219, 16193), (227, 16247), (239, 16316), (244, 16352), (267, 16496), (277, 16547), (296, 16691), (297, 16694), (298, 16697), (305, 16745), (312, 16802),

Gene: FrankDeliGuy\_22 Start: 13770, Stop: 15602, Start Num: 36

Candidate Starts for FrankDeliGuy\_22:

(Start: 36 @13770 has 35 MA's), (39, 13779), (52, 13878), (103, 14244), (130, 14412), (133, 14427), (150, 14487), (159, 14535), (160, 14541), (167, 14565), (181, 14679), (182, 14682), (183, 14688), (198, 14781), (217, 14862), (234, 14955), (235, 14970), (242, 15018), (248, 15042), (257, 15090), (259, 15114), (266, 15162), (275, 15204), (294, 15339), (297, 15360), (307, 15420), (316, 15489), (325, 15522),

Gene: Fransoyer\_27 Start: 13833, Stop: 15662, Start Num: 35

Candidate Starts for Fransoyer\_27:

(Start: 35 @13833 has 15 MA's), (39, 13845), (56, 13974), (83, 14202), (85, 14220), (115, 14379), (130, 14463), (150, 14541), (159, 14589), (167, 14619), (181, 14733), (198, 14835), (213, 14877), (217, 14916), (219, 14925), (234, 15009), (235, 15024), (257, 15144), (259, 15168), (264, 15210), (266, 15216), (275, 15258), (294, 15393), (297, 15414), (299, 15438), (303, 15456), (307, 15474), (325, 15576),

Gene: Fregley\_25 Start: 13171, Stop: 14949, Start Num: 35

Candidate Starts for Fregley\_25:

(Start: 35 @13171 has 15 MA's), (39, 13183), (83, 13525), (108, 13642), (130, 13768), (159, 13882), (167, 13912), (198, 14125), (217, 14206), (219, 14215), (232, 14293), (234, 14299), (235, 14314), (259, 14458), (264, 14500), (275, 14551), (295, 14698), (297, 14707), (321, 14857), (325, 14869),

Gene: FuegoCuervo\_23 Start: 14318, Stop: 16225, Start Num: 20

Candidate Starts for FuegoCuervo\_23:

(Start: 20 @14318 has 165 MA's), (61, 14549), (64, 14567), (98, 14834), (123, 14972), (135, 15041), (144, 15074), (184, 15299), (186, 15305), (194, 15368), (197, 15380), (198, 15383), (199, 15395), (219, 15482), (239, 15605), (244, 15641), (267, 15785), (277, 15836), (296, 15980), (297, 15983), (298, 15986), (305, 16034), (312, 16091),

Gene: Fugax\_21 Start: 12512, Stop: 14410, Start Num: 20

Candidate Starts for Fugax\_21:

(Start: 20 @12512 has 165 MA's), (62, 12749), (64, 12761), (70, 12815), (130, 13208), (137, 13241), (144, 13265), (186, 13505), (212, 13634), (214, 13646), (232, 13763), (239, 13808), (240, 13811), (252, 13871), (254, 13889), (260, 13934), (262, 13946), (263, 13949), (266, 13970), (283, 14069), (287, 14108), (297, 14168), (308, 14240), (311, 14270), (315, 14294), (322, 14321), (323, 14324), (327, 14351),

Gene: FuzzBuster\_31 Start: 13864, Stop: 15825, Start Num: 8

Candidate Starts for FuzzBuster\_31:

(Start: 8 @13864 has 1 MA's), (12, 13891), (Start: 20 @13975 has 165 MA's), (30, 14026), (74, 14296), (115, 14533), (158, 14728), (174, 14842), (218, 15121), (223, 15148), (226, 15175), (231, 15199), (235, 15223), (239, 15247), (240, 15250), (241, 15268), (252, 15307), (263, 15385), (305, 15637), (308, 15658), (327, 15769), (329, 15778),

Gene: GTE6\_20 Start: 14261, Stop: 16150, Start Num: 20

Candidate Starts for GTE6\_20:

(Start: 19 @14252 has 4 MA's), (Start: 20 @14261 has 165 MA's), (32, 14327), (61, 14495), (64, 14513), (100, 14786), (117, 14882), (164, 15089), (174, 15167), (186, 15236), (194, 15299), (197, 15311), (198, 15314), (216, 15398), (219, 15413), (235, 15512), (244, 15566), (260, 15671), (277, 15761), (286, 15842), (295, 15899), (299, 15932), (308, 15980), (312, 16016), (326, 16082),

Gene: Gaea\_20 Start: 14451, Stop: 16370, Start Num: 20

Candidate Starts for Gaea\_20:

(Start: 20 @14451 has 165 MA's), (45, 14586), (61, 14682), (98, 14976), (111, 15045), (117, 15093), (123, 15117), (129, 15153), (135, 15186), (140, 15210), (166, 15303), (184, 15444), (186, 15450), (194, 15513), (197, 15525), (198, 15528), (199, 15540), (219, 15627), (239, 15750), (244, 15786), (250, 15819), (260, 15891), (267, 15930), (277, 15981), (295, 16119), (296, 16125), (297, 16128), (305, 16179), (312, 16236), (313, 16248), (316, 16257),

Gene: Galadriel\_22 Start: 14888, Stop: 16786, Start Num: 20

Candidate Starts for Galadriel\_22:

(Start: 20 @14888 has 165 MA's), (61, 15119), (64, 15137), (98, 15395), (123, 15533), (135, 15602), (144, 15635), (184, 15860), (186, 15866), (194, 15929), (197, 15941), (198, 15944), (199, 15956), (219, 16043), (239, 16166), (244, 16202), (267, 16346), (277, 16397), (296, 16541), (297, 16544), (298, 16547), (305, 16595), (312, 16652),

Gene: Ganandorf\_26 Start: 13815, Stop: 15671, Start Num: 20

Candidate Starts for Ganandorf\_26:

(Start: 20 @13815 has 165 MA's), (113, 14391), (120, 14436), (127, 14472), (143, 14541), (150, 14562), (151, 14565), (157, 14595), (175, 14715), (188, 14796), (211, 14910), (214, 14937), (243, 15126), (264, 15252), (284, 15366), (285, 15381), (298, 15429), (302, 15459), (304, 15471), (307, 15486), (309, 15501), (315, 15552), (320, 15570), (325, 15588),

Gene: Gazebo\_24 Start: 14317, Stop: 16143, Start Num: 36

Candidate Starts for Gazebo\_24:

(Start: 36 @14317 has 35 MA's), (39, 14326), (52, 14425), (94, 14752), (130, 14953), (133, 14968), (150, 15028), (159, 15076), (167, 15106), (182, 15223), (183, 15229), (198, 15322), (217, 15403), (234, 15496), (235, 15511), (242, 15559), (248, 15583), (257, 15631), (259, 15655), (266, 15703), (275, 15745), (294, 15880), (297, 15901), (307, 15961), (316, 16030), (325, 16063),

Gene: Geodirt\_19 Start: 15093, Stop: 17003, Start Num: 20

Candidate Starts for Geodirt\_19:

(Start: 20 @15093 has 165 MA's), (61, 15324), (64, 15342), (98, 15612), (123, 15750), (135, 15819), (144, 15852), (184, 16077), (186, 16083), (194, 16146), (197, 16158), (198, 16161), (199, 16173), (219, 16260), (227, 16314), (239, 16383), (244, 16419), (267, 16563), (277, 16614), (296, 16758), (297, 16761), (298, 16764), (305, 16812), (312, 16869),

Gene: Germa\_28 Start: 13644, Stop: 15500, Start Num: 20

Candidate Starts for Germa\_28:

(Start: 20 @13644 has 165 MA's), (113, 14220), (120, 14265), (127, 14301), (143, 14370), (150, 14391), (151, 14394), (157, 14424), (175, 14544), (188, 14625), (211, 14739), (214, 14766), (243, 14955), (264, 15081), (284, 15195), (285, 15210), (298, 15258), (302, 15288), (304, 15300), (307, 15315), (309, 15330), (315, 15381), (320, 15399), (325, 15417),

Gene: Gezellig\_19 Start: 11982, Stop: 13874, Start Num: 20

Candidate Starts for Gezellig\_19:

(Start: 20 @11982 has 165 MA's), (62, 12219), (64, 12231), (70, 12285), (100, 12510), (130, 12672), (137, 12705), (145, 12732), (212, 13098), (214, 13110), (232, 13227), (239, 13272), (240, 13275), (252, 13335), (254, 13353), (260, 13398), (262, 13410), (263, 13413), (283, 13533), (287, 13572), (297, 13632), (308, 13704), (311, 13734), (315, 13758), (322, 13785), (323, 13788), (327, 13815),

Gene: Gina\_28 Start: 13149, Stop: 15167, Start Num: 20

Candidate Starts for Gina\_28:

(Start: 20 @13149 has 165 MA's), (88, 13617), (113, 13731), (118, 13770), (127, 13812), (131, 13836), (143, 13881), (150, 13902), (151, 13905), (154, 13920), (165, 13974), (175, 14055), (186, 14115), (203, 14259), (205, 14277), (214, 14445), (216, 14469), (239, 14607), (243, 14634), (263, 14745), (284, 14874), (285, 14889), (295, 14925), (298, 14937), (302, 14967), (307, 14994), (325, 15096),

Gene: Glorp\_28 Start: 13816, Stop: 15672, Start Num: 20

Candidate Starts for Glorp\_28:

(Start: 20 @13816 has 165 MA's), (113, 14392), (120, 14437), (127, 14473), (143, 14542), (150, 14563), (151, 14566), (157, 14596), (175, 14716), (188, 14797), (211, 14911), (214, 14938), (243, 15127), (284, 15367), (285, 15382), (298, 15430), (302, 15460), (304, 15472), (307, 15487), (309, 15502), (315, 15553), (320, 15571), (325, 15589),

Gene: Grassboy\_26 Start: 14484, Stop: 16316, Start Num: 36

Candidate Starts for Grassboy\_26:

(Start: 36 @14484 has 35 MA's), (39, 14493), (52, 14592), (94, 14925), (130, 15126), (133, 15141), (150, 15201), (159, 15249), (167, 15279), (182, 15396), (183, 15402), (198, 15495), (217, 15576), (234, 15669), (235, 15684), (242, 15732), (248, 15756), (257, 15804), (259, 15828), (266, 15876), (275, 15918), (294, 16053), (297, 16074), (304, 16119), (307, 16134), (316, 16203), (325, 16236),

Gene: Gustavo\_20 Start: 14562, Stop: 16469, Start Num: 20

Candidate Starts for Gustavo\_20:

(Start: 20 @14562 has 165 MA's), (45, 14697), (61, 14793), (98, 15075), (111, 15144), (117, 15192), (123, 15216), (129, 15252), (135, 15285), (140, 15309), (166, 15402), (184, 15543), (186, 15549), (194, 15612), (197, 15624), (198, 15627), (199, 15639), (219, 15726), (239, 15849), (244, 15885), (260, 15990), (267, 16029), (277, 16080), (295, 16218), (296, 16224), (297, 16227), (305, 16278), (312, 16335), (313, 16347), (316, 16356),

Gene: Halo3\_20 Start: 12297, Stop: 14195, Start Num: 20

Candidate Starts for Halo3\_20:

(Start: 20 @12297 has 165 MA's), (62, 12534), (64, 12546), (70, 12600), (130, 12993), (137, 13026), (186, 13290), (212, 13419), (214, 13431), (218, 13467), (232, 13548), (239, 13593), (240, 13596), (252, 13656), (260, 13719), (262, 13731), (263, 13734), (287, 13893), (297, 13953), (308, 14025), (311, 14055), (315, 14079), (322, 14106), (323, 14109),

Gene: Hans\_23 Start: 15322, Stop: 17238, Start Num: 20

Candidate Starts for Hans\_23:

(Start: 20 @15322 has 165 MA's), (53, 15523), (73, 15646), (98, 15814), (111, 15880), (123, 15937), (162, 16114), (166, 16123), (172, 16174), (174, 16225), (184, 16288), (186, 16294), (194, 16357), (199, 16384), (219, 16471), (224, 16498), (249, 16654), (260, 16729), (263, 16744), (267, 16768), (273, 16801), (277, 16819), (284, 16876), (295, 16987), (307, 17056), (308, 17068), (312, 17104), (326, 17170),

Gene: Hendrix\_57 Start: 29698, Stop: 31632, Start Num: 19

Candidate Starts for Hendrix\_57:

(Start: 19 @29698 has 4 MA's), (58, 29935), (95, 30232), (115, 30343), (151, 30505), (173, 30619), (238, 31033), (239, 31045), (243, 31072), (256, 31129), (259, 31156), (263, 31183), (264, 31198), (277, 31264), (331, 31591),

Gene: Hermeonysus\_26 Start: 13684, Stop: 15543, Start Num: 20

Candidate Starts for Hermeonysus\_26:

(Start: 20 @13684 has 165 MA's), (113, 14263), (120, 14308), (127, 14344), (143, 14413), (150, 14434), (151, 14437), (157, 14467), (175, 14587), (188, 14668), (211, 14782), (214, 14809), (243, 14998), (264, 15124), (284, 15238), (285, 15253), (298, 15301), (302, 15331), (304, 15343), (307, 15358), (309, 15373), (315, 15424), (320, 15442), (325, 15460),

Gene: Hive\_26 Start: 14318, Stop: 16045, Start Num: 33

Candidate Starts for Hive\_26:

(22, 14255), (Start: 33 @14318 has 17 MA's), (134, 14927), (189, 15215), (192, 15227), (198, 15257), (220, 15353), (221, 15356), (222, 15359), (230, 15419), (259, 15581), (269, 15641), (270, 15647), (273, 15665), (283, 15728), (300, 15839), (315, 15938),

Gene: Honeyfin\_28 Start: 14000, Stop: 15859, Start Num: 20

Candidate Starts for Honeyfin\_28:

(Start: 20 @14000 has 165 MA's), (113, 14579), (120, 14624), (127, 14660), (143, 14729), (150, 14750), (151, 14753), (157, 14783), (175, 14903), (188, 14984), (211, 15098), (214, 15125), (243, 15314), (264, 15440), (284, 15554), (285, 15569), (298, 15617), (302, 15647), (304, 15659), (307, 15674), (309, 15689), (315, 15740), (320, 15758), (325, 15776),

Gene: Hyperion\_24 Start: 14277, Stop: 16103, Start Num: 36

Candidate Starts for Hyperion\_24:

(Start: 36 @14277 has 35 MA's), (39, 14286), (52, 14385), (94, 14712), (130, 14913), (133, 14928), (150, 14988), (159, 15036), (167, 15066), (182, 15183), (183, 15189), (198, 15282), (217, 15363), (234, 15456), (235, 15471), (242, 15519), (248, 15543), (257, 15591), (259, 15615), (266, 15663), (275, 15705), (294, 15840), (297, 15861), (307, 15921), (316, 15990), (325, 16023),

Gene: Inspectinfecti\_22 Start: 15744, Stop: 17663, Start Num: 20

Candidate Starts for Inspectinfecti\_22:

(Start: 20 @15744 has 165 MA's), (53, 15945), (73, 16068), (98, 16239), (107, 16284), (111, 16305), (123, 16362), (162, 16539), (166, 16548), (172, 16599), (174, 16650), (184, 16713), (186, 16719), (194, 16782), (199, 16809), (219, 16896), (224, 16923), (231, 16971), (249, 17079), (260, 17154), (263, 17169), (267, 17193), (273, 17226), (277, 17244), (284, 17301), (295, 17412), (307, 17481), (308, 17493), (312, 17529), (326, 17595),

Gene: JKSyngboy\_19 Start: 15221, Stop: 17128, Start Num: 20

Candidate Starts for JKSyngboy\_19:

(Start: 20 @15221 has 165 MA's), (45, 15356), (50, 15389), (61, 15452), (98, 15734), (111, 15803), (117, 15851), (123, 15875), (135, 15944), (140, 15968), (166, 16061), (184, 16202), (186, 16208), (194, 16271), (197, 16283), (198, 16286), (199, 16298), (219, 16385), (239, 16508), (244, 16544), (250, 16577), (260, 16649), (267, 16688), (277, 16739), (296, 16883), (297, 16886), (305, 16937), (312, 16994), (313, 17006), (316, 17015),

Gene: Jabberwocky\_18 Start: 15000, Stop: 16907, Start Num: 20

Candidate Starts for Jabberwocky\_18:

(Start: 20 @15000 has 165 MA's), (61, 15231), (64, 15249), (98, 15516), (123, 15654), (135, 15723), (144, 15756), (184, 15981), (186, 15987), (194, 16050), (197, 16062), (198, 16065), (199, 16077), (219, 16164), (227, 16218), (239, 16287), (244, 16323), (267, 16467), (277, 16518), (296, 16662), (297, 16665), (298, 16668), (305, 16716), (312, 16773),

Gene: Jambalaya\_19 Start: 11635, Stop: 13521, Start Num: 20

Candidate Starts for Jambalaya\_19:

(Start: 20 @11635 has 165 MA's), (62, 11872), (64, 11884), (70, 11938), (130, 12319), (137, 12352), (145, 12379), (212, 12745), (214, 12757), (232, 12874), (239, 12919), (240, 12922), (252, 12982), (254, 13000), (260, 13045), (262, 13057), (263, 13060), (283, 13180), (287, 13219), (297, 13279), (308, 13351), (311, 13381), (315, 13405), (322, 13432), (323, 13435), (327, 13462),

Gene: Jayden\_28 Start: 13519, Stop: 15375, Start Num: 20

Candidate Starts for Jayden\_28:

(Start: 20 @13519 has 165 MA's), (52, 13699), (113, 14092), (118, 14131), (120, 14137), (127, 14173), (143, 14242), (150, 14263), (151, 14266), (175, 14416), (214, 14638), (216, 14662), (239, 14800), (243, 14827), (263, 14938), (264, 14953), (284, 15067), (285, 15082), (287, 15091), (295, 15118), (298, 15130), (301, 15157), (302, 15160), (309, 15202),

Gene: Jefe\_27 Start: 13737, Stop: 15596, Start Num: 20

Candidate Starts for Jefe\_27:

(Start: 20 @13737 has 165 MA's), (113, 14316), (120, 14361), (127, 14397), (143, 14466), (150, 14487), (151, 14490), (157, 14520), (175, 14640), (188, 14721), (211, 14835), (214, 14862), (243, 15051), (264, 15177), (284, 15291), (285, 15306), (298, 15354), (302, 15384), (304, 15396), (307, 15411), (309, 15426), (315, 15477), (320, 15495), (325, 15513),

Gene: Jehoshaphat\_27 Start: 14727, Stop: 16559, Start Num: 36

Candidate Starts for Jehoshaphat\_27:

(Start: 36 @14727 has 35 MA's), (39, 14736), (52, 14835), (103, 15201), (130, 15369), (133, 15384), (150, 15444), (159, 15492), (160, 15498), (167, 15522), (182, 15639), (183, 15645), (198, 15738),

(217, 15819), (234, 15912), (235, 15927), (242, 15975), (248, 15999), (257, 16047), (259, 16071), (266, 16119), (275, 16161), (294, 16296), (295, 16308), (297, 16317), (307, 16377), (316, 16446), (325, 16479),

Gene: JohnPork\_19 Start: 11883, Stop: 13769, Start Num: 20

Candidate Starts for JohnPork\_19:

(Start: 20 @11883 has 165 MA's), (62, 12120), (64, 12132), (70, 12186), (130, 12567), (137, 12600), (145, 12627), (212, 12993), (214, 13005), (232, 13122), (239, 13167), (240, 13170), (252, 13230), (254, 13248), (260, 13293), (262, 13305), (263, 13308), (283, 13428), (287, 13467), (297, 13527), (308, 13599), (311, 13629), (315, 13653), (322, 13680), (323, 13683), (327, 13710),

Gene: Jollipop\_27 Start: 14085, Stop: 15941, Start Num: 20

Candidate Starts for Jollipop\_27:

(Start: 20 @14085 has 165 MA's), (113, 14661), (120, 14706), (127, 14742), (143, 14811), (150, 14832), (151, 14835), (157, 14865), (175, 14985), (188, 15066), (211, 15180), (214, 15207), (243, 15396), (264, 15522), (284, 15636), (285, 15651), (298, 15699), (302, 15729), (304, 15741), (307, 15756), (309, 15771), (315, 15822), (320, 15840), (325, 15858),

Gene: Judebell\_27 Start: 14268, Stop: 16100, Start Num: 36

Candidate Starts for Judebell\_27:

(Start: 36 @14268 has 35 MA's), (39, 14277), (52, 14376), (103, 14742), (130, 14910), (133, 14925), (150, 14985), (159, 15033), (160, 15039), (167, 15063), (181, 15177), (182, 15180), (183, 15186), (198, 15279), (217, 15360), (234, 15453), (235, 15468), (242, 15516), (248, 15540), (257, 15588), (259, 15612), (266, 15660), (275, 15702), (294, 15837), (297, 15858), (307, 15918), (316, 15987), (325, 16020),

Gene: KaiHaiDragon\_27 Start: 13679, Stop: 15535, Start Num: 20

Candidate Starts for KaiHaiDragon\_27:

(Start: 20 @13679 has 165 MA's), (113, 14255), (120, 14300), (127, 14336), (143, 14405), (150, 14426), (151, 14429), (157, 14459), (175, 14579), (188, 14660), (211, 14774), (214, 14801), (243, 14990), (264, 15116), (270, 15140), (284, 15230), (285, 15245), (298, 15293), (302, 15323), (304, 15335), (307, 15350), (309, 15365), (315, 15416), (320, 15434), (325, 15452),

Gene: Kamashten\_21 Start: 15684, Stop: 17591, Start Num: 20

Candidate Starts for Kamashten\_21:

(Start: 20 @15684 has 165 MA's), (61, 15915), (64, 15933), (98, 16200), (123, 16338), (135, 16407), (144, 16440), (184, 16665), (186, 16671), (194, 16734), (197, 16746), (198, 16749), (199, 16761), (219, 16848), (227, 16902), (239, 16971), (244, 17007), (267, 17151), (277, 17202), (296, 17346), (297, 17349), (298, 17352), (305, 17400), (312, 17457),

Gene: Keitabear\_22 Start: 17233, Stop: 19128, Start Num: 20

Candidate Starts for Keitabear\_22:

(Start: 20 @17233 has 165 MA's), (61, 17464), (64, 17482), (98, 17737), (123, 17875), (135, 17944), (144, 17977), (184, 18202), (186, 18208), (197, 18283), (198, 18286), (199, 18298), (212, 18334), (219, 18385), (239, 18508), (244, 18544), (267, 18688), (277, 18739), (296, 18883), (297, 18886), (298, 18889), (305, 18937), (312, 18994), (336, 19111),

Gene: Kelcole\_23 Start: 13023, Stop: 14801, Start Num: 35

Candidate Starts for Kelcole\_23:

(Start: 35 @13023 has 15 MA's), (39, 13035), (83, 13377), (108, 13494), (130, 13620), (159, 13734), (167, 13764), (198, 13977), (217, 14058), (219, 14067), (232, 14145), (234, 14151), (235, 14166), (259, 14310), (264, 14352), (275, 14403), (295, 14550), (297, 14559), (321, 14709), (325, 14721),

Gene: Kewpiedoll\_21 Start: 15069, Stop: 16979, Start Num: 20

Candidate Starts for Kewpiedoll\_21:

(Start: 20 @15069 has 165 MA's), (61, 15300), (64, 15318), (98, 15588), (123, 15726), (135, 15795), (144, 15828), (184, 16053), (186, 16059), (194, 16122), (197, 16134), (198, 16137), (199, 16149), (219, 16236), (239, 16359), (244, 16395), (267, 16539), (277, 16590), (296, 16734), (297, 16737), (298, 16740), (305, 16788), (312, 16845),

Gene: KillerQueen\_25 Start: 12845, Stop: 14623, Start Num: 35

Candidate Starts for KillerQueen\_25:

(Start: 35 @12845 has 15 MA's), (39, 12857), (83, 13199), (108, 13316), (130, 13442), (159, 13556), (167, 13586), (198, 13799), (217, 13880), (219, 13889), (232, 13967), (234, 13973), (235, 13988), (259, 14132), (264, 14174), (275, 14225), (295, 14372), (297, 14381), (321, 14531), (325, 14543),

Gene: KimmyK\_21 Start: 12512, Stop: 14410, Start Num: 20

Candidate Starts for KimmyK\_21:

(Start: 20 @12512 has 165 MA's), (62, 12749), (64, 12761), (70, 12815), (130, 13208), (137, 13241), (144, 13265), (186, 13505), (212, 13634), (214, 13646), (232, 13763), (239, 13808), (240, 13811), (252, 13871), (254, 13889), (260, 13934), (262, 13946), (263, 13949), (266, 13970), (283, 14069), (287, 14108), (297, 14168), (308, 14240), (311, 14270), (315, 14294), (322, 14321), (323, 14324), (327, 14351),

Gene: Kithara\_25 Start: 14593, Stop: 16431, Start Num: 21

Candidate Starts for Kithara\_25:

(Start: 21 @14593 has 1 MA's), (28, 14623), (60, 14836), (93, 15118), (163, 15439), (178, 15559), (196, 15661), (235, 15850), (253, 15946), (256, 15958), (279, 16096), (284, 16141), (304, 16249), (311, 16306), (312, 16312), (316, 16333),

Gene: Kowalski\_26 Start: 13795, Stop: 15651, Start Num: 20

Candidate Starts for Kowalski\_26:

(Start: 20 @13795 has 165 MA's), (113, 14371), (120, 14416), (127, 14452), (143, 14521), (150, 14542), (151, 14545), (157, 14575), (175, 14695), (188, 14776), (211, 14890), (214, 14917), (243, 15106), (284, 15346), (285, 15361), (298, 15409), (302, 15439), (304, 15451), (307, 15466), (309, 15481), (315, 15532), (320, 15550), (325, 15568),

Gene: Kozie\_23 Start: 13272, Stop: 15131, Start Num: 20

Candidate Starts for Kozie\_23:

(Start: 20 @13272 has 165 MA's), (91, 13767), (127, 13923), (150, 14013), (186, 14220), (211, 14355), (220, 14427), (226, 14472), (239, 14544), (241, 14565), (243, 14571), (256, 14628), (263, 14682), (270, 14721), (271, 14727), (279, 14766), (282, 14799), (325, 15045),

Gene: Kroos\_21 Start: 15314, Stop: 17227, Start Num: 20

Candidate Starts for Kroos\_21:

(Start: 20 @15314 has 165 MA's), (45, 15449), (61, 15545), (98, 15833), (111, 15902), (117, 15950), (123, 15974), (129, 16010), (135, 16043), (140, 16067), (166, 16160), (184, 16301), (186, 16307), (194, 16370), (197, 16382), (198, 16385), (199, 16397), (219, 16484), (239, 16607), (244, 16643), (250, 16676), (260, 16748), (267, 16787), (277, 16838), (295, 16976), (296, 16982), (297, 16985), (305, 17036), (312, 17093), (313, 17105), (316, 17114),

Gene: Kubulix\_27 Start: 14427, Stop: 16154, Start Num: 33

Candidate Starts for Kubulix\_27:

(22, 14364), (Start: 33 @14427 has 17 MA's), (134, 15036), (189, 15324), (192, 15336), (198, 15366), (220, 15462), (221, 15465), (222, 15468), (230, 15528), (259, 15690), (269, 15750), (270, 15756), (273, 15774), (283, 15837), (300, 15948), (315, 16047),

Gene: Kwekel\_20 Start: 13711, Stop: 15594, Start Num: 20

Candidate Starts for Kwekel\_20:

(Start: 19 @13702 has 4 MA's), (Start: 20 @13711 has 165 MA's), (61, 13945), (64, 13963), (100, 14233), (117, 14329), (164, 14536), (174, 14614), (184, 14677), (186, 14683), (194, 14746), (197, 14758), (198, 14761), (216, 14845), (219, 14860), (244, 15013), (260, 15118), (277, 15208), (286, 15289), (295, 15346), (307, 15415), (308, 15427), (312, 15463), (326, 15529),

Gene: Kwobi\_22 Start: 15290, Stop: 17209, Start Num: 20

Candidate Starts for Kwobi\_22:

(Start: 20 @15290 has 165 MA's), (45, 15425), (61, 15521), (98, 15815), (111, 15884), (117, 15932), (123, 15956), (129, 15992), (135, 16025), (140, 16049), (166, 16142), (184, 16283), (186, 16289), (194, 16352), (197, 16364), (198, 16367), (199, 16379), (219, 16466), (239, 16589), (244, 16625), (250, 16658), (260, 16730), (267, 16769), (277, 16820), (295, 16958), (296, 16964), (297, 16967), (305, 17018), (312, 17075), (313, 17087), (316, 17096),

Gene: Kyva\_27 Start: 14519, Stop: 16351, Start Num: 36

Candidate Starts for Kyva\_27:

(Start: 36 @14519 has 35 MA's), (39, 14528), (52, 14627), (94, 14960), (130, 15161), (133, 15176), (150, 15236), (159, 15284), (167, 15314), (182, 15431), (183, 15437), (198, 15530), (217, 15611), (234, 15704), (235, 15719), (242, 15767), (248, 15791), (257, 15839), (259, 15863), (266, 15911), (275, 15953), (294, 16088), (297, 16109), (304, 16154), (307, 16169), (316, 16238), (325, 16271),

Gene: Leaf\_60 Start: 29654, Stop: 31561, Start Num: 19

Candidate Starts for Leaf\_60:

(1, 29438), (4, 29510), (6, 29543), (7, 29546), (Start: 19 @29654 has 4 MA's), (74, 29993), (90, 30131), (95, 30161), (115, 30269), (123, 30314), (201, 30755), (233, 30929), (238, 30959), (239, 30971), (243, 30998), (256, 31055), (259, 31082), (263, 31109), (268, 31136), (272, 31160), (279, 31202), (281, 31232), (284, 31247), (308, 31391), (323, 31475), (331, 31517),

Gene: Lennon\_22 Start: 16336, Stop: 18231, Start Num: 20

Candidate Starts for Lennon\_22:

(Start: 20 @16336 has 165 MA's), (61, 16567), (64, 16585), (98, 16840), (123, 16978), (135, 17047), (144, 17080), (184, 17305), (186, 17311), (194, 17374), (197, 17386), (198, 17389), (199, 17401), (219, 17488), (239, 17611), (244, 17647), (267, 17791), (277, 17842), (296, 17986), (297, 17989), (298, 17992), (305, 18040), (312, 18097), (336, 18214),

Gene: Leonard\_21 Start: 15339, Stop: 17258, Start Num: 20

Candidate Starts for Leonard\_21:

(Start: 20 @15339 has 165 MA's), (53, 15540), (73, 15663), (98, 15834), (107, 15879), (111, 15900), (123, 15957), (152, 16083), (162, 16134), (166, 16143), (172, 16194), (174, 16245), (184, 16308), (186, 16314), (194, 16377), (199, 16404), (219, 16491), (249, 16674), (260, 16749), (263, 16764), (267, 16788), (273, 16821), (277, 16839), (284, 16896), (295, 17007), (307, 17076), (308, 17088), (312, 17124), (326, 17190),

Gene: LilHam\_18 Start: 13869, Stop: 15788, Start Num: 20

Candidate Starts for LilHam\_18:

(Start: 20 @13869 has 165 MA's), (45, 14004), (61, 14100), (98, 14394), (111, 14463), (117, 14511), (123, 14535), (129, 14571), (135, 14604), (140, 14628), (166, 14721), (184, 14862), (186, 14868), (194, 14931), (197, 14943), (198, 14946), (199, 14958), (219, 15045), (239, 15168), (244, 15204), (250, 15237), (260, 15309), (267, 15348), (277, 15399), (296, 15543), (297, 15546), (305, 15597), (312, 15654), (313, 15666), (316, 15675),

Gene: Lilbeanie\_18 Start: 10655, Stop: 12583, Start Num: 20

Candidate Starts for Lilbeanie\_18:

(16, 10613), (Start: 20 @10655 has 165 MA's), (41, 10754), (55, 10871), (61, 10886), (98, 11204), (145, 11441), (157, 11489), (186, 11672), (218, 11846), (235, 11948), (239, 11972), (262, 12107), (276, 12179), (277, 12185), (289, 12287), (291, 12299), (303, 12377), (312, 12443), (315, 12461), (322, 12488),

Gene: LittleFortune\_28 Start: 14042, Stop: 15901, Start Num: 20

Candidate Starts for LittleFortune\_28:

(Start: 20 @14042 has 165 MA's), (113, 14621), (120, 14666), (127, 14702), (143, 14771), (150, 14792), (151, 14795), (157, 14825), (175, 14945), (188, 15026), (211, 15140), (214, 15167), (243, 15356), (264, 15482), (284, 15596), (285, 15611), (298, 15659), (302, 15689), (307, 15716), (309, 15731), (315, 15782), (320, 15800), (325, 15818),

Gene: Llemily\_24 Start: 13503, Stop: 15335, Start Num: 36

Candidate Starts for Llemily\_24:

(Start: 36 @13503 has 35 MA's), (39, 13512), (52, 13611), (103, 13977), (130, 14145), (133, 14160), (150, 14220), (159, 14268), (160, 14274), (167, 14298), (182, 14415), (183, 14421), (198, 14514), (217, 14595), (234, 14688), (235, 14703), (242, 14751), (248, 14775), (257, 14823), (259, 14847), (266, 14895), (275, 14937), (294, 15072), (295, 15084), (297, 15093), (307, 15153), (316, 15222), (325, 15255),

Gene: Lonelysoil\_24 Start: 13748, Stop: 15580, Start Num: 36

Candidate Starts for Lonelysoil\_24:

(Start: 36 @13748 has 35 MA's), (39, 13757), (52, 13856), (103, 14222), (130, 14390), (133, 14405), (150, 14465), (159, 14513), (160, 14519), (167, 14543), (182, 14660), (183, 14666), (198, 14759), (217, 14840), (234, 14933), (235, 14948), (242, 14996), (248, 15020), (257, 15068), (259, 15092), (266, 15140), (275, 15182), (294, 15317), (295, 15329), (297, 15338), (307, 15398), (316, 15467), (325, 15500),

Gene: Love\_22 Start: 15199, Stop: 17106, Start Num: 20

Candidate Starts for Love\_22:

(Start: 20 @15199 has 165 MA's), (61, 15430), (64, 15448), (98, 15715), (123, 15853), (135, 15922), (144, 15955), (184, 16180), (186, 16186), (194, 16249), (197, 16261), (198, 16264), (199, 16276), (219, 16363), (227, 16417), (239, 16486), (244, 16522), (267, 16666), (277, 16717), (296, 16861), (297, 16864), (298, 16867), (305, 16915), (312, 16972),

Gene: Lucretia\_27 Start: 13732, Stop: 15588, Start Num: 20

Candidate Starts for Lucretia\_27:

(Start: 20 @13732 has 165 MA's), (113, 14308), (120, 14353), (127, 14389), (143, 14458), (150, 14479), (151, 14482), (157, 14512), (175, 14632), (188, 14713), (211, 14827), (214, 14854), (243, 15043), (264, 15169), (284, 15283), (285, 15298), (298, 15346), (302, 15376), (304, 15388), (307, 15403), (309, 15418), (315, 15469), (320, 15487), (325, 15505),

Gene: Maih\_13 Start: 13750, Stop: 15444, Start Num: 44

Candidate Starts for Maih\_13:

(Start: 44 @13750 has 12 MA's), (47, 13759), (66, 13861), (78, 13993), (80, 14017), (92, 14113), (112, 14194), (119, 14239), (122, 14248), (128, 14281), (132, 14308), (133, 14311), (149, 14359), (156, 14392), (157, 14395), (165, 14434), (167, 14440), (175, 14518), (180, 14551), (195, 14641), (219, 14731), (229, 14797), (232, 14809), (233, 14812), (252, 14929), (258, 14962), (262, 15004), (281, 15121), (297, 15217), (306, 15274), (314, 15337), (316, 15343), (325, 15376), (328, 15400), (334, 15418), (337, 15433),

Gene: Marcie\_29 Start: 13698, Stop: 15482, Start Num: 35

Candidate Starts for Marcie\_29:

(Start: 35 @13698 has 15 MA's), (39, 13710), (83, 14058), (108, 14175), (130, 14301), (150, 14367), (159, 14415), (167, 14445), (198, 14658), (217, 14739), (219, 14748), (232, 14826), (234, 14832), (235, 14847), (259, 14991), (264, 15033), (275, 15084), (295, 15231), (297, 15240), (325, 15402),

Gene: Margaery\_22 Start: 13234, Stop: 15096, Start Num: 20

Candidate Starts for Margaery\_22:

(9, 13135), (Start: 20 @13234 has 165 MA's), (75, 13588), (113, 13807), (118, 13846), (127, 13888), (150, 13978), (166, 14047), (187, 14200), (211, 14320), (226, 14437), (243, 14536), (247, 14551), (256, 14593), (263, 14647), (271, 14692), (273, 14704), (277, 14719), (279, 14731), (295, 14839), (299, 14872), (309, 14923), (319, 14989),

Gene: Mashley\_23 Start: 14088, Stop: 15914, Start Num: 36

Candidate Starts for Mashley\_23:

(Start: 36 @14088 has 35 MA's), (39, 14097), (52, 14196), (94, 14523), (130, 14724), (133, 14739), (150, 14799), (159, 14847), (167, 14877), (182, 14994), (183, 15000), (198, 15093), (217, 15174), (234, 15267), (235, 15282), (242, 15330), (248, 15354), (257, 15402), (259, 15426), (266, 15474), (275, 15516), (294, 15651), (297, 15672), (307, 15732), (316, 15801), (325, 15834),

Gene: Matzah\_23 Start: 13253, Stop: 15118, Start Num: 20

Candidate Starts for Matzah\_23:

(Start: 20 @13253 has 165 MA's), (75, 13607), (89, 13733), (118, 13871), (127, 13913), (147, 13994), (150, 14003), (162, 14060), (166, 14072), (184, 14204), (187, 14225), (188, 14231), (211, 14345), (225, 14444), (226, 14462), (243, 14561), (247, 14576), (256, 14618), (263, 14672), (264, 14687), (273, 14729), (277, 14744), (279, 14756), (284, 14801), (295, 14864), (299, 14897),

Gene: McCrothy\_21 Start: 15065, Stop: 16975, Start Num: 20

Candidate Starts for McCrothy\_21:

(Start: 20 @15065 has 165 MA's), (61, 15296), (64, 15314), (98, 15584), (123, 15722), (135, 15791), (144, 15824), (184, 16049), (186, 16055), (194, 16118), (197, 16130), (198, 16133), (199, 16145), (219, 16232), (239, 16355), (244, 16391), (267, 16535), (277, 16586), (296, 16730), (297, 16733), (298, 16736), (305, 16784), (312, 16841),

Gene: McKinley\_21 Start: 15222, Stop: 17132, Start Num: 20

Candidate Starts for McKinley\_21:

(Start: 20 @15222 has 165 MA's), (61, 15453), (64, 15471), (98, 15741), (123, 15879), (135, 15948), (144, 15981), (184, 16206), (186, 16212), (194, 16275), (197, 16287), (198, 16290), (199, 16302), (219, 16389), (239, 16512), (244, 16548), (267, 16692), (277, 16743), (296, 16887), (297, 16890), (298, 16893), (305, 16941), (312, 16998),

Gene: Megan\_21 Start: 14855, Stop: 16870, Start Num: 20

Candidate Starts for Megan\_21:

(2, 14651), (3, 14660), (5, 14723), (7, 14741), (18, 14843), (Start: 20 @14855 has 165 MA's), (54, 15056), (113, 15434), (120, 15479), (127, 15515), (143, 15584), (150, 15605), (151, 15608), (154, 15623), (175, 15758), (177, 15773), (206, 16007), (208, 16076), (214, 16148), (239, 16310), (240, 16313), (242, 16334), (254, 16388), (263, 16448), (271, 16493), (273, 16505), (282, 16565), (284, 16577), (298, 16640), (302, 16670), (307, 16697), (322, 16790), (323, 16793), (325, 16799), (332, 16838),

Gene: MelBins\_22 Start: 15543, Stop: 17459, Start Num: 20

Candidate Starts for MelBins\_22:

(Start: 20 @15543 has 165 MA's), (53, 15744), (73, 15867), (98, 16035), (111, 16101), (123, 16158), (162, 16335), (166, 16344), (172, 16395), (174, 16446), (184, 16509), (186, 16515), (194, 16578), (199, 16605), (219, 16692), (249, 16875), (260, 16950), (263, 16965), (267, 16989), (273, 17022), (277, 17040), (284, 17097), (295, 17208), (307, 17277), (308, 17289), (312, 17325), (326, 17391),

Gene: MellowYellow\_23 Start: 12969, Stop: 14696, Start Num: 33

Candidate Starts for MellowYellow\_23:

(22, 12906), (Start: 33 @12969 has 17 MA's), (134, 13578), (181, 13806), (189, 13866), (192, 13878), (198, 13908), (220, 14004), (221, 14007), (222, 14010), (230, 14070), (259, 14232), (267, 14283), (269, 14292), (273, 14316), (283, 14379), (295, 14454), (296, 14460), (298, 14466), (299, 14487), (315, 14589),

Gene: MementoMori\_23 Start: 12969, Stop: 14840, Start Num: 20

Candidate Starts for MementoMori\_23:

(Start: 20 @12969 has 165 MA's), (89, 13452), (114, 13560), (118, 13590), (127, 13632), (147, 13713), (150, 13722), (162, 13779), (166, 13791), (184, 13923), (187, 13944), (188, 13950), (211, 14064), (225, 14163), (226, 14181), (243, 14280), (247, 14295), (256, 14337), (263, 14391), (264, 14406), (273, 14448), (277, 14463), (279, 14475), (284, 14520), (295, 14583), (299, 14616), (325, 14754),

Gene: Mentos\_29 Start: 15175, Stop: 17001, Start Num: 36

Candidate Starts for Mentos\_29:

(Start: 36 @15175 has 35 MA's), (39, 15184), (52, 15283), (94, 15610), (130, 15811), (133, 15826), (150, 15886), (159, 15934), (167, 15964), (182, 16081), (183, 16087), (198, 16180), (217, 16261), (234, 16354), (235, 16369), (242, 16417), (248, 16441), (257, 16489), (259, 16513), (266, 16561), (275, 16603), (294, 16738), (297, 16759), (307, 16819), (316, 16888), (325, 16921),

Gene: Merry\_ Start: 13998, Stop: 15890, Start Num: 15

Candidate Starts for Merry\_:

(10, 13962), (11, 13968), (14, 13995), (Start: 15 @13998 has 2 MA's), (Start: 20 @14052 has 165 MA's), (74, 14373), (113, 14610), (120, 14655), (127, 14691), (143, 14760), (150, 14781), (151, 14784), (160, 14835), (168, 14868), (175, 14934), (188, 15015), (214, 15156), (240, 15321), (243, 15345), (264, 15471), (284, 15585), (285, 15600), (295, 15636), (298, 15648), (302, 15678), (304, 15690), (307, 15705), (328, 15831),

Gene: Metamorphoo\_27 Start: 13469, Stop: 15490, Start Num: 20

Candidate Starts for Metamorphoo\_27:

(Start: 20 @13469 has 165 MA's), (113, 14054), (127, 14135), (131, 14159), (143, 14204), (150, 14225), (151, 14228), (175, 14378), (204, 14588), (207, 14636), (209, 14708), (214, 14768), (216, 14792), (239, 14930), (242, 14954), (243, 14957), (263, 15068), (284, 15197), (285, 15212), (287, 15221), (295, 15248), (298, 15260), (302, 15290), (307, 15317), (320, 15401), (325, 15419),

Gene: Mila11\_28 Start: 15055, Stop: 16887, Start Num: 36

Candidate Starts for Mila11\_28:

(Start: 36 @15055 has 35 MA's), (39, 15064), (52, 15163), (103, 15529), (130, 15697), (133, 15712), (150, 15772), (159, 15820), (160, 15826), (167, 15850), (181, 15964), (182, 15967), (183, 15973), (198, 16066), (217, 16147), (234, 16240), (235, 16255), (242, 16303), (248, 16327), (257, 16375), (259, 16399), (266, 16447), (275, 16489), (294, 16624), (295, 16636), (297, 16645), (307, 16705), (316, 16774), (325, 16807),

Gene: Mischief19\_14 Start: 15652, Stop: 17313, Start Num: 44

Candidate Starts for Mischief19\_14:

(Start: 44 @15652 has 12 MA's), (57, 15730), (78, 15895), (86, 15976), (106, 16060), (123, 16147), (130, 16189), (133, 16204), (146, 16243), (148, 16249), (149, 16252), (156, 16285), (175, 16411),

(180, 16444), (184, 16465), (193, 16525), (216, 16609), (228, 16684), (232, 16702), (258, 16837), (262, 16879), (281, 16996), (292, 17065), (298, 17095),

Gene: MisoSoup\_18 Start: 9688, Stop: 11541, Start Num: 20

Candidate Starts for MisoSoup\_18:

(Start: 20 @9688 has 165 MA's), (31, 9739), (97, 10183), (115, 10249), (124, 10300), (139, 10375), (187, 10639), (226, 10891), (235, 10939), (239, 10963), (241, 10984), (256, 11047), (277, 11173), (295, 11293), (302, 11335), (308, 11374),

Gene: MoontowerMania\_19 Start: 14205, Stop: 16112, Start Num: 20

Candidate Starts for MoontowerMania\_19:

(Start: 20 @14205 has 165 MA's), (61, 14436), (64, 14454), (98, 14721), (123, 14859), (135, 14928), (144, 14961), (184, 15186), (186, 15192), (194, 15255), (197, 15267), (198, 15270), (199, 15282), (219, 15369), (227, 15423), (239, 15492), (244, 15528), (267, 15672), (277, 15723), (296, 15867), (297, 15870), (298, 15873), (305, 15921), (312, 15978),

Gene: MorillMayhem\_24 Start: 14081, Stop: 15913, Start Num: 36

Candidate Starts for MorillMayhem\_24:

(Start: 36 @14081 has 35 MA's), (39, 14090), (52, 14189), (103, 14555), (130, 14723), (133, 14738), (150, 14798), (159, 14846), (160, 14852), (167, 14876), (181, 14990), (182, 14993), (183, 14999), (198, 15092), (217, 15173), (234, 15266), (235, 15281), (242, 15329), (248, 15353), (257, 15401), (259, 15425), (266, 15473), (275, 15515), (294, 15650), (295, 15662), (297, 15671), (307, 15731), (316, 15800), (325, 15833),

Gene: Mutzi\_21 Start: 12236, Stop: 14134, Start Num: 20

Candidate Starts for Mutzi\_21:

(Start: 20 @12236 has 165 MA's), (62, 12473), (64, 12485), (70, 12539), (130, 12932), (137, 12965), (144, 12989), (186, 13229), (214, 13370), (232, 13487), (239, 13532), (240, 13535), (252, 13595), (260, 13658), (287, 13832), (297, 13892), (298, 13895), (308, 13964), (311, 13994), (315, 14018), (322, 14045), (323, 14048),

Gene: Namago\_25 Start: 13649, Stop: 15481, Start Num: 36

Candidate Starts for Namago\_25:

(Start: 36 @13649 has 35 MA's), (39, 13658), (52, 13757), (94, 14090), (130, 14291), (133, 14306), (150, 14366), (159, 14414), (167, 14444), (182, 14561), (183, 14567), (198, 14660), (217, 14741), (234, 14834), (235, 14849), (242, 14897), (248, 14921), (257, 14969), (259, 14993), (266, 15041), (275, 15083), (294, 15218), (297, 15239), (304, 15284), (307, 15299), (316, 15368), (325, 15401),

Gene: Natkenzie\_21 Start: 15527, Stop: 17449, Start Num: 20

Candidate Starts for Natkenzie\_21:

(Start: 20 @15527 has 165 MA's), (55, 15743), (61, 15758), (81, 15932), (106, 16070), (107, 16079), (117, 16148), (118, 16154), (129, 16208), (133, 16232), (181, 16484), (184, 16502), (186, 16508), (194, 16571), (197, 16583), (198, 16586), (199, 16598), (219, 16688), (224, 16715), (250, 16874), (261, 16952), (279, 17048), (283, 17084), (295, 17204), (299, 17237), (312, 17321), (322, 17366),

Gene: Nicole72\_22 Start: 15232, Stop: 17253, Start Num: 20

Candidate Starts for Nicole72\_22:

(18, 15220), (Start: 20 @15232 has 165 MA's), (54, 15433), (68, 15505), (113, 15817), (120, 15862), (127, 15898), (143, 15967), (150, 15988), (158, 16024), (175, 16141), (183, 16186), (186, 16201), (214, 16531), (239, 16693), (240, 16696), (242, 16717), (263, 16831), (273, 16888), (282, 16948), (284, 16960), (298, 17023), (302, 17053), (322, 17173), (323, 17176), (325, 17182), (332, 17221),

Gene: Nikan\_21 Start: 13481, Stop: 15208, Start Num: 33

Candidate Starts for Nikan\_21:

(22, 13418), (26, 13433), (Start: 33 @13481 has 17 MA's), (46, 13547), (134, 14087), (192, 14390), (198, 14420), (220, 14516), (221, 14519), (222, 14522), (230, 14582), (259, 14744), (267, 14795), (273, 14828), (283, 14891), (298, 14978), (300, 15002), (307, 15035), (321, 15125),

Gene: Nike\_25 Start: 14547, Stop: 16379, Start Num: 36

Candidate Starts for Nike\_25:

(Start: 36 @14547 has 35 MA's), (39, 14556), (52, 14655), (103, 15021), (130, 15189), (133, 15204), (150, 15264), (159, 15312), (160, 15318), (167, 15342), (182, 15459), (183, 15465), (198, 15558), (217, 15639), (234, 15732), (235, 15747), (242, 15795), (248, 15819), (257, 15867), (259, 15891), (266, 15939), (275, 15981), (294, 16116), (295, 16128), (297, 16137), (307, 16197), (316, 16266), (325, 16299),

Gene: NoodlelyBoi\_27 Start: 14134, Stop: 15984, Start Num: 20

Candidate Starts for NoodlelyBoi\_27:

(Start: 20 @14134 has 165 MA's), (113, 14710), (120, 14755), (127, 14791), (143, 14860), (150, 14881), (151, 14884), (157, 14914), (175, 15034), (211, 15229), (214, 15256), (220, 15301), (243, 15445), (271, 15601), (284, 15685), (298, 15748), (302, 15778), (304, 15790), (307, 15805), (309, 15820), (315, 15871), (320, 15889),

Gene: Nordenberg\_15 Start: 13519, Stop: 15426, Start Num: 20

Candidate Starts for Nordenberg\_15:

(Start: 20 @13519 has 165 MA's), (61, 13750), (64, 13768), (98, 14035), (123, 14173), (135, 14242), (144, 14275), (184, 14500), (186, 14506), (194, 14569), (197, 14581), (198, 14584), (199, 14596), (219, 14683), (239, 14806), (244, 14842), (267, 14986), (277, 15037), (295, 15175), (296, 15181), (297, 15184), (298, 15187), (305, 15235), (312, 15292),

Gene: Nubi\_19 Start: 11864, Stop: 13762, Start Num: 20

Candidate Starts for Nubi\_19:

(Start: 20 @11864 has 165 MA's), (62, 12101), (64, 12113), (70, 12167), (100, 12398), (130, 12560), (137, 12593), (186, 12857), (212, 12986), (214, 12998), (232, 13115), (239, 13160), (240, 13163), (252, 13223), (254, 13241), (258, 13256), (260, 13286), (262, 13298), (263, 13301), (283, 13421), (287, 13460), (297, 13520), (308, 13592), (311, 13622), (315, 13646), (322, 13673), (323, 13676), (327, 13703),

Gene: NyleyClemson\_22 Start: 12914, Stop: 14641, Start Num: 33

Candidate Starts for NyleyClemson\_22:

(22, 12851), (Start: 33 @12914 has 17 MA's), (134, 13523), (189, 13811), (192, 13823), (198, 13853), (220, 13949), (221, 13952), (222, 13955), (230, 14015), (259, 14177), (267, 14228), (269, 14237), (273, 14261), (283, 14324), (295, 14399), (296, 14405), (298, 14411), (299, 14432), (315, 14534),

Gene: Odyssey395\_28 Start: 14429, Stop: 16156, Start Num: 33

Candidate Starts for Odyssey395\_28:

(22, 14366), (Start: 33 @14429 has 17 MA's), (134, 15038), (183, 15275), (189, 15326), (192, 15338), (198, 15368), (220, 15464), (221, 15467), (222, 15470), (230, 15530), (259, 15692), (269, 15752), (270, 15758), (273, 15776), (283, 15839), (300, 15950), (315, 16049),

Gene: Ollypop\_24 Start: 13443, Stop: 15170, Start Num: 33

Candidate Starts for Ollypop\_24:

(22, 13380), (26, 13395), (Start: 33 @13443 has 17 MA's), (46, 13509), (87, 13833), (116, 13953), (134, 14049), (192, 14352), (198, 14382), (220, 14478), (221, 14481), (222, 14484), (230, 14544), (259, 14706), (267, 14757), (273, 14790), (283, 14853), (298, 14940), (303, 14979), (307, 14997),

Gene: OneinaGillian\_24 Start: 12673, Stop: 14451, Start Num: 35

Candidate Starts for OneinaGillian\_24:

(Start: 35 @12673 has 15 MA's), (39, 12685), (83, 13027), (108, 13144), (130, 13270), (159, 13384), (167, 13414), (198, 13627), (217, 13708), (219, 13717), (232, 13795), (234, 13801), (235, 13816), (259, 13960), (264, 14002), (275, 14053), (295, 14200), (297, 14209), (321, 14359), (325, 14371), (335, 14431),

Gene: Onika\_26 Start: 13769, Stop: 15625, Start Num: 20

Candidate Starts for Onika\_26:

(Start: 20 @13769 has 165 MA's), (113, 14345), (120, 14390), (127, 14426), (143, 14495), (150, 14516), (151, 14519), (157, 14549), (175, 14669), (188, 14750), (211, 14864), (214, 14891), (243, 15080), (264, 15206), (284, 15320), (285, 15335), (298, 15383), (302, 15413), (304, 15425), (307, 15440), (309, 15455), (315, 15506), (320, 15524), (325, 15542),

Gene: Paries\_21 Start: 14887, Stop: 16794, Start Num: 20

Candidate Starts for Paries\_21:

(Start: 20 @14887 has 165 MA's), (61, 15118), (64, 15136), (98, 15403), (123, 15541), (135, 15610), (144, 15643), (184, 15868), (186, 15874), (194, 15937), (197, 15949), (198, 15952), (199, 15964), (219, 16051), (227, 16105), (239, 16174), (244, 16210), (267, 16354), (277, 16405), (296, 16549), (297, 16552), (298, 16555), (305, 16603), (312, 16660),

Gene: Paschalis\_26 Start: 13783, Stop: 15639, Start Num: 20

Candidate Starts for Paschalis\_26:

(Start: 20 @13783 has 165 MA's), (113, 14359), (120, 14404), (127, 14440), (143, 14509), (150, 14530), (151, 14533), (157, 14563), (175, 14683), (188, 14764), (211, 14878), (214, 14905), (243, 15094), (284, 15334), (285, 15349), (298, 15397), (302, 15427), (304, 15439), (307, 15454), (309, 15469), (315, 15520), (320, 15538), (325, 15556),

Gene: Pepe25\_23 Start: 13010, Stop: 14788, Start Num: 35

Candidate Starts for Pepe25\_23:

(Start: 35 @13010 has 15 MA's), (39, 13022), (83, 13367), (108, 13481), (130, 13607), (150, 13673), (159, 13721), (167, 13751), (198, 13964), (217, 14045), (219, 14054), (232, 14132), (234, 14138), (235, 14153), (259, 14297), (264, 14339), (275, 14390), (295, 14537), (297, 14546), (321, 14696), (325, 14708),

Gene: Phabia\_25 Start: 13921, Stop: 15753, Start Num: 36

Candidate Starts for Phabia\_25:

(Start: 36 @13921 has 35 MA's), (39, 13930), (52, 14029), (103, 14395), (130, 14563), (133, 14578), (150, 14638), (159, 14686), (160, 14692), (167, 14716), (182, 14833), (183, 14839), (198, 14932), (217, 15013), (234, 15106), (235, 15121), (242, 15169), (248, 15193), (257, 15241), (259, 15265), (266, 15313), (275, 15355), (294, 15490), (295, 15502), (297, 15511), (307, 15571), (316, 15640), (325, 15673),

Gene: Phauci\_14 Start: 11906, Stop: 13825, Start Num: 20

Candidate Starts for Phauci\_14:

(Start: 20 @11906 has 165 MA's), (53, 12107), (73, 12230), (98, 12401), (107, 12446), (111, 12467), (123, 12524), (162, 12701), (166, 12710), (172, 12761), (174, 12812), (184, 12875), (186, 12881), (194, 12944), (199, 12971), (219, 13058), (249, 13241), (260, 13316), (263, 13331), (267, 13355), (273, 13388), (277, 13406), (284, 13463), (295, 13574), (307, 13643), (308, 13655), (312, 13691), (326, 13757),

Gene: PhedwardCullen\_26 Start: 13528, Stop: 15384, Start Num: 20

Candidate Starts for PhedwardCullen\_26:

(Start: 20 @13528 has 165 MA's), (113, 14104), (120, 14149), (127, 14185), (143, 14254), (150, 14275), (151, 14278), (157, 14308), (175, 14428), (188, 14509), (211, 14623), (214, 14650), (243, 14839), (264, 14965), (284, 15079), (285, 15094), (298, 15142), (302, 15172), (304, 15184), (307, 15199), (309, 15214), (315, 15265), (320, 15283), (325, 15301),

Gene: Phinally\_21 Start: 15336, Stop: 17255, Start Num: 20

Candidate Starts for Phinally\_21:

(Start: 20 @15336 has 165 MA's), (53, 15537), (73, 15660), (98, 15831), (107, 15876), (111, 15897), (123, 15954), (152, 16080), (162, 16131), (166, 16140), (172, 16191), (174, 16242), (184, 16305), (186, 16311), (194, 16374), (199, 16401), (219, 16488), (249, 16671), (260, 16746), (263, 16761), (267, 16785), (273, 16818), (277, 16836), (284, 16893), (295, 17004), (307, 17073), (308, 17085), (312, 17121), (326, 17187),

Gene: Phinky\_31 Start: 14788, Stop: 16635, Start Num: 35

Candidate Starts for Phinky\_31:

(Start: 35 @14788 has 15 MA's), (39, 14797), (43, 14833), (72, 15022), (130, 15442), (136, 15469), (159, 15565), (167, 15595), (198, 15811), (213, 15853), (216, 15886), (217, 15892), (219, 15901), (226, 15952), (234, 15985), (235, 16000), (259, 16144), (264, 16186), (266, 16192), (275, 16237), (284, 16303), (294, 16372), (295, 16384), (297, 16393), (307, 16453), (323, 16549), (325, 16555),

Gene: Phlop\_19 Start: 11937, Stop: 13826, Start Num: 20

Candidate Starts for Phlop\_19:

(Start: 20 @11937 has 165 MA's), (62, 12174), (64, 12186), (70, 12240), (100, 12465), (130, 12627), (137, 12660), (144, 12684), (186, 12912), (196, 12984), (212, 13041), (232, 13170), (239, 13215), (240, 13218), (260, 13341), (262, 13353), (273, 13413), (295, 13566), (297, 13575), (308, 13647), (311, 13677), (322, 13728), (326, 13749), (331, 13773),

Gene: Phorgeous\_26 Start: 13636, Stop: 15492, Start Num: 20

Candidate Starts for Phorgeous\_26:

(Start: 20 @13636 has 165 MA's), (113, 14212), (120, 14257), (127, 14293), (143, 14362), (150, 14383), (151, 14386), (157, 14416), (175, 14536), (188, 14617), (211, 14731), (214, 14758), (243, 14947), (264, 15073), (284, 15187), (285, 15202), (298, 15250), (302, 15280), (304, 15292), (307, 15307), (309, 15322), (315, 15373), (320, 15391), (325, 15409),

Gene: Phrancesco\_27 Start: 13914, Stop: 15770, Start Num: 20

Candidate Starts for Phrancesco\_27:

(Start: 20 @13914 has 165 MA's), (113, 14490), (120, 14535), (127, 14571), (143, 14640), (150, 14661), (151, 14664), (157, 14694), (175, 14814), (188, 14895), (211, 15009), (214, 15036), (243, 15225), (264, 15351), (270, 15375), (284, 15465), (285, 15480), (298, 15528), (302, 15558), (304, 15570), (307, 15585), (309, 15600), (315, 15651), (320, 15669), (325, 15687),

Gene: PhuzzTulsa\_24 Start: 14216, Stop: 15943, Start Num: 33

Candidate Starts for PhuzzTulsa\_24:

(22, 14153), (Start: 33 @14216 has 17 MA's), (134, 14825), (189, 15113), (192, 15125), (198, 15155), (220, 15251), (221, 15254), (222, 15257), (230, 15317), (259, 15479), (269, 15539), (270, 15545), (273, 15563), (283, 15626), (300, 15737), (315, 15836),

Gene: PierreOrion\_27 Start: 13938, Stop: 15794, Start Num: 20

Candidate Starts for PierreOrion\_27:

(Start: 20 @13938 has 165 MA's), (113, 14514), (120, 14559), (127, 14595), (143, 14664), (150, 14685), (151, 14688), (157, 14718), (175, 14838), (188, 14919), (211, 15033), (214, 15060), (243, 15249), (264, 15375), (284, 15489), (285, 15504), (298, 15552), (302, 15582), (304, 15594), (307, 15609), (309, 15624), (315, 15675), (320, 15693), (325, 15711),

Gene: PinkCoffee\_21 Start: 12521, Stop: 14419, Start Num: 20

Candidate Starts for PinkCoffee\_21:

(Start: 20 @12521 has 165 MA's), (62, 12758), (64, 12770), (70, 12824), (130, 13217), (137, 13250), (144, 13274), (186, 13514), (212, 13643), (214, 13655), (232, 13772), (239, 13817), (240, 13820), (252, 13880), (254, 13898), (260, 13943), (262, 13955), (263, 13958), (266, 13979), (283, 14078), (287, 14117), (297, 14177), (308, 14249), (311, 14279), (315, 14303), (322, 14330), (323, 14333), (327, 14360),

Gene: PiperSansNom\_27 Start: 14090, Stop: 15946, Start Num: 20

Candidate Starts for PiperSansNom\_27:

(Start: 20 @14090 has 165 MA's), (113, 14666), (120, 14711), (127, 14747), (143, 14816), (150, 14837), (151, 14840), (157, 14870), (175, 14990), (188, 15071), (211, 15185), (214, 15212), (243, 15401), (264, 15527), (284, 15641), (285, 15656), (298, 15704), (302, 15734), (304, 15746), (307, 15761), (309, 15776), (315, 15827), (320, 15845), (325, 15863),

Gene: Piperis\_27 Start: 13760, Stop: 15616, Start Num: 20

Candidate Starts for Piperis\_27:

(Start: 20 @13760 has 165 MA's), (113, 14336), (120, 14381), (127, 14417), (143, 14486), (150, 14507), (151, 14510), (157, 14540), (175, 14660), (188, 14741), (211, 14855), (214, 14882), (243, 15071), (264, 15197), (284, 15311), (285, 15326), (298, 15374), (302, 15404), (304, 15416), (307, 15431), (309, 15446), (315, 15497), (320, 15515), (325, 15533),

Gene: Pointis\_26 Start: 14433, Stop: 16160, Start Num: 33

Candidate Starts for Pointis\_26:

(22, 14370), (Start: 33 @14433 has 17 MA's), (134, 15042), (189, 15330), (192, 15342), (198, 15372), (220, 15468), (221, 15471), (222, 15474), (230, 15534), (259, 15696), (269, 15756), (270, 15762), (273, 15780), (283, 15843), (300, 15954), (315, 16053),

Gene: Popstraw\_24 Start: 14219, Stop: 15946, Start Num: 33

Candidate Starts for Popstraw\_24:

(22, 14156), (Start: 33 @14219 has 17 MA's), (134, 14828), (189, 15116), (192, 15128), (198, 15158), (220, 15254), (221, 15257), (222, 15260), (230, 15320), (259, 15482), (269, 15542), (270, 15548), (273, 15566), (283, 15629), (300, 15740), (315, 15839),

Gene: Portcullis\_19 Start: 11883, Stop: 13769, Start Num: 20

Candidate Starts for Portcullis\_19:

(Start: 20 @11883 has 165 MA's), (62, 12120), (64, 12132), (70, 12186), (130, 12567), (137, 12600), (145, 12627), (212, 12993), (214, 13005), (232, 13122), (239, 13167), (240, 13170), (252, 13230), (254, 13248), (260, 13293), (262, 13305), (263, 13308), (283, 13428), (287, 13467), (297, 13527), (308, 13599), (311, 13629), (315, 13653), (322, 13680), (323, 13683), (327, 13710),

Gene: Pulchra\_28 Start: 14160, Stop: 16016, Start Num: 20

Candidate Starts for Pulchra\_28:

(Start: 20 @14160 has 165 MA's), (113, 14736), (120, 14781), (127, 14817), (143, 14886), (150, 14907), (151, 14910), (157, 14940), (175, 15060), (188, 15141), (211, 15255), (214, 15282), (243, 15471), (264, 15597), (284, 15711), (285, 15726), (298, 15774), (302, 15804), (304, 15816), (307, 15831), (309, 15846), (315, 15897), (320, 15915), (325, 15933),

Gene: PullumCavea\_19 Start: 11937, Stop: 13826, Start Num: 20

Candidate Starts for PullumCavea\_19:

(Start: 20 @11937 has 165 MA's), (62, 12174), (64, 12186), (70, 12240), (100, 12465), (130, 12627), (137, 12660), (144, 12684), (186, 12912), (196, 12984), (212, 13041), (232, 13170), (239, 13215),

(240, 13218), (260, 13341), (262, 13353), (273, 13413), (295, 13566), (297, 13575), (308, 13647), (311, 13677), (322, 13728), (326, 13749), (331, 13773),

Gene: Pumpkiney\_23 Start: 14240, Stop: 16156, Start Num: 20

Candidate Starts for Pumpkiney\_23:

(Start: 20 @14240 has 165 MA's), (55, 14456), (61, 14471), (81, 14645), (107, 14792), (117, 14858), (118, 14864), (129, 14918), (133, 14942), (138, 14966), (181, 15194), (184, 15212), (186, 15218), (194, 15281), (197, 15293), (198, 15296), (199, 15308), (219, 15398), (224, 15425), (250, 15584), (261, 15662), (279, 15758), (312, 16028), (322, 16073),

Gene: Pureglobe5\_28 Start: 14443, Stop: 16170, Start Num: 33

Candidate Starts for Pureglobe5\_28:

(22, 14380), (Start: 33 @14443 has 17 MA's), (134, 15052), (189, 15340), (192, 15352), (198, 15382), (220, 15478), (221, 15481), (222, 15484), (230, 15544), (259, 15706), (269, 15766), (270, 15772), (273, 15790), (283, 15853), (300, 15964), (315, 16063),

Gene: Quammi\_23 Start: 13492, Stop: 15324, Start Num: 36

Candidate Starts for Quammi\_23:

(Start: 36 @13492 has 35 MA's), (39, 13501), (52, 13600), (103, 13966), (130, 14134), (133, 14149), (150, 14209), (159, 14257), (160, 14263), (167, 14287), (182, 14404), (183, 14410), (198, 14503), (217, 14584), (234, 14677), (235, 14692), (242, 14740), (248, 14764), (257, 14812), (259, 14836), (266, 14884), (275, 14926), (294, 15061), (295, 15073), (297, 15082), (307, 15142), (316, 15211), (325, 15244),

Gene: Quhwah\_30 Start: 14383, Stop: 16242, Start Num: 20

Candidate Starts for Quhwah\_30:

(Start: 20 @14383 has 165 MA's), (113, 14962), (120, 15007), (127, 15043), (143, 15112), (150, 15133), (151, 15136), (157, 15166), (175, 15286), (188, 15367), (211, 15481), (214, 15508), (243, 15697), (264, 15823), (284, 15937), (285, 15952), (298, 16000), (302, 16030), (304, 16042), (307, 16057), (309, 16072), (315, 16123), (320, 16141), (325, 16159),

Gene: RIPWilbur\_24 Start: 13579, Stop: 15306, Start Num: 33

Candidate Starts for RIPWilbur\_24:

(22, 13516), (Start: 33 @13579 has 17 MA's), (134, 14188), (189, 14476), (192, 14488), (198, 14518), (220, 14614), (221, 14617), (222, 14620), (230, 14680), (259, 14842), (269, 14902), (270, 14908), (273, 14926), (283, 14989), (300, 15100), (315, 15199),

Gene: RainyPolka\_13 Start: 13679, Stop: 15376, Start Num: 44

Candidate Starts for RainyPolka\_13:

(Start: 44 @13679 has 12 MA's), (47, 13688), (57, 13757), (63, 13775), (66, 13790), (78, 13922), (80, 13946), (92, 14045), (112, 14126), (122, 14180), (127, 14210), (128, 14213), (132, 14240), (133, 14243), (149, 14291), (167, 14372), (173, 14414), (180, 14483), (195, 14573), (219, 14663), (229, 14729), (232, 14741), (233, 14744), (242, 14810), (258, 14894), (262, 14936), (273, 14996), (297, 15149), (306, 15206), (313, 15266), (314, 15269), (325, 15308), (328, 15332), (334, 15350),

Gene: Ramiel05\_26 Start: 13795, Stop: 15651, Start Num: 20

Candidate Starts for Ramiel05\_26:

(Start: 20 @13795 has 165 MA's), (113, 14371), (120, 14416), (127, 14452), (143, 14521), (150, 14542), (151, 14545), (157, 14575), (175, 14695), (188, 14776), (211, 14890), (214, 14917), (243, 15106), (284, 15346), (285, 15361), (298, 15409), (302, 15439), (304, 15451), (307, 15466), (309, 15481), (315, 15532), (320, 15550), (325, 15568),

Gene: Ranunculus\_20 Start: 13327, Stop: 15048, Start Num: 33

Candidate Starts for Ranunculus\_20:

(23, 13264), (Start: 33 @13327 has 17 MA's), (134, 13921), (140, 13942), (167, 14044), (189, 14218), (192, 14230), (198, 14260), (221, 14359), (222, 14362), (251, 14527), (259, 14584), (264, 14626), (267, 14635), (269, 14644), (273, 14668), (283, 14731), (298, 14818), (303, 14857), (307, 14875),

Gene: Rasputia\_56 Start: 29361, Stop: 31292, Start Num: 19

Candidate Starts for Rasputia\_56:

(Start: 19 @29361 has 4 MA's), (50, 29544), (65, 29628), (74, 29697), (95, 29895), (97, 29904), (115, 30003), (123, 30048), (151, 30165), (233, 30663), (238, 30693), (239, 30705), (243, 30732), (253, 30777), (259, 30816), (264, 30858), (295, 31044), (331, 31251),

Gene: RazzB\_22 Start: 12742, Stop: 14469, Start Num: 33

Candidate Starts for RazzB\_22:

(22, 12679), (Start: 33 @12742 has 17 MA's), (134, 13351), (189, 13639), (192, 13651), (198, 13681), (220, 13777), (221, 13780), (222, 13783), (230, 13843), (259, 14005), (267, 14056), (269, 14065), (273, 14089), (283, 14152), (295, 14227), (296, 14233), (298, 14239), (299, 14260), (315, 14362),

Gene: Ren19\_19 Start: 13481, Stop: 15208, Start Num: 33

Candidate Starts for Ren19\_19:

(22, 13418), (26, 13433), (Start: 33 @13481 has 17 MA's), (46, 13547), (134, 14087), (192, 14390), (198, 14420), (220, 14516), (221, 14519), (222, 14522), (230, 14582), (259, 14744), (267, 14795), (273, 14828), (283, 14891), (298, 14978), (300, 15002), (307, 15035), (321, 15125),

Gene: Ribeye\_21 Start: 15768, Stop: 17690, Start Num: 20

Candidate Starts for Ribeye\_21:

(Start: 20 @15768 has 165 MA's), (61, 15999), (98, 16296), (111, 16365), (117, 16413), (123, 16437), (135, 16506), (140, 16530), (166, 16623), (184, 16764), (186, 16770), (194, 16833), (197, 16845), (198, 16848), (199, 16860), (219, 16947), (239, 17070), (244, 17106), (250, 17139), (260, 17211), (267, 17250), (277, 17301), (295, 17439), (296, 17445), (297, 17448), (305, 17499), (312, 17556), (313, 17568), (316, 17577),

Gene: RiverRaider\_21 Start: 14172, Stop: 16070, Start Num: 20

Candidate Starts for RiverRaider\_21:

(13, 14094), (Start: 20 @14172 has 165 MA's), (61, 14403), (64, 14421), (73, 14496), (98, 14670), (111, 14751), (123, 14817), (135, 14886), (184, 15144), (186, 15150), (194, 15213), (197, 15225), (198, 15228), (199, 15240), (219, 15327), (239, 15450), (244, 15486), (260, 15591), (267, 15630), (277, 15681), (280, 15714), (296, 15825), (297, 15828), (298, 15831), (299, 15852), (305, 15879), (310, 15906), (312, 15936), (313, 15948),

Gene: Rizwana\_19 Start: 13218, Stop: 14954, Start Num: 33

Candidate Starts for Rizwana\_19:

(22, 13155), (Start: 33 @13218 has 17 MA's), (87, 13608), (96, 13644), (153, 13878), (173, 13986), (178, 14049), (181, 14058), (185, 14079), (198, 14160), (221, 14259), (222, 14262), (227, 14304), (232, 14328), (235, 14349), (236, 14355), (259, 14484), (269, 14544), (277, 14583), (281, 14625), (298, 14718), (315, 14841), (323, 14871),

Gene: RoadKill\_18 Start: 13249, Stop: 15138, Start Num: 20

Candidate Starts for RoadKill\_18:

(Start: 19 @13240 has 4 MA's), (Start: 20 @13249 has 165 MA's), (32, 13315), (61, 13483), (64, 13501), (100, 13774), (117, 13870), (164, 14077), (174, 14155), (186, 14224), (194, 14287), (197, 14299), (198, 14302), (216, 14386), (219, 14401), (235, 14500), (244, 14554), (260, 14659), (277, 14749), (286, 14830), (295, 14887), (298, 14899), (307, 14956), (308, 14968), (312, 15004), (326, 15070),

Gene: RobinRose\_26 Start: 13174, Stop: 14952, Start Num: 35

Candidate Starts for RobinRose\_26:

(Start: 35 @13174 has 15 MA's), (39, 13186), (83, 13528), (108, 13645), (130, 13771), (159, 13885), (167, 13915), (198, 14128), (217, 14209), (219, 14218), (232, 14296), (234, 14302), (235, 14317), (259, 14461), (264, 14503), (275, 14554), (295, 14701), (297, 14710), (321, 14860), (325, 14872),

Gene: RobsFeet\_28 Start: 13750, Stop: 15771, Start Num: 20

Candidate Starts for RobsFeet\_28:

(Start: 20 @13750 has 165 MA's), (113, 14335), (127, 14416), (131, 14440), (143, 14485), (150, 14506), (151, 14509), (175, 14659), (207, 14917), (209, 14989), (214, 15049), (216, 15073), (239, 15211), (242, 15235), (243, 15238), (263, 15349), (284, 15478), (285, 15493), (287, 15502), (295, 15529), (298, 15541), (302, 15571), (307, 15598), (325, 15700),

Gene: Rockwell\_26 Start: 13795, Stop: 15651, Start Num: 20

Candidate Starts for Rockwell\_26:

(Start: 20 @13795 has 165 MA's), (113, 14371), (120, 14416), (127, 14452), (143, 14521), (150, 14542), (151, 14545), (157, 14575), (175, 14695), (188, 14776), (211, 14890), (214, 14917), (243, 15106), (284, 15346), (285, 15361), (298, 15409), (302, 15439), (304, 15451), (307, 15466), (309, 15481), (315, 15532), (320, 15550), (325, 15568),

Gene: Rofo\_20 Start: 15139, Stop: 17046, Start Num: 20

Candidate Starts for Rofo\_20:

(Start: 20 @15139 has 165 MA's), (61, 15370), (64, 15388), (98, 15655), (123, 15793), (135, 15862), (144, 15895), (184, 16120), (186, 16126), (194, 16189), (197, 16201), (198, 16204), (199, 16216), (239, 16426), (244, 16462), (267, 16606), (277, 16657), (296, 16801), (297, 16804), (298, 16807), (305, 16855), (312, 16912),

Gene: RogerDodger\_22 Start: 12733, Stop: 14619, Start Num: 20

Candidate Starts for RogerDodger\_22:

(Start: 20 @12733 has 165 MA's), (62, 12970), (64, 12982), (70, 13036), (100, 13258), (130, 13420), (137, 13453), (186, 13705), (196, 13777), (212, 13834), (214, 13846), (232, 13963), (239, 14008), (240, 14011), (260, 14134), (262, 14146), (273, 14206), (295, 14359), (297, 14368), (308, 14440), (311, 14470), (326, 14542), (331, 14566),

Gene: RomansRevenge\_16 Start: 11444, Stop: 13249, Start Num: 29

Candidate Starts for RomansRevenge\_16:

(Start: 29 @11444 has 1 MA's), (Start: 33 @11492 has 17 MA's), (49, 11582), (79, 11834), (82, 11849), (95, 11942), (118, 12053), (121, 12062), (134, 12131), (152, 12176), (160, 12218), (176, 12323), (186, 12380), (198, 12458), (219, 12548), (221, 12557), (235, 12647), (254, 12749), (273, 12866), (283, 12929), (298, 13013), (307, 13070), (308, 13082), (315, 13136),

Gene: Romm\_26 Start: 13174, Stop: 14952, Start Num: 35

Candidate Starts for Romm\_26:

(Start: 35 @13174 has 15 MA's), (39, 13186), (83, 13528), (108, 13645), (130, 13771), (159, 13885), (167, 13915), (198, 14128), (217, 14209), (219, 14218), (232, 14296), (234, 14302), (235, 14317), (259, 14461), (264, 14503), (275, 14554), (295, 14701), (297, 14710), (321, 14860), (325, 14872),

Gene: Rowlf\_21 Start: 13250, Stop: 15082, Start Num: 36

Candidate Starts for Rowlf\_21:

(Start: 36 @13250 has 35 MA's), (39, 13259), (52, 13358), (103, 13724), (130, 13892), (133, 13907), (150, 13967), (159, 14015), (160, 14021), (167, 14045), (182, 14162), (183, 14168), (198, 14261), (217, 14342), (234, 14435), (235, 14450), (242, 14498), (248, 14522), (257, 14570), (259, 14594),

(266, 14642), (275, 14684), (294, 14819), (295, 14831), (297, 14840), (307, 14900), (316, 14969), (325, 15002),

Gene: RubyRalph\_27 Start: 13767, Stop: 15596, Start Num: 35

Candidate Starts for RubyRalph\_27:

(Start: 35 @13767 has 15 MA's), (39, 13779), (56, 13908), (83, 14136), (85, 14154), (115, 14313), (130, 14397), (150, 14475), (159, 14523), (167, 14553), (181, 14667), (198, 14769), (213, 14811), (217, 14850), (219, 14859), (234, 14943), (235, 14958), (257, 15078), (259, 15102), (264, 15144), (266, 15150), (275, 15192), (294, 15327), (297, 15348), (299, 15372), (303, 15390), (307, 15408), (325, 15510),

Gene: Rudy\_23 Start: 13492, Stop: 15324, Start Num: 36

Candidate Starts for Rudy\_23:

(Start: 36 @13492 has 35 MA's), (39, 13501), (52, 13600), (103, 13966), (130, 14134), (133, 14149), (150, 14209), (159, 14257), (160, 14263), (167, 14287), (182, 14404), (183, 14410), (198, 14503), (217, 14584), (234, 14677), (235, 14692), (242, 14740), (248, 14764), (257, 14812), (259, 14836), (266, 14884), (275, 14926), (294, 15061), (295, 15073), (297, 15082), (307, 15142), (316, 15211), (325, 15244),

Gene: SadLad\_29 Start: 14704, Stop: 16533, Start Num: 35

Candidate Starts for SadLad\_29:

(Start: 35 @14704 has 15 MA's), (39, 14716), (56, 14845), (83, 15073), (85, 15091), (115, 15250), (130, 15334), (150, 15412), (159, 15460), (167, 15490), (181, 15604), (198, 15706), (213, 15748), (217, 15787), (234, 15880), (235, 15895), (257, 16015), (259, 16039), (264, 16081), (266, 16087), (275, 16129), (294, 16264), (297, 16285), (299, 16309), (303, 16327), (307, 16345), (325, 16447),

Gene: Salet\_13 Start: 13751, Stop: 15445, Start Num: 44

Candidate Starts for Salet\_13:

(Start: 44 @13751 has 12 MA's), (47, 13760), (66, 13862), (78, 13994), (80, 14018), (92, 14114), (112, 14195), (119, 14240), (122, 14249), (128, 14282), (132, 14309), (133, 14312), (149, 14360), (156, 14393), (157, 14396), (165, 14435), (167, 14441), (175, 14519), (180, 14552), (195, 14642), (219, 14732), (229, 14798), (232, 14810), (233, 14813), (252, 14930), (258, 14963), (262, 15005), (281, 15122), (297, 15218), (306, 15275), (314, 15338), (316, 15344), (325, 15377), (328, 15401), (334, 15419), (337, 15434),

Gene: SallyK\_26 Start: 14644, Stop: 16470, Start Num: 36

Candidate Starts for SallyK\_26:

(Start: 36 @14644 has 35 MA's), (39, 14653), (52, 14752), (94, 15079), (130, 15280), (133, 15295), (150, 15355), (159, 15403), (167, 15433), (182, 15550), (183, 15556), (198, 15649), (217, 15730), (234, 15823), (235, 15838), (242, 15886), (248, 15910), (257, 15958), (259, 15982), (266, 16030), (275, 16072), (294, 16207), (297, 16228), (304, 16273), (307, 16288), (316, 16357), (325, 16390),

Gene: Salvador\_19 Start: 11842, Stop: 13740, Start Num: 20

Candidate Starts for Salvador\_19:

(Start: 20 @11842 has 165 MA's), (62, 12079), (64, 12091), (70, 12145), (100, 12376), (130, 12538), (137, 12571), (186, 12835), (212, 12964), (214, 12976), (232, 13093), (239, 13138), (240, 13141), (252, 13201), (254, 13219), (258, 13234), (260, 13264), (262, 13276), (263, 13279), (283, 13399), (287, 13438), (297, 13498), (308, 13570), (311, 13600), (315, 13624), (322, 13651), (323, 13654), (327, 13681),

Gene: Sampson\_21 Start: 15472, Stop: 17394, Start Num: 20

Candidate Starts for Sampson\_21:

(Start: 20 @15472 has 165 MA's), (55, 15688), (61, 15703), (81, 15877), (106, 16015), (107, 16024), (117, 16093), (118, 16099), (129, 16153), (133, 16177), (181, 16429), (184, 16447), (186, 16453), (194, 16516), (197, 16528), (198, 16531), (199, 16543), (219, 16633), (224, 16660), (250, 16819), (261, 16897), (279, 16993), (283, 17029), (295, 17149), (299, 17182), (312, 17266), (322, 17311),

Gene: Sanjuju\_18 Start: 14651, Stop: 16558, Start Num: 20

Candidate Starts for Sanjuju\_18:

(Start: 20 @14651 has 165 MA's), (61, 14882), (64, 14900), (98, 15167), (123, 15305), (135, 15374), (144, 15407), (184, 15632), (186, 15638), (194, 15701), (197, 15713), (198, 15716), (199, 15728), (219, 15815), (227, 15869), (239, 15938), (244, 15974), (267, 16118), (277, 16169), (296, 16313), (297, 16316), (298, 16319), (305, 16367), (312, 16424),

Gene: Saronaya\_20 Start: 14562, Stop: 16469, Start Num: 20

Candidate Starts for Saronaya\_20:

(Start: 20 @14562 has 165 MA's), (45, 14697), (61, 14793), (98, 15075), (111, 15144), (117, 15192), (123, 15216), (129, 15252), (135, 15285), (140, 15309), (166, 15402), (184, 15543), (186, 15549), (194, 15612), (197, 15624), (198, 15627), (199, 15639), (219, 15726), (239, 15849), (244, 15885), (260, 15990), (267, 16029), (277, 16080), (295, 16218), (296, 16224), (297, 16227), (305, 16278), (312, 16335), (313, 16347), (316, 16356),

Gene: Savannah\_26 Start: 13819, Stop: 15678, Start Num: 20

Candidate Starts for Savannah\_26:

(Start: 20 @13819 has 165 MA's), (113, 14398), (120, 14443), (127, 14479), (143, 14548), (150, 14569), (151, 14572), (157, 14602), (175, 14722), (188, 14803), (211, 14917), (214, 14944), (243, 15133), (264, 15259), (284, 15373), (285, 15388), (298, 15436), (302, 15466), (304, 15478), (307, 15493), (309, 15508), (315, 15559), (320, 15577), (325, 15595),

Gene: Savbucketdawg\_19 Start: 11635, Stop: 13521, Start Num: 20

Candidate Starts for Savbucketdawg\_19:

(Start: 20 @11635 has 165 MA's), (62, 11872), (64, 11884), (70, 11938), (130, 12319), (137, 12352), (145, 12379), (212, 12745), (214, 12757), (232, 12874), (239, 12919), (240, 12922), (252, 12982), (254, 13000), (260, 13045), (262, 13057), (263, 13060), (283, 13180), (287, 13219), (297, 13279), (308, 13351), (311, 13381), (315, 13405), (322, 13432), (323, 13435), (327, 13462),

Gene: SchottB\_19 Start: 15551, Stop: 17470, Start Num: 20

Candidate Starts for SchottB\_19:

(Start: 20 @15551 has 165 MA's), (45, 15686), (61, 15782), (98, 16076), (111, 16145), (117, 16193), (123, 16217), (129, 16253), (135, 16286), (140, 16310), (166, 16403), (184, 16544), (186, 16550), (194, 16613), (197, 16625), (198, 16628), (199, 16640), (219, 16727), (239, 16850), (244, 16886), (250, 16919), (260, 16991), (267, 17030), (277, 17081), (296, 17225), (297, 17228), (305, 17279), (312, 17336), (313, 17348), (316, 17357),

Gene: Scioto\_21 Start: 15527, Stop: 17449, Start Num: 20

Candidate Starts for Scioto\_21:

(Start: 20 @15527 has 165 MA's), (55, 15743), (61, 15758), (81, 15932), (106, 16070), (107, 16079), (117, 16148), (118, 16154), (129, 16208), (133, 16232), (181, 16484), (184, 16502), (186, 16508), (194, 16571), (197, 16583), (198, 16586), (199, 16598), (219, 16688), (224, 16715), (250, 16874), (261, 16952), (279, 17048), (283, 17084), (295, 17204), (299, 17237), (312, 17321), (322, 17366),

Gene: Scumberland\_28 Start: 14010, Stop: 15866, Start Num: 20

Candidate Starts for Scumberland\_28:

(Start: 20 @14010 has 165 MA's), (113, 14586), (120, 14631), (127, 14667), (143, 14736), (150, 14757), (151, 14760), (157, 14790), (175, 14910), (188, 14991), (211, 15105), (214, 15132), (243,

15321), (264, 15447), (284, 15561), (285, 15576), (298, 15624), (302, 15654), (304, 15666), (307, 15681), (309, 15696), (315, 15747), (320, 15765), (325, 15783),

Gene: Sedona\_22 Start: 16968, Stop: 18863, Start Num: 20

Candidate Starts for Sedona\_22:

(Start: 20 @16968 has 165 MA's), (61, 17199), (64, 17217), (98, 17472), (123, 17610), (135, 17679), (144, 17712), (184, 17937), (186, 17943), (194, 18006), (197, 18018), (198, 18021), (199, 18033), (219, 18120), (239, 18243), (244, 18279), (267, 18423), (277, 18474), (296, 18618), (297, 18621), (298, 18624), (305, 18672), (312, 18729), (336, 18846),

Gene: Selwyn23\_28 Start: 13988, Stop: 15844, Start Num: 20

Candidate Starts for Selwyn23\_28:

(Start: 20 @13988 has 165 MA's), (113, 14564), (120, 14609), (127, 14645), (143, 14714), (150, 14735), (151, 14738), (157, 14768), (175, 14888), (188, 14969), (211, 15083), (214, 15110), (243, 15299), (264, 15425), (284, 15539), (285, 15554), (298, 15602), (302, 15632), (304, 15644), (307, 15659), (309, 15674), (315, 15725), (320, 15743), (325, 15761),

Gene: Sendy\_20 Start: 11979, Stop: 13871, Start Num: 20

Candidate Starts for Sendy\_20:

(Start: 20 @11979 has 165 MA's), (62, 12216), (64, 12228), (70, 12282), (100, 12507), (130, 12669), (137, 12702), (145, 12729), (212, 13095), (214, 13107), (232, 13224), (239, 13269), (240, 13272), (252, 13332), (254, 13350), (260, 13395), (262, 13407), (263, 13410), (283, 13530), (287, 13569), (297, 13629), (308, 13701), (311, 13731), (315, 13755), (322, 13782), (323, 13785), (327, 13812),

Gene: Shinji\_19 Start: 11824, Stop: 13710, Start Num: 20

Candidate Starts for Shinji\_19:

(Start: 20 @11824 has 165 MA's), (62, 12061), (64, 12073), (70, 12127), (130, 12508), (137, 12541), (145, 12568), (212, 12934), (214, 12946), (232, 13063), (239, 13108), (240, 13111), (252, 13171), (254, 13189), (260, 13234), (262, 13246), (263, 13249), (283, 13369), (287, 13408), (297, 13468), (308, 13540), (311, 13570), (315, 13594), (322, 13621), (323, 13624), (327, 13651),

Gene: Shivanishola\_20 Start: 14945, Stop: 16852, Start Num: 20

Candidate Starts for Shivanishola\_20:

(Start: 20 @14945 has 165 MA's), (61, 15176), (64, 15194), (98, 15461), (123, 15599), (135, 15668), (144, 15701), (184, 15926), (186, 15932), (194, 15995), (197, 16007), (198, 16010), (199, 16022), (219, 16109), (227, 16163), (239, 16232), (244, 16268), (267, 16412), (277, 16463), (296, 16607), (297, 16610), (298, 16613), (305, 16661), (312, 16718),

Gene: Shotgun\_26 Start: 13617, Stop: 15476, Start Num: 20

Candidate Starts for Shotgun\_26:

(Start: 20 @13617 has 165 MA's), (113, 14196), (120, 14241), (127, 14277), (143, 14346), (150, 14367), (151, 14370), (157, 14400), (175, 14520), (188, 14601), (211, 14715), (214, 14742), (243, 14931), (264, 15057), (284, 15171), (285, 15186), (298, 15234), (302, 15264), (304, 15276), (307, 15291), (309, 15306), (315, 15357), (320, 15375), (325, 15393),

Gene: Shrubaron\_27 Start: 13384, Stop: 15405, Start Num: 20

Candidate Starts for Shrubaron\_27:

(Start: 20 @13384 has 165 MA's), (113, 13969), (127, 14050), (131, 14074), (143, 14119), (150, 14140), (151, 14143), (175, 14293), (207, 14551), (209, 14623), (214, 14683), (216, 14707), (239, 14845), (242, 14869), (243, 14872), (263, 14983), (284, 15112), (285, 15127), (287, 15136), (295, 15163), (298, 15175), (302, 15205), (307, 15232), (325, 15334),

Gene: SilentRX\_21 Start: 13505, Stop: 15193, Start Num: 33

Candidate Starts for SilentRX\_21:

(23, 13445), (25, 13457), (27, 13460), (Start: 33 @13505 has 17 MA's), (192, 14372), (198, 14402), (199, 14414), (220, 14498), (221, 14501), (222, 14504), (233, 14573), (245, 14645), (254, 14693), (273, 14810), (283, 14876), (302, 14993), (313, 15080), (315, 15086),

Gene: Sillytadpoles\_24 Start: 13490, Stop: 15322, Start Num: 36

Candidate Starts for Sillytadpoles\_24:

(Start: 36 @13490 has 35 MA's), (39, 13499), (52, 13598), (103, 13964), (130, 14132), (133, 14147), (150, 14207), (159, 14255), (160, 14261), (167, 14285), (182, 14402), (183, 14408), (198, 14501), (217, 14582), (234, 14675), (235, 14690), (242, 14738), (248, 14762), (257, 14810), (259, 14834), (266, 14882), (275, 14924), (294, 15059), (295, 15071), (297, 15080), (307, 15140), (316, 15209), (325, 15242),

Gene: SirFrank\_26 Start: 13737, Stop: 15587, Start Num: 20

Candidate Starts for SirFrank\_26:

(Start: 20 @13737 has 165 MA's), (113, 14313), (120, 14358), (127, 14394), (143, 14463), (150, 14484), (151, 14487), (157, 14517), (175, 14637), (211, 14832), (214, 14859), (220, 14904), (243, 15048), (270, 15198), (271, 15204), (284, 15288), (298, 15351), (302, 15381), (304, 15393), (307, 15408), (309, 15423), (315, 15474), (320, 15492),

Gene: Sitar\_22 Start: 16336, Stop: 18231, Start Num: 20

Candidate Starts for Sitar\_22:

(Start: 20 @16336 has 165 MA's), (61, 16567), (64, 16585), (98, 16840), (123, 16978), (135, 17047), (144, 17080), (184, 17305), (186, 17311), (194, 17374), (197, 17386), (198, 17389), (199, 17401), (219, 17488), (239, 17611), (244, 17647), (267, 17791), (277, 17842), (296, 17986), (297, 17989), (298, 17992), (305, 18040), (312, 18097), (336, 18214),

Gene: Sixsevenium\_20 Start: 11735, Stop: 13636, Start Num: 20

Candidate Starts for Sixsevenium\_20:

(Start: 20 @11735 has 165 MA's), (62, 11972), (64, 11984), (70, 12038), (130, 12425), (137, 12458), (144, 12482), (166, 12563), (170, 12590), (186, 12728), (212, 12857), (214, 12869), (219, 12908), (232, 12986), (239, 13031), (240, 13034), (244, 13055), (252, 13097), (255, 13118), (260, 13160), (262, 13172), (308, 13466), (311, 13496), (315, 13520), (323, 13550),

Gene: Skugga\_25 Start: 13080, Stop: 15104, Start Num: 20

Candidate Starts for Skugga\_25:

(Start: 20 @13080 has 165 MA's), (88, 13554), (113, 13668), (118, 13707), (127, 13749), (131, 13773), (143, 13818), (150, 13839), (151, 13842), (154, 13857), (165, 13911), (175, 13992), (183, 14037), (186, 14052), (214, 14382), (216, 14406), (239, 14544), (242, 14568), (243, 14571), (263, 14682), (271, 14727), (284, 14811), (285, 14826), (295, 14862), (298, 14874), (302, 14904), (307, 14931), (325, 15033),

Gene: SlySloth\_27 Start: 14547, Stop: 16379, Start Num: 36

Candidate Starts for SlySloth\_27:

(Start: 36 @14547 has 35 MA's), (39, 14556), (52, 14655), (103, 15021), (130, 15189), (133, 15204), (150, 15264), (159, 15312), (160, 15318), (167, 15342), (182, 15459), (183, 15465), (198, 15558), (217, 15639), (234, 15732), (235, 15747), (242, 15795), (248, 15819), (257, 15867), (259, 15891), (266, 15939), (275, 15981), (294, 16116), (297, 16137), (307, 16197), (316, 16266), (325, 16299),

Gene: Smarties\_35 Start: 15581, Stop: 17596, Start Num: 20

Candidate Starts for Smarties\_35:

(Start: 20 @15581 has 165 MA's), (113, 16160), (120, 16205), (127, 16241), (131, 16265), (143, 16310), (150, 16331), (154, 16349), (175, 16484), (209, 16814), (210, 16817), (214, 16874), (216,

16898), (239, 17036), (243, 17063), (263, 17174), (284, 17303), (285, 17318), (287, 17327), (295, 17354), (298, 17366), (302, 17396), (307, 17423), (320, 17507), (325, 17525),

Gene: SmokingBunny\_19 Start: 11842, Stop: 13740, Start Num: 20

Candidate Starts for SmokingBunny\_19:

(Start: 20 @11842 has 165 MA's), (62, 12079), (64, 12091), (70, 12145), (100, 12376), (130, 12538), (137, 12571), (186, 12835), (212, 12964), (214, 12976), (232, 13093), (239, 13138), (240, 13141), (252, 13201), (254, 13219), (258, 13234), (260, 13264), (262, 13276), (263, 13279), (283, 13399), (287, 13438), (297, 13498), (308, 13570), (311, 13600), (315, 13624), (322, 13651), (323, 13654), (327, 13681),

Gene: Squash\_27 Start: 14560, Stop: 16392, Start Num: 36

Candidate Starts for Squash\_27:

(Start: 36 @14560 has 35 MA's), (39, 14569), (52, 14668), (103, 15034), (130, 15202), (133, 15217), (150, 15277), (159, 15325), (160, 15331), (167, 15355), (182, 15472), (183, 15478), (198, 15571), (217, 15652), (234, 15745), (235, 15760), (242, 15808), (248, 15832), (257, 15880), (259, 15904), (266, 15952), (275, 15994), (294, 16129), (295, 16141), (297, 16150), (307, 16210), (316, 16279), (325, 16312),

Gene: Statler\_26 Start: 14472, Stop: 16304, Start Num: 36

Candidate Starts for Statler\_26:

(Start: 36 @14472 has 35 MA's), (39, 14481), (52, 14580), (103, 14946), (130, 15114), (133, 15129), (150, 15189), (159, 15237), (160, 15243), (167, 15267), (182, 15384), (183, 15390), (198, 15483), (217, 15564), (234, 15657), (235, 15672), (242, 15720), (248, 15744), (257, 15792), (259, 15816), (266, 15864), (275, 15906), (294, 16041), (295, 16053), (297, 16062), (307, 16122), (316, 16191), (325, 16224),

Gene: Stichling\_19 Start: 14115, Stop: 16025, Start Num: 20

Candidate Starts for Stichling\_19:

(Start: 20 @14115 has 165 MA's), (45, 14250), (61, 14346), (98, 14631), (111, 14700), (117, 14748), (123, 14772), (129, 14808), (135, 14841), (140, 14865), (166, 14958), (184, 15099), (186, 15105), (194, 15168), (197, 15180), (198, 15183), (199, 15195), (219, 15282), (239, 15405), (244, 15441), (250, 15474), (260, 15546), (267, 15585), (277, 15636), (296, 15780), (297, 15783), (305, 15834), (312, 15891), (313, 15903), (316, 15912),

Gene: StorminNorm\_20 Start: 14442, Stop: 16349, Start Num: 20

Candidate Starts for StorminNorm\_20:

(Start: 20 @14442 has 165 MA's), (45, 14577), (61, 14673), (98, 14955), (111, 15024), (117, 15072), (123, 15096), (129, 15132), (135, 15165), (140, 15189), (166, 15282), (184, 15423), (186, 15429), (194, 15492), (197, 15504), (198, 15507), (199, 15519), (219, 15606), (239, 15729), (244, 15765), (260, 15870), (267, 15909), (277, 15960), (295, 16098), (296, 16104), (297, 16107), (305, 16158), (312, 16215), (313, 16227), (316, 16236), (337, 16335),

Gene: StrawberryJamm\_27 Start: 13792, Stop: 15624, Start Num: 36

Candidate Starts for StrawberryJamm\_27:

(Start: 36 @13792 has 35 MA's), (39, 13801), (52, 13900), (94, 14233), (130, 14434), (133, 14449), (150, 14509), (159, 14557), (167, 14587), (182, 14704), (183, 14710), (198, 14803), (217, 14884), (234, 14977), (235, 14992), (242, 15040), (248, 15064), (257, 15112), (259, 15136), (266, 15184), (275, 15226), (294, 15361), (297, 15382), (304, 15427), (307, 15442), (316, 15511), (325, 15544),

Gene: Stultus\_20 Start: 14947, Stop: 16842, Start Num: 20

Candidate Starts for Stultus\_20:

(Start: 20 @14947 has 165 MA's), (61, 15178), (64, 15196), (98, 15451), (123, 15589), (135, 15658), (144, 15691), (184, 15916), (186, 15922), (194, 15985), (197, 15997), (198, 16000), (199, 16012), (219, 16099), (239, 16222), (244, 16258), (267, 16402), (277, 16453), (296, 16597), (297, 16600), (298, 16603), (305, 16651), (312, 16708), (336, 16825),

Gene: Sunfish\_32 Start: 15117, Stop: 16874, Start Num: 37

Candidate Starts for Sunfish\_32:

(Start: 37 @15117 has 1 MA's), (84, 15489), (92, 15534), (121, 15681), (155, 15807), (263, 16431), (264, 16446), (265, 16449), (267, 16455), (307, 16695), (315, 16761), (322, 16788),

Gene: Sunny\_ Start: 13998, Stop: 15890, Start Num: 15

Candidate Starts for Sunny\_:

(10, 13962), (11, 13968), (14, 13995), (Start: 15 @13998 has 2 MA's), (Start: 20 @14052 has 165 MA's), (74, 14373), (113, 14610), (120, 14655), (127, 14691), (143, 14760), (150, 14781), (151, 14784), (160, 14835), (168, 14868), (175, 14934), (188, 15015), (214, 15156), (240, 15321), (243, 15345), (264, 15471), (284, 15585), (285, 15600), (295, 15636), (298, 15648), (302, 15678), (304, 15690), (307, 15705), (328, 15831),

Gene: TP1604\_13 Start: 13751, Stop: 15445, Start Num: 44

Candidate Starts for TP1604\_13:

(Start: 44 @13751 has 12 MA's), (47, 13760), (66, 13862), (78, 13994), (80, 14018), (92, 14114), (112, 14195), (119, 14240), (122, 14249), (128, 14282), (132, 14309), (133, 14312), (149, 14360), (156, 14393), (157, 14396), (165, 14435), (167, 14441), (175, 14519), (180, 14552), (195, 14642), (216, 14717), (219, 14732), (229, 14798), (232, 14810), (233, 14813), (252, 14930), (258, 14963), (262, 15005), (281, 15122), (297, 15218), (306, 15275), (310, 15296), (314, 15338), (316, 15344), (325, 15377), (328, 15401), (334, 15419), (337, 15434),

Gene: Tangent\_18 Start: 14140, Stop: 16047, Start Num: 20

Candidate Starts for Tangent\_18:

(Start: 20 @14140 has 165 MA's), (61, 14371), (64, 14389), (98, 14656), (123, 14794), (135, 14863), (144, 14896), (184, 15121), (186, 15127), (194, 15190), (197, 15202), (198, 15205), (199, 15217), (219, 15304), (227, 15358), (239, 15427), (244, 15463), (267, 15607), (277, 15658), (296, 15802), (297, 15805), (298, 15808), (305, 15856), (312, 15913),

Gene: Tangerine\_20 Start: 14448, Stop: 16355, Start Num: 20

Candidate Starts for Tangerine\_20:

(Start: 20 @14448 has 165 MA's), (45, 14583), (61, 14679), (98, 14961), (111, 15030), (117, 15078), (123, 15102), (129, 15138), (135, 15171), (140, 15195), (166, 15288), (184, 15429), (186, 15435), (194, 15498), (197, 15510), (198, 15513), (199, 15525), (219, 15612), (239, 15735), (244, 15771), (260, 15876), (267, 15915), (277, 15966), (295, 16104), (296, 16110), (297, 16113), (305, 16164), (312, 16221), (313, 16233), (316, 16242), (337, 16341),

Gene: Tank\_20 Start: 13083, Stop: 14846, Start Num: 33

Candidate Starts for Tank\_20:

(22, 13017), (Start: 33 @13083 has 17 MA's), (96, 13521), (110, 13590), (116, 13614), (129, 13683), (153, 13764), (173, 13872), (177, 13923), (178, 13935), (181, 13944), (219, 14136), (221, 14145), (222, 14148), (232, 14214), (235, 14235), (236, 14241), (239, 14259), (259, 14370), (269, 14430), (277, 14469), (281, 14511), (298, 14604), (303, 14643), (330, 14796),

Gene: Tardus\_22 Start: 14807, Stop: 16726, Start Num: 20

Candidate Starts for Tardus\_22:

(Start: 20 @14807 has 165 MA's), (55, 15023), (59, 15035), (61, 15038), (81, 15212), (103, 15326), (106, 15350), (107, 15359), (117, 15425), (118, 15431), (129, 15485), (133, 15509), (181, 15761),

(184, 15779), (186, 15785), (194, 15848), (197, 15860), (198, 15863), (199, 15875), (219, 15965), (224, 15992), (250, 16151), (261, 16229), (279, 16325), (299, 16514), (312, 16598), (315, 16616), (323, 16646),

Gene: Teamocil\_28 Start: 13248, Stop: 15266, Start Num: 20

Candidate Starts for Teamocil\_28:

(Start: 20 @13248 has 165 MA's), (88, 13716), (113, 13830), (118, 13869), (127, 13911), (131, 13935), (143, 13980), (150, 14001), (151, 14004), (154, 14019), (165, 14073), (175, 14154), (186, 14214), (203, 14358), (205, 14376), (214, 14544), (216, 14568), (239, 14706), (243, 14733), (263, 14844), (284, 14973), (285, 14988), (295, 15024), (298, 15036), (302, 15066), (307, 15093), (325, 15195),

Gene: Teehee\_26 Start: 14727, Stop: 16559, Start Num: 36

Candidate Starts for Teehee\_26:

(Start: 36 @14727 has 35 MA's), (39, 14736), (52, 14835), (103, 15201), (130, 15369), (133, 15384), (150, 15444), (159, 15492), (160, 15498), (167, 15522), (182, 15639), (183, 15645), (198, 15738), (217, 15819), (234, 15912), (235, 15927), (242, 15975), (248, 15999), (257, 16047), (259, 16071), (266, 16119), (275, 16161), (294, 16296), (295, 16308), (297, 16317), (307, 16377), (316, 16446), (325, 16479),

Gene: Tempo\_24 Start: 13050, Stop: 14828, Start Num: 35

Candidate Starts for Tempo\_24:

(Start: 35 @13050 has 15 MA's), (39, 13062), (83, 13404), (108, 13521), (130, 13647), (159, 13761), (167, 13791), (198, 14004), (217, 14085), (219, 14094), (232, 14172), (234, 14178), (235, 14193), (259, 14337), (264, 14379), (275, 14430), (295, 14577), (297, 14586), (321, 14736), (325, 14748),

Gene: Terij\_23 Start: 13292, Stop: 15169, Start Num: 20

Candidate Starts for Terij\_23:

(Start: 20 @13292 has 165 MA's), (113, 13889), (118, 13928), (127, 13970), (150, 14060), (166, 14129), (187, 14282), (211, 14402), (226, 14519), (243, 14618), (247, 14633), (254, 14669), (256, 14675), (263, 14729), (273, 14786), (277, 14801), (279, 14813), (284, 14858), (295, 14921), (302, 14963), (319, 15071),

Gene: Thing3\_21 Start: 15684, Stop: 17591, Start Num: 20

Candidate Starts for Thing3\_21:

(Start: 20 @15684 has 165 MA's), (61, 15915), (64, 15933), (98, 16200), (123, 16338), (135, 16407), (144, 16440), (184, 16665), (186, 16671), (194, 16734), (197, 16746), (198, 16749), (199, 16761), (219, 16848), (227, 16902), (239, 16971), (244, 17007), (267, 17151), (277, 17202), (296, 17346), (297, 17349), (298, 17352), (305, 17400), (312, 17457),

Gene: Tiamoceli\_21 Start: 14601, Stop: 16490, Start Num: 20

Candidate Starts for Tiamoceli\_21:

(Start: 19 @14592 has 4 MA's), (Start: 20 @14601 has 165 MA's), (32, 14667), (61, 14835), (64, 14853), (100, 15126), (117, 15222), (160, 15414), (164, 15429), (174, 15507), (186, 15576), (194, 15639), (197, 15651), (198, 15654), (216, 15738), (219, 15753), (235, 15852), (244, 15906), (260, 16011), (277, 16101), (286, 16182), (295, 16239), (308, 16320), (312, 16356), (326, 16422),

Gene: TillyBobJoe\_19 Start: 11638, Stop: 13524, Start Num: 20

Candidate Starts for TillyBobJoe\_19:

(Start: 20 @11638 has 165 MA's), (62, 11875), (64, 11887), (70, 11941), (130, 12322), (137, 12355), (145, 12382), (212, 12748), (214, 12760), (232, 12877), (239, 12922), (240, 12925), (252, 12985), (254, 13003), (260, 13048), (262, 13060), (263, 13063), (283, 13183), (287, 13222), (297, 13282), (308, 13354), (311, 13384), (315, 13408), (322, 13435), (323, 13438), (327, 13465),

Gene: Tissue\_25 Start: 14292, Stop: 16115, Start Num: 36

Candidate Starts for Tissue\_25:

(Start: 36 @14292 has 35 MA's), (39, 14301), (52, 14400), (94, 14724), (130, 14925), (133, 14940), (150, 15000), (159, 15048), (167, 15078), (182, 15195), (183, 15201), (198, 15294), (217, 15375), (234, 15468), (235, 15483), (242, 15531), (248, 15555), (257, 15603), (259, 15627), (266, 15675), (275, 15717), (294, 15852), (297, 15873), (307, 15933), (316, 16002), (325, 16035),

Gene: Togo\_19 Start: 11842, Stop: 13740, Start Num: 20

Candidate Starts for Togo\_19:

(Start: 20 @11842 has 165 MA's), (62, 12079), (64, 12091), (70, 12145), (100, 12376), (130, 12538), (137, 12571), (186, 12835), (212, 12964), (214, 12976), (232, 13093), (239, 13138), (240, 13141), (252, 13201), (254, 13219), (258, 13234), (260, 13264), (262, 13276), (263, 13279), (283, 13399), (287, 13438), (297, 13498), (308, 13570), (311, 13600), (315, 13624), (322, 13651), (323, 13654), (327, 13681),

Gene: TurkishDelight\_17 Start: 12983, Stop: 14710, Start Num: 44

Candidate Starts for TurkishDelight\_17:

(40, 12944), (Start: 44 @12983 has 12 MA's), (61, 13091), (67, 13139), (69, 13148), (76, 13241), (102, 13418), (122, 13514), (149, 13625), (191, 13889), (193, 13898), (202, 13940), (220, 14003), (232, 14075), (233, 14078), (235, 14096), (252, 14177), (253, 14189), (258, 14210), (263, 14255), (281, 14369), (285, 14405), (305, 14516), (306, 14522), (316, 14594), (319, 14606), (333, 14669),

Gene: Twister6\_21 Start: 12280, Stop: 14166, Start Num: 20

Candidate Starts for Twister6\_21:

(Start: 20 @12280 has 165 MA's), (62, 12517), (64, 12529), (70, 12583), (100, 12805), (130, 12967), (137, 13000), (186, 13252), (196, 13324), (212, 13381), (214, 13393), (232, 13510), (239, 13555), (240, 13558), (260, 13681), (262, 13693), (273, 13753), (295, 13906), (297, 13915), (308, 13987), (311, 14017), (326, 14089), (331, 14113),

Gene: Twonlo\_18 Start: 13218, Stop: 15107, Start Num: 20

Candidate Starts for Twonlo\_18:

(Start: 19 @13209 has 4 MA's), (Start: 20 @13218 has 165 MA's), (32, 13284), (61, 13452), (64, 13470), (100, 13743), (117, 13839), (160, 14031), (164, 14046), (174, 14124), (186, 14193), (194, 14256), (197, 14268), (198, 14271), (216, 14355), (219, 14370), (235, 14469), (244, 14523), (260, 14628), (277, 14718), (286, 14799), (295, 14856), (307, 14925), (308, 14937), (312, 14973), (326, 15039),

Gene: Tycho\_20 Start: 14565, Stop: 16484, Start Num: 20

Candidate Starts for Tycho\_20:

(Start: 20 @14565 has 165 MA's), (45, 14700), (61, 14796), (98, 15090), (111, 15159), (117, 15207), (123, 15231), (129, 15267), (135, 15300), (140, 15324), (166, 15417), (184, 15558), (186, 15564), (194, 15627), (197, 15639), (198, 15642), (199, 15654), (219, 15741), (239, 15864), (244, 15900), (250, 15933), (260, 16005), (267, 16044), (277, 16095), (295, 16233), (296, 16239), (297, 16242), (305, 16293), (312, 16350), (313, 16362), (316, 16371),

Gene: Tyrumbra\_25 Start: 12826, Stop: 14847, Start Num: 20

Candidate Starts for Tyrumbra\_25:

(Start: 20 @12826 has 165 MA's), (113, 13411), (127, 13492), (131, 13516), (143, 13561), (150, 13582), (175, 13735), (207, 13993), (209, 14065), (214, 14125), (216, 14149), (239, 14287), (242, 14311), (243, 14314), (263, 14425), (284, 14554), (285, 14569), (287, 14578), (295, 14605), (298, 14617), (302, 14647), (307, 14674), (325, 14776),

Gene: Valary\_22 Start: 12733, Stop: 14619, Start Num: 20

Candidate Starts for Valary\_22:

(Start: 20 @12733 has 165 MA's), (62, 12970), (64, 12982), (70, 13036), (100, 13258), (130, 13420), (137, 13453), (186, 13705), (196, 13777), (212, 13834), (214, 13846), (232, 13963), (239, 14008), (240, 14011), (260, 14134), (262, 14146), (273, 14206), (295, 14359), (297, 14368), (308, 14440), (311, 14470), (326, 14542), (331, 14566),

Gene: VanDeWege\_22 Start: 12661, Stop: 14547, Start Num: 20

Candidate Starts for VanDeWege\_22:

(Start: 20 @12661 has 165 MA's), (62, 12898), (64, 12910), (70, 12964), (100, 13186), (130, 13348), (137, 13381), (186, 13633), (196, 13705), (212, 13762), (214, 13774), (232, 13891), (239, 13936), (240, 13939), (260, 14062), (262, 14074), (273, 14134), (295, 14287), (297, 14296), (308, 14368), (311, 14398), (326, 14470), (331, 14494),

Gene: Verity\_21 Start: 14990, Stop: 16909, Start Num: 20

Candidate Starts for Verity\_21:

(Start: 20 @14990 has 165 MA's), (41, 15089), (55, 15206), (59, 15218), (61, 15221), (81, 15395), (103, 15509), (107, 15542), (117, 15608), (118, 15614), (129, 15668), (133, 15692), (142, 15728), (181, 15944), (184, 15962), (186, 15968), (194, 16031), (197, 16043), (198, 16046), (199, 16058), (219, 16148), (224, 16175), (250, 16334), (261, 16412), (268, 16448), (279, 16508), (284, 16553), (295, 16664), (299, 16697), (312, 16781), (315, 16799), (323, 16829),

Gene: ViaConlectus\_22 Start: 15542, Stop: 17461, Start Num: 20

Candidate Starts for ViaConlectus\_22:

(Start: 20 @15542 has 165 MA's), (55, 15758), (61, 15773), (81, 15947), (107, 16094), (117, 16160), (118, 16166), (129, 16220), (133, 16244), (138, 16268), (181, 16496), (184, 16514), (186, 16520), (194, 16583), (197, 16595), (198, 16598), (199, 16610), (219, 16700), (224, 16727), (250, 16886), (261, 16964), (279, 17060), (283, 17096), (288, 17159), (291, 17189), (295, 17216), (299, 17249), (312, 17333), (322, 17378),

Gene: Viceroy\_24 Start: 13492, Stop: 15324, Start Num: 36

Candidate Starts for Viceroy\_24:

(Start: 36 @13492 has 35 MA's), (39, 13501), (52, 13600), (103, 13966), (130, 14134), (133, 14149), (150, 14209), (159, 14257), (160, 14263), (167, 14287), (182, 14404), (183, 14410), (198, 14503), (217, 14584), (234, 14677), (235, 14692), (242, 14740), (248, 14764), (257, 14812), (259, 14836), (266, 14884), (275, 14926), (294, 15061), (295, 15073), (297, 15082), (307, 15142), (316, 15211), (325, 15244),

Gene: Vivi2\_20 Start: 15311, Stop: 17209, Start Num: 20

Candidate Starts for Vivi2\_20:

(Start: 20 @15311 has 165 MA's), (61, 15542), (64, 15560), (98, 15818), (123, 15956), (135, 16025), (144, 16058), (184, 16283), (186, 16289), (194, 16352), (197, 16364), (198, 16367), (199, 16379), (219, 16466), (239, 16589), (244, 16625), (267, 16769), (277, 16820), (296, 16964), (297, 16967), (298, 16970), (305, 17018), (312, 17075),

Gene: Wayne3\_26 Start: 14457, Stop: 16289, Start Num: 36

Candidate Starts for Wayne3\_26:

(Start: 36 @14457 has 35 MA's), (39, 14466), (52, 14565), (103, 14931), (130, 15099), (133, 15114), (150, 15174), (159, 15222), (160, 15228), (167, 15252), (182, 15369), (183, 15375), (198, 15468), (217, 15549), (234, 15642), (235, 15657), (242, 15705), (248, 15729), (257, 15777), (259, 15801), (266, 15849), (275, 15891), (294, 16026), (295, 16038), (297, 16047), (307, 16107), (316, 16176), (325, 16209),

Gene: WheelerS25\_30 Start: 15293, Stop: 17119, Start Num: 36

Candidate Starts for WheelerS25\_30:

(Start: 36 @15293 has 35 MA's), (39, 15302), (52, 15401), (94, 15728), (103, 15761), (130, 15929), (133, 15944), (150, 16004), (159, 16052), (160, 16058), (167, 16082), (181, 16196), (182, 16199), (183, 16205), (198, 16298), (217, 16379), (234, 16472), (235, 16487), (242, 16535), (248, 16559), (257, 16607), (259, 16631), (266, 16679), (275, 16721), (294, 16856), (297, 16877), (307, 16937), (316, 17006), (325, 17039),

Gene: Wheelie\_24 Start: 13808, Stop: 15640, Start Num: 36

Candidate Starts for Wheelie\_24:

(Start: 36 @13808 has 35 MA's), (39, 13817), (52, 13916), (103, 14282), (130, 14450), (133, 14465), (150, 14525), (159, 14573), (160, 14579), (167, 14603), (182, 14720), (183, 14726), (198, 14819), (217, 14900), (234, 14993), (235, 15008), (242, 15056), (248, 15080), (257, 15128), (259, 15152), (266, 15200), (275, 15242), (294, 15377), (295, 15389), (297, 15398), (307, 15458), (316, 15527), (325, 15560),

Gene: Wilca\_24 Start: 12993, Stop: 14771, Start Num: 35

Candidate Starts for Wilca\_24:

(Start: 35 @12993 has 15 MA's), (39, 13005), (83, 13350), (108, 13464), (130, 13590), (150, 13656), (159, 13704), (167, 13734), (198, 13947), (217, 14028), (219, 14037), (232, 14115), (234, 14121), (235, 14136), (259, 14280), (264, 14322), (275, 14373), (295, 14520), (297, 14529), (321, 14679), (325, 14691), (335, 14751),

Gene: Wilde\_20 Start: 13011, Stop: 14774, Start Num: 33

Candidate Starts for Wilde\_20:

(22, 12945), (Start: 33 @13011 has 17 MA's), (96, 13449), (110, 13518), (116, 13542), (129, 13611), (153, 13692), (173, 13800), (177, 13851), (178, 13863), (181, 13872), (219, 14064), (221, 14073), (222, 14076), (232, 14142), (235, 14163), (236, 14169), (239, 14187), (259, 14298), (269, 14358), (277, 14397), (281, 14439), (298, 14532), (303, 14571), (330, 14724),

Gene: Wizard\_19 Start: 11982, Stop: 13874, Start Num: 20

Candidate Starts for Wizard\_19:

(Start: 20 @11982 has 165 MA's), (62, 12219), (64, 12231), (70, 12285), (100, 12510), (130, 12672), (137, 12705), (145, 12732), (212, 13098), (214, 13110), (232, 13227), (239, 13272), (240, 13275), (252, 13335), (254, 13353), (260, 13398), (262, 13410), (263, 13413), (283, 13533), (287, 13572), (297, 13632), (308, 13704), (311, 13734), (315, 13758), (322, 13785), (323, 13788), (327, 13815),

Gene: Xkcd426\_14 Start: 14736, Stop: 16433, Start Num: 44

Candidate Starts for Xkcd426\_14:

(42, 14721), (Start: 44 @14736 has 12 MA's), (61, 14823), (77, 14970), (88, 15072), (101, 15117), (119, 15210), (122, 15219), (123, 15225), (133, 15282), (148, 15327), (149, 15330), (158, 15369), (167, 15411), (180, 15522), (226, 15771), (227, 15774), (232, 15798), (238, 15831), (245, 15870), (246, 15876), (258, 15939), (262, 15981), (267, 16008), (268, 16011), (274, 16047), (306, 16257), (314, 16320), (318, 16335), (323, 16353),

Gene: YDN12\_14 Start: 13688, Stop: 15382, Start Num: 44

Candidate Starts for YDN12\_14:

(Start: 44 @13688 has 12 MA's), (47, 13697), (66, 13799), (80, 13955), (92, 14051), (112, 14132), (119, 14177), (122, 14186), (128, 14219), (132, 14246), (133, 14249), (149, 14297), (156, 14330), (157, 14333), (165, 14372), (167, 14378), (173, 14420), (180, 14489), (219, 14669), (229, 14735), (232, 14747), (252, 14867), (258, 14900), (262, 14942), (281, 15059), (297, 15155), (306, 15212), (314, 15275), (316, 15281), (325, 15314), (328, 15338), (334, 15356), (337, 15371),

Gene: Yeti\_27 Start: 13790, Stop: 15646, Start Num: 20

Candidate Starts for Yeti\_27:

(Start: 20 @13790 has 165 MA's), (113, 14366), (120, 14411), (127, 14447), (143, 14516), (150, 14537), (151, 14540), (157, 14570), (175, 14690), (188, 14771), (211, 14885), (214, 14912), (243, 15101), (264, 15227), (284, 15341), (285, 15356), (298, 15404), (302, 15434), (304, 15446), (307, 15461), (309, 15476), (315, 15527), (320, 15545), (325, 15563),

Gene: YorkOnyx\_21 Start: 14834, Stop: 16753, Start Num: 20

Candidate Starts for YorkOnyx\_21:

(Start: 20 @14834 has 165 MA's), (45, 14969), (61, 15065), (98, 15359), (111, 15428), (117, 15476), (123, 15500), (129, 15536), (135, 15569), (140, 15593), (166, 15686), (184, 15827), (186, 15833), (194, 15896), (197, 15908), (198, 15911), (199, 15923), (212, 15959), (216, 15995), (219, 16010), (227, 16064), (239, 16133), (244, 16169), (250, 16202), (260, 16274), (267, 16313), (277, 16364), (295, 16502), (296, 16508), (297, 16511), (305, 16562), (312, 16619), (313, 16631), (316, 16640),

Gene: YungMoney\_21 Start: 13292, Stop: 15184, Start Num: 20

Candidate Starts for YungMoney\_21:

(Start: 20 @13292 has 165 MA's), (62, 13529), (64, 13541), (70, 13595), (130, 13982), (137, 14015), (144, 14039), (186, 14279), (212, 14408), (214, 14420), (218, 14456), (232, 14537), (239, 14582), (240, 14585), (252, 14645), (260, 14708), (262, 14720), (297, 14942), (308, 15014), (311, 15044), (315, 15068), (322, 15095), (323, 15098),

Gene: Zagie\_25 Start: 13996, Stop: 15828, Start Num: 36

Candidate Starts for Zagie\_25:

(Start: 36 @13996 has 35 MA's), (39, 14005), (52, 14104), (103, 14470), (130, 14638), (133, 14653), (150, 14713), (159, 14761), (160, 14767), (167, 14791), (182, 14908), (183, 14914), (198, 15007), (217, 15088), (234, 15181), (235, 15196), (242, 15244), (248, 15268), (257, 15316), (259, 15340), (266, 15388), (275, 15430), (294, 15565), (295, 15577), (297, 15586), (307, 15646), (316, 15715), (325, 15748),

Gene: Zapato\_26 Start: 13457, Stop: 15301, Start Num: 20

Candidate Starts for Zapato\_26:

(Start: 20 @13457 has 165 MA's), (113, 14024), (120, 14069), (127, 14105), (143, 14174), (150, 14195), (151, 14198), (175, 14348), (182, 14387), (214, 14570), (216, 14594), (239, 14732), (243, 14759), (271, 14915), (284, 14999), (285, 15014), (287, 15023), (295, 15050), (298, 15062), (301, 15089), (302, 15092), (309, 15134),

Gene: Zhafia\_27 Start: 14319, Stop: 16151, Start Num: 36

Candidate Starts for Zhafia\_27:

(Start: 36 @14319 has 35 MA's), (39, 14328), (52, 14427), (103, 14793), (130, 14961), (133, 14976), (150, 15036), (159, 15084), (160, 15090), (167, 15114), (182, 15231), (183, 15237), (198, 15330), (217, 15411), (234, 15504), (235, 15519), (242, 15567), (248, 15591), (257, 15639), (259, 15663), (266, 15711), (275, 15753), (294, 15888), (295, 15900), (297, 15909), (307, 15969), (316, 16038), (325, 16071),

Gene: Zipp\_21 Start: 15639, Stop: 17558, Start Num: 20

Candidate Starts for Zipp\_21:

(Start: 20 @15639 has 165 MA's), (41, 15738), (55, 15855), (59, 15867), (61, 15870), (81, 16044), (103, 16158), (107, 16191), (117, 16257), (118, 16263), (129, 16317), (133, 16341), (142, 16377), (181, 16593), (184, 16611), (186, 16617), (194, 16680), (197, 16692), (198, 16695), (199, 16707), (219, 16797), (224, 16824), (250, 16983), (261, 17061), (268, 17097), (279, 17157), (284, 17202), (295, 17313), (299, 17346), (312, 17430), (315, 17448), (323, 17478),

Gene: Zitch\_23 Start: 14769, Stop: 16688, Start Num: 20

Candidate Starts for Zitch\_23:

(Start: 20 @14769 has 165 MA's), (55, 14988), (59, 15000), (61, 15003), (70, 15075), (81, 15177), (107, 15324), (117, 15390), (118, 15396), (129, 15450), (133, 15474), (138, 15498), (181, 15726), (184, 15744), (186, 15750), (194, 15813), (197, 15825), (198, 15828), (199, 15840), (219, 15930), (224, 15957), (250, 16116), (261, 16194), (279, 16290), (312, 16560), (315, 16578), (323, 16608),

Gene: phiAsp2\_14 Start: 8361, Stop: 10073, Start Num: 49

Candidate Starts for phiAsp2\_14:

(23, 8205), (34, 8277), (40, 8292), (49, 8361), (51, 8382), (105, 8763), (109, 8793), (126, 8883), (141, 8955), (161, 9033), (171, 9075), (179, 9171), (181, 9180), (200, 9309), (215, 9360), (216, 9366), (218, 9378), (232, 9459), (238, 9492), (240, 9507), (243, 9528), (258, 9606), (259, 9624), (261, 9642), (268, 9678), (277, 9723), (303, 9912), (304, 9915), (307, 9930), (315, 9996), (317, 10005),