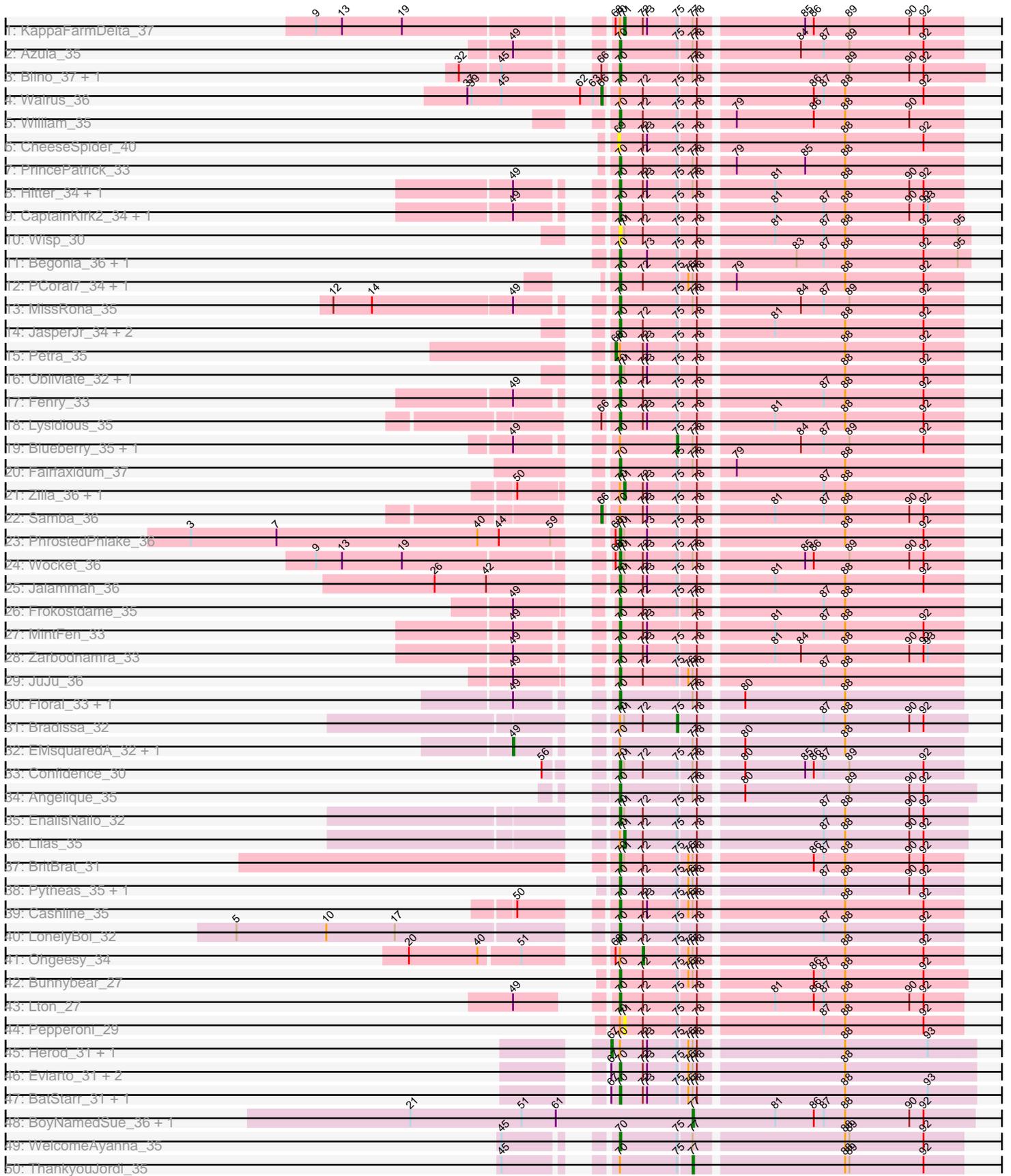
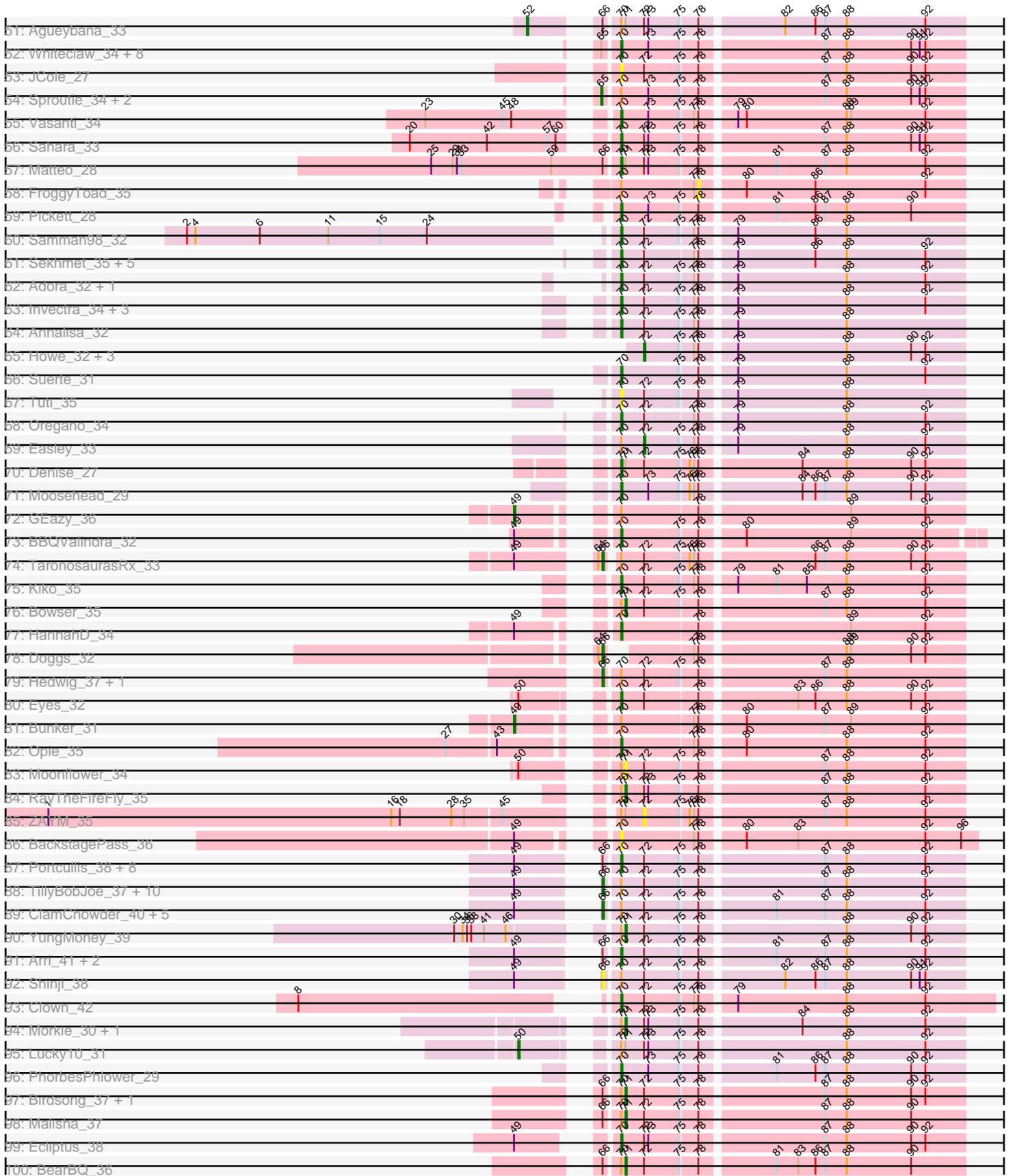


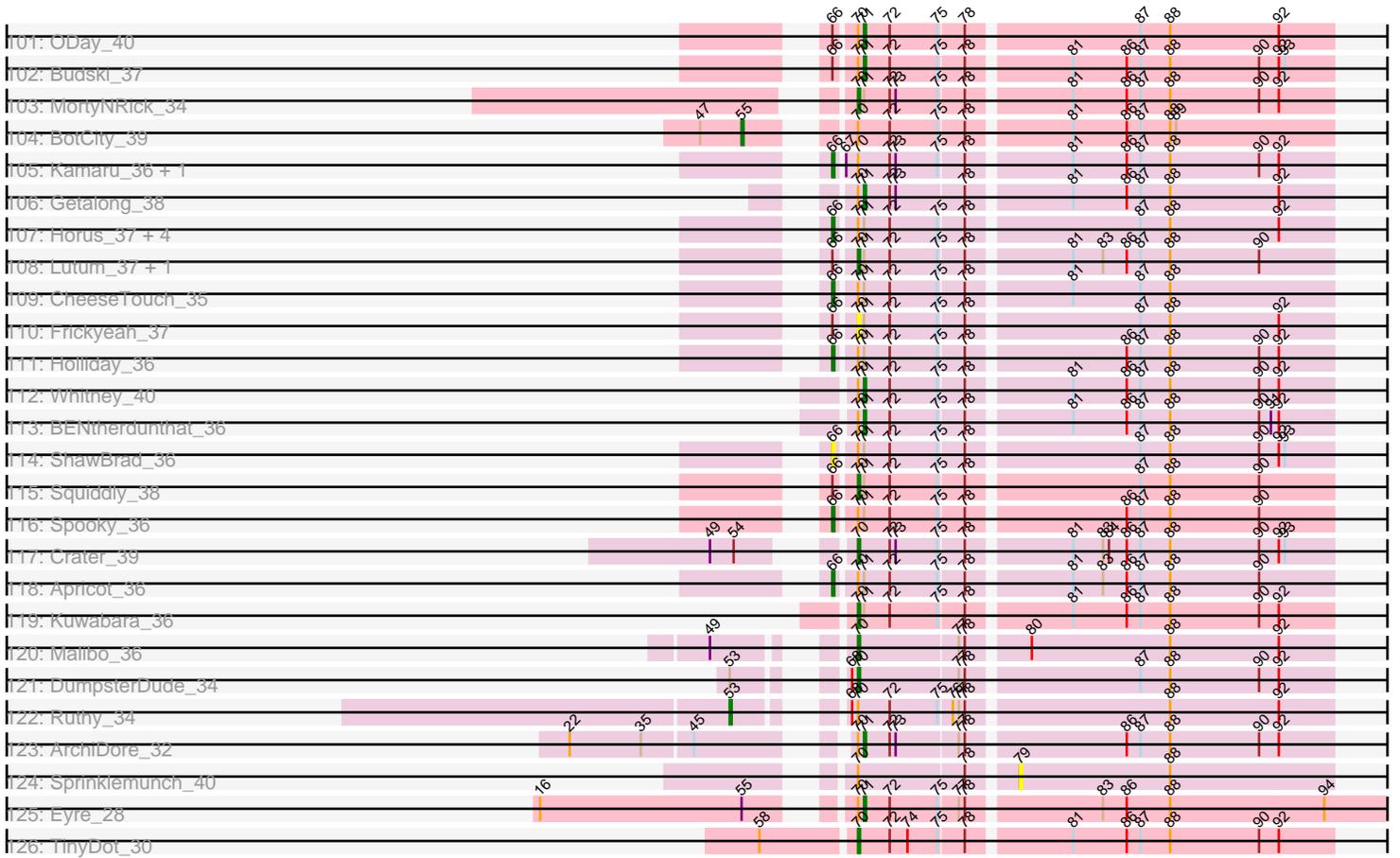
# Pham 289100



Pham 289100



Pham 289100



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 289100 Report

This analysis was run 03/28/26 on database version 641.

Pham number 289100 has 200 members, 18 are drafts.

Phages represented in each track:

- Track 1 : KappaFarmDelta\_37
- Track 2 : Azula\_35
- Track 3 : Blino\_37, CarolAnn\_37
- Track 4 : Walrus\_36
- Track 5 : William\_35
- Track 6 : CheeseSpider\_40
- Track 7 : PrincePatrick\_33
- Track 8 : Hitter\_34, Archis\_36
- Track 9 : CaptainKirk2\_34, Delian\_35
- Track 10 : Wisp\_30
- Track 11 : Begonia\_36, Malachai\_36
- Track 12 : PCoral7\_34, Toast\_34
- Track 13 : MissRona\_35
- Track 14 : JasperJr\_34, UmaThurman\_31, Guacamole\_34
- Track 15 : Petra\_35
- Track 16 : Obliviate\_32, ZiggyZoo\_34
- Track 17 : Fenry\_33
- Track 18 : Lysidious\_35
- Track 19 : Blueberry\_35, Gambino\_36
- Track 20 : Fairfaxidum\_37
- Track 21 : Zilla\_36, Barco\_35
- Track 22 : Samba\_36
- Track 23 : PhrostedPhlake\_36
- Track 24 : Wocket\_36
- Track 25 : Jalammah\_36
- Track 26 : Frokostdame\_35
- Track 27 : MintFen\_33
- Track 28 : Zarbodnamra\_33
- Track 29 : JuJu\_36
- Track 30 : Floral\_33, Pollux\_34
- Track 31 : Bradissa\_32
- Track 32 : EMSquaredA\_32, Marteena\_32
- Track 33 : Confidence\_30
- Track 34 : Angelique\_35
- Track 35 : EnalisNailo\_32
- Track 36 : Lilas\_35
- Track 37 : BritBrat\_31

- Track 38 : Pytheas\_35, Jablanski\_35
- Track 39 : Cashline\_35
- Track 40 : LonelyBoi\_32
- Track 41 : Ohgeesy\_34
- Track 42 : Bunnybear\_27
- Track 43 : Lton\_27
- Track 44 : Pepperoni\_29
- Track 45 : Herod\_31, Hugley\_30
- Track 46 : Eviarto\_31, Nymphadora\_31, TimTam\_31
- Track 47 : BatStarr\_31, Bosnia\_31
- Track 48 : BoyNamedSue\_36, AlumE\_36
- Track 49 : WelcomeAyanna\_35
- Track 50 : ThankyouJordi\_35
- Track 51 : Agueybana\_33
- Track 52 : Whiteclaw\_34, Jalleen\_33, Clap\_34, Haley23\_34, GemG\_34, Cynthia\_34, TuertoX\_34, Gizermo\_34, Mocha12\_34
- Track 53 : JCole\_27
- Track 54 : Sproutie\_34, Savage\_34, Ebert\_35
- Track 55 : Vasanti\_34
- Track 56 : Sahara\_33
- Track 57 : Matteo\_28
- Track 58 : FroggyToad\_35
- Track 59 : Pickett\_28
- Track 60 : Samman98\_32
- Track 61 : Sekhmet\_35, DobbysSock\_28, Dorito\_30, MichaelScott\_33, Beenie\_28, Clark\_33
- Track 62 : Adora\_32, Powerball\_35
- Track 63 : Invectra\_34, Thimann\_32, PhriskyACE\_33, Mcklovin\_32
- Track 64 : Annalisa\_32
- Track 65 : Howe\_32, Hortense\_32, Twinkle\_32, Shlim410\_32
- Track 66 : Suerte\_31
- Track 67 : Tuti\_35
- Track 68 : Oregano\_34
- Track 69 : Easley\_33
- Track 70 : Denise\_27
- Track 71 : Moosehead\_29
- Track 72 : GEazy\_36
- Track 73 : BBQValindra\_32
- Track 74 : TaronosaurusRx\_33
- Track 75 : Kiko\_35
- Track 76 : Bowser\_35
- Track 77 : HannahD\_34
- Track 78 : Doggs\_32
- Track 79 : Hedwig\_37, DirtyBoi\_35
- Track 80 : Eyes\_32
- Track 81 : Bunker\_31
- Track 82 : Opie\_35
- Track 83 : Moonflower\_34
- Track 84 : RayTheFireFly\_35
- Track 85 : ZAYM\_35
- Track 86 : BackstagePass\_36
- Track 87 : Portcullis\_38, PullumCavea\_37, Jambalaya\_37, Egi03\_38, Phlop\_37, Fireball\_38, CoveyB\_40, Togo\_37, Savbucketdawg\_37

- Track 88 : TillyBobJoe\_37, Gezellig\_37, Wizard\_37, Halo3\_38, KimmyK\_39, Evamon\_37, Nubi\_38, Twister6\_40, Danyall\_40, Salvador\_37, SmokingBunny\_37
- Track 89 : ClamChowder\_40, Valary\_40, Barb\_40, PinkCoffee\_40, RogerDodger\_41, CherryCola\_41
- Track 90 : YungMoney\_39
- Track 91 : Arri\_41, VanDeWege\_41, Fugax\_41
- Track 92 : Shinji\_38
- Track 93 : Clown\_42
- Track 94 : Morkie\_30, OneDirection\_28
- Track 95 : Lucky10\_31
- Track 96 : PhorbessPhlower\_29
- Track 97 : Birdsong\_37, Phabuloso\_34
- Track 98 : Malisha\_37
- Track 99 : Ecliptus\_38
- Track 100 : BearBQ\_36
- Track 101 : ODay\_40
- Track 102 : Budski\_37
- Track 103 : MortyNRick\_34
- Track 104 : BotCity\_39
- Track 105 : Kamaru\_36, LitninMcQueen\_35
- Track 106 : Getalong\_38
- Track 107 : Horus\_37, Phistory\_37, Asapag\_37, Leroy\_37, Periwinkle\_40
- Track 108 : Lutum\_37, Kenna\_36
- Track 109 : CheeseTouch\_35
- Track 110 : Frickyeah\_37
- Track 111 : Holliday\_36
- Track 112 : Whitney\_40
- Track 113 : BENtherdunthat\_36
- Track 114 : ShawBrad\_36
- Track 115 : Squiddly\_38
- Track 116 : Spooky\_36
- Track 117 : Crater\_39
- Track 118 : Apricot\_36
- Track 119 : Kuwabara\_36
- Track 120 : Malibo\_36
- Track 121 : DumpsterDude\_34
- Track 122 : Ruthy\_34
- Track 123 : ArchiDore\_32
- Track 124 : Sprinklemunch\_40
- Track 125 : Eyre\_28
- Track 126 : TinyDot\_30

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

The start number called the most often in the published annotations is 70, it was called in 105 of the 182 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adora\_32, Angelique\_35, Annalisa\_32, Archis\_36, Arri\_41, Azula\_35, BBQValindra\_32, BackstagePass\_36, BatStarr\_31, Beenie\_28, Begonia\_36,

Blino\_37, Bosnia\_31, BritBrat\_31, Bunnybear\_27, CaptainKirk2\_34, CarolAnn\_37, Cashline\_35, Clap\_34, Clark\_33, Clown\_42, Confidence\_30, CoveyB\_40, Crater\_39, Cynthia\_34, Delian\_35, Denise\_27, DobbysSock\_28, Dorito\_30, DumpsterDude\_34, Ecliptus\_38, Egi03\_38, EnalisNailo\_32, Eviarto\_31, Eyes\_32, Fairfaxidum\_37, Ferry\_33, Fireball\_38, Floral\_33, Frickyeah\_37, Frokostdame\_35, Fugax\_41, GemG\_34, Gizermo\_34, Guacamole\_34, Haley23\_34, HannahD\_34, Hitter\_34, Invectra\_34, JCole\_27, Jablanski\_35, Jalammah\_36, Jalleen\_33, Jambalaya\_37, JasperJr\_34, JuJu\_36, Kenna\_36, Kiko\_35, Kuwabara\_36, LonelyBoi\_32, Lton\_27, Lutum\_37, Lysidious\_35, Malachai\_36, Malibo\_36, Matteo\_28, Mcklovin\_32, MichaelScott\_33, MintFen\_33, MissRona\_35, Mocha12\_34, Moosehead\_29, MortyNRick\_34, Nymphadora\_31, Obliviate\_32, Opie\_35, Oregano\_34, PCoral7\_34, Phlop\_37, PhorbesPhlower\_29, PhriskyACE\_33, PhrostedPhlake\_36, Pickett\_28, Pollux\_34, Portcullis\_38, Powerball\_35, PrincePatrick\_33, PullumCavea\_37, Pytheas\_35, Sahara\_33, Samman98\_32, Savbucketdawg\_37, Sekhmet\_35, Squiddly\_38, Suerte\_31, Thimann\_32, TimTam\_31, TinyDot\_30, Toast\_34, Togo\_37, TuertoX\_34, Tuti\_35, UmaThurman\_31, VanDeWege\_41, Vasanti\_34, WelcomeAyanna\_35, Whiteclaw\_34, William\_35, Wisp\_30, Wocket\_36, Zarbodnamra\_33, ZiggyZoo\_34,

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

- Agueybana\_33, Apricot\_36, ArchiDore\_32, Asapag\_37, BENtherdunthat\_36, Barb\_40, Barco\_35, BearBQ\_36, Birdsong\_37, Blueberry\_35, BotCity\_39, Bowser\_35, Bradissa\_32, Budski\_37, Bunker\_31, CheeseTouch\_35, CherryCola\_41, ClamChowder\_40, Danyall\_40, DirtyBoi\_35, EMSquaredA\_32, Easley\_33, Ebert\_35, Evamon\_37, Eyre\_28, FroggyToad\_35, GEazy\_36, Gambino\_36, Getalong\_38, Gezellig\_37, Halo3\_38, Hedwig\_37, Herod\_31, Holliday\_36, Horus\_37, Hugley\_30, Kamaru\_36, KappaFarmDelta\_37, KimmyK\_39, Leroy\_37, Lilas\_35, LitninMcQueen\_35, Lucky10\_31, Malisha\_37, Marteena\_32, Moonflower\_34, Morkie\_30, Nubi\_38, ODay\_40, Ohgeesy\_34, OneDirection\_28, Pepperoni\_29, Periwinkle\_40, Petra\_35, Phabuloso\_34, Phistory\_37, PinkCoffee\_40, RayTheFireFly\_35, RogerDodger\_41, Ruthy\_34, Salvador\_37, Samba\_36, Savage\_34, ShawBrad\_36, Shinji\_38, SmokingBunny\_37, Spooky\_36, Sprinklemunch\_40, Sproutie\_34, TaronosaurusRx\_33, ThankyouJordi\_35, TillyBobJoe\_37, Twister6\_40, Valary\_40, Walrus\_36, Whitney\_40, Wizard\_37, YungMoney\_39, ZAYM\_35, Zilla\_36,

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

- AlumE\_36, BoyNamedSue\_36, CheeseSpider\_40, Doggs\_32, Hortense\_32, Howe\_32, Shlim410\_32, Twinkle\_32,

### Summary by start number:

Start 49:

- Found in 57 of 200 ( 28.5% ) of genes in pham
- Manual Annotations of this start: 4 of 182
- Called 7.0% of time when present
- Phage (with cluster) where this start called: Bunker\_31 (DB), EMSquaredA\_32 (CY1), GEazy\_36 (DB), Marteena\_32 (CY1),

Start 50:

- Found in 6 of 200 ( 3.0% ) of genes in pham
- Manual Annotations of this start: 1 of 182
- Called 16.7% of time when present

- Phage (with cluster) where this start called: Lucky10\_31 (DH),

#### Start 52:

- Found in 1 of 200 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 182
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agueybana\_33 (CZ1),

#### Start 53:

- Found in 2 of 200 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 1 of 182
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Ruthy\_34 (DW),

#### Start 55:

- Found in 2 of 200 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 1 of 182
- Called 50.0% of time when present
- Phage (with cluster) where this start called: BotCity\_39 (DN),

#### Start 65:

- Found in 12 of 200 ( 6.0% ) of genes in pham
- Manual Annotations of this start: 3 of 182
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Ebert\_35 (CZ2), Savage\_34 (CZ2), Sproutie\_34 (CZ2),

#### Start 66:

- Found in 63 of 200 ( 31.5% ) of genes in pham
- Manual Annotations of this start: 33 of 182
- Called 57.1% of time when present
- Phage (with cluster) where this start called: Apricot\_36 (DN3), Asapag\_37 (DN1), Barb\_40 (DC1), CheeseTouch\_35 (DN1), CherryCola\_41 (DC1), ClamChowder\_40 (DC1), Danyall\_40 (DC1), DirtyBoi\_35 (DB), Doggs\_32 (DB), Evamon\_37 (DC1), Gezellig\_37 (DC1), Halo3\_38 (DC1), Hedwig\_37 (DB), Holliday\_36 (DN1), Horus\_37 (DN1), Kamaru\_36 (DN1), KimmyK\_39 (DC1), Leroy\_37 (DN1), LitninMcQueen\_35 (DN1), Nubi\_38 (DC1), Periwinkle\_40 (DN1), Phistory\_37 (DN1), PinkCoffee\_40 (DC1), RogerDodger\_41 (DC1), Salvador\_37 (DC1), Samba\_36 (CV), ShawBrad\_36 (DN1), Shinji\_38 (DC1), SmokingBunny\_37 (DC1), Spooky\_36 (DN2), TaronosaurusRx\_33 (DB), TillyBobJoe\_37 (DC1), Twister6\_40 (DC1), Valary\_40 (DC1), Walrus\_36 (CV), Wizard\_37 (DC1),

#### Start 67:

- Found in 9 of 200 ( 4.5% ) of genes in pham
- Manual Annotations of this start: 1 of 182
- Called 22.2% of time when present
- Phage (with cluster) where this start called: Herod\_31 (CZ1), Hugley\_30 (CZ1),

#### Start 68:

- Found in 7 of 200 ( 3.5% ) of genes in pham
- Manual Annotations of this start: 1 of 182
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Petra\_35 (CV),

Start 69:

- Found in 1 of 200 ( 0.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CheeseSpider\_40 (CV),

Start 70:

- Found in 192 of 200 ( 96.0% ) of genes in pham
- Manual Annotations of this start: 105 of 182
- Called 58.3% of time when present
- Phage (with cluster) where this start called: Adora\_32 (CZ4), Angelique\_35 (CY1), Annalisa\_32 (CZ4), Archis\_36 (CV), Arri\_41 (DC1), Azula\_35 (CV), BBQValindra\_32 (DB), BackstagePass\_36 (DB), BatStarr\_31 (CZ1), Beenie\_28 (CZ4), Begonia\_36 (CV), Blino\_37 (CV), Bosnia\_31 (CZ1), BritBrat\_31 (CY2), Bunnybear\_27 (CZ), CaptainKirk2\_34 (CV), CarolAnn\_37 (CV), Cashline\_35 (CY6), Clap\_34 (CZ2), Clark\_33 (CZ4), Clown\_42 (DC2), Confidence\_30 (CY1), CoveyB\_40 (DC1), Crater\_39 (DN3), Cynthia\_34 (CZ2), Delian\_35 (CV), Denise\_27 (CZ5), DobbysSock\_28 (CZ4), Dorito\_30 (CZ4), DumpsterDude\_34 (DW), Ecliptus\_38 (DN), Egi03\_38 (DC1), EnalisNailo\_32 (CY1), Eviarto\_31 (CZ1), Eyes\_32 (DB), Fairfaxidum\_37 (CV), Fenry\_33 (CV), Fireball\_38 (DC1), Floral\_33 (CY1), Frickyeah\_37 (DN1), Frokostdame\_35 (CV), Fugax\_41 (DC1), GemG\_34 (CZ2), Gizermo\_34 (CZ2), Guacamole\_34 (CV), Haley23\_34 (CZ2), HannahD\_34 (DB), Hitter\_34 (CV), Invectra\_34 (CZ4), JCole\_27 (CZ2), Jablanski\_35 (CY3), Jalammah\_36 (CV), Jalleen\_33 (CZ2), Jambalaya\_37 (DC1), JasperJr\_34 (CV), JuJu\_36 (CV), Kenna\_36 (DN1), Kiko\_35 (DB), Kuwabara\_36 (DN4), LonelyBoi\_32 (CY7), Lton\_27 (CZ), Lutum\_37 (DN1), Lysidious\_35 (CV), Malachai\_36 (CV), Malibo\_36 (DW), Matteo\_28 (CZ2), Mcklovin\_32 (CZ4), MichaelScott\_33 (CZ4), MintFen\_33 (CV), MissRona\_35 (CV), Mocha12\_34 (CZ2), Moosehead\_29 (CZ6), MortyNRick\_34 (DN), Nymphadora\_31 (CZ1), Obliviate\_32 (CV), Opie\_35 (DB), Oregano\_34 (CZ4), PCoral7\_34 (CV), Phlop\_37 (DC1), PhorbesPhlower\_29 (DH), PhriskyACE\_33 (CZ4), PhrostedPhlake\_36 (CV), Pickett\_28 (CZ2), Pollux\_34 (CY1), Portcullis\_38 (DC1), Powerball\_35 (CZ4), PrincePatrick\_33 (CV), PullumCavea\_37 (DC1), Pytheas\_35 (CY3), Sahara\_33 (CZ2), Samman98\_32 (CZ4), Savbucketdawg\_37 (DC1), Sekhmet\_35 (CZ4), Squiddly\_38 (DN2), Suerte\_31 (CZ4), Thimann\_32 (CZ4), TimTam\_31 (CZ1), TinyDot\_30 (singleton), Toast\_34 (CV), Togo\_37 (DC1), TuertoX\_34 (CZ2), Tuti\_35 (CZ4), UmaThurman\_31 (CV), VanDeWege\_41 (DC1), Vasanti\_34 (CZ2), WelcomeAyanna\_35 (CZ1), Whiteclaw\_34 (CZ2), William\_35 (CV), Wisp\_30 (CV), Wocket\_36 (CV), Zarbodnamra\_33 (CV), ZiggyZoo\_34 (CV),

Start 71:

- Found in 53 of 200 ( 26.5% ) of genes in pham
- Manual Annotations of this start: 19 of 182
- Called 41.5% of time when present
- Phage (with cluster) where this start called: ArchiDore\_32 (DW), BENtherdunthat\_36 (DN1), Barco\_35 (CV), BearBQ\_36 (DN), Birdsong\_37 (DN), Bowser\_35 (DB), Budski\_37 (DN), Eyre\_28 (singleton), Getalong\_38 (DN1), KappaFarmDelta\_37 (CV), Lilas\_35 (CY1), Malisha\_37 (DN), Moonflower\_34 (DB), Morkie\_30 (DH), ODay\_40 (DN), OneDirection\_28 (CZ6), Pepperoni\_29 (CZ), Phabuloso\_34 (DN1), RayTheFireFly\_35 (DB), Whitney\_40 (DN1), YungMoney\_39 (DC1), Zilla\_36 (CV),

Start 72:

- Found in 153 of 200 ( 76.5% ) of genes in pham
- Manual Annotations of this start: 6 of 182
- Called 4.6% of time when present
- Phage (with cluster) where this start called: Easley\_33 (CZ4), Hortense\_32 (CZ4), Howe\_32 (CZ4), Ohgeesy\_34 (CZ), Shlim410\_32 (CZ4), Twinkle\_32 (CZ4), ZAYM\_35 (DB),

Start 75:

- Found in 170 of 200 ( 85.0% ) of genes in pham
- Manual Annotations of this start: 3 of 182
- Called 1.8% of time when present
- Phage (with cluster) where this start called: Blueberry\_35 (CV), Bradissa\_32 (CY1), Gambino\_36 (CV),

Start 77:

- Found in 76 of 200 ( 38.0% ) of genes in pham
- Manual Annotations of this start: 3 of 182
- Called 3.9% of time when present
- Phage (with cluster) where this start called: AlumE\_36 (CZ1), BoyNamedSue\_36 (CZ1), ThankyouJordi\_35 (CZ1),

Start 78:

- Found in 196 of 200 ( 98.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 0.5% of time when present
- Phage (with cluster) where this start called: FroggyToad\_35 (CZ2),

Start 79:

- Found in 31 of 200 ( 15.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 3.2% of time when present
- Phage (with cluster) where this start called: Sprinklemunch\_40 (DW),

### **Summary by clusters:**

There are 23 clusters represented in this pham: DN, singleton, DH, CZ2, CZ1, CZ6, CZ4, CZ5, DW, DN4, DN1, DN3, DN2, CY3, CY2, CY1, CY7, CY6, DB, CZ, DC2, CV, DC1,

Info for manual annotations of cluster CV:

- Start number 66 was manually annotated 2 times for cluster CV.
- Start number 68 was manually annotated 1 time for cluster CV.
- Start number 70 was manually annotated 29 times for cluster CV.
- Start number 71 was manually annotated 2 times for cluster CV.
- Start number 75 was manually annotated 2 times for cluster CV.

Info for manual annotations of cluster CY1:

- Start number 49 was manually annotated 2 times for cluster CY1.
- Start number 70 was manually annotated 5 times for cluster CY1.
- Start number 71 was manually annotated 1 time for cluster CY1.
- Start number 75 was manually annotated 1 time for cluster CY1.

Info for manual annotations of cluster CY2:

- Start number 70 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CY3:

- Start number 70 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CY6:

- Start number 70 was manually annotated 1 time for cluster CY6.

Info for manual annotations of cluster CY7:

- Start number 70 was manually annotated 1 time for cluster CY7.

Info for manual annotations of cluster CZ:

- Start number 70 was manually annotated 2 times for cluster CZ.
- Start number 72 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:

- Start number 52 was manually annotated 1 time for cluster CZ1.
- Start number 67 was manually annotated 1 time for cluster CZ1.
- Start number 70 was manually annotated 6 times for cluster CZ1.
- Start number 77 was manually annotated 3 times for cluster CZ1.

Info for manual annotations of cluster CZ2:

- Start number 65 was manually annotated 3 times for cluster CZ2.
- Start number 70 was manually annotated 12 times for cluster CZ2.

Info for manual annotations of cluster CZ4:

- Start number 70 was manually annotated 15 times for cluster CZ4.
- Start number 72 was manually annotated 5 times for cluster CZ4.

Info for manual annotations of cluster CZ5:

- Start number 70 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ6:

- Start number 70 was manually annotated 1 time for cluster CZ6.
- Start number 71 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster DB:

- Start number 49 was manually annotated 2 times for cluster DB.
- Start number 66 was manually annotated 4 times for cluster DB.
- Start number 70 was manually annotated 5 times for cluster DB.
- Start number 71 was manually annotated 2 times for cluster DB.

Info for manual annotations of cluster DC1:

- Start number 66 was manually annotated 16 times for cluster DC1.
- Start number 70 was manually annotated 12 times for cluster DC1.
- Start number 71 was manually annotated 1 time for cluster DC1.

Info for manual annotations of cluster DC2:

- Start number 70 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DH:

- Start number 50 was manually annotated 1 time for cluster DH.
- Start number 70 was manually annotated 1 time for cluster DH.

- Start number 71 was manually annotated 1 time for cluster DH.

Info for manual annotations of cluster DN:

- Start number 55 was manually annotated 1 time for cluster DN.
- Start number 70 was manually annotated 2 times for cluster DN.
- Start number 71 was manually annotated 5 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 66 was manually annotated 9 times for cluster DN1.
- Start number 70 was manually annotated 2 times for cluster DN1.
- Start number 71 was manually annotated 4 times for cluster DN1.

Info for manual annotations of cluster DN2:

- Start number 66 was manually annotated 1 time for cluster DN2.
- Start number 70 was manually annotated 1 time for cluster DN2.

Info for manual annotations of cluster DN3:

- Start number 66 was manually annotated 1 time for cluster DN3.
- Start number 70 was manually annotated 1 time for cluster DN3.

Info for manual annotations of cluster DN4:

- Start number 70 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster DW:

- Start number 53 was manually annotated 1 time for cluster DW.
- Start number 70 was manually annotated 2 times for cluster DW.
- Start number 71 was manually annotated 1 time for cluster DW.

### ***Gene Information:***

Gene: Adora\_32 Start: 28689, Stop: 28462, Start Num: 70

Candidate Starts for Adora\_32:

(Start: 70 @28689 has 105 MA's), (Start: 72 @28674 has 6 MA's), (Start: 75 @28650 has 3 MA's), (Start: 77 @28641 has 3 MA's), (78, 28638), (79, 28617), (88, 28542), (92, 28488),

Gene: Agueybana\_33 Start: 28613, Stop: 28344, Start Num: 52

Candidate Starts for Agueybana\_33:

(Start: 52 @28613 has 1 MA's), (Start: 66 @28580 has 33 MA's), (Start: 70 @28571 has 105 MA's), (Start: 71 @28568 has 19 MA's), (Start: 72 @28556 has 6 MA's), (73, 28553), (Start: 75 @28532 has 3 MA's), (78, 28520), (82, 28466), (86, 28445), (87, 28439), (88, 28424), (92, 28370),

Gene: AlumE\_36 Start: 30317, Stop: 30123, Start Num: 77

Candidate Starts for AlumE\_36:

(21, 30515), (51, 30437), (61, 30413), (Start: 77 @30317 has 3 MA's), (81, 30260), (86, 30233), (87, 30227), (88, 30212), (90, 30167), (92, 30158),

Gene: Angelique\_35 Start: 28945, Stop: 28709, Start Num: 70

Candidate Starts for Angelique\_35:

(Start: 70 @28945 has 105 MA's), (Start: 77 @28897 has 3 MA's), (78, 28894), (80, 28867), (89, 28795), (90, 28753), (92, 28744),

Gene: Annalisa\_32 Start: 26879, Stop: 26652, Start Num: 70

Candidate Starts for Annalisa\_32:

(Start: 70 @26879 has 105 MA's), (Start: 72 @26864 has 6 MA's), (Start: 75 @26840 has 3 MA's), (Start: 77 @26831 has 3 MA's), (78, 26828), (79, 26807), (88, 26732),

Gene: Apricot\_36 Start: 28503, Stop: 28267, Start Num: 66

Candidate Starts for Apricot\_36:

(Start: 66 @28503 has 33 MA's), (Start: 70 @28494 has 105 MA's), (Start: 71 @28491 has 19 MA's), (Start: 72 @28479 has 6 MA's), (Start: 75 @28455 has 3 MA's), (78, 28443), (81, 28395), (83, 28380), (86, 28368), (87, 28362), (88, 28347), (90, 28302),

Gene: ArchiDore\_32 Start: 28535, Stop: 28311, Start Num: 71

Candidate Starts for ArchiDore\_32:

(22, 28652), (35, 28616), (45, 28592), (Start: 70 @28538 has 105 MA's), (Start: 71 @28535 has 19 MA's), (Start: 72 @28523 has 6 MA's), (73, 28520), (Start: 77 @28490 has 3 MA's), (78, 28487), (86, 28412), (87, 28406), (88, 28391), (90, 28346), (92, 28337),

Gene: Archis\_36 Start: 29314, Stop: 29087, Start Num: 70

Candidate Starts for Archis\_36:

(Start: 49 @29359 has 4 MA's), (Start: 70 @29314 has 105 MA's), (Start: 72 @29299 has 6 MA's), (73, 29296), (Start: 75 @29275 has 3 MA's), (Start: 77 @29266 has 3 MA's), (78, 29263), (81, 29215), (88, 29167), (90, 29122), (92, 29113),

Gene: Arri\_41 Start: 33726, Stop: 33499, Start Num: 70

Candidate Starts for Arri\_41:

(Start: 49 @33771 has 4 MA's), (Start: 66 @33735 has 33 MA's), (Start: 70 @33726 has 105 MA's), (Start: 72 @33711 has 6 MA's), (Start: 75 @33687 has 3 MA's), (78, 33675), (81, 33627), (87, 33594), (88, 33579), (92, 33525),

Gene: Asapag\_37 Start: 30095, Stop: 29859, Start Num: 66

Candidate Starts for Asapag\_37:

(Start: 66 @30095 has 33 MA's), (Start: 70 @30086 has 105 MA's), (Start: 71 @30083 has 19 MA's), (Start: 72 @30071 has 6 MA's), (Start: 75 @30047 has 3 MA's), (78, 30035), (87, 29954), (88, 29939), (92, 29885),

Gene: Azula\_35 Start: 29026, Stop: 28799, Start Num: 70

Candidate Starts for Azula\_35:

(Start: 49 @29071 has 4 MA's), (Start: 70 @29026 has 105 MA's), (Start: 75 @28987 has 3 MA's), (Start: 77 @28978 has 3 MA's), (78, 28975), (84, 28909), (87, 28894), (89, 28876), (92, 28825),

Gene: BBQValindra\_32 Start: 27582, Stop: 27346, Start Num: 70

Candidate Starts for BBQValindra\_32:

(Start: 49 @27627 has 4 MA's), (Start: 70 @27582 has 105 MA's), (Start: 75 @27543 has 3 MA's), (78, 27531), (80, 27504), (89, 27432), (92, 27381),

Gene: BENtherdunthat\_36 Start: 28355, Stop: 28131, Start Num: 71

Candidate Starts for BENtherdunthat\_36:

(Start: 70 @28358 has 105 MA's), (Start: 71 @28355 has 19 MA's), (Start: 72 @28343 has 6 MA's), (Start: 75 @28319 has 3 MA's), (78, 28307), (81, 28259), (86, 28232), (87, 28226), (88, 28211), (90, 28166), (91, 28160), (92, 28157),

Gene: BackstagePass\_36 Start: 29151, Stop: 28915, Start Num: 70

Candidate Starts for BackstagePass\_36:

(Start: 49 @29196 has 4 MA's), (Start: 70 @29151 has 105 MA's), (Start: 77 @29103 has 3 MA's), (78, 29100), (80, 29073), (83, 29037), (92, 28950), (96, 28926),

Gene: Barb\_40 Start: 33752, Stop: 33516, Start Num: 66

Candidate Starts for Barb\_40:

(Start: 49 @33788 has 4 MA's), (Start: 66 @33752 has 33 MA's), (Start: 70 @33743 has 105 MA's), (Start: 72 @33728 has 6 MA's), (Start: 75 @33704 has 3 MA's), (78, 33692), (81, 33644), (87, 33611), (88, 33596), (92, 33542),

Gene: Barco\_35 Start: 29527, Stop: 29303, Start Num: 71

Candidate Starts for Barco\_35:

(Start: 50 @29575 has 1 MA's), (Start: 70 @29530 has 105 MA's), (Start: 71 @29527 has 19 MA's), (Start: 72 @29515 has 6 MA's), (73, 29512), (Start: 75 @29491 has 3 MA's), (78, 29479), (87, 29398), (88, 29383),

Gene: BatStarr\_31 Start: 28844, Stop: 28608, Start Num: 70

Candidate Starts for BatStarr\_31:

(Start: 67 @28850 has 1 MA's), (Start: 70 @28844 has 105 MA's), (Start: 72 @28829 has 6 MA's), (73, 28826), (Start: 75 @28805 has 3 MA's), (76, 28799), (Start: 77 @28796 has 3 MA's), (78, 28793), (88, 28697), (93, 28640),

Gene: BearBQ\_36 Start: 29718, Stop: 29494, Start Num: 71

Candidate Starts for BearBQ\_36:

(Start: 66 @29730 has 33 MA's), (Start: 70 @29721 has 105 MA's), (Start: 71 @29718 has 19 MA's), (Start: 72 @29706 has 6 MA's), (Start: 75 @29682 has 3 MA's), (78, 29670), (81, 29622), (83, 29607), (86, 29595), (87, 29589), (88, 29574), (90, 29529),

Gene: Beenie\_28 Start: 26674, Stop: 26447, Start Num: 70

Candidate Starts for Beenie\_28:

(Start: 70 @26674 has 105 MA's), (Start: 72 @26659 has 6 MA's), (Start: 77 @26626 has 3 MA's), (78, 26623), (79, 26602), (86, 26548), (88, 26527), (92, 26473),

Gene: Begonia\_36 Start: 30625, Stop: 30392, Start Num: 70

Candidate Starts for Begonia\_36:

(Start: 70 @30625 has 105 MA's), (73, 30607), (Start: 75 @30586 has 3 MA's), (78, 30574), (83, 30511), (87, 30493), (88, 30478), (92, 30424), (95, 30400),

Gene: Birdsong\_37 Start: 29810, Stop: 29586, Start Num: 71

Candidate Starts for Birdsong\_37:

(Start: 66 @29822 has 33 MA's), (Start: 70 @29813 has 105 MA's), (Start: 71 @29810 has 19 MA's), (Start: 72 @29798 has 6 MA's), (Start: 75 @29774 has 3 MA's), (78, 29762), (87, 29681), (88, 29666), (90, 29621), (92, 29612),

Gene: Blino\_37 Start: 31465, Stop: 31223, Start Num: 70

Candidate Starts for Blino\_37:

(32, 31546), (45, 31519), (Start: 66 @31474 has 33 MA's), (Start: 70 @31465 has 105 MA's), (Start: 77 @31417 has 3 MA's), (78, 31414), (89, 31315), (90, 31273), (92, 31264),

Gene: Blueberry\_35 Start: 28987, Stop: 28799, Start Num: 75

Candidate Starts for Blueberry\_35:

(Start: 49 @29071 has 4 MA's), (Start: 70 @29026 has 105 MA's), (Start: 75 @28987 has 3 MA's), (Start: 77 @28978 has 3 MA's), (78, 28975), (84, 28909), (87, 28894), (89, 28876), (92, 28825),

Gene: Bosnia\_31 Start: 28844, Stop: 28608, Start Num: 70

Candidate Starts for Bosnia\_31:

(Start: 67 @28850 has 1 MA's), (Start: 70 @28844 has 105 MA's), (Start: 72 @28829 has 6 MA's), (73, 28826), (Start: 75 @28805 has 3 MA's), (76, 28799), (Start: 77 @28796 has 3 MA's), (78, 28793), (88, 28697), (93, 28640),

Gene: BotCity\_39 Start: 29685, Stop: 29425, Start Num: 55

Candidate Starts for BotCity\_39:

(47, 29706), (Start: 55 @29685 has 1 MA's), (Start: 70 @29652 has 105 MA's), (Start: 72 @29637 has 6 MA's), (Start: 75 @29613 has 3 MA's), (78, 29601), (81, 29553), (86, 29526), (87, 29520), (88, 29505), (89, 29502),

Gene: Bowser\_35 Start: 28606, Stop: 28382, Start Num: 71

Candidate Starts for Bowser\_35:

(Start: 70 @28609 has 105 MA's), (Start: 71 @28606 has 19 MA's), (Start: 72 @28594 has 6 MA's), (Start: 75 @28570 has 3 MA's), (78, 28558), (87, 28477), (88, 28462), (92, 28408),

Gene: BoyNamedSue\_36 Start: 30317, Stop: 30123, Start Num: 77

Candidate Starts for BoyNamedSue\_36:

(21, 30515), (51, 30437), (61, 30413), (Start: 77 @30317 has 3 MA's), (81, 30260), (86, 30233), (87, 30227), (88, 30212), (90, 30167), (92, 30158),

Gene: Bradissa\_32 Start: 28422, Stop: 28231, Start Num: 75

Candidate Starts for Bradissa\_32:

(Start: 70 @28461 has 105 MA's), (Start: 71 @28458 has 19 MA's), (Start: 72 @28446 has 6 MA's), (Start: 75 @28422 has 3 MA's), (78, 28410), (87, 28329), (88, 28314), (90, 28269), (92, 28260),

Gene: BritBrat\_31 Start: 29502, Stop: 29275, Start Num: 70

Candidate Starts for BritBrat\_31:

(Start: 70 @29502 has 105 MA's), (Start: 71 @29499 has 19 MA's), (Start: 72 @29487 has 6 MA's), (Start: 75 @29463 has 3 MA's), (76, 29457), (Start: 77 @29454 has 3 MA's), (78, 29451), (86, 29376), (87, 29370), (88, 29355), (90, 29310), (92, 29301),

Gene: Budski\_37 Start: 30045, Stop: 29821, Start Num: 71

Candidate Starts for Budski\_37:

(Start: 66 @30057 has 33 MA's), (Start: 70 @30048 has 105 MA's), (Start: 71 @30045 has 19 MA's), (Start: 72 @30033 has 6 MA's), (Start: 75 @30009 has 3 MA's), (78, 29997), (81, 29949), (86, 29922), (87, 29916), (88, 29901), (90, 29856), (92, 29847), (93, 29844),

Gene: Bunker\_31 Start: 27927, Stop: 27655, Start Num: 49

Candidate Starts for Bunker\_31:

(Start: 49 @27927 has 4 MA's), (Start: 70 @27882 has 105 MA's), (Start: 77 @27834 has 3 MA's), (78, 27831), (80, 27804), (87, 27750), (89, 27732), (92, 27681),

Gene: Bunnybear\_27 Start: 27053, Stop: 26823, Start Num: 70

Candidate Starts for Bunnybear\_27:

(Start: 70 @27053 has 105 MA's), (Start: 72 @27038 has 6 MA's), (Start: 75 @27014 has 3 MA's), (76, 27008), (Start: 77 @27005 has 3 MA's), (78, 27002), (86, 26927), (87, 26921), (88, 26906), (92, 26852),

Gene: CaptainKirk2\_34 Start: 28619, Stop: 28392, Start Num: 70

Candidate Starts for CaptainKirk2\_34:

(Start: 49 @28664 has 4 MA's), (Start: 70 @28619 has 105 MA's), (Start: 72 @28604 has 6 MA's), (Start: 75 @28580 has 3 MA's), (78, 28568), (81, 28520), (87, 28487), (88, 28472), (90, 28427), (92, 28418), (93, 28415),

Gene: CarolAnn\_37 Start: 31464, Stop: 31222, Start Num: 70

Candidate Starts for CarolAnn\_37:

(32, 31545), (45, 31518), (Start: 66 @31473 has 33 MA's), (Start: 70 @31464 has 105 MA's), (Start: 77 @31416 has 3 MA's), (78, 31413), (89, 31314), (90, 31272), (92, 31263),

Gene: Cashline\_35 Start: 29499, Stop: 29272, Start Num: 70

Candidate Starts for Cashline\_35:

(Start: 50 @29544 has 1 MA's), (Start: 70 @29499 has 105 MA's), (Start: 72 @29484 has 6 MA's), (73, 29481), (Start: 75 @29460 has 3 MA's), (76, 29454), (Start: 77 @29451 has 3 MA's), (78, 29448), (88, 29352), (92, 29298),

Gene: CheeseSpider\_40 Start: 28731, Stop: 28504, Start Num: 69

Candidate Starts for CheeseSpider\_40:

(69, 28731), (Start: 72 @28716 has 6 MA's), (73, 28713), (Start: 75 @28692 has 3 MA's), (78, 28680), (88, 28584), (92, 28530),

Gene: CheeseTouch\_35 Start: 26657, Stop: 26421, Start Num: 66

Candidate Starts for CheeseTouch\_35:

(Start: 66 @26657 has 33 MA's), (Start: 70 @26648 has 105 MA's), (Start: 71 @26645 has 19 MA's), (Start: 72 @26633 has 6 MA's), (Start: 75 @26609 has 3 MA's), (78, 26597), (81, 26549), (87, 26516), (88, 26501),

Gene: CherryCola\_41 Start: 34508, Stop: 34272, Start Num: 66

Candidate Starts for CherryCola\_41:

(Start: 49 @34544 has 4 MA's), (Start: 66 @34508 has 33 MA's), (Start: 70 @34499 has 105 MA's), (Start: 72 @34484 has 6 MA's), (Start: 75 @34460 has 3 MA's), (78, 34448), (81, 34400), (87, 34367), (88, 34352), (92, 34298),

Gene: ClamChowder\_40 Start: 33752, Stop: 33516, Start Num: 66

Candidate Starts for ClamChowder\_40:

(Start: 49 @33788 has 4 MA's), (Start: 66 @33752 has 33 MA's), (Start: 70 @33743 has 105 MA's), (Start: 72 @33728 has 6 MA's), (Start: 75 @33704 has 3 MA's), (78, 33692), (81, 33644), (87, 33611), (88, 33596), (92, 33542),

Gene: Clap\_34 Start: 26548, Stop: 26321, Start Num: 70

Candidate Starts for Clap\_34:

(Start: 65 @26557 has 3 MA's), (Start: 70 @26548 has 105 MA's), (73, 26530), (Start: 75 @26509 has 3 MA's), (78, 26497), (87, 26416), (88, 26401), (90, 26356), (91, 26350), (92, 26347),

Gene: Clark\_33 Start: 26491, Stop: 26264, Start Num: 70

Candidate Starts for Clark\_33:

(Start: 70 @26491 has 105 MA's), (Start: 72 @26476 has 6 MA's), (Start: 77 @26443 has 3 MA's), (78, 26440), (79, 26419), (86, 26365), (88, 26344), (92, 26290),

Gene: Clown\_42 Start: 35272, Stop: 35024, Start Num: 70

Candidate Starts for Clown\_42:

(8, 35458), (Start: 70 @35272 has 105 MA's), (Start: 72 @35257 has 6 MA's), (Start: 75 @35233 has 3 MA's), (Start: 77 @35224 has 3 MA's), (78, 35221), (79, 35200), (88, 35125), (92, 35071),

Gene: Confidence\_30 Start: 26910, Stop: 26683, Start Num: 70

Candidate Starts for Confidence\_30:

(56, 26937), (Start: 70 @26910 has 105 MA's), (Start: 71 @26907 has 19 MA's), (Start: 72 @26895 has 6 MA's), (Start: 75 @26871 has 3 MA's), (Start: 77 @26862 has 3 MA's), (78, 26859), (80, 26832), (85, 26790), (86, 26784), (87, 26778), (89, 26760), (92, 26709),

Gene: CoveyB\_40 Start: 33543, Stop: 33316, Start Num: 70

Candidate Starts for CoveyB\_40:

(Start: 49 @33588 has 4 MA's), (Start: 66 @33552 has 33 MA's), (Start: 70 @33543 has 105 MA's), (Start: 72 @33528 has 6 MA's), (Start: 75 @33504 has 3 MA's), (78, 33492), (87, 33411), (88, 33396), (92, 33342),

Gene: Crater\_39 Start: 29158, Stop: 28931, Start Num: 70

Candidate Starts for Crater\_39:

(Start: 49 @29203 has 4 MA's), (54, 29191), (Start: 70 @29158 has 105 MA's), (Start: 72 @29143 has 6 MA's), (73, 29140), (Start: 75 @29119 has 3 MA's), (78, 29107), (81, 29059), (83, 29044), (84, 29041), (86, 29032), (87, 29026), (88, 29011), (90, 28966), (92, 28957), (93, 28954),

Gene: Cynthia\_34 Start: 26548, Stop: 26321, Start Num: 70

Candidate Starts for Cynthia\_34:

(Start: 65 @26557 has 3 MA's), (Start: 70 @26548 has 105 MA's), (73, 26530), (Start: 75 @26509 has 3 MA's), (78, 26497), (87, 26416), (88, 26401), (90, 26356), (91, 26350), (92, 26347),

Gene: Danyall\_40 Start: 33554, Stop: 33318, Start Num: 66

Candidate Starts for Danyall\_40:

(Start: 49 @33590 has 4 MA's), (Start: 66 @33554 has 33 MA's), (Start: 70 @33545 has 105 MA's), (Start: 72 @33530 has 6 MA's), (Start: 75 @33506 has 3 MA's), (78, 33494), (87, 33413), (88, 33398), (92, 33344),

Gene: Delian\_35 Start: 28617, Stop: 28390, Start Num: 70

Candidate Starts for Delian\_35:

(Start: 49 @28662 has 4 MA's), (Start: 70 @28617 has 105 MA's), (Start: 72 @28602 has 6 MA's), (Start: 75 @28578 has 3 MA's), (78, 28566), (81, 28518), (87, 28485), (88, 28470), (90, 28425), (92, 28416), (93, 28413),

Gene: Denise\_27 Start: 24591, Stop: 24364, Start Num: 70

Candidate Starts for Denise\_27:

(Start: 70 @24591 has 105 MA's), (Start: 71 @24588 has 19 MA's), (Start: 72 @24576 has 6 MA's), (Start: 75 @24552 has 3 MA's), (76, 24546), (Start: 77 @24543 has 3 MA's), (78, 24540), (84, 24474), (88, 24444), (90, 24399), (92, 24390),

Gene: DirtyBoi\_35 Start: 29162, Stop: 28926, Start Num: 66

Candidate Starts for DirtyBoi\_35:

(Start: 66 @29162 has 33 MA's), (Start: 70 @29153 has 105 MA's), (Start: 72 @29138 has 6 MA's), (Start: 75 @29114 has 3 MA's), (78, 29102), (87, 29021), (88, 29006),

Gene: DobbysSock\_28 Start: 25413, Stop: 25186, Start Num: 70

Candidate Starts for DobbysSock\_28:

(Start: 70 @25413 has 105 MA's), (Start: 72 @25398 has 6 MA's), (Start: 77 @25365 has 3 MA's), (78, 25362), (79, 25341), (86, 25287), (88, 25266), (92, 25212),

Gene: Doggs\_32 Start: 28809, Stop: 28585, Start Num: 66

Candidate Starts for Doggs\_32:

(64, 28812), (Start: 66 @28809 has 33 MA's), (Start: 77 @28764 has 3 MA's), (78, 28761), (88, 28665), (89, 28662), (90, 28620), (92, 28611),

Gene: Dorito\_30 Start: 25057, Stop: 24830, Start Num: 70

Candidate Starts for Dorito\_30:

(Start: 70 @25057 has 105 MA's), (Start: 72 @25042 has 6 MA's), (Start: 77 @25009 has 3 MA's), (78, 25006), (79, 24985), (86, 24931), (88, 24910), (92, 24856),

Gene: DumpsterDude\_34 Start: 31000, Stop: 30773, Start Num: 70

Candidate Starts for DumpsterDude\_34:

(Start: 53 @31036 has 1 MA's), (Start: 68 @31003 has 1 MA's), (Start: 70 @31000 has 105 MA's), (Start: 77 @30952 has 3 MA's), (78, 30949), (87, 30868), (88, 30853), (90, 30808), (92, 30799),

Gene: EMSquaredA\_32 Start: 27060, Stop: 26788, Start Num: 49

Candidate Starts for EMSquaredA\_32:

(Start: 49 @27060 has 4 MA's), (Start: 70 @27015 has 105 MA's), (Start: 77 @26967 has 3 MA's), (78, 26964), (80, 26937), (88, 26868),

Gene: Easley\_33 Start: 26425, Stop: 26213, Start Num: 72

Candidate Starts for Easley\_33:

(Start: 70 @26440 has 105 MA's), (Start: 72 @26425 has 6 MA's), (Start: 75 @26401 has 3 MA's), (Start: 77 @26392 has 3 MA's), (78, 26389), (79, 26368), (88, 26293), (92, 26239),

Gene: Ebert\_35 Start: 26481, Stop: 26245, Start Num: 65

Candidate Starts for Ebert\_35:

(Start: 65 @26481 has 3 MA's), (Start: 70 @26472 has 105 MA's), (73, 26454), (Start: 75 @26433 has 3 MA's), (78, 26421), (87, 26340), (88, 26325), (90, 26280), (91, 26274), (92, 26271),

Gene: Ecliptus\_38 Start: 30614, Stop: 30387, Start Num: 70

Candidate Starts for Ecliptus\_38:

(Start: 49 @30659 has 4 MA's), (Start: 70 @30614 has 105 MA's), (Start: 72 @30599 has 6 MA's), (73, 30596), (Start: 75 @30575 has 3 MA's), (78, 30563), (87, 30482), (88, 30467), (90, 30422), (92, 30413),

Gene: Egi03\_38 Start: 33223, Stop: 32996, Start Num: 70

Candidate Starts for Egi03\_38:

(Start: 49 @33268 has 4 MA's), (Start: 66 @33232 has 33 MA's), (Start: 70 @33223 has 105 MA's), (Start: 72 @33208 has 6 MA's), (Start: 75 @33184 has 3 MA's), (78, 33172), (87, 33091), (88, 33076), (92, 33022),

Gene: EnalisNailo\_32 Start: 27995, Stop: 27765, Start Num: 70

Candidate Starts for EnalisNailo\_32:

(Start: 70 @27995 has 105 MA's), (Start: 71 @27992 has 19 MA's), (Start: 72 @27980 has 6 MA's), (Start: 75 @27956 has 3 MA's), (78, 27944), (87, 27863), (88, 27848), (90, 27803), (92, 27794),

Gene: Evamon\_37 Start: 33573, Stop: 33337, Start Num: 66

Candidate Starts for Evamon\_37:

(Start: 49 @33609 has 4 MA's), (Start: 66 @33573 has 33 MA's), (Start: 70 @33564 has 105 MA's), (Start: 72 @33549 has 6 MA's), (Start: 75 @33525 has 3 MA's), (78, 33513), (87, 33432), (88, 33417), (92, 33363),

Gene: Eviarto\_31 Start: 28820, Stop: 28584, Start Num: 70

Candidate Starts for Eviarto\_31:

(Start: 67 @28826 has 1 MA's), (Start: 70 @28820 has 105 MA's), (Start: 72 @28805 has 6 MA's), (73, 28802), (Start: 75 @28781 has 3 MA's), (76, 28775), (Start: 77 @28772 has 3 MA's), (78, 28769), (88, 28673),

Gene: Eyes\_32 Start: 27913, Stop: 27686, Start Num: 70

Candidate Starts for Eyes\_32:

(Start: 50 @27958 has 1 MA's), (Start: 70 @27913 has 105 MA's), (Start: 72 @27898 has 6 MA's), (78, 27862), (83, 27799), (86, 27787), (88, 27766), (90, 27721), (92, 27712),

Gene: Eyre\_28 Start: 24310, Stop: 24032, Start Num: 71

Candidate Starts for Eyre\_28:

(16, 24448), (Start: 55 @24346 has 1 MA's), (Start: 70 @24313 has 105 MA's), (Start: 71 @24310 has 19 MA's), (Start: 72 @24298 has 6 MA's), (Start: 75 @24274 has 3 MA's), (Start: 77 @24265 has 3 MA's), (78, 24262), (83, 24199), (86, 24187), (88, 24166), (94, 24088),

Gene: Fairfaxidum\_37 Start: 30093, Stop: 29866, Start Num: 70

Candidate Starts for Fairfaxidum\_37:

(Start: 70 @30093 has 105 MA's), (Start: 75 @30054 has 3 MA's), (Start: 77 @30045 has 3 MA's), (78, 30042), (79, 30021), (88, 29946),

Gene: Fenry\_33 Start: 28854, Stop: 28627, Start Num: 70

Candidate Starts for Fenry\_33:

(Start: 49 @28899 has 4 MA's), (Start: 70 @28854 has 105 MA's), (Start: 72 @28839 has 6 MA's), (Start: 75 @28815 has 3 MA's), (78, 28803), (87, 28722), (88, 28707), (92, 28653),

Gene: Fireball\_38 Start: 33687, Stop: 33460, Start Num: 70

Candidate Starts for Fireball\_38:

(Start: 49 @33732 has 4 MA's), (Start: 66 @33696 has 33 MA's), (Start: 70 @33687 has 105 MA's), (Start: 72 @33672 has 6 MA's), (Start: 75 @33648 has 3 MA's), (78, 33636), (87, 33555), (88, 33540), (92, 33486),

Gene: Floral\_33 Start: 29088, Stop: 28861, Start Num: 70

Candidate Starts for Floral\_33:

(Start: 49 @29133 has 4 MA's), (Start: 70 @29088 has 105 MA's), (Start: 77 @29040 has 3 MA's), (78, 29037), (80, 29010), (88, 28941),

Gene: Frickyeah\_37 Start: 28187, Stop: 27960, Start Num: 70

Candidate Starts for Frickyeah\_37:

(Start: 66 @28196 has 33 MA's), (Start: 70 @28187 has 105 MA's), (Start: 71 @28184 has 19 MA's), (Start: 72 @28172 has 6 MA's), (Start: 75 @28148 has 3 MA's), (78, 28136), (87, 28055), (88, 28040), (92, 27986),

Gene: FroggyToad\_35 Start: 27684, Stop: 27508, Start Num: 78

Candidate Starts for FroggyToad\_35:

(Start: 70 @27735 has 105 MA's), (Start: 77 @27687 has 3 MA's), (78, 27684), (80, 27657), (86, 27609), (92, 27534),

Gene: Frokostdame\_35 Start: 28824, Stop: 28597, Start Num: 70

Candidate Starts for Frokostdame\_35:

(Start: 49 @28869 has 4 MA's), (Start: 70 @28824 has 105 MA's), (Start: 72 @28809 has 6 MA's), (Start: 75 @28785 has 3 MA's), (Start: 77 @28776 has 3 MA's), (78, 28773), (87, 28692), (88, 28677),

Gene: Fugax\_41 Start: 33735, Stop: 33508, Start Num: 70

Candidate Starts for Fugax\_41:

(Start: 49 @33780 has 4 MA's), (Start: 66 @33744 has 33 MA's), (Start: 70 @33735 has 105 MA's),  
(Start: 72 @33720 has 6 MA's), (Start: 75 @33696 has 3 MA's), (78, 33684), (81, 33636), (87, 33603),  
(88, 33588), (92, 33534),

Gene: GEazy\_36 Start: 28931, Stop: 28659, Start Num: 49

Candidate Starts for GEazy\_36:

(Start: 49 @28931 has 4 MA's), (Start: 70 @28886 has 105 MA's), (78, 28835), (89, 28736), (92,  
28685),

Gene: Gambino\_36 Start: 28987, Stop: 28799, Start Num: 75

Candidate Starts for Gambino\_36:

(Start: 49 @29071 has 4 MA's), (Start: 70 @29026 has 105 MA's), (Start: 75 @28987 has 3 MA's),  
(Start: 77 @28978 has 3 MA's), (78, 28975), (84, 28909), (87, 28894), (89, 28876), (92, 28825),

Gene: GemG\_34 Start: 26548, Stop: 26321, Start Num: 70

Candidate Starts for GemG\_34:

(Start: 65 @26557 has 3 MA's), (Start: 70 @26548 has 105 MA's), (73, 26530), (Start: 75 @26509 has  
3 MA's), (78, 26497), (87, 26416), (88, 26401), (90, 26356), (91, 26350), (92, 26347),

Gene: Getalong\_38 Start: 30905, Stop: 30681, Start Num: 71

Candidate Starts for Getalong\_38:

(Start: 70 @30908 has 105 MA's), (Start: 71 @30905 has 19 MA's), (Start: 72 @30893 has 6 MA's),  
(73, 30890), (78, 30857), (81, 30809), (86, 30782), (87, 30776), (88, 30761), (92, 30707),

Gene: Gezellig\_37 Start: 33705, Stop: 33469, Start Num: 66

Candidate Starts for Gezellig\_37:

(Start: 49 @33741 has 4 MA's), (Start: 66 @33705 has 33 MA's), (Start: 70 @33696 has 105 MA's),  
(Start: 72 @33681 has 6 MA's), (Start: 75 @33657 has 3 MA's), (78, 33645), (87, 33564), (88, 33549),  
(92, 33495),

Gene: Gizermo\_34 Start: 26548, Stop: 26321, Start Num: 70

Candidate Starts for Gizermo\_34:

(Start: 65 @26557 has 3 MA's), (Start: 70 @26548 has 105 MA's), (73, 26530), (Start: 75 @26509 has  
3 MA's), (78, 26497), (87, 26416), (88, 26401), (90, 26356), (91, 26350), (92, 26347),

Gene: Guacamole\_34 Start: 29704, Stop: 29477, Start Num: 70

Candidate Starts for Guacamole\_34:

(Start: 70 @29704 has 105 MA's), (Start: 72 @29689 has 6 MA's), (Start: 75 @29665 has 3 MA's), (78,  
29653), (81, 29605), (88, 29557), (92, 29503),

Gene: Haley23\_34 Start: 26548, Stop: 26321, Start Num: 70

Candidate Starts for Haley23\_34:

(Start: 65 @26557 has 3 MA's), (Start: 70 @26548 has 105 MA's), (73, 26530), (Start: 75 @26509 has  
3 MA's), (78, 26497), (87, 26416), (88, 26401), (90, 26356), (91, 26350), (92, 26347),

Gene: Halo3\_38 Start: 33998, Stop: 33762, Start Num: 66

Candidate Starts for Halo3\_38:

(Start: 49 @34034 has 4 MA's), (Start: 66 @33998 has 33 MA's), (Start: 70 @33989 has 105 MA's),  
(Start: 72 @33974 has 6 MA's), (Start: 75 @33950 has 3 MA's), (78, 33938), (87, 33857), (88, 33842),  
(92, 33788),

Gene: HannahD\_34 Start: 28251, Stop: 28024, Start Num: 70

Candidate Starts for HannahD\_34:

(Start: 49 @28296 has 4 MA's), (Start: 70 @28251 has 105 MA's), (78, 28200), (89, 28101), (92, 28050),

Gene: Hedwig\_37 Start: 29585, Stop: 29349, Start Num: 66

Candidate Starts for Hedwig\_37:

(Start: 66 @29585 has 33 MA's), (Start: 70 @29576 has 105 MA's), (Start: 72 @29561 has 6 MA's), (Start: 75 @29537 has 3 MA's), (78, 29525), (87, 29444), (88, 29429),

Gene: Herod\_31 Start: 28850, Stop: 28608, Start Num: 67

Candidate Starts for Herod\_31:

(Start: 67 @28850 has 1 MA's), (Start: 70 @28844 has 105 MA's), (Start: 72 @28829 has 6 MA's), (73, 28826), (Start: 75 @28805 has 3 MA's), (76, 28799), (Start: 77 @28796 has 3 MA's), (78, 28793), (88, 28697), (93, 28640),

Gene: Hitter\_34 Start: 28938, Stop: 28711, Start Num: 70

Candidate Starts for Hitter\_34:

(Start: 49 @28983 has 4 MA's), (Start: 70 @28938 has 105 MA's), (Start: 72 @28923 has 6 MA's), (73, 28920), (Start: 75 @28899 has 3 MA's), (Start: 77 @28890 has 3 MA's), (78, 28887), (81, 28839), (88, 28791), (90, 28746), (92, 28737),

Gene: Holliday\_36 Start: 28771, Stop: 28535, Start Num: 66

Candidate Starts for Holliday\_36:

(Start: 66 @28771 has 33 MA's), (Start: 70 @28762 has 105 MA's), (Start: 71 @28759 has 19 MA's), (Start: 72 @28747 has 6 MA's), (Start: 75 @28723 has 3 MA's), (78, 28711), (86, 28636), (87, 28630), (88, 28615), (90, 28570), (92, 28561),

Gene: Hortense\_32 Start: 28665, Stop: 28453, Start Num: 72

Candidate Starts for Hortense\_32:

(Start: 72 @28665 has 6 MA's), (Start: 75 @28641 has 3 MA's), (Start: 77 @28632 has 3 MA's), (78, 28629), (79, 28608), (88, 28533), (90, 28488), (92, 28479),

Gene: Horus\_37 Start: 30117, Stop: 29881, Start Num: 66

Candidate Starts for Horus\_37:

(Start: 66 @30117 has 33 MA's), (Start: 70 @30108 has 105 MA's), (Start: 71 @30105 has 19 MA's), (Start: 72 @30093 has 6 MA's), (Start: 75 @30069 has 3 MA's), (78, 30057), (87, 29976), (88, 29961), (92, 29907),

Gene: Howe\_32 Start: 28665, Stop: 28453, Start Num: 72

Candidate Starts for Howe\_32:

(Start: 72 @28665 has 6 MA's), (Start: 75 @28641 has 3 MA's), (Start: 77 @28632 has 3 MA's), (78, 28629), (79, 28608), (88, 28533), (90, 28488), (92, 28479),

Gene: Hugley\_30 Start: 28849, Stop: 28607, Start Num: 67

Candidate Starts for Hugley\_30:

(Start: 67 @28849 has 1 MA's), (Start: 70 @28843 has 105 MA's), (Start: 72 @28828 has 6 MA's), (73, 28825), (Start: 75 @28804 has 3 MA's), (76, 28798), (Start: 77 @28795 has 3 MA's), (78, 28792), (88, 28696), (93, 28639),

Gene: Invectra\_34 Start: 27219, Stop: 26992, Start Num: 70

Candidate Starts for Invectra\_34:

(Start: 70 @27219 has 105 MA's), (Start: 72 @27204 has 6 MA's), (Start: 75 @27180 has 3 MA's), (Start: 77 @27171 has 3 MA's), (78, 27168), (79, 27147), (88, 27072), (92, 27018),

Gene: JCole\_27 Start: 23464, Stop: 23237, Start Num: 70

Candidate Starts for JCole\_27:

(Start: 70 @23464 has 105 MA's), (Start: 72 @23449 has 6 MA's), (Start: 75 @23425 has 3 MA's), (78, 23413), (87, 23332), (88, 23317), (90, 23272), (92, 23263),

Gene: Jablanski\_35 Start: 30024, Stop: 29797, Start Num: 70

Candidate Starts for Jablanski\_35:

(Start: 70 @30024 has 105 MA's), (Start: 72 @30009 has 6 MA's), (Start: 75 @29985 has 3 MA's), (76, 29979), (Start: 77 @29976 has 3 MA's), (78, 29973), (87, 29892), (88, 29877), (90, 29832), (92, 29823),

Gene: Jalammah\_36 Start: 30107, Stop: 29880, Start Num: 70

Candidate Starts for Jalammah\_36:

(26, 30212), (42, 30176), (Start: 70 @30107 has 105 MA's), (Start: 71 @30104 has 19 MA's), (Start: 72 @30092 has 6 MA's), (73, 30089), (Start: 75 @30068 has 3 MA's), (78, 30056), (81, 30008), (88, 29960), (92, 29906),

Gene: Jalleen\_33 Start: 26187, Stop: 25960, Start Num: 70

Candidate Starts for Jalleen\_33:

(Start: 65 @26196 has 3 MA's), (Start: 70 @26187 has 105 MA's), (73, 26169), (Start: 75 @26148 has 3 MA's), (78, 26136), (87, 26055), (88, 26040), (90, 25995), (91, 25989), (92, 25986),

Gene: Jambalaya\_37 Start: 33343, Stop: 33116, Start Num: 70

Candidate Starts for Jambalaya\_37:

(Start: 49 @33388 has 4 MA's), (Start: 66 @33352 has 33 MA's), (Start: 70 @33343 has 105 MA's), (Start: 72 @33328 has 6 MA's), (Start: 75 @33304 has 3 MA's), (78, 33292), (87, 33211), (88, 33196), (92, 33142),

Gene: JasperJr\_34 Start: 29704, Stop: 29477, Start Num: 70

Candidate Starts for JasperJr\_34:

(Start: 70 @29704 has 105 MA's), (Start: 72 @29689 has 6 MA's), (Start: 75 @29665 has 3 MA's), (78, 29653), (81, 29605), (88, 29557), (92, 29503),

Gene: JuJu\_36 Start: 29305, Stop: 29078, Start Num: 70

Candidate Starts for JuJu\_36:

(Start: 49 @29350 has 4 MA's), (Start: 70 @29305 has 105 MA's), (Start: 72 @29290 has 6 MA's), (Start: 75 @29266 has 3 MA's), (76, 29260), (Start: 77 @29257 has 3 MA's), (78, 29254), (87, 29173), (88, 29158),

Gene: Kamaru\_36 Start: 28771, Stop: 28535, Start Num: 66

Candidate Starts for Kamaru\_36:

(Start: 66 @28771 has 33 MA's), (Start: 67 @28768 has 1 MA's), (Start: 70 @28762 has 105 MA's), (Start: 72 @28747 has 6 MA's), (73, 28744), (Start: 75 @28723 has 3 MA's), (78, 28711), (81, 28663), (86, 28636), (87, 28630), (88, 28615), (90, 28570), (92, 28561),

Gene: KappaFarmDelta\_37 Start: 28565, Stop: 28341, Start Num: 71

Candidate Starts for KappaFarmDelta\_37:

(9, 28748), (13, 28730), (19, 28688), (Start: 68 @28571 has 1 MA's), (Start: 70 @28568 has 105 MA's), (Start: 71 @28565 has 19 MA's), (Start: 72 @28553 has 6 MA's), (73, 28550), (Start: 75 @28529 has 3 MA's), (Start: 77 @28520 has 3 MA's), (78, 28517), (85, 28448), (86, 28442), (89, 28418), (90, 28376), (92, 28367),

Gene: Kenna\_36 Start: 29098, Stop: 28871, Start Num: 70

Candidate Starts for Kenna\_36:

(Start: 66 @29107 has 33 MA's), (Start: 70 @29098 has 105 MA's), (Start: 71 @29095 has 19 MA's), (Start: 72 @29083 has 6 MA's), (Start: 75 @29059 has 3 MA's), (78, 29047), (81, 28999), (83, 28984), (86, 28972), (87, 28966), (88, 28951), (90, 28906),

Gene: Kiko\_35 Start: 27318, Stop: 27091, Start Num: 70

Candidate Starts for Kiko\_35:

(Start: 70 @27318 has 105 MA's), (Start: 72 @27303 has 6 MA's), (Start: 75 @27279 has 3 MA's), (Start: 77 @27270 has 3 MA's), (78, 27267), (79, 27246), (81, 27219), (85, 27198), (88, 27171), (92, 27117),

Gene: KimmyK\_39 Start: 34287, Stop: 34051, Start Num: 66

Candidate Starts for KimmyK\_39:

(Start: 49 @34323 has 4 MA's), (Start: 66 @34287 has 33 MA's), (Start: 70 @34278 has 105 MA's), (Start: 72 @34263 has 6 MA's), (Start: 75 @34239 has 3 MA's), (78, 34227), (87, 34146), (88, 34131), (92, 34077),

Gene: Kuwabara\_36 Start: 29465, Stop: 29238, Start Num: 70

Candidate Starts for Kuwabara\_36:

(Start: 70 @29465 has 105 MA's), (Start: 71 @29462 has 19 MA's), (Start: 72 @29450 has 6 MA's), (Start: 75 @29426 has 3 MA's), (78, 29414), (81, 29366), (86, 29339), (87, 29333), (88, 29318), (90, 29273), (92, 29264),

Gene: Leroy\_37 Start: 30118, Stop: 29882, Start Num: 66

Candidate Starts for Leroy\_37:

(Start: 66 @30118 has 33 MA's), (Start: 70 @30109 has 105 MA's), (Start: 71 @30106 has 19 MA's), (Start: 72 @30094 has 6 MA's), (Start: 75 @30070 has 3 MA's), (78, 30058), (87, 29977), (88, 29962), (92, 29908),

Gene: Lilas\_35 Start: 29703, Stop: 29476, Start Num: 71

Candidate Starts for Lilas\_35:

(Start: 70 @29706 has 105 MA's), (Start: 71 @29703 has 19 MA's), (Start: 72 @29691 has 6 MA's), (Start: 75 @29667 has 3 MA's), (78, 29655), (87, 29574), (88, 29559), (90, 29514), (92, 29505),

Gene: LitninMcQueen\_35 Start: 28514, Stop: 28278, Start Num: 66

Candidate Starts for LitninMcQueen\_35:

(Start: 66 @28514 has 33 MA's), (Start: 67 @28511 has 1 MA's), (Start: 70 @28505 has 105 MA's), (Start: 72 @28490 has 6 MA's), (73, 28487), (Start: 75 @28466 has 3 MA's), (78, 28454), (81, 28406), (86, 28379), (87, 28373), (88, 28358), (90, 28313), (92, 28304),

Gene: LonelyBoi\_32 Start: 30030, Stop: 29803, Start Num: 70

Candidate Starts for LonelyBoi\_32:

(5, 30270), (10, 30207), (17, 30159), (Start: 70 @30030 has 105 MA's), (Start: 72 @30015 has 6 MA's), (Start: 75 @29991 has 3 MA's), (78, 29979), (87, 29898), (88, 29883), (92, 29829),

Gene: Lton\_27 Start: 23149, Stop: 22922, Start Num: 70

Candidate Starts for Lton\_27:

(Start: 49 @23194 has 4 MA's), (Start: 70 @23149 has 105 MA's), (Start: 72 @23134 has 6 MA's), (Start: 75 @23110 has 3 MA's), (78, 23098), (81, 23050), (86, 23023), (87, 23017), (88, 23002), (90, 22957), (92, 22948),

Gene: Lucky10\_31 Start: 26592, Stop: 26320, Start Num: 50

Candidate Starts for Lucky10\_31:

(Start: 50 @26592 has 1 MA's), (Start: 70 @26547 has 105 MA's), (Start: 71 @26544 has 19 MA's), (Start: 72 @26532 has 6 MA's), (73, 26529), (Start: 75 @26508 has 3 MA's), (78, 26496), (88, 26400), (92, 26346),

Gene: Lutum\_37 Start: 29098, Stop: 28871, Start Num: 70

Candidate Starts for Lutum\_37:

(Start: 66 @29107 has 33 MA's), (Start: 70 @29098 has 105 MA's), (Start: 71 @29095 has 19 MA's), (Start: 72 @29083 has 6 MA's), (Start: 75 @29059 has 3 MA's), (78, 29047), (81, 28999), (83, 28984), (86, 28972), (87, 28966), (88, 28951), (90, 28906),

Gene: Lysidious\_35 Start: 29428, Stop: 29201, Start Num: 70

Candidate Starts for Lysidious\_35:

(Start: 66 @29437 has 33 MA's), (Start: 70 @29428 has 105 MA's), (Start: 72 @29413 has 6 MA's), (73, 29410), (Start: 75 @29389 has 3 MA's), (78, 29377), (81, 29329), (88, 29281), (92, 29227),

Gene: Malachai\_36 Start: 30625, Stop: 30392, Start Num: 70

Candidate Starts for Malachai\_36:

(Start: 70 @30625 has 105 MA's), (73, 30607), (Start: 75 @30586 has 3 MA's), (78, 30574), (83, 30511), (87, 30493), (88, 30478), (92, 30424), (95, 30400),

Gene: Malibo\_36 Start: 29104, Stop: 28877, Start Num: 70

Candidate Starts for Malibo\_36:

(Start: 49 @29149 has 4 MA's), (Start: 70 @29104 has 105 MA's), (Start: 77 @29056 has 3 MA's), (78, 29053), (80, 29026), (88, 28957), (92, 28903),

Gene: Malisha\_37 Start: 29280, Stop: 29056, Start Num: 71

Candidate Starts for Malisha\_37:

(Start: 66 @29292 has 33 MA's), (Start: 70 @29283 has 105 MA's), (Start: 71 @29280 has 19 MA's), (Start: 72 @29268 has 6 MA's), (Start: 75 @29244 has 3 MA's), (78, 29232), (87, 29151), (88, 29136), (90, 29091),

Gene: Marteena\_32 Start: 27060, Stop: 26788, Start Num: 49

Candidate Starts for Marteena\_32:

(Start: 49 @27060 has 4 MA's), (Start: 70 @27015 has 105 MA's), (Start: 77 @26967 has 3 MA's), (78, 26964), (80, 26937), (88, 26868),

Gene: Matteo\_28 Start: 24466, Stop: 24239, Start Num: 70

Candidate Starts for Matteo\_28:

(25, 24595), (29, 24580), (31, 24577), (33, 24574), (59, 24511), (Start: 66 @24475 has 33 MA's), (Start: 70 @24466 has 105 MA's), (Start: 71 @24463 has 19 MA's), (Start: 72 @24451 has 6 MA's), (73, 24448), (Start: 75 @24427 has 3 MA's), (78, 24415), (81, 24367), (87, 24334), (88, 24319), (92, 24265),

Gene: Mcklovin\_32 Start: 30905, Stop: 30678, Start Num: 70

Candidate Starts for Mcklovin\_32:

(Start: 70 @30905 has 105 MA's), (Start: 72 @30890 has 6 MA's), (Start: 75 @30866 has 3 MA's), (Start: 77 @30857 has 3 MA's), (78, 30854), (79, 30833), (88, 30758), (92, 30704),

Gene: MichaelScott\_33 Start: 27967, Stop: 27740, Start Num: 70

Candidate Starts for MichaelScott\_33:

(Start: 70 @27967 has 105 MA's), (Start: 72 @27952 has 6 MA's), (Start: 77 @27919 has 3 MA's), (78, 27916), (79, 27895), (86, 27841), (88, 27820), (92, 27766),

Gene: MintFen\_33 Start: 29240, Stop: 29013, Start Num: 70

Candidate Starts for MintFen\_33:

(Start: 49 @29285 has 4 MA's), (Start: 70 @29240 has 105 MA's), (Start: 72 @29225 has 6 MA's), (73, 29222), (78, 29189), (81, 29141), (87, 29108), (88, 29093), (92, 29039),

Gene: MissRona\_35 Start: 29026, Stop: 28799, Start Num: 70

Candidate Starts for MissRona\_35:

(12, 29194), (14, 29167), (Start: 49 @29071 has 4 MA's), (Start: 70 @29026 has 105 MA's), (Start: 75 @28987 has 3 MA's), (Start: 77 @28978 has 3 MA's), (78, 28975), (84, 28909), (87, 28894), (89, 28876), (92, 28825),

Gene: Mocha12\_34 Start: 26548, Stop: 26321, Start Num: 70

Candidate Starts for Mocha12\_34:

(Start: 65 @26557 has 3 MA's), (Start: 70 @26548 has 105 MA's), (73, 26530), (Start: 75 @26509 has 3 MA's), (78, 26497), (87, 26416), (88, 26401), (90, 26356), (91, 26350), (92, 26347),

Gene: Moonflower\_34 Start: 28635, Stop: 28411, Start Num: 71

Candidate Starts for Moonflower\_34:

(Start: 50 @28683 has 1 MA's), (Start: 70 @28638 has 105 MA's), (Start: 71 @28635 has 19 MA's), (Start: 72 @28623 has 6 MA's), (Start: 75 @28599 has 3 MA's), (78, 28587), (87, 28506), (88, 28491), (92, 28437),

Gene: Moosehead\_29 Start: 23632, Stop: 23405, Start Num: 70

Candidate Starts for Moosehead\_29:

(Start: 70 @23632 has 105 MA's), (73, 23614), (Start: 75 @23593 has 3 MA's), (76, 23587), (Start: 77 @23584 has 3 MA's), (78, 23581), (84, 23515), (86, 23506), (87, 23500), (88, 23485), (90, 23440), (92, 23431),

Gene: Morkie\_30 Start: 25204, Stop: 24980, Start Num: 71

Candidate Starts for Morkie\_30:

(Start: 70 @25207 has 105 MA's), (Start: 71 @25204 has 19 MA's), (Start: 72 @25192 has 6 MA's), (73, 25189), (Start: 75 @25168 has 3 MA's), (78, 25156), (84, 25090), (88, 25060), (92, 25006),

Gene: MortyNRick\_34 Start: 28519, Stop: 28292, Start Num: 70

Candidate Starts for MortyNRick\_34:

(Start: 70 @28519 has 105 MA's), (Start: 71 @28516 has 19 MA's), (Start: 72 @28504 has 6 MA's), (73, 28501), (Start: 75 @28480 has 3 MA's), (78, 28468), (81, 28420), (86, 28393), (87, 28387), (88, 28372), (90, 28327), (92, 28318),

Gene: Nubi\_38 Start: 33576, Stop: 33340, Start Num: 66

Candidate Starts for Nubi\_38:

(Start: 49 @33612 has 4 MA's), (Start: 66 @33576 has 33 MA's), (Start: 70 @33567 has 105 MA's), (Start: 72 @33552 has 6 MA's), (Start: 75 @33528 has 3 MA's), (78, 33516), (87, 33435), (88, 33420), (92, 33366),

Gene: Nymphadora\_31 Start: 28844, Stop: 28608, Start Num: 70

Candidate Starts for Nymphadora\_31:

(Start: 67 @28850 has 1 MA's), (Start: 70 @28844 has 105 MA's), (Start: 72 @28829 has 6 MA's), (73, 28826), (Start: 75 @28805 has 3 MA's), (76, 28799), (Start: 77 @28796 has 3 MA's), (78, 28793), (88, 28697),

Gene: ODay\_40 Start: 30569, Stop: 30345, Start Num: 71

Candidate Starts for ODay\_40:

(Start: 66 @30581 has 33 MA's), (Start: 70 @30572 has 105 MA's), (Start: 71 @30569 has 19 MA's), (Start: 72 @30557 has 6 MA's), (Start: 75 @30533 has 3 MA's), (78, 30521), (87, 30440), (88, 30425), (92, 30371),

Gene: Obliviate\_32 Start: 28122, Stop: 27895, Start Num: 70

Candidate Starts for Obliviate\_32:

(Start: 70 @28122 has 105 MA's), (Start: 71 @28119 has 19 MA's), (Start: 72 @28107 has 6 MA's), (73, 28104), (Start: 75 @28083 has 3 MA's), (78, 28071), (88, 27975), (92, 27921),

Gene: Ohgeesy\_34 Start: 29848, Stop: 29636, Start Num: 72

Candidate Starts for Ohgeesy\_34:

(20, 29983), (40, 29935), (51, 29908), (Start: 68 @29866 has 1 MA's), (Start: 70 @29863 has 105 MA's), (Start: 72 @29848 has 6 MA's), (Start: 75 @29824 has 3 MA's), (76, 29818), (Start: 77 @29815 has 3 MA's), (78, 29812), (88, 29716), (92, 29662),

Gene: OneDirection\_28 Start: 23826, Stop: 23602, Start Num: 71

Candidate Starts for OneDirection\_28:

(Start: 70 @23829 has 105 MA's), (Start: 71 @23826 has 19 MA's), (Start: 72 @23814 has 6 MA's), (73, 23811), (Start: 75 @23790 has 3 MA's), (78, 23778), (84, 23712), (88, 23682), (92, 23628),

Gene: Opie\_35 Start: 29554, Stop: 29327, Start Num: 70

Candidate Starts for Opie\_35:

(27, 29647), (43, 29614), (Start: 70 @29554 has 105 MA's), (Start: 77 @29506 has 3 MA's), (78, 29503), (80, 29476), (88, 29407), (92, 29353),

Gene: Oregano\_34 Start: 27096, Stop: 26869, Start Num: 70

Candidate Starts for Oregano\_34:

(Start: 70 @27096 has 105 MA's), (Start: 72 @27081 has 6 MA's), (Start: 77 @27048 has 3 MA's), (78, 27045), (79, 27024), (88, 26949), (92, 26895),

Gene: PCoral7\_34 Start: 28574, Stop: 28347, Start Num: 70

Candidate Starts for PCoral7\_34:

(Start: 70 @28574 has 105 MA's), (Start: 72 @28559 has 6 MA's), (Start: 75 @28535 has 3 MA's), (76, 28529), (Start: 77 @28526 has 3 MA's), (78, 28523), (79, 28502), (88, 28427), (92, 28373),

Gene: Pepperoni\_29 Start: 24972, Stop: 24748, Start Num: 71

Candidate Starts for Pepperoni\_29:

(Start: 70 @24975 has 105 MA's), (Start: 71 @24972 has 19 MA's), (Start: 72 @24960 has 6 MA's), (Start: 75 @24936 has 3 MA's), (78, 24924), (87, 24843), (88, 24828), (92, 24774),

Gene: Periwinkle\_40 Start: 30562, Stop: 30326, Start Num: 66

Candidate Starts for Periwinkle\_40:

(Start: 66 @30562 has 33 MA's), (Start: 70 @30553 has 105 MA's), (Start: 71 @30550 has 19 MA's), (Start: 72 @30538 has 6 MA's), (Start: 75 @30514 has 3 MA's), (78, 30502), (87, 30421), (88, 30406), (92, 30352),

Gene: Petra\_35 Start: 29575, Stop: 29345, Start Num: 68

Candidate Starts for Petra\_35:

(Start: 68 @29575 has 1 MA's), (Start: 70 @29572 has 105 MA's), (Start: 72 @29557 has 6 MA's), (73, 29554), (Start: 75 @29533 has 3 MA's), (78, 29521), (88, 29425), (92, 29371),

Gene: Phabuloso\_34 Start: 28807, Stop: 28583, Start Num: 71

Candidate Starts for Phabuloso\_34:

(Start: 66 @28819 has 33 MA's), (Start: 70 @28810 has 105 MA's), (Start: 71 @28807 has 19 MA's), (Start: 72 @28795 has 6 MA's), (Start: 75 @28771 has 3 MA's), (78, 28759), (87, 28678), (88, 28663), (90, 28618), (92, 28609),

Gene: Phistory\_37 Start: 29459, Stop: 29223, Start Num: 66

Candidate Starts for Phistory\_37:

(Start: 66 @29459 has 33 MA's), (Start: 70 @29450 has 105 MA's), (Start: 71 @29447 has 19 MA's), (Start: 72 @29435 has 6 MA's), (Start: 75 @29411 has 3 MA's), (78, 29399), (87, 29318), (88, 29303), (92, 29249),

Gene: Phlop\_37 Start: 33648, Stop: 33421, Start Num: 70

Candidate Starts for Phlop\_37:

(Start: 49 @33693 has 4 MA's), (Start: 66 @33657 has 33 MA's), (Start: 70 @33648 has 105 MA's), (Start: 72 @33633 has 6 MA's), (Start: 75 @33609 has 3 MA's), (78, 33597), (87, 33516), (88, 33501), (92, 33447),

Gene: PhorbesPhlower\_29 Start: 24583, Stop: 24356, Start Num: 70

Candidate Starts for PhorbesPhlower\_29:

(Start: 70 @24583 has 105 MA's), (73, 24565), (Start: 75 @24544 has 3 MA's), (78, 24532), (81, 24484), (86, 24457), (87, 24451), (88, 24436), (90, 24391), (92, 24382),

Gene: PhriskyACE\_33 Start: 27013, Stop: 26786, Start Num: 70

Candidate Starts for PhriskyACE\_33:

(Start: 70 @27013 has 105 MA's), (Start: 72 @26998 has 6 MA's), (Start: 75 @26974 has 3 MA's), (Start: 77 @26965 has 3 MA's), (78, 26962), (79, 26941), (88, 26866), (92, 26812),

Gene: PhrostedPhlake\_36 Start: 29288, Stop: 29061, Start Num: 70

Candidate Starts for PhrostedPhlake\_36:

(3, 29564), (7, 29504), (40, 29363), (44, 29348), (59, 29312), (Start: 68 @29291 has 1 MA's), (Start: 70 @29288 has 105 MA's), (Start: 71 @29285 has 19 MA's), (73, 29270), (Start: 75 @29249 has 3 MA's), (78, 29237), (88, 29141), (92, 29087),

Gene: Pickett\_28 Start: 23332, Stop: 23105, Start Num: 70

Candidate Starts for Pickett\_28:

(Start: 70 @23332 has 105 MA's), (73, 23314), (Start: 75 @23293 has 3 MA's), (78, 23281), (81, 23233), (86, 23206), (87, 23200), (88, 23185), (90, 23140),

Gene: PinkCoffee\_40 Start: 33761, Stop: 33525, Start Num: 66

Candidate Starts for PinkCoffee\_40:

(Start: 49 @33797 has 4 MA's), (Start: 66 @33761 has 33 MA's), (Start: 70 @33752 has 105 MA's), (Start: 72 @33737 has 6 MA's), (Start: 75 @33713 has 3 MA's), (78, 33701), (81, 33653), (87, 33620), (88, 33605), (92, 33551),

Gene: Pollux\_34 Start: 29088, Stop: 28861, Start Num: 70

Candidate Starts for Pollux\_34:

(Start: 49 @29133 has 4 MA's), (Start: 70 @29088 has 105 MA's), (Start: 77 @29040 has 3 MA's), (78, 29037), (80, 29010), (88, 28941),

Gene: Portcullis\_38 Start: 33064, Stop: 32837, Start Num: 70

Candidate Starts for Portcullis\_38:

(Start: 49 @33109 has 4 MA's), (Start: 66 @33073 has 33 MA's), (Start: 70 @33064 has 105 MA's), (Start: 72 @33049 has 6 MA's), (Start: 75 @33025 has 3 MA's), (78, 33013), (87, 32932), (88, 32917),

(92, 32863),

Gene: Powerball\_35 Start: 28956, Stop: 28720, Start Num: 70

Candidate Starts for Powerball\_35:

(Start: 70 @28956 has 105 MA's), (Start: 72 @28941 has 6 MA's), (Start: 75 @28917 has 3 MA's), (Start: 77 @28908 has 3 MA's), (78, 28905), (79, 28884), (88, 28809), (92, 28755),

Gene: PrincePatrick\_33 Start: 27253, Stop: 27026, Start Num: 70

Candidate Starts for PrincePatrick\_33:

(Start: 70 @27253 has 105 MA's), (Start: 72 @27238 has 6 MA's), (Start: 75 @27214 has 3 MA's), (Start: 77 @27205 has 3 MA's), (78, 27202), (79, 27181), (85, 27133), (88, 27106),

Gene: PullumCavea\_37 Start: 33648, Stop: 33421, Start Num: 70

Candidate Starts for PullumCavea\_37:

(Start: 49 @33693 has 4 MA's), (Start: 66 @33657 has 33 MA's), (Start: 70 @33648 has 105 MA's), (Start: 72 @33633 has 6 MA's), (Start: 75 @33609 has 3 MA's), (78, 33597), (87, 33516), (88, 33501), (92, 33447),

Gene: Pytheas\_35 Start: 30023, Stop: 29796, Start Num: 70

Candidate Starts for Pytheas\_35:

(Start: 70 @30023 has 105 MA's), (Start: 72 @30008 has 6 MA's), (Start: 75 @29984 has 3 MA's), (76, 29978), (Start: 77 @29975 has 3 MA's), (78, 29972), (87, 29891), (88, 29876), (90, 29831), (92, 29822),

Gene: RayTheFireFly\_35 Start: 29149, Stop: 28925, Start Num: 71

Candidate Starts for RayTheFireFly\_35:

(Start: 70 @29152 has 105 MA's), (Start: 71 @29149 has 19 MA's), (Start: 72 @29137 has 6 MA's), (73, 29134), (Start: 75 @29113 has 3 MA's), (78, 29101), (87, 29020), (88, 29005), (92, 28951),

Gene: RogerDodger\_41 Start: 33903, Stop: 33667, Start Num: 66

Candidate Starts for RogerDodger\_41:

(Start: 49 @33939 has 4 MA's), (Start: 66 @33903 has 33 MA's), (Start: 70 @33894 has 105 MA's), (Start: 72 @33879 has 6 MA's), (Start: 75 @33855 has 3 MA's), (78, 33843), (81, 33795), (87, 33762), (88, 33747), (92, 33693),

Gene: Ruthy\_34 Start: 29303, Stop: 29040, Start Num: 53

Candidate Starts for Ruthy\_34:

(Start: 53 @29303 has 1 MA's), (Start: 68 @29270 has 1 MA's), (Start: 70 @29267 has 105 MA's), (Start: 72 @29252 has 6 MA's), (Start: 75 @29228 has 3 MA's), (76, 29222), (Start: 77 @29219 has 3 MA's), (78, 29216), (88, 29120), (92, 29066),

Gene: Sahara\_33 Start: 26218, Stop: 25991, Start Num: 70

Candidate Starts for Sahara\_33:

(20, 26341), (42, 26287), (57, 26245), (60, 26239), (Start: 70 @26218 has 105 MA's), (Start: 72 @26203 has 6 MA's), (73, 26200), (Start: 75 @26179 has 3 MA's), (78, 26167), (87, 26086), (88, 26071), (90, 26026), (91, 26020), (92, 26017),

Gene: Salvador\_37 Start: 33571, Stop: 33335, Start Num: 66

Candidate Starts for Salvador\_37:

(Start: 49 @33607 has 4 MA's), (Start: 66 @33571 has 33 MA's), (Start: 70 @33562 has 105 MA's), (Start: 72 @33547 has 6 MA's), (Start: 75 @33523 has 3 MA's), (78, 33511), (87, 33430), (88, 33415), (92, 33361),

Gene: Samba\_36 Start: 30626, Stop: 30390, Start Num: 66

Candidate Starts for Samba\_36:

(Start: 66 @30626 has 33 MA's), (Start: 70 @30617 has 105 MA's), (Start: 72 @30602 has 6 MA's), (73, 30599), (Start: 75 @30578 has 3 MA's), (78, 30566), (81, 30518), (87, 30485), (88, 30470), (90, 30425), (92, 30416),

Gene: Samman98\_32 Start: 26076, Stop: 25849, Start Num: 70

Candidate Starts for Samman98\_32:

(2, 26340), (4, 26334), (6, 26289), (11, 26241), (15, 26205), (24, 26172), (Start: 70 @26076 has 105 MA's), (Start: 72 @26061 has 6 MA's), (Start: 75 @26037 has 3 MA's), (Start: 77 @26028 has 3 MA's), (78, 26025), (79, 26004), (86, 25950), (88, 25929),

Gene: Savage\_34 Start: 26557, Stop: 26321, Start Num: 65

Candidate Starts for Savage\_34:

(Start: 65 @26557 has 3 MA's), (Start: 70 @26548 has 105 MA's), (73, 26530), (Start: 75 @26509 has 3 MA's), (78, 26497), (87, 26416), (88, 26401), (90, 26356), (91, 26350), (92, 26347),

Gene: Savbucketdawg\_37 Start: 33343, Stop: 33116, Start Num: 70

Candidate Starts for Savbucketdawg\_37:

(Start: 49 @33388 has 4 MA's), (Start: 66 @33352 has 33 MA's), (Start: 70 @33343 has 105 MA's), (Start: 72 @33328 has 6 MA's), (Start: 75 @33304 has 3 MA's), (78, 33292), (87, 33211), (88, 33196), (92, 33142),

Gene: Sekhmet\_35 Start: 27809, Stop: 27582, Start Num: 70

Candidate Starts for Sekhmet\_35:

(Start: 70 @27809 has 105 MA's), (Start: 72 @27794 has 6 MA's), (Start: 77 @27761 has 3 MA's), (78, 27758), (79, 27737), (86, 27683), (88, 27662), (92, 27608),

Gene: ShawBrad\_36 Start: 28681, Stop: 28445, Start Num: 66

Candidate Starts for ShawBrad\_36:

(Start: 66 @28681 has 33 MA's), (Start: 70 @28672 has 105 MA's), (Start: 71 @28669 has 19 MA's), (Start: 72 @28657 has 6 MA's), (Start: 75 @28633 has 3 MA's), (78, 28621), (87, 28540), (88, 28525), (90, 28480), (92, 28471), (93, 28468),

Gene: Shinji\_38 Start: 33014, Stop: 32778, Start Num: 66

Candidate Starts for Shinji\_38:

(Start: 49 @33050 has 4 MA's), (Start: 66 @33014 has 33 MA's), (Start: 70 @33005 has 105 MA's), (Start: 72 @32990 has 6 MA's), (Start: 75 @32966 has 3 MA's), (78, 32954), (82, 32900), (86, 32879), (87, 32873), (88, 32858), (90, 32813), (91, 32807), (92, 32804),

Gene: Shlim410\_32 Start: 28665, Stop: 28453, Start Num: 72

Candidate Starts for Shlim410\_32:

(Start: 72 @28665 has 6 MA's), (Start: 75 @28641 has 3 MA's), (Start: 77 @28632 has 3 MA's), (78, 28629), (79, 28608), (88, 28533), (90, 28488), (92, 28479),

Gene: SmokingBunny\_37 Start: 33562, Stop: 33326, Start Num: 66

Candidate Starts for SmokingBunny\_37:

(Start: 49 @33598 has 4 MA's), (Start: 66 @33562 has 33 MA's), (Start: 70 @33553 has 105 MA's), (Start: 72 @33538 has 6 MA's), (Start: 75 @33514 has 3 MA's), (78, 33502), (87, 33421), (88, 33406), (92, 33352),

Gene: Spooky\_36 Start: 28938, Stop: 28702, Start Num: 66

Candidate Starts for Spooky\_36:

(Start: 66 @28938 has 33 MA's), (Start: 70 @28929 has 105 MA's), (Start: 71 @28926 has 19 MA's), (Start: 72 @28914 has 6 MA's), (Start: 75 @28890 has 3 MA's), (78, 28878), (86, 28803), (87, 28797), (88, 28782), (90, 28737),

Gene: Sprinklemunch\_40 Start: 30648, Stop: 30493, Start Num: 79

Candidate Starts for Sprinklemunch\_40:

(Start: 70 @30720 has 105 MA's), (78, 30669), (79, 30648), (88, 30573),

Gene: Sproutie\_34 Start: 26557, Stop: 26321, Start Num: 65

Candidate Starts for Sproutie\_34:

(Start: 65 @26557 has 3 MA's), (Start: 70 @26548 has 105 MA's), (73, 26530), (Start: 75 @26509 has 3 MA's), (78, 26497), (87, 26416), (88, 26401), (90, 26356), (91, 26350), (92, 26347),

Gene: Squiddly\_38 Start: 30313, Stop: 30086, Start Num: 70

Candidate Starts for Squiddly\_38:

(Start: 66 @30322 has 33 MA's), (Start: 70 @30313 has 105 MA's), (Start: 71 @30310 has 19 MA's), (Start: 72 @30298 has 6 MA's), (Start: 75 @30274 has 3 MA's), (78, 30262), (87, 30181), (88, 30166), (90, 30121),

Gene: Suerte\_31 Start: 27445, Stop: 27218, Start Num: 70

Candidate Starts for Suerte\_31:

(Start: 70 @27445 has 105 MA's), (Start: 75 @27406 has 3 MA's), (78, 27394), (79, 27373), (88, 27298), (92, 27244),

Gene: TaronosaurusRx\_33 Start: 28265, Stop: 28032, Start Num: 66

Candidate Starts for TaronosaurusRx\_33:

(Start: 49 @28307 has 4 MA's), (64, 28268), (Start: 66 @28265 has 33 MA's), (Start: 70 @28259 has 105 MA's), (Start: 72 @28244 has 6 MA's), (Start: 75 @28220 has 3 MA's), (76, 28214), (Start: 77 @28211 has 3 MA's), (78, 28208), (86, 28133), (87, 28127), (88, 28112), (90, 28067), (92, 28058),

Gene: ThankyouJordi\_35 Start: 30189, Stop: 30010, Start Num: 77

Candidate Starts for ThankyouJordi\_35:

(45, 30288), (Start: 70 @30237 has 105 MA's), (Start: 75 @30198 has 3 MA's), (Start: 77 @30189 has 3 MA's), (88, 30090), (89, 30087), (92, 30036),

Gene: Thimann\_32 Start: 26356, Stop: 26129, Start Num: 70

Candidate Starts for Thimann\_32:

(Start: 70 @26356 has 105 MA's), (Start: 72 @26341 has 6 MA's), (Start: 75 @26317 has 3 MA's), (Start: 77 @26308 has 3 MA's), (78, 26305), (79, 26284), (88, 26209), (92, 26155),

Gene: TillyBobJoe\_37 Start: 33366, Stop: 33130, Start Num: 66

Candidate Starts for TillyBobJoe\_37:

(Start: 49 @33402 has 4 MA's), (Start: 66 @33366 has 33 MA's), (Start: 70 @33357 has 105 MA's), (Start: 72 @33342 has 6 MA's), (Start: 75 @33318 has 3 MA's), (78, 33306), (87, 33225), (88, 33210), (92, 33156),

Gene: TimTam\_31 Start: 28844, Stop: 28608, Start Num: 70

Candidate Starts for TimTam\_31:

(Start: 67 @28850 has 1 MA's), (Start: 70 @28844 has 105 MA's), (Start: 72 @28829 has 6 MA's), (73, 28826), (Start: 75 @28805 has 3 MA's), (76, 28799), (Start: 77 @28796 has 3 MA's), (78, 28793), (88, 28697),

Gene: TinyDot\_30 Start: 24493, Stop: 24266, Start Num: 70

Candidate Starts for TinyDot\_30:

(58, 24538), (Start: 70 @24493 has 105 MA's), (Start: 72 @24478 has 6 MA's), (74, 24469), (Start: 75 @24454 has 3 MA's), (78, 24442), (81, 24394), (86, 24367), (87, 24361), (88, 24346), (90, 24301), (92, 24292),

Gene: Toast\_34 Start: 28574, Stop: 28347, Start Num: 70

Candidate Starts for Toast\_34:

(Start: 70 @28574 has 105 MA's), (Start: 72 @28559 has 6 MA's), (Start: 75 @28535 has 3 MA's), (76, 28529), (Start: 77 @28526 has 3 MA's), (78, 28523), (79, 28502), (88, 28427), (92, 28373),

Gene: Togo\_37 Start: 33553, Stop: 33326, Start Num: 70

Candidate Starts for Togo\_37:

(Start: 49 @33598 has 4 MA's), (Start: 66 @33562 has 33 MA's), (Start: 70 @33553 has 105 MA's), (Start: 72 @33538 has 6 MA's), (Start: 75 @33514 has 3 MA's), (78, 33502), (87, 33421), (88, 33406), (92, 33352),

Gene: TuertoX\_34 Start: 26548, Stop: 26321, Start Num: 70

Candidate Starts for TuertoX\_34:

(Start: 65 @26557 has 3 MA's), (Start: 70 @26548 has 105 MA's), (73, 26530), (Start: 75 @26509 has 3 MA's), (78, 26497), (87, 26416), (88, 26401), (90, 26356), (91, 26350), (92, 26347),

Gene: Tuti\_35 Start: 27599, Stop: 27372, Start Num: 70

Candidate Starts for Tuti\_35:

(Start: 70 @27599 has 105 MA's), (Start: 72 @27584 has 6 MA's), (Start: 75 @27560 has 3 MA's), (78, 27548), (79, 27527), (88, 27452),

Gene: Twinkle\_32 Start: 29724, Stop: 29512, Start Num: 72

Candidate Starts for Twinkle\_32:

(Start: 72 @29724 has 6 MA's), (Start: 75 @29700 has 3 MA's), (Start: 77 @29691 has 3 MA's), (78, 29688), (79, 29667), (88, 29592), (90, 29547), (92, 29538),

Gene: Twister6\_40 Start: 33465, Stop: 33229, Start Num: 66

Candidate Starts for Twister6\_40:

(Start: 49 @33501 has 4 MA's), (Start: 66 @33465 has 33 MA's), (Start: 70 @33456 has 105 MA's), (Start: 72 @33441 has 6 MA's), (Start: 75 @33417 has 3 MA's), (78, 33405), (87, 33324), (88, 33309), (92, 33255),

Gene: UmaThurman\_31 Start: 28735, Stop: 28508, Start Num: 70

Candidate Starts for UmaThurman\_31:

(Start: 70 @28735 has 105 MA's), (Start: 72 @28720 has 6 MA's), (Start: 75 @28696 has 3 MA's), (78, 28684), (81, 28636), (88, 28588), (92, 28534),

Gene: Valary\_40 Start: 34508, Stop: 34272, Start Num: 66

Candidate Starts for Valary\_40:

(Start: 49 @34544 has 4 MA's), (Start: 66 @34508 has 33 MA's), (Start: 70 @34499 has 105 MA's), (Start: 72 @34484 has 6 MA's), (Start: 75 @34460 has 3 MA's), (78, 34448), (81, 34400), (87, 34367), (88, 34352), (92, 34298),

Gene: VanDeWege\_41 Start: 33791, Stop: 33564, Start Num: 70

Candidate Starts for VanDeWege\_41:

(Start: 49 @33836 has 4 MA's), (Start: 66 @33800 has 33 MA's), (Start: 70 @33791 has 105 MA's), (Start: 72 @33776 has 6 MA's), (Start: 75 @33752 has 3 MA's), (78, 33740), (81, 33692), (87, 33659), (88, 33644), (92, 33590),

Gene: Vasanti\_34 Start: 26861, Stop: 26634, Start Num: 70

Candidate Starts for Vasanti\_34:

(23, 26972), (45, 26918), (48, 26912), (Start: 70 @26861 has 105 MA's), (73, 26843), (Start: 75 @26822 has 3 MA's), (Start: 77 @26813 has 3 MA's), (78, 26810), (79, 26789), (80, 26783), (88, 26714), (89, 26711), (92, 26660),

Gene: Walrus\_36 Start: 29330, Stop: 29094, Start Num: 66

Candidate Starts for Walrus\_36:

(37, 29423), (39, 29420), (45, 29399), (62, 29345), (63, 29336), (Start: 66 @29330 has 33 MA's), (Start: 70 @29321 has 105 MA's), (Start: 72 @29306 has 6 MA's), (Start: 75 @29282 has 3 MA's), (78, 29270), (86, 29195), (87, 29189), (88, 29174), (92, 29120),

Gene: WelcomeAyanna\_35 Start: 30384, Stop: 30157, Start Num: 70

Candidate Starts for WelcomeAyanna\_35:

(45, 30435), (Start: 70 @30384 has 105 MA's), (Start: 75 @30345 has 3 MA's), (Start: 77 @30336 has 3 MA's), (88, 30237), (89, 30234), (92, 30183),

Gene: Whiteclaw\_34 Start: 26548, Stop: 26321, Start Num: 70

Candidate Starts for Whiteclaw\_34:

(Start: 65 @26557 has 3 MA's), (Start: 70 @26548 has 105 MA's), (73, 26530), (Start: 75 @26509 has 3 MA's), (78, 26497), (87, 26416), (88, 26401), (90, 26356), (91, 26350), (92, 26347),

Gene: Whitney\_40 Start: 32148, Stop: 31924, Start Num: 71

Candidate Starts for Whitney\_40:

(Start: 70 @32151 has 105 MA's), (Start: 71 @32148 has 19 MA's), (Start: 72 @32136 has 6 MA's), (Start: 75 @32112 has 3 MA's), (78, 32100), (81, 32052), (86, 32025), (87, 32019), (88, 32004), (90, 31959), (92, 31950),

Gene: William\_35 Start: 28714, Stop: 28487, Start Num: 70

Candidate Starts for William\_35:

(Start: 70 @28714 has 105 MA's), (Start: 72 @28699 has 6 MA's), (Start: 75 @28675 has 3 MA's), (78, 28663), (79, 28642), (86, 28588), (88, 28567), (90, 28522),

Gene: Wisp\_30 Start: 27726, Stop: 27493, Start Num: 70

Candidate Starts for Wisp\_30:

(Start: 70 @27726 has 105 MA's), (Start: 71 @27723 has 19 MA's), (Start: 72 @27711 has 6 MA's), (Start: 75 @27687 has 3 MA's), (78, 27675), (81, 27627), (87, 27594), (88, 27579), (92, 27525), (95, 27501),

Gene: Wizard\_37 Start: 33705, Stop: 33469, Start Num: 66

Candidate Starts for Wizard\_37:

(Start: 49 @33741 has 4 MA's), (Start: 66 @33705 has 33 MA's), (Start: 70 @33696 has 105 MA's), (Start: 72 @33681 has 6 MA's), (Start: 75 @33657 has 3 MA's), (78, 33645), (87, 33564), (88, 33549), (92, 33495),

Gene: Wocket\_36 Start: 28733, Stop: 28506, Start Num: 70

Candidate Starts for Wocket\_36:

(9, 28913), (13, 28895), (19, 28853), (Start: 68 @28736 has 1 MA's), (Start: 70 @28733 has 105 MA's), (Start: 71 @28730 has 19 MA's), (Start: 72 @28718 has 6 MA's), (73, 28715), (Start: 75 @28694 has 3 MA's), (Start: 77 @28685 has 3 MA's), (78, 28682), (85, 28613), (86, 28607), (89, 28583), (90, 28541), (92, 28532),

Gene: YungMoney\_39 Start: 34979, Stop: 34755, Start Num: 71

Candidate Starts for YungMoney\_39:

(30, 35072), (34, 35066), (36, 35063), (38, 35060), (41, 35051), (46, 35036), (Start: 70 @34982 has 105 MA's), (Start: 71 @34979 has 19 MA's), (Start: 72 @34967 has 6 MA's), (Start: 75 @34943 has 3 MA's), (78, 34931), (88, 34835), (90, 34790), (92, 34781),

Gene: ZAYM\_35 Start: 28842, Stop: 28630, Start Num: 72

Candidate Starts for ZAYM\_35:

(1, 29226), (16, 28986), (18, 28980), (28, 28944), (35, 28935), (45, 28911), (Start: 70 @28857 has 105 MA's), (Start: 71 @28854 has 19 MA's), (Start: 72 @28842 has 6 MA's), (Start: 75 @28818 has 3 MA's), (76, 28812), (Start: 77 @28809 has 3 MA's), (78, 28806), (87, 28725), (88, 28710), (92, 28656),

Gene: Zarbodnamra\_33 Start: 28639, Stop: 28412, Start Num: 70

Candidate Starts for Zarbodnamra\_33:

(Start: 49 @28684 has 4 MA's), (Start: 70 @28639 has 105 MA's), (Start: 72 @28624 has 6 MA's), (73, 28621), (Start: 75 @28600 has 3 MA's), (78, 28588), (81, 28540), (84, 28522), (88, 28492), (90, 28447), (92, 28438), (93, 28435),

Gene: ZiggyZoo\_34 Start: 28938, Stop: 28711, Start Num: 70

Candidate Starts for ZiggyZoo\_34:

(Start: 70 @28938 has 105 MA's), (Start: 71 @28935 has 19 MA's), (Start: 72 @28923 has 6 MA's), (73, 28920), (Start: 75 @28899 has 3 MA's), (78, 28887), (88, 28791), (92, 28737),

Gene: Zilla\_36 Start: 29544, Stop: 29320, Start Num: 71

Candidate Starts for Zilla\_36:

(Start: 50 @29592 has 1 MA's), (Start: 70 @29547 has 105 MA's), (Start: 71 @29544 has 19 MA's), (Start: 72 @29532 has 6 MA's), (73, 29529), (Start: 75 @29508 has 3 MA's), (78, 29496), (87, 29415), (88, 29400),