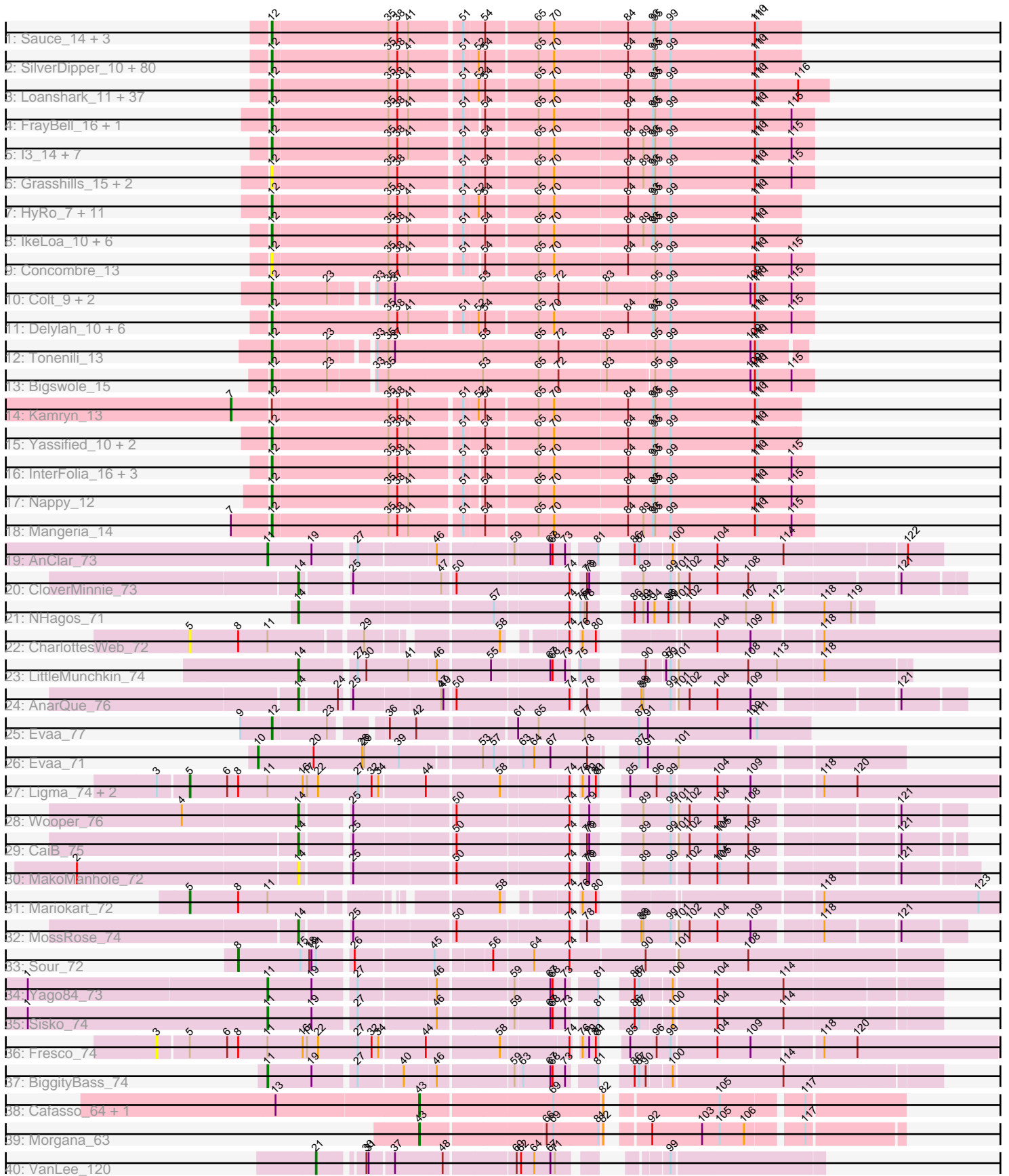


# Pham 157595



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 157595 Report

This analysis was run 04/13/24 on database version 558.

Pham number 157595 has 203 members, 18 are drafts.

Phages represented in each track:

- Track 1 : Sauce\_14, Cali\_10, Ronan\_10, Iota\_10
- Track 2 : SilverDipper\_10, CindyLou\_10, Shnickers\_10, Rizal\_10, Alice\_8, JPickles\_10, FoxtrotP1\_11, Matsumoto\_9, Koguma\_10, CharlieB\_9, Pinkcreek\_6, Ngannou\_10, Babyland\_10, Atlantean\_10, Momo\_10, StubbySaigey\_10, Roots515\_11, Audrick\_10, JulietS\_10, BananaFence\_10, Spec\_9, Rahel\_10, Catera\_10, ShiaLabeouf\_10, ArcherS7\_10, LifeSavor\_10, DTDevon\_13, ValleyTerrace\_10, Jedediah\_10, EmmaElysia\_10, Blackbrain\_10, JustHall\_10, Morizzled23\_10, InigoMontoya\_10, Amataga\_10, Guwapp\_10, Melpomini\_10, LRRHood\_10, Patter\_10, Turret\_10, Sprinklers\_10, ET08\_9, Willis\_10, BadAgartude\_10, Darko\_10, Tortoise16\_9, Wally\_10, Phlegm\_10, Quasimodo\_10, Trinitium\_10, Chomp\_9, SmallFry\_10, Shaqnato\_10, Ghost\_10, Janiyr\_10, Jaygup\_10, Latch\_10, Derek\_10, Cactojaque\_9, Astraea\_15, BackyardAgain\_9, DirtMonster\_14, Ading\_10, Lukilu\_10, Gamgam\_10, Littleton\_10, Pivoine\_10, Pier\_16, Gabriel\_10, Bangla1971\_10, Phox\_10, Breeniome\_10, Rabinovish\_9, Jemmno\_9, Phusco\_10, Naija\_10, Flabslab\_10, Essence\_10, BeanWater\_9, Adlitam\_10, Teardrop\_10
- Track 3 : Loanshark\_11, Delilah\_11, Megamind\_11, TinyTim\_11, Khaleesi\_11, Gizmo\_11, ParkTD\_11, Ewok\_11, MikeLiesIn\_11, YemiJoy2021\_11, Asterius\_11, Pleione\_11, Bipolarisk\_11, Bonray\_11, Erdmann\_11, DrPhinkDaddy\_11, Jessibeth14\_11, NedWong\_11, Burrough\_11, Zalkecks\_11, FudgeTart\_11, Bread\_11, SrishMeg2525\_11, ZygoTaiga\_11, Norm\_11, Ava3\_11, Izajani\_11, Yucca\_10, Issimir\_11, Daffodil\_11, Maby2021\_11, McWolfish\_11, Zeenon\_12, Capablanca\_11, Salacia\_11, Lee7\_11, Shrimp\_11, PurduePete\_11
- Track 4 : FrayBell\_16, LordLeafolot\_16
- Track 5 : I3\_14, Tyke\_13, Bxz1\_13, NuevoMundo\_15, LolaVinca\_13, Drazdys\_13, Spud\_14, Pio\_14
- Track 6 : Grasshills\_15, EggyFarm\_15, BigCity\_15
- Track 7 : HyRo\_7, Chargie21\_10, Napoleon13\_10, Kboogie\_10, ChaylaJr\_10, ChickenPhender\_10, McGee\_10, Shifa\_7, Dietrick\_9, Basquiat\_10, YoungMoneyMata\_10, EasyJones\_10
- Track 8 : IkeLoa\_10, NoodleTree\_13, StephanieG\_15, Mikro\_13, QBert\_10, Fludd\_10, RoMag\_9
- Track 9 : Concombre\_13
- Track 10 : Colt\_9, Cane17\_9, Blubba\_9
- Track 11 : Delylah\_10, Caravan\_10, ScottMcG\_10, EmToTheThree\_11, Shelob\_11, Stubby\_8, ErnieJ\_10
- Track 12 : Tonenili\_13

- Track 13 : Bigswole\_15
- Track 14 : Kamryn\_13
- Track 15 : Yassified\_10, Grungle\_10, Dandelion\_16
- Track 16 : InterFolia\_16, Naval22\_13, MoMoMixon\_13, Nidhogg\_13
- Track 17 : Nappy\_12
- Track 18 : Mangeria\_14
- Track 19 : AnClar\_73
- Track 20 : CloverMinnie\_73
- Track 21 : NHagos\_71
- Track 22 : CharlottesWeb\_72
- Track 23 : LittleMunchkin\_74
- Track 24 : AnarQue\_76
- Track 25 : Evaa\_77
- Track 26 : Evaa\_71
- Track 27 : Ligma\_74, Axumite\_74, Shatter\_74
- Track 28 : Wooper\_76
- Track 29 : CaiB\_75
- Track 30 : MakoManhole\_72
- Track 31 : Mariokart\_72
- Track 32 : MossRose\_74
- Track 33 : Sour\_72
- Track 34 : Yago84\_73
- Track 35 : Sisko\_74
- Track 36 : Fresco\_74
- Track 37 : BiggityBass\_74
- Track 38 : Cafasso\_64, Aleemily\_62
- Track 39 : Morgana\_63
- Track 40 : VanLee\_120

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

The start number called the most often in the published annotations is 12, it was called in 164 of the 185 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ading\_10, Adlitam\_10, Alice\_8, Amataga\_10, ArcherS7\_10, Asterius\_11, Astraea\_15, Atlantean\_10, Audrick\_10, Ava3\_11, Babyland\_10, BackyardAgain\_9, BadAgartude\_10, BananaFence\_10, Bangla1971\_10, Basquiat\_10, BeanWater\_9, BigCity\_15, Bigswole\_15, Bipolarisk\_11, Blackbrain\_10, Blubba\_9, Bonray\_11, Bread\_11, Breeniome\_10, Burrough\_11, Bxz1\_13, Cactojaque\_9, Cali\_10, Cane17\_9, Capablanca\_11, Caravan\_10, Catera\_10, Chargie21\_10, CharlieB\_9, ChaylaJr\_10, ChickenPhender\_10, Chomp\_9, CindyLou\_10, Colt\_9, Concombre\_13, DTDevon\_13, Daffodil\_11, Dandelion\_16, Darko\_10, Delilah\_11, Delylah\_10, Derek\_10, Dietrick\_9, DirtMonster\_14, DrPhinkDaddy\_11, Drazdys\_13, ET08\_9, EasyJones\_10, EggyFarm\_15, EmToTheThree\_11, EmmaElysia\_10, Erdmann\_11, ErnieJ\_10, Essence\_10, Evaa\_77, Ewok\_11, Flabslab\_10, Fludd\_10, FoxtrotP1\_11, FrayBell\_16, FudgeTart\_11, Gabriel\_10, Gamgam\_10, Ghost\_10, Gizmo\_11, Grasshills\_15, Grungle\_10, Guwapp\_10, HyRo\_7, I3\_14, IkeLoa\_10, InigoMontoya\_10, InterFolia\_16, Iota\_10, Issimir\_11, Izajani\_11, JPickles\_10, Janiyra\_10, Jaygup\_10, Jediah\_10, Jemmno\_9, Jessibeth14\_11, JulietS\_10,

JustHall\_10, Kboogie\_10, Khaleesi\_11, Koguma\_10, LRRHood\_10, Latch\_10, Lee7\_11, LifeSavor\_10, Littleton\_10, Loanshark\_11, LolaVinca\_13, LordLeafolot\_16, Lukilu\_10, Maby2021\_11, Mangeria\_14, Matsumoto\_9, McGee\_10, McWolfish\_11, Megamind\_11, Melpomini\_10, MikeLiesIn\_11, Mikro\_13, MoMoMixon\_13, Momo\_10, Morizzled23\_10, Naija\_10, Napoleon13\_10, Nappy\_12, Naval22\_13, NedWong\_11, Ngannou\_10, Nidhogg\_13, NoodleTree\_13, Norm\_11, NuevoMundo\_15, ParkTD\_11, Patter\_10, Phlegm\_10, Phox\_10, Phusco\_10, Pier\_16, Pinkcreek\_6, Pio\_14, Pivoine\_10, Pleione\_11, PurduePete\_11, QBert\_10, Quasimodo\_10, Rabinovish\_9, Rahel\_10, Rizal\_10, RoMag\_9, Ronan\_10, Roots515\_11, Salacia\_11, Sauce\_14, ScottMcG\_10, Shaqato\_10, Shelob\_11, ShiaLabeouf\_10, Shifa\_7, Shnickers\_10, Shrimp\_11, SilverDipper\_10, SmallFry\_10, Spec\_9, Sprinklers\_10, Spud\_14, SrishMeg2525\_11, StephanieG\_15, StubbySaigey\_10, Stubby\_8, Teardrop\_10, TinyTim\_11, Tonenili\_13, Tortoise16\_9, Trinitium\_10, Turret\_10, Tyke\_13, ValleyTerrace\_10, Wally\_10, Willis\_10, Yassified\_10, YemiJoy2021\_11, YoungMoneyMata\_10, Yucca\_10, Zalkecks\_11, Zeenon\_12, ZygoTaiga\_11,

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

- Kamryn\_13,

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

- Aleemily\_62, AnClar\_73, AnarQue\_76, Axumite\_74, BiggityBass\_74, Cafasso\_64, CaiB\_75, CharlottesWeb\_72, CloverMinnie\_73, Evaa\_71, Fresco\_74, Ligma\_74, LittleMunchkin\_74, MakoManhole\_72, Mariokart\_72, Morgana\_63, MossRose\_74, NHagos\_71, Shatter\_74, Sisko\_74, Sour\_72, VanLee\_120, Wooper\_76, Yago84\_73,

### Summary by start number:

Start 3:

- Found in 4 of 203 ( 2.0% ) of genes in pham
- No Manual Annotations of this start.
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Fresco\_74 (DR),

Start 5:

- Found in 6 of 203 ( 3.0% ) of genes in pham
- Manual Annotations of this start: 3 of 185
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Axumite\_74 (DR), CharlottesWeb\_72 (DR), Ligma\_74 (DR), Mariokart\_72 (DR), Shatter\_74 (DR),

Start 7:

- Found in 2 of 203 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 1 of 185
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Kamryn\_13 (C1),

Start 8:

- Found in 7 of 203 ( 3.4% ) of genes in pham
- Manual Annotations of this start: 1 of 185
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Sour\_72 (DR),

Start 10:

- Found in 1 of 203 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 185
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Evaa\_71 (DR),

#### Start 11:

- Found in 10 of 203 ( 4.9% ) of genes in pham
- Manual Annotations of this start: 4 of 185
- Called 40.0% of time when present
- Phage (with cluster) where this start called: AnClar\_73 (DR), BiggityBass\_74 (DR), Sisko\_74 (DR), Yago84\_73 (DR),

#### Start 12:

- Found in 179 of 203 ( 88.2% ) of genes in pham
- Manual Annotations of this start: 164 of 185
- Called 99.4% of time when present
- Phage (with cluster) where this start called: Ading\_10 (C1), Adlitam\_10 (C1), Alice\_8 (C1), Amataga\_10 (C1), ArcherS7\_10 (C1), Asterius\_11 (C1), Astraea\_15 (C1), Atlantean\_10 (C1), Audrick\_10 (C1), Ava3\_11 (C1), Babyland\_10 (C1), BackyardAgain\_9 (C1), BadAgartude\_10 (C1), BananaFence\_10 (C1), Bangla1971\_10 (C1), Basquiat\_10 (C1), BeanWater\_9 (C1), BigCity\_15 (C1), Bigswole\_15 (C1), Bipolarisk\_11 (C1), Blackbrain\_10 (C1), Blubba\_9 (C1), Bonray\_11 (C1), Bread\_11 (C1), Breeniome\_10 (C1), Burrough\_11 (C1), Bxz1\_13 (C1), Cactojaque\_9 (C1), Cali\_10 (C1), Cane17\_9 (C1), Capablanca\_11 (C1), Caravan\_10 (C1), Catera\_10 (C1), Chargie21\_10 (C1), CharlieB\_9 (C1), ChaylaJr\_10 (C1), ChickenPhender\_10 (C1), Chomp\_9 (C1), CindyLou\_10 (C1), Colt\_9 (C1), Concombre\_13 (C1), DTDevon\_13 (C1), Daffodil\_11 (C1), Dandelion\_16 (C1), Darko\_10 (C1), Delilah\_11 (C1), Delylah\_10 (C1), Derek\_10 (C1), Dietrick\_9 (C1), DirtMonster\_14 (C1), DrPhinkDaddy\_11 (C1), Drazdys\_13 (C1), ET08\_9 (C1), EasyJones\_10 (C1), EggyFarm\_15 (C1), EmToTheThree\_11 (C1), EmmaElysia\_10 (C1), Erdmann\_11 (C1), ErnieJ\_10 (C1), Essence\_10 (C1), Evaa\_77 (DR), Ewok\_11 (C1), Flabslab\_10 (C1), Fludd\_10 (C1), FoxtrotP1\_11 (C1), FrayBell\_16 (C1), FudgeTart\_11 (C1), Gabriel\_10 (C1), Gangam\_10 (C1), Ghost\_10 (C1), Gizmo\_11 (C1), Grasshills\_15 (C1), Grungle\_10 (C1), Guwapp\_10 (C1), HyRo\_7 (C1), I3\_14 (C1), IkeLoa\_10 (C1), InigoMontoya\_10 (C1), InterFolia\_16 (C1), Iota\_10 (C1), Issimir\_11 (C1), Izajani\_11 (C1), JPickles\_10 (C1), Janiyra\_10 (C1), Jaygup\_10 (C1), Jedediah\_10 (C1), Jemmno\_9 (C1), Jessibeth14\_11 (C1), JulietS\_10 (C1), JustHall\_10 (C1), Kboogie\_10 (C1), Khaleesi\_11 (C1), Koguma\_10 (C1), LRRHood\_10 (C1), Latch\_10 (C1), Lee7\_11 (C1), LifeSavor\_10 (C1), Littleton\_10 (C1), Loanshark\_11 (C1), LolaVinca\_13 (C1), LordLeafolot\_16 (C1), Lukilu\_10 (C1), Maby2021\_11 (C1), Mangeria\_14 (C1), Matsumoto\_9 (C1), McGee\_10 (C1), McWolfish\_11 (C1), Megamind\_11 (C1), Melpomini\_10 (C1), MikeLiesIn\_11 (C1), Mikro\_13 (C1), MoMoMixon\_13 (C1), Momo\_10 (C1), Morizzled23\_10 (C1), Naija\_10 (C1), Napoleon13\_10 (C1), Nappy\_12 (C1), Naval22\_13 (C1), NedWong\_11 (C1), Ngannou\_10 (C1), Nidhogg\_13 (C1), NoodleTree\_13 (C1), Norm\_11 (C1), NuevoMundo\_15 (C1), ParkTD\_11 (C1), Patter\_10 (C1), Phlegm\_10 (C1), Phox\_10 (C1), Phusco\_10 (C1), Pier\_16 (C1), Pinkcreek\_6 (C1), Pio\_14 (C1), Pivoine\_10 (C1), Pleione\_11 (C1), PurduePete\_11 (C1), QBert\_10 (C1), Quasimodo\_10 (C1), Rabinovish\_9 (C1), Rahel\_10 (C1), Rizal\_10 (C1), RoMag\_9 (C1), Ronan\_10 (C1), Roots515\_11 (C1), Salacia\_11 (C1), Sauce\_14 (C1), ScottMcG\_10 (C1), Shaq nato\_10 (C1), Shelob\_11 (C1), ShiaLabeouf\_10 (C1), Shifa\_7 (C1), Shnickers\_10 (C1), Shrimp\_11 (C1), SilverDipper\_10 (C1), SmallFry\_10 (C1), Spec\_9 (C1), Sprinklers\_10 (C1), Spud\_14 (C1), SrishMeg2525\_11 (C1),

StephanieG\_15 (C1), StubbySaigey\_10 (C1), Stubby\_8 (C1), Teardrop\_10 (C1), TinyTim\_11 (C1), Tonenili\_13 (C1), Tortoise16\_9 (C1), Trinitium\_10 (C1), Turret\_10 (C1), Tyke\_13 (C1), ValleyTerrace\_10 (C1), Wally\_10 (C1), Willis\_10 (C1), Yassified\_10 (C1), YemiJoy2021\_11 (C1), YoungMoneyMata\_10 (C1), Yucca\_10 (C1), Zalkecks\_11 (C1), Zeenon\_12 (C1), ZygoTaiga\_11 (C1),

Start 14:

- Found in 8 of 203 ( 3.9% ) of genes in pham
- Manual Annotations of this start: 7 of 185
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AnarQue\_76 (DR), CaiB\_75 (DR), CloverMinnie\_73 (DR), LittleMunchkin\_74 (DR), MakoManhole\_72 (DR), MossRose\_74 (DR), NHagos\_71 (DR), Wooper\_76 (DR),

Start 21:

- Found in 2 of 203 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 1 of 185
- Called 50.0% of time when present
- Phage (with cluster) where this start called: VanLee\_120 (singleton),

Start 43:

- Found in 3 of 203 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 3 of 185
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aleemily\_62 (DZ), Cafasso\_64 (DZ), Morgana\_63 (DZ),

### **Summary by clusters:**

There are 4 clusters represented in this pham: DZ, C1, DR, singleton,

Info for manual annotations of cluster C1:

- Start number 7 was manually annotated 1 time for cluster C1.
- Start number 12 was manually annotated 163 times for cluster C1.

Info for manual annotations of cluster DR:

- Start number 5 was manually annotated 3 times for cluster DR.
- Start number 8 was manually annotated 1 time for cluster DR.
- Start number 10 was manually annotated 1 time for cluster DR.
- Start number 11 was manually annotated 4 times for cluster DR.
- Start number 12 was manually annotated 1 time for cluster DR.
- Start number 14 was manually annotated 7 times for cluster DR.

Info for manual annotations of cluster DZ:

- Start number 43 was manually annotated 3 times for cluster DZ.

### **Gene Information:**

Gene: Ading\_10 Start: 2709, Stop: 3392, Start Num: 12

Candidate Starts for Ading\_10:

(Start: 12 @2709 has 164 MA's), (35, 2865), (38, 2877), (41, 2892), (51, 2955), (52, 2973), (54, 2982), (65, 3048), (70, 3069), (84, 3165), (93, 3198), (95, 3201), (99, 3222), (110, 3333), (111, 3336),

Gene: Adlitam\_10 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for Adlitam\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: Aleemily\_62 Start: 42673, Stop: 43269, Start Num: 43

Candidate Starts for Aleemily\_62:

(13, 42481), (Start: 43 @42673 has 3 MA's), (69, 42847), (82, 42910), (105, 43039), (117, 43141),

Gene: Alice\_8 Start: 3144, Stop: 3827, Start Num: 12

Candidate Starts for Alice\_8:

(Start: 12 @3144 has 164 MA's), (35, 3300), (38, 3312), (41, 3327), (51, 3390), (52, 3408), (54, 3417), (65, 3483), (70, 3504), (84, 3600), (93, 3633), (95, 3636), (99, 3657), (110, 3768), (111, 3771),

Gene: Amataga\_10 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for Amataga\_10:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: AnClar\_73 Start: 58343, Stop: 57537, Start Num: 11

Candidate Starts for AnClar\_73:

(Start: 11 @58343 has 4 MA's), (19, 58283), (27, 58232), (46, 58133), (59, 58040), (67, 57995), (68, 57992), (73, 57977), (81, 57944), (86, 57923), (87, 57917), (100, 57878), (104, 57824), (114, 57734), (122, 57584),

Gene: AnarQue\_76 Start: 57434, Stop: 56649, Start Num: 14

Candidate Starts for AnarQue\_76:

(Start: 14 @57434 has 7 MA's), (24, 57386), (25, 57377), (47, 57263), (49, 57260), (50, 57248), (74, 57104), (78, 57092), (88, 57050), (89, 57047), (99, 57011), (101, 57005), (102, 56990), (104, 56954), (109, 56909), (121, 56732),

Gene: ArcherS7\_10 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for ArcherS7\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: Asterius\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Asterius\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: Astraea\_15 Start: 4224, Stop: 4907, Start Num: 12

Candidate Starts for Astraea\_15:

(Start: 12 @4224 has 164 MA's), (35, 4380), (38, 4392), (41, 4407), (51, 4470), (52, 4488), (54, 4497), (65, 4563), (70, 4584), (84, 4680), (93, 4713), (95, 4716), (99, 4737), (110, 4848), (111, 4851),

Gene: Atlantean\_10 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for Atlantean\_10:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: Audrick\_10 Start: 2709, Stop: 3392, Start Num: 12

Candidate Starts for Audrick\_10:

(Start: 12 @2709 has 164 MA's), (35, 2865), (38, 2877), (41, 2892), (51, 2955), (52, 2973), (54, 2982), (65, 3048), (70, 3069), (84, 3165), (93, 3198), (95, 3201), (99, 3222), (110, 3333), (111, 3336),

Gene: Ava3\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Ava3\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: Axumite\_74 Start: 56018, Stop: 55002, Start Num: 5

Candidate Starts for Axumite\_74:

(3, 56057), (Start: 5 @56018 has 3 MA's), (6, 55967), (Start: 8 @55952 has 1 MA's), (Start: 11 @55913 has 4 MA's), (16, 55865), (17, 55859), (22, 55844), (27, 55790), (32, 55772), (34, 55763), (44, 55703), (58, 55610), (74, 55529), (76, 55523), (79, 55514), (80, 55505), (81, 55502), (85, 55490), (96, 55457), (99, 55439), (104, 55382), (109, 55337), (118, 55250), (120, 55205),

Gene: Babyland\_10 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for Babyland\_10:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: BackyardAgain\_9 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for BackyardAgain\_9:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: BadAgartude\_10 Start: 2938, Stop: 3621, Start Num: 12

Candidate Starts for BadAgartude\_10:

(Start: 12 @2938 has 164 MA's), (35, 3094), (38, 3106), (41, 3121), (51, 3184), (52, 3202), (54, 3211), (65, 3277), (70, 3298), (84, 3394), (93, 3427), (95, 3430), (99, 3451), (110, 3562), (111, 3565),

Gene: BananaFence\_10 Start: 3731, Stop: 4414, Start Num: 12

Candidate Starts for BananaFence\_10:

(Start: 12 @3731 has 164 MA's), (35, 3887), (38, 3899), (41, 3914), (51, 3977), (52, 3995), (54, 4004), (65, 4070), (70, 4091), (84, 4187), (93, 4220), (95, 4223), (99, 4244), (110, 4355), (111, 4358),

Gene: Bangla1971\_10 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for Bangla1971\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: Basquiat\_10 Start: 2711, Stop: 3394, Start Num: 12

Candidate Starts for Basquiat\_10:

(Start: 12 @2711 has 164 MA's), (35, 2867), (38, 2879), (41, 2894), (51, 2957), (52, 2975), (54, 2984), (65, 3050), (70, 3071), (84, 3167), (93, 3200), (95, 3203), (99, 3224), (110, 3335), (111, 3338),

Gene: BeanWater\_9 Start: 3745, Stop: 4428, Start Num: 12

Candidate Starts for BeanWater\_9:



(Start: 12 @3745 has 164 MA's), (35, 3901), (38, 3913), (41, 3928), (51, 3991), (52, 4009), (54, 4018), (65, 4084), (70, 4105), (84, 4201), (93, 4234), (95, 4237), (99, 4258), (110, 4369), (111, 4372),

Gene: BigCity\_15 Start: 5237, Stop: 5938, Start Num: 12

Candidate Starts for BigCity\_15:

(Start: 12 @5237 has 164 MA's), (35, 5393), (38, 5405), (51, 5483), (54, 5510), (65, 5576), (70, 5597), (84, 5693), (89, 5714), (93, 5726), (95, 5729), (99, 5750), (110, 5861), (111, 5864), (115, 5909),

Gene: BiggityBass\_74 Start: 58130, Stop: 57321, Start Num: 11

Candidate Starts for BiggityBass\_74:

(Start: 11 @58130 has 4 MA's), (19, 58070), (27, 58019), (40, 57962), (46, 57920), (59, 57827), (63, 57818), (67, 57782), (68, 57779), (73, 57764), (81, 57731), (86, 57710), (87, 57704), (90, 57695), (100, 57665), (114, 57521),

Gene: Bigswole\_15 Start: 4457, Stop: 5155, Start Num: 12

Candidate Starts for Bigswole\_15:

(Start: 12 @4457 has 164 MA's), (23, 4529), (33, 4586), (35, 4601), (53, 4727), (65, 4802), (72, 4829), (83, 4892), (95, 4946), (99, 4967), (109, 5072), (110, 5078), (111, 5081), (115, 5126),

Gene: Bipolarisk\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Bipolarisk\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: Blackbrain\_10 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for Blackbrain\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: Blubba\_9 Start: 3514, Stop: 4206, Start Num: 12

Candidate Starts for Blubba\_9:

(Start: 12 @3514 has 164 MA's), (23, 3586), (33, 3634), (35, 3649), (37, 3658), (53, 3775), (65, 3850), (72, 3877), (83, 3940), (95, 3997), (99, 4018), (109, 4123), (110, 4129), (111, 4132), (115, 4177),

Gene: Bonray\_11 Start: 3803, Stop: 4525, Start Num: 12

Candidate Starts for Bonray\_11:

(Start: 12 @3803 has 164 MA's), (35, 3959), (38, 3971), (41, 3986), (51, 4049), (52, 4067), (54, 4076), (65, 4142), (70, 4163), (84, 4259), (93, 4292), (95, 4295), (99, 4316), (110, 4427), (111, 4430), (116, 4484),

Gene: Bread\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Bread\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: Breeniome\_10 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for Breeniome\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: Burrough\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Burrough\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: Bxz1\_13 Start: 3914, Stop: 4615, Start Num: 12

Candidate Starts for Bxz1\_13:

(Start: 12 @3914 has 164 MA's), (35, 4070), (38, 4082), (41, 4097), (51, 4160), (54, 4187), (65, 4253), (70, 4274), (84, 4370), (89, 4391), (93, 4403), (95, 4406), (99, 4427), (110, 4538), (111, 4541), (115, 4586),

Gene: Cactojaque\_9 Start: 2660, Stop: 3343, Start Num: 12

Candidate Starts for Cactojaque\_9:

(Start: 12 @2660 has 164 MA's), (35, 2816), (38, 2828), (41, 2843), (51, 2906), (52, 2924), (54, 2933), (65, 2999), (70, 3020), (84, 3116), (93, 3149), (95, 3152), (99, 3173), (110, 3284), (111, 3287),

Gene: Cafasso\_64 Start: 43297, Stop: 43893, Start Num: 43

Candidate Starts for Cafasso\_64:

(13, 43105), (Start: 43 @43297 has 3 MA's), (69, 43471), (82, 43534), (105, 43663), (117, 43765),

Gene: CaiB\_75 Start: 57227, Stop: 56448, Start Num: 14

Candidate Starts for CaiB\_75:

(Start: 14 @57227 has 7 MA's), (25, 57170), (50, 57041), (74, 56897), (78, 56885), (79, 56882), (89, 56840), (99, 56804), (101, 56798), (102, 56783), (104, 56747), (105, 56744), (108, 56705), (121, 56525),

Gene: Cali\_10 Start: 3902, Stop: 4582, Start Num: 12

Candidate Starts for Cali\_10:

(Start: 12 @3902 has 164 MA's), (35, 4058), (38, 4070), (41, 4085), (51, 4148), (54, 4175), (65, 4241), (70, 4262), (84, 4358), (93, 4391), (95, 4394), (99, 4415), (110, 4526), (111, 4529),

Gene: Cane17\_9 Start: 3514, Stop: 4206, Start Num: 12

Candidate Starts for Cane17\_9:

(Start: 12 @3514 has 164 MA's), (23, 3586), (33, 3634), (35, 3649), (37, 3658), (53, 3775), (65, 3850), (72, 3877), (83, 3940), (95, 3997), (99, 4018), (109, 4123), (110, 4129), (111, 4132), (115, 4177),

Gene: Capablanca\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Capablanca\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: Caravan\_10 Start: 2662, Stop: 3363, Start Num: 12

Candidate Starts for Caravan\_10:

(Start: 12 @2662 has 164 MA's), (35, 2818), (38, 2830), (41, 2845), (51, 2908), (52, 2926), (54, 2935), (65, 3001), (70, 3022), (84, 3118), (93, 3151), (95, 3154), (99, 3175), (110, 3286), (111, 3289), (115, 3334),

Gene: Catera\_10 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for Catera\_10:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: Chargie21\_10 Start: 2711, Stop: 3394, Start Num: 12

Candidate Starts for Chargie21\_10:

(Start: 12 @2711 has 164 MA's), (35, 2867), (38, 2879), (41, 2894), (51, 2957), (52, 2975), (54, 2984), (65, 3050), (70, 3071), (84, 3167), (93, 3200), (95, 3203), (99, 3224), (110, 3335), (111, 3338),

Gene: CharlieB\_9 Start: 2763, Stop: 3446, Start Num: 12

Candidate Starts for CharlieB\_9:

(Start: 12 @2763 has 164 MA's), (35, 2919), (38, 2931), (41, 2946), (51, 3009), (52, 3027), (54, 3036), (65, 3102), (70, 3123), (84, 3219), (93, 3252), (95, 3255), (99, 3276), (110, 3387), (111, 3390),

Gene: CharlottesWeb\_72 Start: 55223, Stop: 54267, Start Num: 5

Candidate Starts for CharlottesWeb\_72:

(Start: 5 @55223 has 3 MA's), (Start: 8 @55157 has 1 MA's), (Start: 11 @55118 has 4 MA's), (29, 55001), (58, 54848), (74, 54788), (76, 54782), (80, 54767), (104, 54650), (109, 54605), (118, 54518),

Gene: ChaylaJr\_10 Start: 2753, Stop: 3436, Start Num: 12

Candidate Starts for ChaylaJr\_10:

(Start: 12 @2753 has 164 MA's), (35, 2909), (38, 2921), (41, 2936), (51, 2999), (52, 3017), (54, 3026), (65, 3092), (70, 3113), (84, 3209), (93, 3242), (95, 3245), (99, 3266), (110, 3377), (111, 3380),

Gene: ChickenPhender\_10 Start: 2711, Stop: 3394, Start Num: 12

Candidate Starts for ChickenPhender\_10:

(Start: 12 @2711 has 164 MA's), (35, 2867), (38, 2879), (41, 2894), (51, 2957), (52, 2975), (54, 2984), (65, 3050), (70, 3071), (84, 3167), (93, 3200), (95, 3203), (99, 3224), (110, 3335), (111, 3338),

Gene: Chomp\_9 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for Chomp\_9:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: CindyLou\_10 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for CindyLou\_10:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: CloverMinnie\_73 Start: 56396, Stop: 55614, Start Num: 14

Candidate Starts for CloverMinnie\_73:

(Start: 14 @56396 has 7 MA's), (25, 56339), (47, 56225), (50, 56210), (74, 56066), (78, 56054), (79, 56051), (89, 56009), (99, 55973), (101, 55967), (102, 55952), (104, 55916), (108, 55874), (121, 55694),

Gene: Colt\_9 Start: 3520, Stop: 4212, Start Num: 12

Candidate Starts for Colt\_9:

(Start: 12 @3520 has 164 MA's), (23, 3592), (33, 3640), (35, 3655), (37, 3664), (53, 3781), (65, 3856), (72, 3883), (83, 3946), (95, 4003), (99, 4024), (109, 4129), (110, 4135), (111, 4138), (115, 4183),

Gene: Concombre\_13 Start: 3893, Stop: 4588, Start Num: 12

Candidate Starts for Concombre\_13:

(Start: 12 @3893 has 164 MA's), (35, 4049), (38, 4061), (41, 4076), (51, 4139), (54, 4160), (65, 4226), (70, 4247), (84, 4343), (95, 4379), (99, 4400), (110, 4511), (111, 4514), (115, 4559),

Gene: DTDevon\_13 Start: 3779, Stop: 4462, Start Num: 12

Candidate Starts for DTDevon\_13:

(Start: 12 @3779 has 164 MA's), (35, 3935), (38, 3947), (41, 3962), (51, 4025), (52, 4043), (54, 4052), (65, 4118), (70, 4139), (84, 4235), (93, 4268), (95, 4271), (99, 4292), (110, 4403), (111, 4406),

Gene: Daffodil\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Daffodil\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: Dandelion\_16 Start: 4895, Stop: 5590, Start Num: 12

Candidate Starts for Dandelion\_16:

(Start: 12 @4895 has 164 MA's), (35, 5051), (38, 5063), (41, 5078), (51, 5141), (54, 5162), (65, 5228), (70, 5249), (84, 5345), (93, 5378), (95, 5381), (99, 5402), (110, 5513), (111, 5516),

Gene: Darko\_10 Start: 3700, Stop: 4383, Start Num: 12

Candidate Starts for Darko\_10:

(Start: 12 @3700 has 164 MA's), (35, 3856), (38, 3868), (41, 3883), (51, 3946), (52, 3964), (54, 3973), (65, 4039), (70, 4060), (84, 4156), (93, 4189), (95, 4192), (99, 4213), (110, 4324), (111, 4327),

Gene: Delilah\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Delilah\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: Delylah\_10 Start: 2662, Stop: 3363, Start Num: 12

Candidate Starts for Delylah\_10:

(Start: 12 @2662 has 164 MA's), (35, 2818), (38, 2830), (41, 2845), (51, 2908), (52, 2926), (54, 2935), (65, 3001), (70, 3022), (84, 3118), (93, 3151), (95, 3154), (99, 3175), (110, 3286), (111, 3289), (115, 3334),

Gene: Derek\_10 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for Derek\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: Dietrick\_9 Start: 2728, Stop: 3411, Start Num: 12

Candidate Starts for Dietrick\_9:

(Start: 12 @2728 has 164 MA's), (35, 2884), (38, 2896), (41, 2911), (51, 2974), (52, 2992), (54, 3001), (65, 3067), (70, 3088), (84, 3184), (93, 3217), (95, 3220), (99, 3241), (110, 3352), (111, 3355),

Gene: DirtMonster\_14 Start: 5431, Stop: 6132, Start Num: 12

Candidate Starts for DirtMonster\_14:

(Start: 12 @5431 has 164 MA's), (35, 5587), (38, 5599), (41, 5614), (51, 5677), (52, 5695), (54, 5704), (65, 5770), (70, 5791), (84, 5887), (93, 5920), (95, 5923), (99, 5944), (110, 6055), (111, 6058),

Gene: DrPhinkDaddy\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for DrPhinkDaddy\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: Drazdys\_13 Start: 4008, Stop: 4709, Start Num: 12

Candidate Starts for Drazdys\_13:

(Start: 12 @4008 has 164 MA's), (35, 4164), (38, 4176), (41, 4191), (51, 4254), (54, 4281), (65, 4347), (70, 4368), (84, 4464), (89, 4485), (93, 4497), (95, 4500), (99, 4521), (110, 4632), (111, 4635), (115, 4680),

Gene: ET08\_9 Start: 3751, Stop: 4434, Start Num: 12

Candidate Starts for ET08\_9:

(Start: 12 @3751 has 164 MA's), (35, 3907), (38, 3919), (41, 3934), (51, 3997), (52, 4015), (54, 4024), (65, 4090), (70, 4111), (84, 4207), (93, 4240), (95, 4243), (99, 4264), (110, 4375), (111, 4378),

Gene: EasyJones\_10 Start: 2711, Stop: 3394, Start Num: 12

Candidate Starts for EasyJones\_10:

(Start: 12 @2711 has 164 MA's), (35, 2867), (38, 2879), (41, 2894), (51, 2957), (52, 2975), (54, 2984), (65, 3050), (70, 3071), (84, 3167), (93, 3200), (95, 3203), (99, 3224), (110, 3335), (111, 3338),

Gene: EggyFarm\_15 Start: 5237, Stop: 5938, Start Num: 12

Candidate Starts for EggyFarm\_15:

(Start: 12 @5237 has 164 MA's), (35, 5393), (38, 5405), (51, 5483), (54, 5510), (65, 5576), (70, 5597), (84, 5693), (89, 5714), (93, 5726), (95, 5729), (99, 5750), (110, 5861), (111, 5864), (115, 5909),

Gene: EmToTheThree\_11 Start: 3809, Stop: 4510, Start Num: 12

Candidate Starts for EmToTheThree\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (115, 4481),

Gene: EmmaElysia\_10 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for EmmaElysia\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: Erdmann\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Erdmann\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: ErnieJ\_10 Start: 2726, Stop: 3427, Start Num: 12

Candidate Starts for ErnieJ\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353), (115, 3398),

Gene: Essence\_10 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for Essence\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: Evaa\_77 Start: 57028, Stop: 56354, Start Num: 12

Candidate Starts for Evaa\_77:

(9, 57070), (Start: 12 @57028 has 164 MA's), (23, 56956), (36, 56896), (42, 56863), (61, 56743), (65, 56716), (77, 56653), (87, 56581), (91, 56569), (109, 56434), (111, 56425),

Gene: Evaa\_71 Start: 54058, Stop: 53249, Start Num: 10

Candidate Starts for Evaa\_71:

(Start: 10 @54058 has 1 MA's), (20, 53983), (28, 53917), (29, 53914), (39, 53869), (53, 53767), (57, 53752), (63, 53716), (64, 53701), (67, 53680), (78, 53632), (87, 53587), (91, 53575), (101, 53536),

Gene: Ewok\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Ewok\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: Flabslab\_10 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for Flabslab\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: Fludd\_10 Start: 2712, Stop: 3395, Start Num: 12

Candidate Starts for Fludd\_10:

(Start: 12 @2712 has 164 MA's), (35, 2868), (38, 2880), (41, 2895), (51, 2958), (54, 2985), (65, 3051), (70, 3072), (84, 3168), (89, 3189), (93, 3201), (95, 3204), (99, 3225), (110, 3336), (111, 3339),

Gene: FoxtrotP1\_11 Start: 3809, Stop: 4492, Start Num: 12

Candidate Starts for FoxtrotP1\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436),

Gene: FrayBell\_16 Start: 4717, Stop: 5412, Start Num: 12

Candidate Starts for FrayBell\_16:

(Start: 12 @4717 has 164 MA's), (35, 4873), (38, 4885), (41, 4900), (51, 4963), (54, 4984), (65, 5050), (70, 5071), (84, 5167), (93, 5200), (95, 5203), (99, 5224), (110, 5335), (111, 5338), (115, 5383),

Gene: Fresco\_74 Start: 56063, Stop: 55008, Start Num: 3

Candidate Starts for Fresco\_74:

(3, 56063), (Start: 5 @56024 has 3 MA's), (6, 55973), (Start: 8 @55958 has 1 MA's), (Start: 11 @55919 has 4 MA's), (16, 55871), (17, 55865), (22, 55850), (27, 55796), (32, 55778), (34, 55769), (44, 55709), (58, 55616), (74, 55535), (76, 55529), (79, 55520), (80, 55511), (81, 55508), (85, 55496), (96, 55463), (99, 55445), (104, 55388), (109, 55343), (118, 55256), (120, 55211),

Gene: FudgeTart\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for FudgeTart\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: Gabriel\_10 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for Gabriel\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: Gamgam\_10 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for Gamgam\_10:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: Ghost\_10 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for Ghost\_10:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: Gizmo\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Gizmo\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: Grasshills\_15 Start: 5237, Stop: 5938, Start Num: 12

Candidate Starts for Grasshills\_15:

(Start: 12 @5237 has 164 MA's), (35, 5393), (38, 5405), (51, 5483), (54, 5510), (65, 5576), (70, 5597), (84, 5693), (89, 5714), (93, 5726), (95, 5729), (99, 5750), (110, 5861), (111, 5864), (115, 5909),

Gene: Grungle\_10 Start: 2923, Stop: 3606, Start Num: 12

Candidate Starts for Grungle\_10:

(Start: 12 @2923 has 164 MA's), (35, 3079), (38, 3091), (41, 3106), (51, 3169), (54, 3196), (65, 3262), (70, 3283), (84, 3379), (93, 3412), (95, 3415), (99, 3436), (110, 3547), (111, 3550),

Gene: Guwapp\_10 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for Guwapp\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: HyRo\_7 Start: 3062, Stop: 3745, Start Num: 12

Candidate Starts for HyRo\_7:

(Start: 12 @3062 has 164 MA's), (35, 3218), (38, 3230), (41, 3245), (51, 3308), (52, 3326), (54, 3335), (65, 3401), (70, 3422), (84, 3518), (93, 3551), (95, 3554), (99, 3575), (110, 3686), (111, 3689),

Gene: I3\_14 Start: 4591, Stop: 5292, Start Num: 12

Candidate Starts for I3\_14:

(Start: 12 @4591 has 164 MA's), (35, 4747), (38, 4759), (41, 4774), (51, 4837), (54, 4864), (65, 4930), (70, 4951), (84, 5047), (89, 5068), (93, 5080), (95, 5083), (99, 5104), (110, 5215), (111, 5218), (115, 5263),

Gene: IkeLoa\_10 Start: 3672, Stop: 4355, Start Num: 12

Candidate Starts for IkeLoa\_10:

(Start: 12 @3672 has 164 MA's), (35, 3828), (38, 3840), (41, 3855), (51, 3918), (54, 3945), (65, 4011), (70, 4032), (84, 4128), (89, 4149), (93, 4161), (95, 4164), (99, 4185), (110, 4296), (111, 4299),

Gene: InigoMontoya\_10 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for InigoMontoya\_10:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: InterFolia\_16 Start: 4714, Stop: 5409, Start Num: 12

Candidate Starts for InterFolia\_16:

(Start: 12 @4714 has 164 MA's), (35, 4870), (38, 4882), (41, 4897), (51, 4960), (54, 4981), (65, 5047), (70, 5068), (84, 5164), (93, 5197), (95, 5200), (99, 5221), (110, 5332), (111, 5335), (115, 5380),

Gene: Iota\_10 Start: 3655, Stop: 4335, Start Num: 12

Candidate Starts for Iota\_10:

(Start: 12 @3655 has 164 MA's), (35, 3811), (38, 3823), (41, 3838), (51, 3901), (54, 3928), (65, 3994), (70, 4015), (84, 4111), (93, 4144), (95, 4147), (99, 4168), (110, 4279), (111, 4282),

Gene: Issimir\_11 Start: 3803, Stop: 4525, Start Num: 12

Candidate Starts for Issimir\_11:

(Start: 12 @3803 has 164 MA's), (35, 3959), (38, 3971), (41, 3986), (51, 4049), (52, 4067), (54, 4076), (65, 4142), (70, 4163), (84, 4259), (93, 4292), (95, 4295), (99, 4316), (110, 4427), (111, 4430), (116, 4484),

Gene: Izajani\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Izajani\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: JPickles\_10 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for JPickles\_10:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: Janiyra\_10 Start: 2709, Stop: 3392, Start Num: 12

Candidate Starts for Janiyra\_10:

(Start: 12 @2709 has 164 MA's), (35, 2865), (38, 2877), (41, 2892), (51, 2955), (52, 2973), (54, 2982), (65, 3048), (70, 3069), (84, 3165), (93, 3198), (95, 3201), (99, 3222), (110, 3333), (111, 3336),

Gene: Jaygup\_10 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for Jaygup\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: Jedediah\_10 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for Jedediah\_10:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: Jemmno\_9 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for Jemmno\_9:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: Jessibeth14\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Jessibeth14\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: JulietS\_10 Start: 2771, Stop: 3454, Start Num: 12

Candidate Starts for JulietS\_10:

(Start: 12 @2771 has 164 MA's), (35, 2927), (38, 2939), (41, 2954), (51, 3017), (52, 3035), (54, 3044), (65, 3110), (70, 3131), (84, 3227), (93, 3260), (95, 3263), (99, 3284), (110, 3395), (111, 3398),



Gene: JustHall\_10 Start: 3725, Stop: 4408, Start Num: 12

Candidate Starts for JustHall\_10:

(Start: 12 @3725 has 164 MA's), (35, 3881), (38, 3893), (41, 3908), (51, 3971), (52, 3989), (54, 3998), (65, 4064), (70, 4085), (84, 4181), (93, 4214), (95, 4217), (99, 4238), (110, 4349), (111, 4352),

Gene: Kamryn\_13 Start: 3825, Stop: 4559, Start Num: 7

Candidate Starts for Kamryn\_13:

(Start: 7 @3825 has 1 MA's), (Start: 12 @3876 has 164 MA's), (35, 4032), (38, 4044), (41, 4059), (51, 4122), (52, 4140), (54, 4149), (65, 4215), (70, 4236), (84, 4332), (93, 4365), (95, 4368), (99, 4389), (110, 4500), (111, 4503),

Gene: Kboogie\_10 Start: 2728, Stop: 3411, Start Num: 12

Candidate Starts for Kboogie\_10:

(Start: 12 @2728 has 164 MA's), (35, 2884), (38, 2896), (41, 2911), (51, 2974), (52, 2992), (54, 3001), (65, 3067), (70, 3088), (84, 3184), (93, 3217), (95, 3220), (99, 3241), (110, 3352), (111, 3355),

Gene: Khaleesi\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Khaleesi\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: Koguma\_10 Start: 2917, Stop: 3600, Start Num: 12

Candidate Starts for Koguma\_10:

(Start: 12 @2917 has 164 MA's), (35, 3073), (38, 3085), (41, 3100), (51, 3163), (52, 3181), (54, 3190), (65, 3256), (70, 3277), (84, 3373), (93, 3406), (95, 3409), (99, 3430), (110, 3541), (111, 3544),

Gene: LRRHood\_10 Start: 3902, Stop: 4585, Start Num: 12

Candidate Starts for LRRHood\_10:

(Start: 12 @3902 has 164 MA's), (35, 4058), (38, 4070), (41, 4085), (51, 4148), (52, 4166), (54, 4175), (65, 4241), (70, 4262), (84, 4358), (93, 4391), (95, 4394), (99, 4415), (110, 4526), (111, 4529),

Gene: Latch\_10 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for Latch\_10:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: Lee7\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Lee7\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: LifeSavor\_10 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for LifeSavor\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: Ligma\_74 Start: 56018, Stop: 55002, Start Num: 5

Candidate Starts for Ligma\_74:

(3, 56057), (Start: 5 @56018 has 3 MA's), (6, 55967), (Start: 8 @55952 has 1 MA's), (Start: 11 @55913 has 4 MA's), (16, 55865), (17, 55859), (22, 55844), (27, 55790), (32, 55772), (34, 55763), (44, 55703), (58, 55610), (74, 55529), (76, 55523), (79, 55514), (80, 55505), (81, 55502), (85, 55490),

(96, 55457), (99, 55439), (104, 55382), (109, 55337), (118, 55250), (120, 55205),

Gene: LittleMunchkin\_74 Start: 58287, Stop: 57553, Start Num: 14

Candidate Starts for LittleMunchkin\_74:

(Start: 14 @58287 has 7 MA's), (27, 58218), (30, 58206), (41, 58149), (46, 58113), (55, 58047), (67, 57975), (68, 57972), (73, 57957), (75, 57948), (90, 57888), (97, 57867), (99, 57861), (101, 57855), (108, 57762), (113, 57723), (118, 57663),

Gene: Littleton\_10 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for Littleton\_10:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: Loanshark\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Loanshark\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: LolaVinca\_13 Start: 3814, Stop: 4515, Start Num: 12

Candidate Starts for LolaVinca\_13:

(Start: 12 @3814 has 164 MA's), (35, 3970), (38, 3982), (41, 3997), (51, 4060), (54, 4087), (65, 4153), (70, 4174), (84, 4270), (89, 4291), (93, 4303), (95, 4306), (99, 4327), (110, 4438), (111, 4441), (115, 4486),

Gene: LordLeafolot\_16 Start: 4716, Stop: 5411, Start Num: 12

Candidate Starts for LordLeafolot\_16:

(Start: 12 @4716 has 164 MA's), (35, 4872), (38, 4884), (41, 4899), (51, 4962), (54, 4983), (65, 5049), (70, 5070), (84, 5166), (93, 5199), (95, 5202), (99, 5223), (110, 5334), (111, 5337), (115, 5382),

Gene: Lukilu\_10 Start: 3916, Stop: 4599, Start Num: 12

Candidate Starts for Lukilu\_10:

(Start: 12 @3916 has 164 MA's), (35, 4072), (38, 4084), (41, 4099), (51, 4162), (52, 4180), (54, 4189), (65, 4255), (70, 4276), (84, 4372), (93, 4405), (95, 4408), (99, 4429), (110, 4540), (111, 4543),

Gene: Maby2021\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Maby2021\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: MakoManhole\_72 Start: 55770, Stop: 54970, Start Num: 14

Candidate Starts for MakoManhole\_72:

(2, 56064), (Start: 14 @55770 has 7 MA's), (25, 55713), (50, 55584), (74, 55440), (78, 55428), (79, 55425), (89, 55383), (99, 55347), (102, 55326), (104, 55290), (105, 55287), (108, 55248), (121, 55068),

Gene: Mangeria\_14 Start: 4301, Stop: 5002, Start Num: 12

Candidate Starts for Mangeria\_14:

(Start: 7 @4250 has 1 MA's), (Start: 12 @4301 has 164 MA's), (35, 4457), (38, 4469), (41, 4484), (51, 4547), (54, 4574), (65, 4640), (70, 4661), (84, 4757), (89, 4778), (93, 4790), (95, 4793), (99, 4814), (110, 4925), (111, 4928), (115, 4973),

Gene: Mariokart\_72 Start: 55498, Stop: 54551, Start Num: 5

Candidate Starts for Mariokart\_72:

(Start: 5 @55498 has 3 MA's), (Start: 8 @55432 has 1 MA's), (Start: 11 @55393 has 4 MA's), (58, 55132), (74, 55072), (76, 55066), (80, 55051), (118, 54802), (123, 54592),

Gene: Matsumoto\_9 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for Matsumoto\_9:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: McGee\_10 Start: 2728, Stop: 3411, Start Num: 12

Candidate Starts for McGee\_10:

(Start: 12 @2728 has 164 MA's), (35, 2884), (38, 2896), (41, 2911), (51, 2974), (52, 2992), (54, 3001), (65, 3067), (70, 3088), (84, 3184), (93, 3217), (95, 3220), (99, 3241), (110, 3352), (111, 3355),

Gene: McWolfish\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for McWolfish\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: Megamind\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Megamind\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: Melpomini\_10 Start: 2709, Stop: 3392, Start Num: 12

Candidate Starts for Melpomini\_10:

(Start: 12 @2709 has 164 MA's), (35, 2865), (38, 2877), (41, 2892), (51, 2955), (52, 2973), (54, 2982), (65, 3048), (70, 3069), (84, 3165), (93, 3198), (95, 3201), (99, 3222), (110, 3333), (111, 3336),

Gene: MikeLiesIn\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for MikeLiesIn\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: Mikro\_13 Start: 4872, Stop: 5555, Start Num: 12

Candidate Starts for Mikro\_13:

(Start: 12 @4872 has 164 MA's), (35, 5028), (38, 5040), (41, 5055), (51, 5118), (54, 5145), (65, 5211), (70, 5232), (84, 5328), (89, 5349), (93, 5361), (95, 5364), (99, 5385), (110, 5496), (111, 5499),

Gene: MoMoMixon\_13 Start: 4149, Stop: 4844, Start Num: 12

Candidate Starts for MoMoMixon\_13:

(Start: 12 @4149 has 164 MA's), (35, 4305), (38, 4317), (41, 4332), (51, 4395), (54, 4416), (65, 4482), (70, 4503), (84, 4599), (93, 4632), (95, 4635), (99, 4656), (110, 4767), (111, 4770), (115, 4815),

Gene: Momo\_10 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for Momo\_10:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: Morgana\_63 Start: 43258, Stop: 43845, Start Num: 43

Candidate Starts for Morgana\_63:

(Start: 43 @43258 has 3 MA's), (66, 43420), (69, 43429), (81, 43489), (82, 43492), (92, 43531), (103, 43597), (105, 43621), (106, 43654), (117, 43723),

Gene: Morizzled23\_10 Start: 2709, Stop: 3392, Start Num: 12

Candidate Starts for Morizzled23\_10:

(Start: 12 @2709 has 164 MA's), (35, 2865), (38, 2877), (41, 2892), (51, 2955), (52, 2973), (54, 2982), (65, 3048), (70, 3069), (84, 3165), (93, 3198), (95, 3201), (99, 3222), (110, 3333), (111, 3336),

Gene: MossRose\_74 Start: 56682, Stop: 55897, Start Num: 14

Candidate Starts for MossRose\_74:

(Start: 14 @56682 has 7 MA's), (25, 56625), (50, 56496), (74, 56352), (78, 56340), (88, 56298), (89, 56295), (99, 56259), (101, 56253), (102, 56238), (104, 56202), (109, 56157), (118, 56073), (121, 55980),

Gene: NHagos\_71 Start: 54880, Stop: 54203, Start Num: 14

Candidate Starts for NHagos\_71:

(Start: 14 @54880 has 7 MA's), (57, 54637), (74, 54544), (75, 54541), (77, 54535), (78, 54532), (86, 54499), (89, 54487), (91, 54481), (94, 54472), (98, 54454), (99, 54451), (101, 54445), (102, 54430), (107, 54355), (112, 54319), (118, 54262), (119, 54226),

Gene: Naija\_10 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for Naija\_10:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: Napoleon13\_10 Start: 2728, Stop: 3411, Start Num: 12

Candidate Starts for Napoleon13\_10:

(Start: 12 @2728 has 164 MA's), (35, 2884), (38, 2896), (41, 2911), (51, 2974), (52, 2992), (54, 3001), (65, 3067), (70, 3088), (84, 3184), (93, 3217), (95, 3220), (99, 3241), (110, 3352), (111, 3355),

Gene: Nappy\_12 Start: 3543, Stop: 4238, Start Num: 12

Candidate Starts for Nappy\_12:

(Start: 12 @3543 has 164 MA's), (35, 3699), (38, 3711), (41, 3726), (51, 3789), (54, 3810), (65, 3876), (70, 3897), (84, 3993), (93, 4026), (95, 4029), (99, 4050), (110, 4161), (111, 4164), (115, 4209),

Gene: Naval22\_13 Start: 4149, Stop: 4844, Start Num: 12

Candidate Starts for Naval22\_13:

(Start: 12 @4149 has 164 MA's), (35, 4305), (38, 4317), (41, 4332), (51, 4395), (54, 4416), (65, 4482), (70, 4503), (84, 4599), (93, 4632), (95, 4635), (99, 4656), (110, 4767), (111, 4770), (115, 4815),

Gene: NedWong\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for NedWong\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: Ngannou\_10 Start: 2709, Stop: 3392, Start Num: 12

Candidate Starts for Ngannou\_10:

(Start: 12 @2709 has 164 MA's), (35, 2865), (38, 2877), (41, 2892), (51, 2955), (52, 2973), (54, 2982), (65, 3048), (70, 3069), (84, 3165), (93, 3198), (95, 3201), (99, 3222), (110, 3333), (111, 3336),

Gene: Nidhogg\_13 Start: 4149, Stop: 4844, Start Num: 12

Candidate Starts for Nidhogg\_13:

(Start: 12 @4149 has 164 MA's), (35, 4305), (38, 4317), (41, 4332), (51, 4395), (54, 4416), (65, 4482), (70, 4503), (84, 4599), (93, 4632), (95, 4635), (99, 4656), (110, 4767), (111, 4770), (115, 4815),

Gene: NoodleTree\_13 Start: 3873, Stop: 4556, Start Num: 12

Candidate Starts for NoodleTree\_13:

(Start: 12 @3873 has 164 MA's), (35, 4029), (38, 4041), (41, 4056), (51, 4119), (54, 4146), (65, 4212), (70, 4233), (84, 4329), (89, 4350), (93, 4362), (95, 4365), (99, 4386), (110, 4497), (111, 4500),

Gene: Norm\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Norm\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: NuevoMundo\_15 Start: 4566, Stop: 5267, Start Num: 12

Candidate Starts for NuevoMundo\_15:

(Start: 12 @4566 has 164 MA's), (35, 4722), (38, 4734), (41, 4749), (51, 4812), (54, 4839), (65, 4905), (70, 4926), (84, 5022), (89, 5043), (93, 5055), (95, 5058), (99, 5079), (110, 5190), (111, 5193), (115, 5238),

Gene: ParkTD\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for ParkTD\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: Patter\_10 Start: 2747, Stop: 3430, Start Num: 12

Candidate Starts for Patter\_10:

(Start: 12 @2747 has 164 MA's), (35, 2903), (38, 2915), (41, 2930), (51, 2993), (52, 3011), (54, 3020), (65, 3086), (70, 3107), (84, 3203), (93, 3236), (95, 3239), (99, 3260), (110, 3371), (111, 3374),

Gene: Phlegm\_10 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for Phlegm\_10:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: Phox\_10 Start: 3899, Stop: 4582, Start Num: 12

Candidate Starts for Phox\_10:

(Start: 12 @3899 has 164 MA's), (35, 4055), (38, 4067), (41, 4082), (51, 4145), (52, 4163), (54, 4172), (65, 4238), (70, 4259), (84, 4355), (93, 4388), (95, 4391), (99, 4412), (110, 4523), (111, 4526),

Gene: Phusco\_10 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for Phusco\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: Pier\_16 Start: 4544, Stop: 5227, Start Num: 12

Candidate Starts for Pier\_16:

(Start: 12 @4544 has 164 MA's), (35, 4700), (38, 4712), (41, 4727), (51, 4790), (52, 4808), (54, 4817), (65, 4883), (70, 4904), (84, 5000), (93, 5033), (95, 5036), (99, 5057), (110, 5168), (111, 5171),

Gene: Pinkcreek\_6 Start: 2848, Stop: 3531, Start Num: 12

Candidate Starts for Pinkcreek\_6:

(Start: 12 @2848 has 164 MA's), (35, 3004), (38, 3016), (41, 3031), (51, 3094), (52, 3112), (54, 3121), (65, 3187), (70, 3208), (84, 3304), (93, 3337), (95, 3340), (99, 3361), (110, 3472), (111, 3475),

Gene: Pio\_14 Start: 4303, Stop: 5004, Start Num: 12

Candidate Starts for Pio\_14:

(Start: 12 @4303 has 164 MA's), (35, 4459), (38, 4471), (41, 4486), (51, 4549), (54, 4576), (65, 4642), (70, 4663), (84, 4759), (89, 4780), (93, 4792), (95, 4795), (99, 4816), (110, 4927), (111, 4930), (115, 4975),

Gene: Pivoine\_10 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for Pivoine\_10:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: Pleione\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Pleione\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: PurduePete\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for PurduePete\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: QBert\_10 Start: 3774, Stop: 4457, Start Num: 12

Candidate Starts for QBert\_10:

(Start: 12 @3774 has 164 MA's), (35, 3930), (38, 3942), (41, 3957), (51, 4020), (54, 4047), (65, 4113), (70, 4134), (84, 4230), (89, 4251), (93, 4263), (95, 4266), (99, 4287), (110, 4398), (111, 4401),

Gene: Quasimodo\_10 Start: 3729, Stop: 4412, Start Num: 12

Candidate Starts for Quasimodo\_10:

(Start: 12 @3729 has 164 MA's), (35, 3885), (38, 3897), (41, 3912), (51, 3975), (52, 3993), (54, 4002), (65, 4068), (70, 4089), (84, 4185), (93, 4218), (95, 4221), (99, 4242), (110, 4353), (111, 4356),

Gene: Rabinovish\_9 Start: 3515, Stop: 4198, Start Num: 12

Candidate Starts for Rabinovish\_9:

(Start: 12 @3515 has 164 MA's), (35, 3671), (38, 3683), (41, 3698), (51, 3761), (52, 3779), (54, 3788), (65, 3854), (70, 3875), (84, 3971), (93, 4004), (95, 4007), (99, 4028), (110, 4139), (111, 4142),

Gene: Rahel\_10 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for Rahel\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: Rizal\_10 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for Rizal\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: RoMag\_9 Start: 3623, Stop: 4306, Start Num: 12

Candidate Starts for RoMag\_9:

(Start: 12 @3623 has 164 MA's), (35, 3779), (38, 3791), (41, 3806), (51, 3869), (54, 3896), (65, 3962), (70, 3983), (84, 4079), (89, 4100), (93, 4112), (95, 4115), (99, 4136), (110, 4247), (111, 4250),

Gene: Ronan\_10 Start: 2900, Stop: 3583, Start Num: 12

Candidate Starts for Ronan\_10:

(Start: 12 @2900 has 164 MA's), (35, 3056), (38, 3068), (41, 3083), (51, 3146), (54, 3173), (65, 3239), (70, 3260), (84, 3356), (93, 3389), (95, 3392), (99, 3413), (110, 3524), (111, 3527),

Gene: Roots515\_11 Start: 3809, Stop: 4492, Start Num: 12

Candidate Starts for Roots515\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436),

Gene: Salacia\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Salacia\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: Sauce\_14 Start: 4153, Stop: 4836, Start Num: 12

Candidate Starts for Sauce\_14:

(Start: 12 @4153 has 164 MA's), (35, 4309), (38, 4321), (41, 4336), (51, 4399), (54, 4426), (65, 4492), (70, 4513), (84, 4609), (93, 4642), (95, 4645), (99, 4666), (110, 4777), (111, 4780),

Gene: ScottMcG\_10 Start: 3102, Stop: 3803, Start Num: 12

Candidate Starts for ScottMcG\_10:

(Start: 12 @3102 has 164 MA's), (35, 3258), (38, 3270), (41, 3285), (51, 3348), (52, 3366), (54, 3375), (65, 3441), (70, 3462), (84, 3558), (93, 3591), (95, 3594), (99, 3615), (110, 3726), (111, 3729), (115, 3774),

Gene: Shaqnato\_10 Start: 2917, Stop: 3600, Start Num: 12

Candidate Starts for Shaqnato\_10:

(Start: 12 @2917 has 164 MA's), (35, 3073), (38, 3085), (41, 3100), (51, 3163), (52, 3181), (54, 3190), (65, 3256), (70, 3277), (84, 3373), (93, 3406), (95, 3409), (99, 3430), (110, 3541), (111, 3544),

Gene: Shatter\_74 Start: 56018, Stop: 55002, Start Num: 5

Candidate Starts for Shatter\_74:

(3, 56057), (Start: 5 @56018 has 3 MA's), (6, 55967), (Start: 8 @55952 has 1 MA's), (Start: 11 @55913 has 4 MA's), (16, 55865), (17, 55859), (22, 55844), (27, 55790), (32, 55772), (34, 55763), (44, 55703), (58, 55610), (74, 55529), (76, 55523), (79, 55514), (80, 55505), (81, 55502), (85, 55490), (96, 55457), (99, 55439), (104, 55382), (109, 55337), (118, 55250), (120, 55205),

Gene: Shelob\_11 Start: 3809, Stop: 4510, Start Num: 12

Candidate Starts for Shelob\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (115, 4481),

Gene: ShiaLabeouf\_10 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for ShiaLabeouf\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: Shifa\_7 Start: 3083, Stop: 3766, Start Num: 12

Candidate Starts for Shifa\_7:

(Start: 12 @3083 has 164 MA's), (35, 3239), (38, 3251), (41, 3266), (51, 3329), (52, 3347), (54, 3356), (65, 3422), (70, 3443), (84, 3539), (93, 3572), (95, 3575), (99, 3596), (110, 3707), (111, 3710),

Gene: Shnickers\_10 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for Shnickers\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: Shrimp\_11 Start: 3813, Stop: 4535, Start Num: 12

Candidate Starts for Shrimp\_11:

(Start: 12 @3813 has 164 MA's), (35, 3969), (38, 3981), (41, 3996), (51, 4059), (52, 4077), (54, 4086), (65, 4152), (70, 4173), (84, 4269), (93, 4302), (95, 4305), (99, 4326), (110, 4437), (111, 4440), (116, 4494),

Gene: SilverDipper\_10 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for SilverDipper\_10:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: Sisko\_74 Start: 56867, Stop: 56061, Start Num: 11

Candidate Starts for Sisko\_74:

(1, 57194), (Start: 11 @56867 has 4 MA's), (19, 56807), (27, 56756), (46, 56657), (59, 56564), (67, 56519), (68, 56516), (73, 56501), (81, 56468), (86, 56447), (87, 56441), (100, 56402), (104, 56348), (114, 56258),

Gene: SmallFry\_10 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for SmallFry\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: Sour\_72 Start: 57600, Stop: 56710, Start Num: 8

Candidate Starts for Sour\_72:

(Start: 8 @57600 has 1 MA's), (15, 57516), (18, 57504), (19, 57501), (Start: 21 @57495 has 1 MA's), (26, 57453), (45, 57351), (56, 57285), (64, 57234), (74, 57189), (90, 57090), (101, 57051), (108, 56958),

Gene: Spec\_9 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for Spec\_9:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: Sprinklers\_10 Start: 2900, Stop: 3583, Start Num: 12

Candidate Starts for Sprinklers\_10:

(Start: 12 @2900 has 164 MA's), (35, 3056), (38, 3068), (41, 3083), (51, 3146), (52, 3164), (54, 3173), (65, 3239), (70, 3260), (84, 3356), (93, 3389), (95, 3392), (99, 3413), (110, 3524), (111, 3527),

Gene: Spud\_14 Start: 4303, Stop: 5004, Start Num: 12

Candidate Starts for Spud\_14:



(Start: 12 @4303 has 164 MA's), (35, 4459), (38, 4471), (41, 4486), (51, 4549), (54, 4576), (65, 4642), (70, 4663), (84, 4759), (89, 4780), (93, 4792), (95, 4795), (99, 4816), (110, 4927), (111, 4930), (115, 4975),

Gene: SrishMeg2525\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for SrishMeg2525\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: StephanieG\_15 Start: 4569, Stop: 5252, Start Num: 12

Candidate Starts for StephanieG\_15:

(Start: 12 @4569 has 164 MA's), (35, 4725), (38, 4737), (41, 4752), (51, 4815), (54, 4842), (65, 4908), (70, 4929), (84, 5025), (89, 5046), (93, 5058), (95, 5061), (99, 5082), (110, 5193), (111, 5196),

Gene: Stubby\_8 Start: 3149, Stop: 3850, Start Num: 12

Candidate Starts for Stubby\_8:

(Start: 12 @3149 has 164 MA's), (35, 3305), (38, 3317), (41, 3332), (51, 3395), (52, 3413), (54, 3422), (65, 3488), (70, 3509), (84, 3605), (93, 3638), (95, 3641), (99, 3662), (110, 3773), (111, 3776), (115, 3821),

Gene: StubbySaigey\_10 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for StubbySaigey\_10:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: Teardrop\_10 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for Teardrop\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: TinyTim\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for TinyTim\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: Tonenili\_13 Start: 3681, Stop: 4358, Start Num: 12

Candidate Starts for Tonenili\_13:

(Start: 12 @3681 has 164 MA's), (23, 3753), (33, 3801), (35, 3816), (37, 3825), (53, 3942), (65, 4017), (72, 4044), (83, 4107), (95, 4164), (99, 4185), (109, 4290), (110, 4296), (111, 4299),

Gene: Tortoise16\_9 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for Tortoise16\_9:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: Trinitium\_10 Start: 2726, Stop: 3409, Start Num: 12

Candidate Starts for Trinitium\_10:

(Start: 12 @2726 has 164 MA's), (35, 2882), (38, 2894), (41, 2909), (51, 2972), (52, 2990), (54, 2999), (65, 3065), (70, 3086), (84, 3182), (93, 3215), (95, 3218), (99, 3239), (110, 3350), (111, 3353),

Gene: Turret\_10 Start: 2709, Stop: 3392, Start Num: 12

Candidate Starts for Turret\_10:

(Start: 12 @2709 has 164 MA's), (35, 2865), (38, 2877), (41, 2892), (51, 2955), (52, 2973), (54, 2982), (65, 3048), (70, 3069), (84, 3165), (93, 3198), (95, 3201), (99, 3222), (110, 3333), (111, 3336),

Gene: Tyke\_13 Start: 3779, Stop: 4480, Start Num: 12

Candidate Starts for Tyke\_13:

(Start: 12 @3779 has 164 MA's), (35, 3935), (38, 3947), (41, 3962), (51, 4025), (54, 4052), (65, 4118), (70, 4139), (84, 4235), (89, 4256), (93, 4268), (95, 4271), (99, 4292), (110, 4403), (111, 4406), (115, 4451),

Gene: ValleyTerrace\_10 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for ValleyTerrace\_10:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: VanLee\_120 Start: 62109, Stop: 61531, Start Num: 21

Candidate Starts for VanLee\_120:

(Start: 21 @62109 has 1 MA's), (30, 62058), (31, 62055), (37, 62025), (48, 61962), (60, 61872), (62, 61866), (64, 61848), (67, 61827), (71, 61821), (99, 61731),

Gene: Wally\_10 Start: 2730, Stop: 3413, Start Num: 12

Candidate Starts for Wally\_10:

(Start: 12 @2730 has 164 MA's), (35, 2886), (38, 2898), (41, 2913), (51, 2976), (52, 2994), (54, 3003), (65, 3069), (70, 3090), (84, 3186), (93, 3219), (95, 3222), (99, 3243), (110, 3354), (111, 3357),

Gene: Willis\_10 Start: 3735, Stop: 4418, Start Num: 12

Candidate Starts for Willis\_10:

(Start: 12 @3735 has 164 MA's), (35, 3891), (38, 3903), (41, 3918), (51, 3981), (52, 3999), (54, 4008), (65, 4074), (70, 4095), (84, 4191), (93, 4224), (95, 4227), (99, 4248), (110, 4359), (111, 4362),

Gene: Wooper\_76 Start: 56756, Stop: 55971, Start Num: 14

Candidate Starts for Wooper\_76:

(4, 56912), (Start: 14 @56756 has 7 MA's), (25, 56699), (50, 56570), (74, 56426), (79, 56411), (89, 56369), (99, 56333), (101, 56327), (102, 56312), (104, 56276), (108, 56234), (121, 56054),

Gene: Yago84\_73 Start: 56581, Stop: 55775, Start Num: 11

Candidate Starts for Yago84\_73:

(1, 56905), (Start: 11 @56581 has 4 MA's), (19, 56521), (27, 56470), (46, 56371), (59, 56278), (67, 56233), (68, 56230), (73, 56215), (81, 56182), (86, 56161), (87, 56155), (100, 56116), (104, 56062), (114, 55972),

Gene: Yassified\_10 Start: 2923, Stop: 3606, Start Num: 12

Candidate Starts for Yassified\_10:

(Start: 12 @2923 has 164 MA's), (35, 3079), (38, 3091), (41, 3106), (51, 3169), (54, 3196), (65, 3262), (70, 3283), (84, 3379), (93, 3412), (95, 3415), (99, 3436), (110, 3547), (111, 3550),

Gene: YemiJoy2021\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for YemiJoy2021\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: YoungMoneyMata\_10 Start: 2728, Stop: 3411, Start Num: 12

Candidate Starts for YoungMoneyMata\_10:

(Start: 12 @2728 has 164 MA's), (35, 2884), (38, 2896), (41, 2911), (51, 2974), (52, 2992), (54, 3001), (65, 3067), (70, 3088), (84, 3184), (93, 3217), (95, 3220), (99, 3241), (110, 3352), (111, 3355),

Gene: Yucca\_10 Start: 3731, Stop: 4453, Start Num: 12

Candidate Starts for Yucca\_10:

(Start: 12 @3731 has 164 MA's), (35, 3887), (38, 3899), (41, 3914), (51, 3977), (52, 3995), (54, 4004), (65, 4070), (70, 4091), (84, 4187), (93, 4220), (95, 4223), (99, 4244), (110, 4355), (111, 4358), (116, 4412),

Gene: Zalkecks\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for Zalkecks\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),

Gene: Zeenon\_12 Start: 3810, Stop: 4532, Start Num: 12

Candidate Starts for Zeenon\_12:

(Start: 12 @3810 has 164 MA's), (35, 3966), (38, 3978), (41, 3993), (51, 4056), (52, 4074), (54, 4083), (65, 4149), (70, 4170), (84, 4266), (93, 4299), (95, 4302), (99, 4323), (110, 4434), (111, 4437), (116, 4491),

Gene: ZygoTaiga\_11 Start: 3809, Stop: 4531, Start Num: 12

Candidate Starts for ZygoTaiga\_11:

(Start: 12 @3809 has 164 MA's), (35, 3965), (38, 3977), (41, 3992), (51, 4055), (52, 4073), (54, 4082), (65, 4148), (70, 4169), (84, 4265), (93, 4298), (95, 4301), (99, 4322), (110, 4433), (111, 4436), (116, 4490),