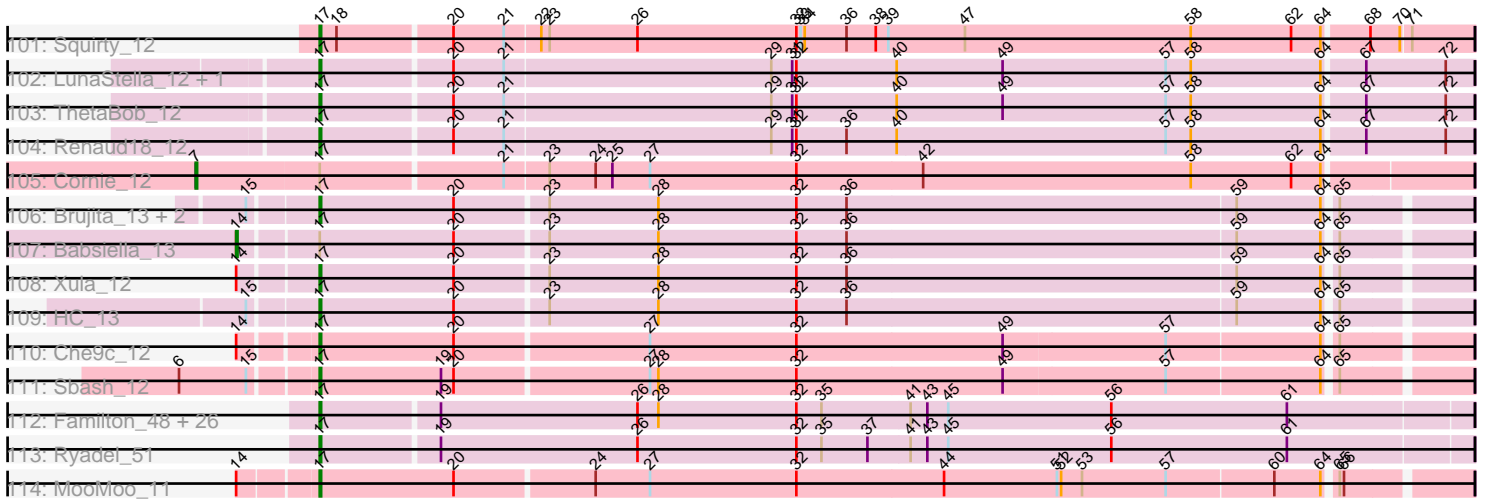


Pham 162908



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 162908 Report

This analysis was run 04/28/24 on database version 559.

Pham number 162908 has 266 members, 28 are drafts.

Phages represented in each track:

- Track 1 : MulchSalad\_11, LittleShirley\_12
- Track 2 : Hlubikazi\_11, Mandlovu\_11, Strokeseat\_11
- Track 3 : DosHalletts\_14, Spikelee\_12
- Track 4 : JoeyJr\_11, DaddyRickover\_11, BlueCrab\_11, Deb65\_11, Geralt\_11, BodEinwohner17\_11, IbOuu\_11, Nimbo\_11, Doomphist\_11, Poenanya\_11, RedBird\_11, Scottish\_11, Leperchaun\_11, OldBen\_11, PHappiness\_11
- Track 5 : Royals2015\_11
- Track 6 : Bubbles123\_11
- Track 7 : WillSterrel\_11, DotProduct\_11, Guppsters\_11, Galactic\_11, IrishSherpFalk\_11, Shauna1\_11, Spartacus\_11, Phanphagia\_11, LunaBlu\_11
- Track 8 : Stap\_12, Tootsieroll\_12, Radiance\_11, Karhdo\_11
- Track 9 : Modragons\_11, Seabastian\_11, AlpineSix\_11, OfUltron\_11, Jinglebell\_11, Llama\_11, Ochi17\_11
- Track 10 : Kersh\_11, FreddyB\_11, ByChance\_11, Cabrinians\_11, Priscilla\_11
- Track 11 : Brocalys\_11, Saal\_11, GigiOuiOui\_11, Pippy\_11, Gorge\_11
- Track 12 : DeadP\_11, Taj\_11, Hamulus\_11
- Track 13 : Clifton\_11, Zerg\_11, Nitzel\_12, Eradicator\_11, Sandalphon\_11, Minnie\_11, Koella\_11
- Track 14 : Wachhund\_11, Beakin\_12, Estave1\_11
- Track 15 : Aubs\_11
- Track 16 : Rockne\_11, Phatniss\_11, Llij\_11, PMC\_11
- Track 17 : Sabbb\_11
- Track 18 : ArcusAngelus\_11, Mozy\_12, Chevrolet\_10
- Track 19 : MinionDave\_12
- Track 20 : lbhubesi\_11, Harley\_11
- Track 21 : Flathead\_12
- Track 22 : SG4\_11
- Track 23 : Donkeykong\_11
- Track 24 : Oksu\_12
- Track 25 : MadMen\_11, Sparkdehlily\_11, ChickenDinner\_12, DocMcStuffins\_12, TDanisky\_11, DRBy19\_11
- Track 26 : Totinger\_12, Rialto\_12, Moonbeam\_11
- Track 27 : MisterCuddles\_11, Girr\_11, Spoonbill\_11
- Track 28 : Juice456\_12, Plumbus\_12, DaWorst\_12, Kimberlium\_12
- Track 29 : James\_11, BobaPhett\_11, LastJedi\_11, Mattes\_11
- Track 30 : Coco12\_12, LilMoolah\_11
- Track 31 : Tweety\_11, KristaRAM\_12, Wee\_11

- Track 32 : MilanaBonita\_12, Akhila\_12
- Track 33 : Madiba\_12
- Track 34 : DillTech15\_11, MilleniumForce\_12, XFactor\_11, ShroomBoi\_11, Ardmore\_11, Batiatus\_11
- Track 35 : Cerasum\_12, Sarma624\_12, Velveteen\_12, BigPhil\_12, Kingsley\_12
- Track 36 : UncleRicky\_12, Drago\_12
- Track 37 : Bobi\_12, BuzzLyseyear\_12
- Track 38 : Ovechkin\_11, Ms6\_11
- Track 39 : Inventum\_11
- Track 40 : Eish\_11
- Track 41 : Doug\_11
- Track 42 : Hegedechwinu\_12
- Track 43 : PhesterPhotato\_11
- Track 44 : Boomer\_12
- Track 45 : Misha28\_12, TootsiePop\_12
- Track 46 : Awesomesauce\_12, Fastidio\_11, Piper2020\_12
- Track 47 : Chuckly\_11
- Track 48 : Job42\_12
- Track 49 : Enby\_12, DirtMcgirt\_12, Lorde\_12
- Track 50 : JalFarm20\_12
- Track 51 : Dorothy\_11, Pacc40\_11, Daenerys\_11
- Track 52 : Yorick\_11
- Track 53 : EleanorGeorge\_11
- Track 54 : Hades\_11
- Track 55 : Mahavrat\_11, Juniper1\_11
- Track 56 : Burwell21\_11, Jarcob\_11, SwagPigglett\_11, Philus\_11, Lizziana\_11, Nivrat\_11, Maravista\_11, ShowerHandel\_12, Zizzle\_11, Martik\_11
- Track 57 : Ramsey\_12
- Track 58 : Gandalph\_11
- Track 59 : Alexphander\_12, Dante\_11
- Track 60 : Polka14\_11, Pollywog\_12, Sassafras\_11
- Track 61 : SassyB\_11, PopTart\_11
- Track 62 : RockyHorror\_12, VRedHorse\_11, Mantra\_11
- Track 63 : RitaG\_11
- Track 64 : Seagreen\_12
- Track 65 : Fancypants\_11
- Track 66 : OlympiaSaint\_11, Crumble\_11, NormanBulbieJr\_11
- Track 67 : Che8\_11
- Track 68 : Blexus\_11
- Track 69 : Florinda\_11
- Track 70 : KingMidas\_11
- Track 71 : Firehouse51\_11
- Track 72 : Whatsapiecost\_11, Filuzino\_11
- Track 73 : Mutaforma13\_11
- Track 74 : Ogopogo\_14
- Track 75 : Leozinho\_12
- Track 76 : Girafales\_12, Quico\_12
- Track 77 : OwlsT2W\_12
- Track 78 : StAnnes\_11
- Track 79 : Veteran\_11, GUmbie\_11
- Track 80 : Marker\_12
- Track 81 : ShiLan\_11
- Track 82 : Whouxphf\_11

- Track 83 : Latretium\_11
- Track 84 : SimranZ1\_12
- Track 85 : DLane\_11
- Track 86 : Phalconet\_11
- Track 87 : Phasih\_11
- Track 88 : Emma\_11
- Track 89 : Byougenkin\_11
- Track 90 : Ruby\_11
- Track 91 : Fruitloop\_11, Melissauren88\_11, CaptainTrips\_12, QuickMath\_11
- Track 92 : Frankie\_12
- Track 93 : Mova\_12
- Track 94 : Empress\_11
- Track 95 : SuperGrey\_11, Rita\_11, Kenuha5\_11
- Track 96 : Starcevich\_12
- Track 97 : SiSi\_11
- Track 98 : Krakatau\_12
- Track 99 : Cornucopia\_12
- Track 100 : Bipolar\_11
- Track 101 : Squirty\_12
- Track 102 : LunaStella\_12, TChen\_12
- Track 103 : ThetaBob\_12
- Track 104 : Renaud18\_12
- Track 105 : Cornie\_12
- Track 106 : Brujita\_13, QueenHazel\_13, Island3\_13
- Track 107 : Babsiella\_13
- Track 108 : Xula\_12
- Track 109 : HC\_13
- Track 110 : Che9c\_12
- Track 111 : Sbash\_12
- Track 112 : Familton\_48, YungJamal\_50, Idergollasper\_47, Mori\_46, Blessica\_48, Ashwin\_46, JangDynasty\_47, Bora\_44, Corndog\_49, Krili\_46, Winget\_48, Wildflower\_45, Smooch\_49, MadKillah\_48, Alkhayr\_45, SchoolBus\_47, Firecracker\_47, NiebruSaylor\_46, TelAviv\_44, Shida\_47, Catdawg\_47, Vorrps\_46, Dylan\_46, FoulBall\_44, Zakhe101\_47, Murai\_47, Schuy\_45
- Track 113 : Ryadel\_51
- Track 114 : MooMoo\_11

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

The start number called the most often in the published annotations is 17, it was called in 221 of the 238 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Akhila\_12, Alexphander\_12, Alkhayr\_45, AlpineSix\_11, ArcusAngelus\_11, Ardmore\_11, Ashwin\_46, Aubs\_11, Awesomesauce\_12, Batiatus\_11, Beakin\_12, BigPhil\_12, Bipolar\_11, Blessica\_48, BlueCrab\_11, BobaPhett\_11, Bobi\_12, BodEinwohner17\_11, Bora\_44, Brocalys\_11, Brujita\_13, Bubbles123\_11, Burwell21\_11, BuzzLyseyear\_12, ByChance\_11, Byougenkin\_11, Cabrinians\_11, CaptainTrips\_12, Catdawg\_47, Cerasum\_12, Che8\_11, Che9c\_12, Chevrolet\_10, ChickenDinner\_12, Chuckly\_11, Clifton\_11, Coco12\_12, Corndog\_49,

Cornucopia\_12, Crumble\_11, DLane\_11, DRBy19\_11, DaWorst\_12, DaddyRickover\_11, Dante\_11, DeadP\_11, Deb65\_11, DillTech15\_11, DirtMcgirt\_12, DocMcStuffins\_12, Donkeykong\_11, Doomphist\_11, DosHalletts\_14, DotProduct\_11, Doug\_11, Dylan\_46, Eish\_11, EleanorGeorge\_11, Emma\_11, Enby\_12, Eradicator\_11, Estave1\_11, Familton\_48, Fancypants\_11, Fastidio\_11, Filuzino\_11, Firecracker\_47, Firehouse51\_11, Flathead\_12, Florinda\_11, FoulBall\_44, Frankie\_12, FreddyB\_11, Fruitloop\_11, GUmble\_11, Galactic\_11, Gandalph\_11, Geralt\_11, GigiOuiOui\_11, Girafales\_12, Girr\_11, Gorge\_11, Guppsters\_11, HC\_13, Hades\_11, Hamulus\_11, Harley\_11, Hegedechwinu\_12, Hlubikazi\_11, IbOuu\_11, Ibhubesi\_11, Idergollasper\_47, IrishSherpFalk\_11, Island3\_13, JalFarm20\_12, James\_11, JangDynasty\_47, Jarcob\_11, Jinglebell\_11, Job42\_12, JoeyJr\_11, Juice456\_12, Juniper1\_11, Karhdo\_11, Kenuha5\_11, Kersh\_11, Kimberlium\_12, KingMidas\_11, Kingsley\_12, Koella\_11, Krakatau\_12, Krili\_46, KristaRAM\_12, LastJedi\_11, Latretium\_11, Leozinho\_12, Leperchaun\_11, LilMoolah\_11, LittleShirley\_12, Lizziana\_11, Llama\_11, Llij\_11, Lorde\_12, LunaBlu\_11, LunaStella\_12, MadKillah\_48, MadMen\_11, Madiba\_12, Mahavrat\_11, Mandlovu\_11, Mantra\_11, Maravista\_11, Marker\_12, Martik\_11, Mattes\_11, Melissauren88\_11, MilanaBonita\_12, MilleniumForce\_12, MinionDave\_12, Minnie\_11, Misha28\_12, MisterCuddles\_11, Modragons\_11, MooMoo\_11, Moonbeam\_11, Mori\_46, Mova\_12, Mozy\_12, Ms6\_11, MulchSalad\_11, Murai\_47, Mutaforma13\_11, NiebruSaylor\_46, Nimbo\_11, Nitzel\_12, Nivrat\_11, NormanBulbieJr\_11, Ochi17\_11, OfUltron\_11, Oksu\_12, OldBen\_11, OlympiaSaint\_11, Ovechkin\_11, OwlsT2W\_12, PHappiness\_11, PMC\_11, Phalconet\_11, Phanphagia\_11, Phasih\_11, Phatniss\_11, PhesterPhotato\_11, Philus\_11, Piper2020\_12, Pippy\_11, Plumbus\_12, Poenanya\_11, Polka14\_11, Pollywog\_12, PopTart\_11, Priscilla\_11, QueenHazel\_13, QuickMath\_11, Quico\_12, Radiance\_11, Ramsey\_12, RedBird\_11, Renaud18\_12, Rialto\_12, Rita\_11, Rockne\_11, RockyHorror\_12, Royals2015\_11, Ryadel\_51, Saal\_11, Sabbb\_11, Sandalphon\_11, Sarma624\_12, Sassafras\_11, SassyB\_11, Sbash\_12, SchoolBus\_47, Schuy\_45, Scottish\_11, Seabastian\_11, Seagreen\_12, Shauna1\_11, Shida\_47, ShowerHandel\_12, ShroomBoi\_11, SiSi\_11, SimranZ1\_12, Smooch\_49, Sparkdehlily\_11, Spartacus\_11, Spikelee\_12, Spoonbill\_11, Squirty\_12, StAnnes\_11, Stap\_12, Strokeseat\_11, SuperGrey\_11, SwagPigglett\_11, TChen\_12, TDanisky\_11, Taj\_11, TelAviv\_44, ThetaBob\_12, TootsiePop\_12, Tootsieroll\_12, Totinger\_12, Tweety\_11, VRedHorse\_11, Velveteen\_12, Veteran\_11, Vorrrps\_46, Wachhund\_11, Wee\_11, Whatsapiecost\_11, Whouxphf\_11, Wildflower\_45, WillSterrel\_11, Winget\_48, XFactor\_11, Xula\_12, Yorick\_11, YungJamal\_50, Zakhe101\_47, Zerg\_11, Zizzle\_11,

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

- Babsiella\_13, Blexus\_11, Boomer\_12, Cornie\_12, Daenerys\_11, Dorothy\_11, Drago\_12, Empress\_11, Inventum\_11, Ogopogo\_14, Pacc40\_11, RitaG\_11, Ruby\_11, SG4\_11, ShiLan\_11, Starcevich\_12, UncleRicky\_12,

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

- 

### Summary by start number:

Start 7:

- Found in 1 of 266 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 238
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cornie\_12 (F5),

Start 8:

- Found in 9 of 266 ( 3.4% ) of genes in pham
- Manual Annotations of this start: 3 of 238
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Boomer\_12 (F1), Empress\_11 (F1), RitaG\_11 (F1),

Start 9:

- Found in 60 of 266 ( 22.6% ) of genes in pham
- Manual Annotations of this start: 9 of 238
- Called 15.0% of time when present
- Phage (with cluster) where this start called: Blexus\_11 (F1), Daenerys\_11 (F1), Dorothy\_11 (F1), Drago\_12 (F1), Inventum\_11 (F1), Pacc40\_11 (F1), ShiLan\_11 (F1), Starcevich\_12 (F1), UncleRicky\_12 (F1),

Start 10:

- Found in 20 of 266 ( 7.5% ) of genes in pham
- Manual Annotations of this start: 1 of 238
- Called 5.0% of time when present
- Phage (with cluster) where this start called: SG4\_11 (F1),

Start 13:

- Found in 50 of 266 ( 18.8% ) of genes in pham
- Manual Annotations of this start: 2 of 238
- Called 4.0% of time when present
- Phage (with cluster) where this start called: Ogopogo\_14 (F1), Ruby\_11 (F1),

Start 14:

- Found in 4 of 266 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 1 of 238
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Babsiella\_13 (I1),

Start 17:

- Found in 266 of 266 ( 100.0% ) of genes in pham
- Manual Annotations of this start: 221 of 238
- Called 93.6% of time when present
- Phage (with cluster) where this start called: Akhila\_12 (F1), Alexphander\_12 (F1), Alkhayr\_45 (O), AlpineSix\_11 (F1), ArcusAngelus\_11 (F1), Ardmore\_11 (F1), Ashwin\_46 (O), Aubs\_11 (F1), Awesomesauce\_12 (F1), Batiatus\_11 (F1), Beakin\_12 (F1), BigPhil\_12 (F1), Bipolar\_11 (F1), Blessica\_48 (O), BlueCrab\_11 (F1), BobaPhett\_11 (F1), Bobi\_12 (F1), BodEinwohner17\_11 (F1), Bora\_44 (O), Brocalys\_11 (F1), Brujita\_13 (I1), Bubbles123\_11 (F1), Burwell21\_11 (F1), BuzzLyseyear\_12 (F1), ByChance\_11 (F1), Byougenkin\_11 (F1), Cabrinians\_11 (F1), CaptainTrips\_12 (F1), Catdawg\_47 (O), Cerasum\_12 (F1), Che8\_11 (F1), Che9c\_12 (I2), Chevrolet\_10 (F1), ChickenDinner\_12 (F1), Chuckly\_11 (F1), Clifton\_11 (F1), Coco12\_12 (F1), Corndog\_49 (O), Cornucopia\_12 (F1), Crumble\_11 (F1), DLane\_11 (F1), DRBy19\_11 (F1), DaWorst\_12 (F1), DaddyRickover\_11 (F1), Dante\_11 (F1), DeadP\_11 (F1), Deb65\_11 (F1), DillTech15\_11 (F1), DirtMcgirt\_12 (F1), DocMcStuffins\_12 (F1), Donkeykong\_11 (F1), Doomphist\_11 (F1), DosHalletts\_14 (F1), DotProduct\_11 (F1), Doug\_11 (F1), Dylan\_46 (O), Eish\_11 (F1), EleanorGeorge\_11 (F1), Emma\_11 (F1), Enby\_12 (F1), Eradicator\_11 (F1),



Estave1\_11 (F1), Familton\_48 (O), Fancypants\_11 (F1), Fastidio\_11 (F1),  
 Filuzino\_11 (F1), Firecracker\_47 (O), Firehouse51\_11 (F1), Flathead\_12 (F1),  
 Florinda\_11 (F1), FoulBall\_44 (O), Frankie\_12 (F1), FreddyB\_11 (F1), Fruitloop\_11  
 (F1), GUmbie\_11 (F1), Galactic\_11 (F1), Gandalph\_11 (F1), Geralt\_11 (F1),  
 GigiOuiOui\_11 (F1), Girafales\_12 (F1), Girr\_11 (F1), Gorge\_11 (F1), Guppsters\_11  
 (F1), HC\_13 (I1), Hades\_11 (F1), Hamulus\_11 (F1), Harley\_11 (F1),  
 Hegedechwinu\_12 (F1), Hlubikazi\_11 (F1), IbOuu\_11 (F1), Ibhubesi\_11 (F1),  
 Idergollasper\_47 (O), IrishSherpFalk\_11 (F1), Island3\_13 (I1), JalFarm20\_12 (F1),  
 James\_11 (F1), JangDynasty\_47 (O), Jarcob\_11 (F1), Jinglebell\_11 (F1), Job42\_12  
 (F1), JoeyJr\_11 (F1), Juice456\_12 (F1), Juniper1\_11 (F1), Karhdo\_11 (F1),  
 Kenuha5\_11 (F1), Kersh\_11 (F1), Kimberlium\_12 (F1), KingMidas\_11 (F1),  
 Kingsley\_12 (F1), Koella\_11 (F1), Krakatau\_12 (F1), Krili\_46 (O), KristaRAM\_12  
 (F1), LastJedi\_11 (F1), Latretium\_11 (F1), Leozinho\_12 (F1), Leperchaun\_11 (F1),  
 LilMoolah\_11 (F1), LittleShirley\_12 (F1), Lizziana\_11 (F1), Llama\_11 (F1), Llij\_11  
 (F1), Lorde\_12 (F1), LunaBlu\_11 (F1), LunaStella\_12 (F4), MadKillah\_48 (O),  
 MadMen\_11 (F1), Madiba\_12 (F1), Mahavrat\_11 (F1), Mandlovu\_11 (F1), Mantra\_11  
 (F1), Maravista\_11 (F1), Marker\_12 (F1), Martik\_11 (F1), Mattes\_11 (F1),  
 Melissauren88\_11 (F1), MilanaBonita\_12 (F1), MilleniumForce\_12 (F1),  
 MinionDave\_12 (F1), Minnie\_11 (F1), Misha28\_12 (F1), MisterCuddles\_11 (F1),  
 Modragons\_11 (F1), MooMoo\_11 (singleton), Moonbeam\_11 (F1), Mori\_46 (O),  
 Mova\_12 (F1), Mozy\_12 (F1), Ms6\_11 (F1), MulchSalad\_11 (F), Murai\_47 (O),  
 Mutaforma13\_11 (F1), NiebruSaylor\_46 (O), Nimbo\_11 (F1), Nitzel\_12 (F1),  
 Nivrat\_11 (F1), NormanBulbieJr\_11 (F1), Ochi17\_11 (F1), OfUltron\_11 (F1),  
 Oksu\_12 (F1), OldBen\_11 (F1), OlympiaSaint\_11 (F1), Ovechkin\_11 (F1),  
 OwlsT2W\_12 (F1), PHappiness\_11 (F1), PMC\_11 (F1), Phalconet\_11 (F1),  
 Phanphagia\_11 (F1), Phasih\_11 (F1), Phatniss\_11 (F1), PhesterPhotato\_11 (F1),  
 Philus\_11 (F1), Piper2020\_12 (F1), Pippy\_11 (F1), Plumbus\_12 (F1), Poenanya\_11  
 (F1), Polka14\_11 (F1), Pollywog\_12 (F1), PopTart\_11 (F1), Priscilla\_11 (F1),  
 QueenHazel\_13 (I1), QuickMath\_11 (F1), Quico\_12 (F1), Radiance\_11 (F1),  
 Ramsey\_12 (F1), RedBird\_11 (F1), Renaud18\_12 (F4), Rialto\_12 (F1), Rita\_11 (F1),  
 Rockne\_11 (F1), RockyHorror\_12 (F1), Royals2015\_11 (F1), Ryadel\_51 (O),  
 Saal\_11 (F1), Sabbb\_11 (F1), Sandalphon\_11 (F1), Sarma624\_12 (F1),  
 Sassafras\_11 (F1), SassyB\_11 (F1), Sbash\_12 (I2), SchoolBus\_47 (O), Schuy\_45  
 (O), Scottish\_11 (F1), Seabastian\_11 (F1), Seagreen\_12 (F1), Shauna1\_11 (F1),  
 Shida\_47 (O), ShowerHandel\_12 (F1), ShroomBoi\_11 (F1), SiSi\_11 (F1),  
 SimranZ1\_12 (F1), Smooch\_49 (O), Sparkdehlily\_11 (F1), Spartacus\_11 (F1),  
 Spikelee\_12 (F1), Spoonbill\_11 (F1), Squirty\_12 (F3), StAnnes\_11 (F1), Stap\_12  
 (F1), Strokeseat\_11 (F1), SuperGrey\_11 (F1), SwagPiggett\_11 (F1), TChen\_12 (F4),  
 TDanisky\_11 (F1), Taj\_11 (F1), TelAviv\_44 (O), ThetaBob\_12 (F4), TootsiePop\_12  
 (F1), Tootsieroll\_12 (F1), Totinger\_12 (F1), Tweety\_11 (F1), VRedHorse\_11 (F1),  
 Velveteen\_12 (F1), Veteran\_11 (F1), Vorrps\_46 (O), Wachhund\_11 (F1), Wee\_11  
 (F1), Whatsapiecost\_11 (F1), Whouxphf\_11 (F1), Wildflower\_45 (O), WillSterrel\_11  
 (F1), Winget\_48 (O), XFactor\_11 (F1), Xula\_12 (I1), Yorick\_11 (F1), YungJamal\_50  
 (O), Zakhe101\_47 (O), Zerg\_11 (F1), Zizzle\_11 (F1),

### Summary by clusters:

There are 9 clusters represented in this pham: F1, singleton, F3, F4, F5, F, I1, I2, O,

Info for manual annotations of cluster F1:

- Start number 8 was manually annotated 3 times for cluster F1.
- Start number 9 was manually annotated 9 times for cluster F1.

- Start number 10 was manually annotated 1 time for cluster F1.
- Start number 13 was manually annotated 2 times for cluster F1.
- Start number 17 was manually annotated 187 times for cluster F1.

Info for manual annotations of cluster F3:

- Start number 17 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster F4:

- Start number 17 was manually annotated 3 times for cluster F4.

Info for manual annotations of cluster F5:

- Start number 7 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster I1:

- Start number 14 was manually annotated 1 time for cluster I1.
- Start number 17 was manually annotated 5 times for cluster I1.

Info for manual annotations of cluster I2:

- Start number 17 was manually annotated 2 times for cluster I2.

Info for manual annotations of cluster O:

- Start number 17 was manually annotated 22 times for cluster O.

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

Gene: Akhila\_12 Start: 8280, Stop: 9089, Start Num: 17

Candidate Starts for Akhila\_12:

(Start: 17 @8280 has 221 MA's), (18, 8292), (19, 8361), (20, 8370), (21, 8406), (22, 8430), (23, 8436), (26, 8499), (30, 8598), (32, 8613), (33, 8616), (34, 8619), (36, 8649), (38, 8670), (39, 8679), (47, 8733), (58, 8895), (62, 8967), (64, 8988), (70, 9039), (71, 9045),

Gene: Alexphander\_12 Start: 7463, Stop: 8272, Start Num: 17

Candidate Starts for Alexphander\_12:

(Start: 17 @7463 has 221 MA's), (18, 7475), (20, 7553), (21, 7589), (22, 7613), (23, 7619), (26, 7682), (32, 7796), (33, 7799), (34, 7802), (36, 7832), (38, 7853), (39, 7862), (47, 7916), (49, 7943), (58, 8078), (62, 8150), (63, 8153), (64, 8171), (70, 8222), (71, 8228),

Gene: Alkhayr\_45 Start: 23768, Stop: 24583, Start Num: 17

Candidate Starts for Alkhayr\_45:

(Start: 17 @23768 has 221 MA's), (19, 23849), (26, 23990), (28, 24005), (32, 24104), (35, 24122), (41, 24185), (43, 24197), (45, 24212), (56, 24329), (61, 24455),

Gene: AlpineSix\_11 Start: 7607, Stop: 8416, Start Num: 17

Candidate Starts for AlpineSix\_11:

(Start: 13 @7550 has 2 MA's), (Start: 17 @7607 has 221 MA's), (18, 7619), (20, 7697), (21, 7733), (22, 7757), (23, 7763), (26, 7826), (31, 7937), (32, 7940), (33, 7943), (34, 7946), (36, 7976), (38, 7997), (39, 8006), (46, 8054), (47, 8060), (48, 8084), (58, 8222), (62, 8294), (64, 8315), (70, 8366), (71, 8372),

Gene: ArcusAngelus\_11 Start: 7620, Stop: 8429, Start Num: 17

Candidate Starts for ArcusAngelus\_11:

(Start: 17 @7620 has 221 MA's), (18, 7632), (19, 7701), (20, 7710), (21, 7746), (22, 7770), (23, 7776), (26, 7839), (32, 7953), (33, 7956), (36, 7989), (38, 8010), (39, 8019), (47, 8073), (49, 8100), (55, 8175), (62, 8307), (64, 8328), (70, 8379), (71, 8385),

Gene: Ardmore\_11 Start: 7631, Stop: 8440, Start Num: 17

Candidate Starts for Ardmore\_11:

(Start: 10 @7559 has 1 MA's), (Start: 17 @7631 has 221 MA's), (18, 7643), (19, 7712), (20, 7721), (21, 7757), (22, 7781), (23, 7787), (26, 7850), (31, 7961), (32, 7964), (33, 7967), (34, 7970), (36, 8000), (38, 8021), (39, 8030), (47, 8084), (58, 8246), (62, 8318), (64, 8339), (70, 8390), (71, 8396),

Gene: Ashwin\_46 Start: 23766, Stop: 24581, Start Num: 17

Candidate Starts for Ashwin\_46:

(Start: 17 @23766 has 221 MA's), (19, 23847), (26, 23988), (28, 24003), (32, 24102), (35, 24120), (41, 24183), (43, 24195), (45, 24210), (56, 24327), (61, 24453),

Gene: Aubs\_11 Start: 7628, Stop: 8437, Start Num: 17

Candidate Starts for Aubs\_11:

(Start: 10 @7559 has 1 MA's), (Start: 17 @7628 has 221 MA's), (18, 7640), (19, 7709), (20, 7718), (21, 7754), (22, 7778), (23, 7784), (26, 7847), (32, 7961), (33, 7964), (36, 7997), (38, 8018), (39, 8027), (47, 8081), (49, 8108), (55, 8183), (62, 8315), (64, 8336), (70, 8387), (71, 8393),

Gene: Awesomesauce\_12 Start: 7464, Stop: 8273, Start Num: 17

Candidate Starts for Awesomesauce\_12:

(Start: 9 @7392 has 9 MA's), (12, 7407), (Start: 17 @7464 has 221 MA's), (18, 7476), (20, 7554), (21, 7590), (22, 7614), (23, 7620), (26, 7683), (32, 7797), (33, 7800), (34, 7803), (36, 7833), (38, 7854), (39, 7863), (46, 7911), (47, 7917), (49, 7944), (58, 8079), (62, 8151), (64, 8172), (70, 8223), (71, 8229),

Gene: Babsiella\_13 Start: 8812, Stop: 9663, Start Num: 14

Candidate Starts for Babsiella\_13:

(Start: 14 @8812 has 1 MA's), (Start: 17 @8863 has 221 MA's), (20, 8959), (23, 9022), (28, 9100), (32, 9199), (36, 9235), (59, 9511), (64, 9571), (65, 9577),

Gene: Batiatus\_11 Start: 7631, Stop: 8440, Start Num: 17

Candidate Starts for Batiatus\_11:

(Start: 10 @7559 has 1 MA's), (Start: 17 @7631 has 221 MA's), (18, 7643), (19, 7712), (20, 7721), (21, 7757), (22, 7781), (23, 7787), (26, 7850), (31, 7961), (32, 7964), (33, 7967), (34, 7970), (36, 8000), (38, 8021), (39, 8030), (47, 8084), (58, 8246), (62, 8318), (64, 8339), (70, 8390), (71, 8396),

Gene: Beakin\_12 Start: 7465, Stop: 8274, Start Num: 17

Candidate Starts for Beakin\_12:

(Start: 13 @7408 has 2 MA's), (Start: 17 @7465 has 221 MA's), (18, 7477), (20, 7555), (21, 7591), (22, 7615), (23, 7621), (26, 7684), (32, 7798), (33, 7801), (34, 7804), (36, 7834), (38, 7855), (39, 7864), (46, 7912), (47, 7918), (49, 7945), (58, 8080), (62, 8152), (64, 8173), (70, 8224), (71, 8230),

Gene: BigPhil\_12 Start: 7460, Stop: 8269, Start Num: 17

Candidate Starts for BigPhil\_12:

(Start: 13 @7403 has 2 MA's), (Start: 17 @7460 has 221 MA's), (18, 7472), (21, 7586), (22, 7610), (23, 7616), (26, 7679), (32, 7793), (33, 7796), (34, 7799), (36, 7829), (38, 7850), (39, 7859), (47, 7913), (58, 8075), (64, 8168), (70, 8219), (71, 8225),

Gene: Bipolar\_11 Start: 7599, Stop: 8408, Start Num: 17

Candidate Starts for Bipolar\_11:

(Start: 17 @7599 has 221 MA's), (18, 7611), (19, 7680), (21, 7725), (22, 7749), (23, 7755), (26, 7818), (31, 7929), (32, 7932), (33, 7935), (34, 7938), (36, 7968), (38, 7989), (39, 7998), (47, 8052), (49, 8079), (50, 8085), (58, 8214), (62, 8286), (64, 8307), (70, 8358), (71, 8364),

Gene: Blessica\_48 Start: 24169, Stop: 24984, Start Num: 17

Candidate Starts for Blessica\_48:

(Start: 17 @24169 has 221 MA's), (19, 24250), (26, 24391), (28, 24406), (32, 24505), (35, 24523), (41, 24586), (43, 24598), (45, 24613), (56, 24730), (61, 24856),

Gene: Blexus\_11 Start: 7553, Stop: 8434, Start Num: 9

Candidate Starts for Blexus\_11:

(Start: 9 @7553 has 9 MA's), (12, 7568), (Start: 17 @7625 has 221 MA's), (18, 7637), (21, 7751), (22, 7775), (23, 7781), (26, 7844), (32, 7958), (33, 7961), (34, 7964), (36, 7994), (38, 8015), (39, 8024), (47, 8078), (49, 8105), (58, 8240), (64, 8333), (70, 8384), (71, 8390),

Gene: BlueCrab\_11 Start: 7609, Stop: 8418, Start Num: 17

Candidate Starts for BlueCrab\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (46, 8056), (47, 8062), (49, 8089), (58, 8224), (62, 8296), (63, 8299), (64, 8317), (70, 8368), (71, 8374),

Gene: BobaPhett\_11 Start: 7601, Stop: 8410, Start Num: 17

Candidate Starts for BobaPhett\_11:

(Start: 13 @7544 has 2 MA's), (Start: 17 @7601 has 221 MA's), (18, 7613), (20, 7691), (21, 7727), (22, 7751), (23, 7757), (26, 7820), (32, 7934), (33, 7937), (34, 7940), (36, 7970), (38, 7991), (39, 8000), (46, 8048), (47, 8054), (48, 8078), (58, 8216), (62, 8288), (64, 8309), (69, 8342), (70, 8360), (71, 8366),

Gene: Bobi\_12 Start: 7460, Stop: 8269, Start Num: 17

Candidate Starts for Bobi\_12:

(12, 7403), (Start: 17 @7460 has 221 MA's), (18, 7472), (20, 7550), (21, 7586), (22, 7610), (23, 7616), (26, 7679), (32, 7793), (33, 7796), (34, 7799), (36, 7829), (38, 7850), (39, 7859), (47, 7913), (58, 8075), (62, 8147), (64, 8168), (70, 8219), (71, 8225),

Gene: BodEinwohner17\_11 Start: 7609, Stop: 8418, Start Num: 17

Candidate Starts for BodEinwohner17\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (46, 8056), (47, 8062), (49, 8089), (58, 8224), (62, 8296), (63, 8299), (64, 8317), (70, 8368), (71, 8374),

Gene: Boomer\_12 Start: 7386, Stop: 8270, Start Num: 8

Candidate Starts for Boomer\_12:

(Start: 8 @7386 has 3 MA's), (Start: 9 @7389 has 9 MA's), (12, 7404), (Start: 17 @7461 has 221 MA's), (18, 7473), (20, 7551), (21, 7587), (22, 7611), (23, 7617), (26, 7680), (32, 7794), (33, 7797), (34, 7800), (36, 7830), (38, 7851), (39, 7860), (46, 7908), (47, 7914), (49, 7941), (58, 8076), (62, 8148), (64, 8169), (70, 8220), (71, 8226),

Gene: Bora\_44 Start: 23219, Stop: 24034, Start Num: 17

Candidate Starts for Bora\_44:

(Start: 17 @23219 has 221 MA's), (19, 23300), (26, 23441), (28, 23456), (32, 23555), (35, 23573), (41, 23636), (43, 23648), (45, 23663), (56, 23780), (61, 23906),

Gene: Brocalys\_11 Start: 7598, Stop: 8407, Start Num: 17

Candidate Starts for Brocalys\_11:

(Start: 17 @7598 has 221 MA's), (18, 7610), (20, 7688), (21, 7724), (22, 7748), (23, 7754), (26, 7817), (32, 7931), (33, 7934), (34, 7937), (36, 7967), (38, 7988), (39, 7997), (47, 8051), (58, 8213), (64, 8306), (70, 8357), (71, 8363),

Gene: Brujita\_13 Start: 8865, Stop: 9665, Start Num: 17

Candidate Starts for Brujita\_13:

(15, 8820), (Start: 17 @8865 has 221 MA's), (20, 8961), (23, 9024), (28, 9102), (32, 9201), (36, 9237), (59, 9513), (64, 9573), (65, 9579),

Gene: Bubbles123\_11 Start: 7629, Stop: 8438, Start Num: 17

Candidate Starts for Bubbles123\_11:

(Start: 13 @7572 has 2 MA's), (Start: 17 @7629 has 221 MA's), (18, 7641), (20, 7719), (21, 7755), (22, 7779), (23, 7785), (26, 7848), (31, 7959), (32, 7962), (33, 7965), (34, 7968), (36, 7998), (38, 8019), (39, 8028), (46, 8076), (47, 8082), (49, 8109), (54, 8178), (58, 8244), (62, 8316), (64, 8337), (70, 8388), (71, 8394),

Gene: Burwell21\_11 Start: 7608, Stop: 8417, Start Num: 17

Candidate Starts for Burwell21\_11:

(Start: 9 @7536 has 9 MA's), (12, 7551), (Start: 17 @7608 has 221 MA's), (18, 7620), (20, 7698), (21, 7734), (22, 7758), (23, 7764), (26, 7827), (32, 7941), (33, 7944), (34, 7947), (36, 7977), (38, 7998), (39, 8007), (46, 8055), (47, 8061), (48, 8085), (58, 8223), (62, 8295), (64, 8316), (69, 8349), (70, 8367), (71, 8373),

Gene: BuzzLyseyear\_12 Start: 7459, Stop: 8268, Start Num: 17

Candidate Starts for BuzzLyseyear\_12:

(12, 7402), (Start: 17 @7459 has 221 MA's), (18, 7471), (20, 7549), (21, 7585), (22, 7609), (23, 7615), (26, 7678), (32, 7792), (33, 7795), (34, 7798), (36, 7828), (38, 7849), (39, 7858), (47, 7912), (58, 8074), (62, 8146), (64, 8167), (70, 8218), (71, 8224),

Gene: ByChance\_11 Start: 7611, Stop: 8420, Start Num: 17

Candidate Starts for ByChance\_11:

(Start: 17 @7611 has 221 MA's), (18, 7623), (20, 7701), (21, 7737), (22, 7761), (23, 7767), (26, 7830), (32, 7944), (33, 7947), (34, 7950), (36, 7980), (38, 8001), (39, 8010), (47, 8064), (49, 8091), (58, 8226), (62, 8298), (64, 8319), (69, 8352), (70, 8370), (71, 8376),

Gene: Byougenkin\_11 Start: 7602, Stop: 8411, Start Num: 17

Candidate Starts for Byougenkin\_11:

(Start: 17 @7602 has 221 MA's), (18, 7614), (20, 7692), (21, 7728), (22, 7752), (23, 7758), (26, 7821), (31, 7932), (32, 7935), (33, 7938), (34, 7941), (36, 7971), (38, 7992), (39, 8001), (47, 8055), (62, 8289), (64, 8310), (70, 8361), (71, 8367),

Gene: Cabrinians\_11 Start: 7601, Stop: 8410, Start Num: 17

Candidate Starts for Cabrinians\_11:

(Start: 17 @7601 has 221 MA's), (18, 7613), (20, 7691), (21, 7727), (22, 7751), (23, 7757), (26, 7820), (32, 7934), (33, 7937), (34, 7940), (36, 7970), (38, 7991), (39, 8000), (47, 8054), (49, 8081), (58, 8216), (62, 8288), (64, 8309), (69, 8342), (70, 8360), (71, 8366),

Gene: CaptainTrips\_12 Start: 8279, Stop: 9088, Start Num: 17

Candidate Starts for CaptainTrips\_12:

(Start: 10 @8207 has 1 MA's), (Start: 17 @8279 has 221 MA's), (18, 8291), (19, 8360), (20, 8369), (21, 8405), (22, 8429), (23, 8435), (26, 8498), (31, 8609), (32, 8612), (33, 8615), (36, 8648), (38, 8669), (39, 8678), (47, 8732), (58, 8894), (62, 8966), (64, 8987), (70, 9038), (71, 9044),

Gene: Catdawg\_47 Start: 23858, Stop: 24673, Start Num: 17

Candidate Starts for Catdawg\_47:

(Start: 17 @23858 has 221 MA's), (19, 23939), (26, 24080), (28, 24095), (32, 24194), (35, 24212), (41, 24275), (43, 24287), (45, 24302), (56, 24419), (61, 24545),

Gene: Cerasum\_12 Start: 7460, Stop: 8269, Start Num: 17

Candidate Starts for Cerasum\_12:

(Start: 13 @7403 has 2 MA's), (Start: 17 @7460 has 221 MA's), (18, 7472), (21, 7586), (22, 7610), (23, 7616), (26, 7679), (32, 7793), (33, 7796), (34, 7799), (36, 7829), (38, 7850), (39, 7859), (47, 7913), (58, 8075), (64, 8168), (70, 8219), (71, 8225),

Gene: Che8\_11 Start: 7613, Stop: 8422, Start Num: 17

Candidate Starts for Che8\_11:

(Start: 13 @7556 has 2 MA's), (Start: 17 @7613 has 221 MA's), (18, 7625), (20, 7703), (21, 7739), (22, 7763), (23, 7769), (26, 7832), (32, 7946), (33, 7949), (34, 7952), (36, 7982), (38, 8003), (39, 8012), (47, 8066), (49, 8093), (54, 8162), (58, 8228), (62, 8300), (64, 8321), (70, 8372), (71, 8378),

Gene: Che9c\_12 Start: 8479, Stop: 9276, Start Num: 17

Candidate Starts for Che9c\_12:

(Start: 14 @8431 has 1 MA's), (Start: 17 @8479 has 221 MA's), (20, 8575), (27, 8710), (32, 8815), (49, 8962), (57, 9076), (64, 9184), (65, 9190),

Gene: Chevrolet\_10 Start: 7620, Stop: 8429, Start Num: 17

Candidate Starts for Chevrolet\_10:

(Start: 17 @7620 has 221 MA's), (18, 7632), (19, 7701), (20, 7710), (21, 7746), (22, 7770), (23, 7776), (26, 7839), (32, 7953), (33, 7956), (36, 7989), (38, 8010), (39, 8019), (47, 8073), (49, 8100), (55, 8175), (62, 8307), (64, 8328), (70, 8379), (71, 8385),

Gene: ChickenDinner\_12 Start: 7464, Stop: 8273, Start Num: 17

Candidate Starts for ChickenDinner\_12:

(Start: 9 @7392 has 9 MA's), (12, 7407), (Start: 17 @7464 has 221 MA's), (18, 7476), (20, 7554), (21, 7590), (22, 7614), (23, 7620), (26, 7683), (32, 7797), (33, 7800), (34, 7803), (36, 7833), (38, 7854), (39, 7863), (47, 7917), (49, 7944), (58, 8079), (62, 8151), (64, 8172), (70, 8223), (71, 8229),

Gene: Chuckly\_11 Start: 7631, Stop: 8440, Start Num: 17

Candidate Starts for Chuckly\_11:

(Start: 17 @7631 has 221 MA's), (18, 7643), (19, 7712), (20, 7721), (21, 7757), (22, 7781), (23, 7787), (26, 7850), (31, 7961), (32, 7964), (33, 7967), (34, 7970), (36, 8000), (38, 8021), (39, 8030), (47, 8084), (58, 8246), (62, 8318), (64, 8339), (69, 8372), (70, 8390), (71, 8396),

Gene: Clifton\_11 Start: 7597, Stop: 8406, Start Num: 17

Candidate Starts for Clifton\_11:

(Start: 17 @7597 has 221 MA's), (18, 7609), (20, 7687), (21, 7723), (22, 7747), (23, 7753), (26, 7816), (32, 7930), (33, 7933), (34, 7936), (36, 7966), (38, 7987), (39, 7996), (47, 8050), (49, 8077), (58, 8212), (64, 8305), (70, 8356), (71, 8362),

Gene: Coco12\_12 Start: 7462, Stop: 8271, Start Num: 17

Candidate Starts for Coco12\_12:

(Start: 17 @7462 has 221 MA's), (18, 7474), (20, 7552), (21, 7588), (22, 7612), (23, 7618), (26, 7681), (32, 7795), (33, 7798), (34, 7801), (36, 7831), (38, 7852), (39, 7861), (46, 7909), (47, 7915), (58, 8077), (62, 8149), (64, 8170), (70, 8221), (71, 8227),

Gene: Corndog\_49 Start: 24316, Stop: 25131, Start Num: 17

Candidate Starts for Corndog\_49:

(Start: 17 @24316 has 221 MA's), (19, 24397), (26, 24538), (28, 24553), (32, 24652), (35, 24670), (41, 24733), (43, 24745), (45, 24760), (56, 24877), (61, 25003),

Gene: Cornie\_12 Start: 7811, Stop: 8707, Start Num: 7

Candidate Starts for Cornie\_12:

(Start: 7 @7811 has 1 MA's), (Start: 17 @7898 has 221 MA's), (21, 8024), (23, 8054), (24, 8087), (25, 8099), (27, 8126), (32, 8231), (42, 8321), (58, 8513), (62, 8585), (64, 8606),

Gene: Cornucopia\_12 Start: 7481, Stop: 8290, Start Num: 17

Candidate Starts for Cornucopia\_12:

(Start: 17 @7481 has 221 MA's), (18, 7493), (19, 7562), (20, 7571), (21, 7607), (22, 7631), (23, 7637), (26, 7700), (31, 7811), (32, 7814), (33, 7817), (34, 7820), (36, 7850), (38, 7871), (39, 7880), (46, 7928), (47, 7934), (49, 7961), (54, 8030), (58, 8096), (62, 8168), (64, 8189), (70, 8240), (71, 8246),

Gene: Crumble\_11 Start: 7611, Stop: 8420, Start Num: 17

Candidate Starts for Crumble\_11:

(Start: 17 @7611 has 221 MA's), (18, 7623), (20, 7701), (21, 7737), (22, 7761), (23, 7767), (26, 7830), (32, 7944), (33, 7947), (34, 7950), (36, 7980), (38, 8001), (39, 8010), (47, 8064), (49, 8091), (62, 8298), (64, 8319), (70, 8370), (71, 8376),

Gene: DLane\_11 Start: 7630, Stop: 8439, Start Num: 17

Candidate Starts for DLane\_11:

(1, 7432), (2, 7453), (3, 7456), (16, 7591), (Start: 17 @7630 has 221 MA's), (18, 7642), (19, 7711), (20, 7720), (21, 7756), (22, 7780), (23, 7786), (26, 7849), (30, 7948), (32, 7963), (33, 7966), (36, 7999), (38, 8020), (39, 8029), (47, 8083), (58, 8245), (62, 8317), (64, 8338), (70, 8389), (71, 8395),

Gene: DRBy19\_11 Start: 7624, Stop: 8433, Start Num: 17

Candidate Starts for DRBy19\_11:

(Start: 9 @7552 has 9 MA's), (12, 7567), (Start: 17 @7624 has 221 MA's), (18, 7636), (20, 7714), (21, 7750), (22, 7774), (23, 7780), (26, 7843), (32, 7957), (33, 7960), (34, 7963), (36, 7993), (38, 8014), (39, 8023), (47, 8077), (49, 8104), (58, 8239), (62, 8311), (64, 8332), (70, 8383), (71, 8389),

Gene: DaWorst\_12 Start: 7463, Stop: 8272, Start Num: 17

Candidate Starts for DaWorst\_12:

(12, 7406), (Start: 17 @7463 has 221 MA's), (18, 7475), (21, 7589), (22, 7613), (23, 7619), (26, 7682), (32, 7796), (33, 7799), (34, 7802), (36, 7832), (38, 7853), (39, 7862), (47, 7916), (58, 8078), (62, 8150), (64, 8171), (70, 8222), (71, 8228),

Gene: DaddyRickover\_11 Start: 7609, Stop: 8418, Start Num: 17

Candidate Starts for DaddyRickover\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (46, 8056), (47, 8062), (49, 8089), (58, 8224), (62, 8296), (63, 8299), (64, 8317), (70, 8368), (71, 8374),

Gene: Daenerys\_11 Start: 7537, Stop: 8418, Start Num: 9

Candidate Starts for Daenerys\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (46, 8056), (47, 8062), (49, 8089), (58, 8224), (62, 8296), (63, 8299), (64, 8317), (70, 8368), (71, 8374),

Gene: Dante\_11 Start: 7626, Stop: 8435, Start Num: 17

Candidate Starts for Dante\_11:

(Start: 17 @7626 has 221 MA's), (18, 7638), (20, 7716), (21, 7752), (22, 7776), (23, 7782), (26, 7845), (32, 7959), (33, 7962), (34, 7965), (36, 7995), (38, 8016), (39, 8025), (47, 8079), (49, 8106), (58, 8241), (62, 8313), (63, 8316), (64, 8334), (70, 8385), (71, 8391),

Gene: DeadP\_11 Start: 7631, Stop: 8440, Start Num: 17

Candidate Starts for DeadP\_11:

(Start: 17 @7631 has 221 MA's), (18, 7643), (19, 7712), (20, 7721), (21, 7757), (22, 7781), (23, 7787), (26, 7850), (31, 7961), (32, 7964), (33, 7967), (34, 7970), (36, 8000), (38, 8021), (39, 8030), (47, 8084), (58, 8246), (62, 8318), (64, 8339), (70, 8390), (71, 8396),

Gene: Deb65\_11 Start: 7609, Stop: 8418, Start Num: 17

Candidate Starts for Deb65\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (46, 8056), (47, 8062), (49, 8089), (58, 8224), (62, 8296), (63, 8299), (64, 8317), (70, 8368), (71, 8374),

Gene: DillTech15\_11 Start: 7631, Stop: 8440, Start Num: 17

Candidate Starts for DillTech15\_11:

(Start: 10 @7559 has 1 MA's), (Start: 17 @7631 has 221 MA's), (18, 7643), (19, 7712), (20, 7721), (21, 7757), (22, 7781), (23, 7787), (26, 7850), (31, 7961), (32, 7964), (33, 7967), (34, 7970), (36, 8000), (38, 8021), (39, 8030), (47, 8084), (58, 8246), (62, 8318), (64, 8339), (70, 8390), (71, 8396),

Gene: DirtMcgirt\_12 Start: 7464, Stop: 8273, Start Num: 17

Candidate Starts for DirtMcgirt\_12:

(Start: 9 @7392 has 9 MA's), (12, 7407), (Start: 17 @7464 has 221 MA's), (18, 7476), (19, 7545), (20, 7554), (21, 7590), (22, 7614), (23, 7620), (26, 7683), (31, 7794), (32, 7797), (33, 7800), (34, 7803), (36, 7833), (38, 7854), (39, 7863), (47, 7917), (62, 8151), (64, 8172), (70, 8223), (71, 8229),

Gene: DocMcStuffins\_12 Start: 7464, Stop: 8273, Start Num: 17

Candidate Starts for DocMcStuffins\_12:

(Start: 9 @7392 has 9 MA's), (12, 7407), (Start: 17 @7464 has 221 MA's), (18, 7476), (20, 7554), (21, 7590), (22, 7614), (23, 7620), (26, 7683), (32, 7797), (33, 7800), (34, 7803), (36, 7833), (38, 7854), (39, 7863), (47, 7917), (49, 7944), (58, 8079), (62, 8151), (64, 8172), (70, 8223), (71, 8229),

Gene: Donkeykong\_11 Start: 7627, Stop: 8436, Start Num: 17

Candidate Starts for Donkeykong\_11:

(Start: 13 @7570 has 2 MA's), (Start: 17 @7627 has 221 MA's), (18, 7639), (20, 7717), (21, 7753), (22, 7777), (23, 7783), (26, 7846), (32, 7960), (33, 7963), (34, 7966), (36, 7996), (38, 8017), (39, 8026), (46, 8074), (47, 8080), (49, 8107), (58, 8242), (62, 8314), (64, 8335), (69, 8368), (70, 8386), (71, 8392),

Gene: Doomphist\_11 Start: 7609, Stop: 8418, Start Num: 17

Candidate Starts for Doomphist\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008),



(46, 8056), (47, 8062), (49, 8089), (58, 8224), (62, 8296), (63, 8299), (64, 8317), (70, 8368), (71, 8374),

Gene: Dorothy\_11 Start: 7537, Stop: 8418, Start Num: 9

Candidate Starts for Dorothy\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (46, 8056), (47, 8062), (49, 8089), (58, 8224), (62, 8296), (63, 8299), (64, 8317), (70, 8368), (71, 8374),

Gene: DosHalletts\_14 Start: 7461, Stop: 8270, Start Num: 17

Candidate Starts for DosHalletts\_14:

(Start: 8 @7386 has 3 MA's), (Start: 9 @7389 has 9 MA's), (12, 7404), (Start: 17 @7461 has 221 MA's), (18, 7473), (20, 7551), (21, 7587), (22, 7611), (23, 7617), (26, 7680), (32, 7794), (33, 7797), (34, 7800), (36, 7830), (38, 7851), (39, 7860), (46, 7908), (47, 7914), (49, 7941), (58, 8076), (62, 8148), (64, 8169), (70, 8220), (71, 8226),

Gene: DotProduct\_11 Start: 7632, Stop: 8441, Start Num: 17

Candidate Starts for DotProduct\_11:

(Start: 17 @7632 has 221 MA's), (18, 7644), (19, 7713), (20, 7722), (21, 7758), (22, 7782), (23, 7788), (26, 7851), (31, 7962), (32, 7965), (33, 7968), (34, 7971), (36, 8001), (38, 8022), (39, 8031), (47, 8085), (62, 8319), (64, 8340), (70, 8391), (71, 8397),

Gene: Doug\_11 Start: 7611, Stop: 8420, Start Num: 17

Candidate Starts for Doug\_11:

(Start: 8 @7536 has 3 MA's), (Start: 9 @7539 has 9 MA's), (12, 7554), (Start: 17 @7611 has 221 MA's), (18, 7623), (21, 7737), (22, 7761), (23, 7767), (26, 7830), (32, 7944), (33, 7947), (34, 7950), (36, 7980), (38, 8001), (39, 8010), (46, 8058), (47, 8064), (49, 8091), (58, 8226), (62, 8298), (64, 8319), (69, 8352), (70, 8370), (71, 8376),

Gene: Drago\_12 Start: 7390, Stop: 8271, Start Num: 9

Candidate Starts for Drago\_12:

(Start: 9 @7390 has 9 MA's), (12, 7405), (Start: 17 @7462 has 221 MA's), (18, 7474), (19, 7543), (20, 7552), (21, 7588), (22, 7612), (23, 7618), (26, 7681), (31, 7792), (32, 7795), (33, 7798), (34, 7801), (36, 7831), (38, 7852), (39, 7861), (47, 7915), (62, 8149), (64, 8170), (70, 8221), (71, 8227),

Gene: Dylan\_46 Start: 23571, Stop: 24386, Start Num: 17

Candidate Starts for Dylan\_46:

(Start: 17 @23571 has 221 MA's), (19, 23652), (26, 23793), (28, 23808), (32, 23907), (35, 23925), (41, 23988), (43, 24000), (45, 24015), (56, 24132), (61, 24258),

Gene: Eish\_11 Start: 7600, Stop: 8409, Start Num: 17

Candidate Starts for Eish\_11:

(Start: 13 @7543 has 2 MA's), (Start: 17 @7600 has 221 MA's), (18, 7612), (21, 7726), (22, 7750), (23, 7756), (26, 7819), (31, 7930), (32, 7933), (33, 7936), (34, 7939), (36, 7969), (38, 7990), (39, 7999), (46, 8047), (47, 8053), (58, 8215), (62, 8287), (64, 8308), (70, 8359), (71, 8365),

Gene: EleanorGeorge\_11 Start: 7633, Stop: 8442, Start Num: 17

Candidate Starts for EleanorGeorge\_11:

(Start: 17 @7633 has 221 MA's), (18, 7645), (19, 7714), (20, 7723), (21, 7759), (22, 7783), (23, 7789), (26, 7852), (32, 7966), (33, 7969), (36, 8002), (38, 8023), (39, 8032), (47, 8086), (58, 8248), (62, 8320), (64, 8341), (70, 8392), (71, 8398),

Gene: Emma\_11 Start: 7630, Stop: 8439, Start Num: 17

Candidate Starts for Emma\_11:

(11, 7570), (Start: 17 @7630 has 221 MA's), (18, 7642), (19, 7711), (20, 7720), (21, 7756), (22, 7780), (23, 7786), (26, 7849), (31, 7960), (32, 7963), (33, 7966), (34, 7969), (36, 7999), (38, 8020), (39, 8029), (47, 8083), (58, 8245), (62, 8317), (64, 8338), (70, 8389), (71, 8395),

Gene: Empress\_11 Start: 7533, Stop: 8417, Start Num: 8

Candidate Starts for Empress\_11:

(Start: 8 @7533 has 3 MA's), (Start: 9 @7536 has 9 MA's), (12, 7551), (Start: 17 @7608 has 221 MA's), (18, 7620), (20, 7698), (21, 7734), (22, 7758), (23, 7764), (26, 7827), (31, 7938), (32, 7941), (33, 7944), (34, 7947), (36, 7977), (38, 7998), (39, 8007), (47, 8061), (62, 8295), (64, 8316), (70, 8367), (71, 8373),

Gene: Enby\_12 Start: 7462, Stop: 8271, Start Num: 17

Candidate Starts for Enby\_12:

(Start: 9 @7390 has 9 MA's), (12, 7405), (Start: 17 @7462 has 221 MA's), (18, 7474), (19, 7543), (20, 7552), (21, 7588), (22, 7612), (23, 7618), (26, 7681), (31, 7792), (32, 7795), (33, 7798), (34, 7801), (36, 7831), (38, 7852), (39, 7861), (47, 7915), (62, 8149), (64, 8170), (70, 8221), (71, 8227),

Gene: Eradicator\_11 Start: 7610, Stop: 8419, Start Num: 17

Candidate Starts for Eradicator\_11:

(Start: 17 @7610 has 221 MA's), (18, 7622), (20, 7700), (21, 7736), (22, 7760), (23, 7766), (26, 7829), (32, 7943), (33, 7946), (34, 7949), (36, 7979), (38, 8000), (39, 8009), (47, 8063), (49, 8090), (58, 8225), (64, 8318), (70, 8369), (71, 8375),

Gene: Estave1\_11 Start: 7612, Stop: 8421, Start Num: 17

Candidate Starts for Estave1\_11:

(Start: 13 @7555 has 2 MA's), (Start: 17 @7612 has 221 MA's), (18, 7624), (20, 7702), (21, 7738), (22, 7762), (23, 7768), (26, 7831), (32, 7945), (33, 7948), (34, 7951), (36, 7981), (38, 8002), (39, 8011), (46, 8059), (47, 8065), (49, 8092), (58, 8227), (62, 8299), (64, 8320), (70, 8371), (71, 8377),

Gene: Familton\_48 Start: 23862, Stop: 24677, Start Num: 17

Candidate Starts for Familton\_48:

(Start: 17 @23862 has 221 MA's), (19, 23943), (26, 24084), (28, 24099), (32, 24198), (35, 24216), (41, 24279), (43, 24291), (45, 24306), (56, 24423), (61, 24549),

Gene: Fancypants\_11 Start: 7611, Stop: 8420, Start Num: 17

Candidate Starts for Fancypants\_11:

(Start: 17 @7611 has 221 MA's), (18, 7623), (21, 7737), (22, 7761), (23, 7767), (26, 7830), (32, 7944), (33, 7947), (34, 7950), (36, 7980), (38, 8001), (39, 8010), (47, 8064), (58, 8226), (62, 8298), (64, 8319), (69, 8352), (70, 8370), (71, 8376),

Gene: Fastidio\_11 Start: 7611, Stop: 8420, Start Num: 17

Candidate Starts for Fastidio\_11:

(Start: 9 @7539 has 9 MA's), (12, 7554), (Start: 17 @7611 has 221 MA's), (18, 7623), (20, 7701), (21, 7737), (22, 7761), (23, 7767), (26, 7830), (32, 7944), (33, 7947), (34, 7950), (36, 7980), (38, 8001), (39, 8010), (46, 8058), (47, 8064), (49, 8091), (58, 8226), (62, 8298), (64, 8319), (70, 8370), (71, 8376),

Gene: Filuzino\_11 Start: 7632, Stop: 8441, Start Num: 17

Candidate Starts for Filuzino\_11:

(Start: 10 @7560 has 1 MA's), (Start: 17 @7632 has 221 MA's), (18, 7644), (19, 7713), (20, 7722), (21, 7758), (22, 7782), (23, 7788), (26, 7851), (30, 7950), (32, 7965), (33, 7968), (36, 8001), (38,

8022), (39, 8031), (47, 8085), (58, 8247), (62, 8319), (64, 8340), (70, 8391), (71, 8397),

Gene: Firecracker\_47 Start: 23469, Stop: 24284, Start Num: 17

Candidate Starts for Firecracker\_47:

(Start: 17 @23469 has 221 MA's), (19, 23550), (26, 23691), (28, 23706), (32, 23805), (35, 23823), (41, 23886), (43, 23898), (45, 23913), (56, 24030), (61, 24156),

Gene: Firehouse51\_11 Start: 7629, Stop: 8438, Start Num: 17

Candidate Starts for Firehouse51\_11:

(1, 7431), (2, 7452), (3, 7455), (16, 7590), (Start: 17 @7629 has 221 MA's), (18, 7641), (19, 7710), (20, 7719), (21, 7755), (22, 7779), (23, 7785), (26, 7848), (31, 7959), (32, 7962), (33, 7965), (36, 7998), (38, 8019), (39, 8028), (47, 8082), (58, 8244), (62, 8316), (64, 8337), (70, 8388), (71, 8394),

Gene: Flathead\_12 Start: 7463, Stop: 8272, Start Num: 17

Candidate Starts for Flathead\_12:

(Start: 13 @7406 has 2 MA's), (Start: 17 @7463 has 221 MA's), (18, 7475), (19, 7544), (20, 7553), (21, 7589), (22, 7613), (23, 7619), (26, 7682), (31, 7793), (32, 7796), (33, 7799), (34, 7802), (36, 7832), (38, 7853), (39, 7862), (47, 7916), (62, 8150), (64, 8171), (70, 8222), (71, 8228),

Gene: Florinda\_11 Start: 7631, Stop: 8440, Start Num: 17

Candidate Starts for Florinda\_11:

(Start: 13 @7574 has 2 MA's), (Start: 17 @7631 has 221 MA's), (18, 7643), (20, 7721), (21, 7757), (22, 7781), (23, 7787), (26, 7850), (31, 7961), (32, 7964), (33, 7967), (34, 7970), (36, 8000), (38, 8021), (39, 8030), (47, 8084), (58, 8246), (62, 8318), (64, 8339), (69, 8372), (70, 8390), (71, 8396),

Gene: FoulBall\_44 Start: 23856, Stop: 24671, Start Num: 17

Candidate Starts for FoulBall\_44:

(Start: 17 @23856 has 221 MA's), (19, 23937), (26, 24078), (28, 24093), (32, 24192), (35, 24210), (41, 24273), (43, 24285), (45, 24300), (56, 24417), (61, 24543),

Gene: Frankie\_12 Start: 7653, Stop: 8462, Start Num: 17

Candidate Starts for Frankie\_12:

(12, 7596), (Start: 17 @7653 has 221 MA's), (18, 7665), (20, 7743), (21, 7779), (22, 7803), (23, 7809), (26, 7872), (32, 7986), (33, 7989), (34, 7992), (36, 8022), (38, 8043), (39, 8052), (46, 8100), (47, 8106), (49, 8133), (58, 8268), (62, 8340), (64, 8361), (70, 8412), (71, 8418),

Gene: FreddyB\_11 Start: 7610, Stop: 8419, Start Num: 17

Candidate Starts for FreddyB\_11:

(Start: 17 @7610 has 221 MA's), (18, 7622), (20, 7700), (21, 7736), (22, 7760), (23, 7766), (26, 7829), (32, 7943), (33, 7946), (34, 7949), (36, 7979), (38, 8000), (39, 8009), (47, 8063), (49, 8090), (58, 8225), (62, 8297), (64, 8318), (69, 8351), (70, 8369), (71, 8375),

Gene: Fruitloop\_11 Start: 7632, Stop: 8441, Start Num: 17

Candidate Starts for Fruitloop\_11:

(Start: 10 @7560 has 1 MA's), (Start: 17 @7632 has 221 MA's), (18, 7644), (19, 7713), (20, 7722), (21, 7758), (22, 7782), (23, 7788), (26, 7851), (31, 7962), (32, 7965), (33, 7968), (36, 8001), (38, 8022), (39, 8031), (47, 8085), (58, 8247), (62, 8319), (64, 8340), (70, 8391), (71, 8397),

Gene: GUmbie\_11 Start: 7625, Stop: 8434, Start Num: 17

Candidate Starts for GUmbie\_11:

(5, 7517), (12, 7568), (Start: 17 @7625 has 221 MA's), (18, 7637), (19, 7706), (21, 7751), (22, 7775), (23, 7781), (26, 7844), (32, 7958), (33, 7961), (34, 7964), (36, 7994), (38, 8015), (39, 8024), (47, 8078), (58, 8240), (62, 8312), (64, 8333), (70, 8384), (71, 8390),

Gene: Galactic\_11 Start: 7606, Stop: 8415, Start Num: 17

Candidate Starts for Galactic\_11:

(Start: 17 @7606 has 221 MA's), (18, 7618), (19, 7687), (20, 7696), (21, 7732), (22, 7756), (23, 7762), (26, 7825), (31, 7936), (32, 7939), (33, 7942), (34, 7945), (36, 7975), (38, 7996), (39, 8005), (47, 8059), (62, 8293), (64, 8314), (70, 8365), (71, 8371),

Gene: Gandalph\_11 Start: 7627, Stop: 8436, Start Num: 17

Candidate Starts for Gandalph\_11:

(Start: 17 @7627 has 221 MA's), (18, 7639), (20, 7717), (22, 7777), (23, 7783), (26, 7846), (31, 7957), (32, 7960), (33, 7963), (34, 7966), (36, 7996), (38, 8017), (39, 8026), (47, 8080), (58, 8242), (62, 8314), (64, 8335), (70, 8386), (71, 8392),

Gene: Geralt\_11 Start: 7609, Stop: 8418, Start Num: 17

Candidate Starts for Geralt\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (46, 8056), (47, 8062), (49, 8089), (58, 8224), (62, 8296), (63, 8299), (64, 8317), (70, 8368), (71, 8374),

Gene: GigiOuiOui\_11 Start: 7626, Stop: 8435, Start Num: 17

Candidate Starts for GigiOuiOui\_11:

(Start: 17 @7626 has 221 MA's), (18, 7638), (20, 7716), (21, 7752), (22, 7776), (23, 7782), (26, 7845), (32, 7959), (33, 7962), (34, 7965), (36, 7995), (38, 8016), (39, 8025), (47, 8079), (58, 8241), (64, 8334), (70, 8385), (71, 8391),

Gene: Girafales\_12 Start: 7458, Stop: 8267, Start Num: 17

Candidate Starts for Girafales\_12:

(Start: 17 @7458 has 221 MA's), (18, 7470), (20, 7548), (21, 7584), (22, 7608), (23, 7614), (26, 7677), (32, 7791), (33, 7794), (34, 7797), (36, 7827), (38, 7848), (39, 7857), (47, 7911), (48, 7935), (58, 8073), (62, 8145), (64, 8166), (70, 8217), (71, 8223),

Gene: Girr\_11 Start: 7614, Stop: 8423, Start Num: 17

Candidate Starts for Girr\_11:

(Start: 13 @7557 has 2 MA's), (Start: 17 @7614 has 221 MA's), (18, 7626), (20, 7704), (21, 7740), (22, 7764), (23, 7770), (26, 7833), (32, 7947), (33, 7950), (34, 7953), (36, 7983), (38, 8004), (39, 8013), (47, 8067), (48, 8091), (49, 8094), (58, 8229), (62, 8301), (64, 8322), (69, 8355), (70, 8373), (71, 8379),

Gene: Gorge\_11 Start: 7598, Stop: 8407, Start Num: 17

Candidate Starts for Gorge\_11:

(Start: 17 @7598 has 221 MA's), (18, 7610), (20, 7688), (21, 7724), (22, 7748), (23, 7754), (26, 7817), (32, 7931), (33, 7934), (34, 7937), (36, 7967), (38, 7988), (39, 7997), (47, 8051), (58, 8213), (64, 8306), (70, 8357), (71, 8363),

Gene: Guppsters\_11 Start: 7631, Stop: 8440, Start Num: 17

Candidate Starts for Guppsters\_11:

(Start: 17 @7631 has 221 MA's), (18, 7643), (19, 7712), (20, 7721), (21, 7757), (22, 7781), (23, 7787), (26, 7850), (31, 7961), (32, 7964), (33, 7967), (34, 7970), (36, 8000), (38, 8021), (39, 8030), (47, 8084), (62, 8318), (64, 8339), (70, 8390), (71, 8396),

Gene: HC\_13 Start: 8865, Stop: 9665, Start Num: 17

Candidate Starts for HC\_13:

(15, 8820), (Start: 17 @8865 has 221 MA's), (20, 8961), (23, 9024), (28, 9102), (32, 9201), (36, 9237), (59, 9513), (64, 9573), (65, 9579),

Gene: Hades\_11 Start: 7611, Stop: 8420, Start Num: 17

Candidate Starts for Hades\_11:

(Start: 13 @7554 has 2 MA's), (Start: 17 @7611 has 221 MA's), (18, 7623), (20, 7701), (21, 7737), (22, 7761), (23, 7767), (26, 7830), (32, 7944), (33, 7947), (34, 7950), (36, 7980), (38, 8001), (39, 8010), (47, 8064), (49, 8091), (58, 8226), (62, 8298), (64, 8319), (69, 8352), (70, 8370), (71, 8376),

Gene: Hamulus\_11 Start: 7635, Stop: 8444, Start Num: 17

Candidate Starts for Hamulus\_11:

(Start: 17 @7635 has 221 MA's), (18, 7647), (19, 7716), (20, 7725), (21, 7761), (22, 7785), (23, 7791), (26, 7854), (31, 7965), (32, 7968), (33, 7971), (34, 7974), (36, 8004), (38, 8025), (39, 8034), (47, 8088), (58, 8250), (62, 8322), (64, 8343), (70, 8394), (71, 8400),

Gene: Harley\_11 Start: 7600, Stop: 8409, Start Num: 17

Candidate Starts for Harley\_11:

(Start: 13 @7543 has 2 MA's), (Start: 17 @7600 has 221 MA's), (18, 7612), (21, 7726), (22, 7750), (23, 7756), (26, 7819), (32, 7933), (33, 7936), (34, 7939), (36, 7969), (38, 7990), (39, 7999), (47, 8053), (58, 8215), (62, 8287), (64, 8308), (69, 8341), (70, 8359), (71, 8365),

Gene: Hegedechwinu\_12 Start: 7463, Stop: 8272, Start Num: 17

Candidate Starts for Hegedechwinu\_12:

(Start: 13 @7406 has 2 MA's), (Start: 17 @7463 has 221 MA's), (18, 7475), (19, 7544), (20, 7553), (21, 7589), (22, 7613), (23, 7619), (26, 7682), (31, 7793), (32, 7796), (33, 7799), (34, 7802), (36, 7832), (38, 7853), (39, 7862), (47, 7916), (58, 8078), (62, 8150), (64, 8171), (69, 8204), (70, 8222), (71, 8228),

Gene: Hlubikazi\_11 Start: 7599, Stop: 8408, Start Num: 17

Candidate Starts for Hlubikazi\_11:

(Start: 13 @7542 has 2 MA's), (Start: 17 @7599 has 221 MA's), (18, 7611), (20, 7689), (21, 7725), (22, 7749), (23, 7755), (26, 7818), (31, 7929), (32, 7932), (33, 7935), (34, 7938), (36, 7968), (38, 7989), (39, 7998), (46, 8046), (47, 8052), (48, 8076), (49, 8079), (58, 8214), (62, 8286), (64, 8307), (69, 8340), (70, 8358), (71, 8364),

Gene: lbOuu\_11 Start: 7608, Stop: 8417, Start Num: 17

Candidate Starts for lbOuu\_11:

(Start: 9 @7536 has 9 MA's), (12, 7551), (Start: 17 @7608 has 221 MA's), (18, 7620), (21, 7734), (22, 7758), (23, 7764), (26, 7827), (32, 7941), (33, 7944), (34, 7947), (36, 7977), (38, 7998), (39, 8007), (46, 8055), (47, 8061), (49, 8088), (58, 8223), (62, 8295), (63, 8298), (64, 8316), (70, 8367), (71, 8373),

Gene: lbhubesi\_11 Start: 7600, Stop: 8409, Start Num: 17

Candidate Starts for lbhubesi\_11:

(Start: 13 @7543 has 2 MA's), (Start: 17 @7600 has 221 MA's), (18, 7612), (21, 7726), (22, 7750), (23, 7756), (26, 7819), (32, 7933), (33, 7936), (34, 7939), (36, 7969), (38, 7990), (39, 7999), (47, 8053), (58, 8215), (62, 8287), (64, 8308), (69, 8341), (70, 8359), (71, 8365),

Gene: ldergollasper\_47 Start: 23856, Stop: 24671, Start Num: 17

Candidate Starts for ldergollasper\_47:

(Start: 17 @23856 has 221 MA's), (19, 23937), (26, 24078), (28, 24093), (32, 24192), (35, 24210), (41, 24273), (43, 24285), (45, 24300), (56, 24417), (61, 24543),

Gene: Inventum\_11 Start: 7537, Stop: 8418, Start Num: 9

Candidate Starts for Inventum\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (47, 8062), (49, 8089), (58, 8224), (62, 8296), (64, 8317), (69, 8350), (70, 8368), (71, 8374),

Gene: IrishSherpFalk\_11 Start: 7617, Stop: 8426, Start Num: 17

Candidate Starts for IrishSherpFalk\_11:

(Start: 17 @7617 has 221 MA's), (18, 7629), (19, 7698), (20, 7707), (21, 7743), (22, 7767), (23, 7773), (26, 7836), (31, 7947), (32, 7950), (33, 7953), (34, 7956), (36, 7986), (38, 8007), (39, 8016), (47, 8070), (62, 8304), (64, 8325), (70, 8376), (71, 8382),

Gene: Island3\_13 Start: 8865, Stop: 9665, Start Num: 17

Candidate Starts for Island3\_13:

(15, 8820), (Start: 17 @8865 has 221 MA's), (20, 8961), (23, 9024), (28, 9102), (32, 9201), (36, 9237), (59, 9513), (64, 9573), (65, 9579),

Gene: JalFarm20\_12 Start: 7462, Stop: 8271, Start Num: 17

Candidate Starts for JalFarm20\_12:

(Start: 17 @7462 has 221 MA's), (18, 7474), (20, 7552), (21, 7588), (22, 7612), (23, 7618), (26, 7681), (32, 7795), (33, 7798), (34, 7801), (36, 7831), (38, 7852), (39, 7861), (46, 7909), (47, 7915), (49, 7942), (54, 8011), (58, 8077), (62, 8149), (64, 8170), (70, 8221), (71, 8227),

Gene: James\_11 Start: 7601, Stop: 8410, Start Num: 17

Candidate Starts for James\_11:

(Start: 13 @7544 has 2 MA's), (Start: 17 @7601 has 221 MA's), (18, 7613), (20, 7691), (21, 7727), (22, 7751), (23, 7757), (26, 7820), (32, 7934), (33, 7937), (34, 7940), (36, 7970), (38, 7991), (39, 8000), (46, 8048), (47, 8054), (48, 8078), (58, 8216), (62, 8288), (64, 8309), (69, 8342), (70, 8360), (71, 8366),

Gene: JangDynasty\_47 Start: 23951, Stop: 24766, Start Num: 17

Candidate Starts for JangDynasty\_47:

(Start: 17 @23951 has 221 MA's), (19, 24032), (26, 24173), (28, 24188), (32, 24287), (35, 24305), (41, 24368), (43, 24380), (45, 24395), (56, 24512), (61, 24638),

Gene: Jarcob\_11 Start: 7609, Stop: 8418, Start Num: 17

Candidate Starts for Jarcob\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (20, 7699), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (46, 8056), (47, 8062), (48, 8086), (58, 8224), (62, 8296), (64, 8317), (69, 8350), (70, 8368), (71, 8374),

Gene: Jinglebell\_11 Start: 7607, Stop: 8416, Start Num: 17

Candidate Starts for Jinglebell\_11:

(Start: 13 @7550 has 2 MA's), (Start: 17 @7607 has 221 MA's), (18, 7619), (20, 7697), (21, 7733), (22, 7757), (23, 7763), (26, 7826), (31, 7937), (32, 7940), (33, 7943), (34, 7946), (36, 7976), (38, 7997), (39, 8006), (46, 8054), (47, 8060), (48, 8084), (58, 8222), (62, 8294), (64, 8315), (70, 8366), (71, 8372),

Gene: Job42\_12 Start: 7462, Stop: 8271, Start Num: 17

Candidate Starts for Job42\_12:

(Start: 13 @7405 has 2 MA's), (Start: 17 @7462 has 221 MA's), (18, 7474), (20, 7552), (21, 7588), (22, 7612), (23, 7618), (26, 7681), (32, 7795), (33, 7798), (34, 7801), (36, 7831), (38, 7852), (39,

7861), (46, 7909), (47, 7915), (49, 7942), (62, 8149), (64, 8170), (70, 8221), (71, 8227),

Gene: JoeyJr\_11 Start: 7609, Stop: 8418, Start Num: 17

Candidate Starts for JoeyJr\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (46, 8056), (47, 8062), (49, 8089), (58, 8224), (62, 8296), (63, 8299), (64, 8317), (70, 8368), (71, 8374),

Gene: Juice456\_12 Start: 7463, Stop: 8272, Start Num: 17

Candidate Starts for Juice456\_12:

(12, 7406), (Start: 17 @7463 has 221 MA's), (18, 7475), (21, 7589), (22, 7613), (23, 7619), (26, 7682), (32, 7796), (33, 7799), (34, 7802), (36, 7832), (38, 7853), (39, 7862), (47, 7916), (58, 8078), (62, 8150), (64, 8171), (70, 8222), (71, 8228),

Gene: Juniper1\_11 Start: 7601, Stop: 8410, Start Num: 17

Candidate Starts for Juniper1\_11:

(Start: 13 @7544 has 2 MA's), (Start: 17 @7601 has 221 MA's), (18, 7613), (20, 7691), (21, 7727), (22, 7751), (23, 7757), (26, 7820), (32, 7934), (33, 7937), (34, 7940), (36, 7970), (38, 7991), (39, 8000), (47, 8054), (48, 8078), (58, 8216), (62, 8288), (64, 8309), (70, 8360), (71, 8366),

Gene: Karhdo\_11 Start: 7612, Stop: 8421, Start Num: 17

Candidate Starts for Karhdo\_11:

(4, 7504), (12, 7555), (Start: 17 @7612 has 221 MA's), (18, 7624), (21, 7738), (22, 7762), (23, 7768), (26, 7831), (32, 7945), (33, 7948), (34, 7951), (36, 7981), (38, 8002), (39, 8011), (47, 8065), (58, 8227), (62, 8299), (64, 8320), (70, 8371), (71, 8377),

Gene: Kenuha5\_11 Start: 7599, Stop: 8408, Start Num: 17

Candidate Starts for Kenuha5\_11:

(Start: 17 @7599 has 221 MA's), (18, 7611), (19, 7680), (21, 7725), (22, 7749), (23, 7755), (26, 7818), (32, 7932), (33, 7935), (36, 7968), (38, 7989), (39, 7998), (47, 8052), (49, 8079), (50, 8085), (58, 8214), (62, 8286), (64, 8307), (70, 8358), (71, 8364),

Gene: Kersh\_11 Start: 7603, Stop: 8412, Start Num: 17

Candidate Starts for Kersh\_11:

(Start: 17 @7603 has 221 MA's), (18, 7615), (20, 7693), (21, 7729), (22, 7753), (23, 7759), (26, 7822), (32, 7936), (33, 7939), (34, 7942), (36, 7972), (38, 7993), (39, 8002), (47, 8056), (49, 8083), (58, 8218), (62, 8290), (64, 8311), (69, 8344), (70, 8362), (71, 8368),

Gene: Kimberlium\_12 Start: 7463, Stop: 8272, Start Num: 17

Candidate Starts for Kimberlium\_12:

(12, 7406), (Start: 17 @7463 has 221 MA's), (18, 7475), (21, 7589), (22, 7613), (23, 7619), (26, 7682), (32, 7796), (33, 7799), (34, 7802), (36, 7832), (38, 7853), (39, 7862), (47, 7916), (58, 8078), (62, 8150), (64, 8171), (70, 8222), (71, 8228),

Gene: KingMidas\_11 Start: 7608, Stop: 8417, Start Num: 17

Candidate Starts for KingMidas\_11:

(Start: 8 @7533 has 3 MA's), (Start: 9 @7536 has 9 MA's), (12, 7551), (Start: 17 @7608 has 221 MA's), (18, 7620), (20, 7698), (21, 7734), (22, 7758), (23, 7764), (26, 7827), (31, 7938), (32, 7941), (33, 7944), (34, 7947), (36, 7977), (38, 7998), (39, 8007), (47, 8061), (49, 8088), (58, 8223), (62, 8295), (64, 8316), (70, 8367), (71, 8373),

Gene: Kingsley\_12 Start: 7460, Stop: 8269, Start Num: 17

Candidate Starts for Kingsley\_12:

(Start: 13 @7403 has 2 MA's), (Start: 17 @7460 has 221 MA's), (18, 7472), (21, 7586), (22, 7610), (23, 7616), (26, 7679), (32, 7793), (33, 7796), (34, 7799), (36, 7829), (38, 7850), (39, 7859), (47, 7913), (58, 8075), (64, 8168), (70, 8219), (71, 8225),

Gene: Koella\_11 Start: 7609, Stop: 8418, Start Num: 17

Candidate Starts for Koella\_11:

(Start: 17 @7609 has 221 MA's), (18, 7621), (20, 7699), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (47, 8062), (49, 8089), (58, 8224), (64, 8317), (70, 8368), (71, 8374),

Gene: Krakatau\_12 Start: 8284, Stop: 9093, Start Num: 17

Candidate Starts for Krakatau\_12:

(Start: 17 @8284 has 221 MA's), (18, 8296), (19, 8365), (20, 8374), (22, 8434), (23, 8440), (26, 8503), (30, 8602), (32, 8617), (33, 8620), (36, 8653), (38, 8674), (39, 8683), (47, 8737), (62, 8971), (64, 8992), (70, 9043), (71, 9049),

Gene: Krili\_46 Start: 23573, Stop: 24388, Start Num: 17

Candidate Starts for Krili\_46:

(Start: 17 @23573 has 221 MA's), (19, 23654), (26, 23795), (28, 23810), (32, 23909), (35, 23927), (41, 23990), (43, 24002), (45, 24017), (56, 24134), (61, 24260),

Gene: KristaRAM\_12 Start: 8281, Stop: 9090, Start Num: 17

Candidate Starts for KristaRAM\_12:

(Start: 17 @8281 has 221 MA's), (18, 8293), (19, 8362), (20, 8371), (22, 8431), (23, 8437), (26, 8500), (32, 8614), (33, 8617), (34, 8620), (36, 8650), (38, 8671), (39, 8680), (47, 8734), (58, 8896), (62, 8968), (64, 8989), (70, 9040), (71, 9046),

Gene: LastJedi\_11 Start: 7601, Stop: 8410, Start Num: 17

Candidate Starts for LastJedi\_11:

(Start: 13 @7544 has 2 MA's), (Start: 17 @7601 has 221 MA's), (18, 7613), (20, 7691), (21, 7727), (22, 7751), (23, 7757), (26, 7820), (32, 7934), (33, 7937), (34, 7940), (36, 7970), (38, 7991), (39, 8000), (46, 8048), (47, 8054), (48, 8078), (58, 8216), (62, 8288), (64, 8309), (69, 8342), (70, 8360), (71, 8366),

Gene: Latretium\_11 Start: 7598, Stop: 8407, Start Num: 17

Candidate Starts for Latretium\_11:

(Start: 13 @7541 has 2 MA's), (Start: 17 @7598 has 221 MA's), (18, 7610), (20, 7688), (21, 7724), (22, 7748), (23, 7754), (26, 7817), (32, 7931), (33, 7934), (34, 7937), (36, 7967), (38, 7988), (39, 7997), (46, 8045), (47, 8051), (48, 8075), (49, 8078), (58, 8213), (62, 8285), (64, 8306), (70, 8357), (71, 8363),

Gene: Leozinho\_12 Start: 7461, Stop: 8270, Start Num: 17

Candidate Starts for Leozinho\_12:

(Start: 8 @7386 has 3 MA's), (Start: 9 @7389 has 9 MA's), (12, 7404), (Start: 17 @7461 has 221 MA's), (18, 7473), (20, 7551), (21, 7587), (22, 7611), (23, 7617), (26, 7680), (32, 7794), (33, 7797), (34, 7800), (36, 7830), (38, 7851), (39, 7860), (47, 7914), (58, 8076), (62, 8148), (64, 8169), (70, 8220), (71, 8226),

Gene: Leperchaun\_11 Start: 7598, Stop: 8407, Start Num: 17

Candidate Starts for Leperchaun\_11:

(Start: 9 @7526 has 9 MA's), (12, 7541), (Start: 17 @7598 has 221 MA's), (18, 7610), (21, 7724), (22, 7748), (23, 7754), (26, 7817), (32, 7931), (33, 7934), (34, 7937), (36, 7967), (38, 7988), (39, 7997),



(46, 8045), (47, 8051), (49, 8078), (58, 8213), (62, 8285), (63, 8288), (64, 8306), (70, 8357), (71, 8363),

Gene: LilMoolah\_11 Start: 7610, Stop: 8419, Start Num: 17

Candidate Starts for LilMoolah\_11:

(Start: 17 @7610 has 221 MA's), (18, 7622), (20, 7700), (21, 7736), (22, 7760), (23, 7766), (26, 7829), (32, 7943), (33, 7946), (34, 7949), (36, 7979), (38, 8000), (39, 8009), (46, 8057), (47, 8063), (58, 8225), (62, 8297), (64, 8318), (70, 8369), (71, 8375),

Gene: LittleShirley\_12 Start: 7463, Stop: 8272, Start Num: 17

Candidate Starts for LittleShirley\_12:

(Start: 17 @7463 has 221 MA's), (18, 7475), (20, 7553), (21, 7589), (22, 7613), (23, 7619), (26, 7682), (32, 7796), (33, 7799), (34, 7802), (36, 7832), (38, 7853), (39, 7862), (47, 7916), (58, 8078), (62, 8150), (64, 8171), (70, 8222), (71, 8228),

Gene: Lizziana\_11 Start: 7610, Stop: 8419, Start Num: 17

Candidate Starts for Lizziana\_11:

(Start: 9 @7538 has 9 MA's), (12, 7553), (Start: 17 @7610 has 221 MA's), (18, 7622), (20, 7700), (21, 7736), (22, 7760), (23, 7766), (26, 7829), (32, 7943), (33, 7946), (34, 7949), (36, 7979), (38, 8000), (39, 8009), (46, 8057), (47, 8063), (48, 8087), (58, 8225), (62, 8297), (64, 8318), (69, 8351), (70, 8369), (71, 8375),

Gene: Llama\_11 Start: 7607, Stop: 8416, Start Num: 17

Candidate Starts for Llama\_11:

(Start: 13 @7550 has 2 MA's), (Start: 17 @7607 has 221 MA's), (18, 7619), (20, 7697), (21, 7733), (22, 7757), (23, 7763), (26, 7826), (31, 7937), (32, 7940), (33, 7943), (34, 7946), (36, 7976), (38, 7997), (39, 8006), (46, 8054), (47, 8060), (48, 8084), (58, 8222), (62, 8294), (64, 8315), (70, 8366), (71, 8372),

Gene: Llij\_11 Start: 7626, Stop: 8435, Start Num: 17

Candidate Starts for Llij\_11:

(Start: 17 @7626 has 221 MA's), (18, 7638), (20, 7716), (21, 7752), (22, 7776), (23, 7782), (26, 7845), (32, 7959), (33, 7962), (34, 7965), (36, 7995), (38, 8016), (39, 8025), (47, 8079), (49, 8106), (58, 8241), (62, 8313), (64, 8334), (70, 8385), (71, 8391),

Gene: Lorde\_12 Start: 7462, Stop: 8271, Start Num: 17

Candidate Starts for Lorde\_12:

(Start: 9 @7390 has 9 MA's), (12, 7405), (Start: 17 @7462 has 221 MA's), (18, 7474), (19, 7543), (20, 7552), (21, 7588), (22, 7612), (23, 7618), (26, 7681), (31, 7792), (32, 7795), (33, 7798), (34, 7801), (36, 7831), (38, 7852), (39, 7861), (47, 7915), (62, 8149), (64, 8170), (70, 8221), (71, 8227),

Gene: LunaBlu\_11 Start: 7606, Stop: 8415, Start Num: 17

Candidate Starts for LunaBlu\_11:

(Start: 17 @7606 has 221 MA's), (18, 7618), (19, 7687), (20, 7696), (21, 7732), (22, 7756), (23, 7762), (26, 7825), (31, 7936), (32, 7939), (33, 7942), (34, 7945), (36, 7975), (38, 7996), (39, 8005), (47, 8059), (62, 8293), (64, 8314), (70, 8365), (71, 8371),

Gene: LunaStella\_12 Start: 8033, Stop: 8845, Start Num: 17

Candidate Starts for LunaStella\_12:

(Start: 17 @8033 has 221 MA's), (20, 8123), (21, 8159), (29, 8348), (31, 8363), (32, 8366), (40, 8438), (49, 8513), (57, 8630), (58, 8648), (64, 8741), (67, 8768), (72, 8825),

Gene: MadKillah\_48 Start: 23795, Stop: 24610, Start Num: 17

Candidate Starts for MadKillah\_48:

(Start: 17 @23795 has 221 MA's), (19, 23876), (26, 24017), (28, 24032), (32, 24131), (35, 24149), (41, 24212), (43, 24224), (45, 24239), (56, 24356), (61, 24482),

Gene: MadMen\_11 Start: 7624, Stop: 8433, Start Num: 17

Candidate Starts for MadMen\_11:

(Start: 9 @7552 has 9 MA's), (12, 7567), (Start: 17 @7624 has 221 MA's), (18, 7636), (20, 7714), (21, 7750), (22, 7774), (23, 7780), (26, 7843), (32, 7957), (33, 7960), (34, 7963), (36, 7993), (38, 8014), (39, 8023), (47, 8077), (49, 8104), (58, 8239), (62, 8311), (64, 8332), (70, 8383), (71, 8389),

Gene: Madiba\_12 Start: 7457, Stop: 8266, Start Num: 17

Candidate Starts for Madiba\_12:

(Start: 17 @7457 has 221 MA's), (18, 7469), (21, 7583), (22, 7607), (23, 7613), (26, 7676), (32, 7790), (33, 7793), (34, 7796), (36, 7826), (38, 7847), (39, 7856), (47, 7910), (58, 8072), (62, 8144), (64, 8165), (70, 8216), (71, 8222),

Gene: Mahavrat\_11 Start: 7598, Stop: 8407, Start Num: 17

Candidate Starts for Mahavrat\_11:

(Start: 13 @7541 has 2 MA's), (Start: 17 @7598 has 221 MA's), (18, 7610), (20, 7688), (21, 7724), (22, 7748), (23, 7754), (26, 7817), (32, 7931), (33, 7934), (34, 7937), (36, 7967), (38, 7988), (39, 7997), (47, 8051), (48, 8075), (58, 8213), (62, 8285), (64, 8306), (70, 8357), (71, 8363),

Gene: Mandlovu\_11 Start: 7599, Stop: 8408, Start Num: 17

Candidate Starts for Mandlovu\_11:

(Start: 13 @7542 has 2 MA's), (Start: 17 @7599 has 221 MA's), (18, 7611), (20, 7689), (21, 7725), (22, 7749), (23, 7755), (26, 7818), (31, 7929), (32, 7932), (33, 7935), (34, 7938), (36, 7968), (38, 7989), (39, 7998), (46, 8046), (47, 8052), (48, 8076), (49, 8079), (58, 8214), (62, 8286), (64, 8307), (69, 8340), (70, 8358), (71, 8364),

Gene: Mantra\_11 Start: 7626, Stop: 8435, Start Num: 17

Candidate Starts for Mantra\_11:

(Start: 17 @7626 has 221 MA's), (18, 7638), (20, 7716), (21, 7752), (22, 7776), (23, 7782), (26, 7845), (32, 7959), (33, 7962), (34, 7965), (36, 7995), (38, 8016), (39, 8025), (46, 8073), (47, 8079), (49, 8106), (58, 8241), (62, 8313), (63, 8316), (64, 8334), (70, 8385), (71, 8391),

Gene: Maravista\_11 Start: 7598, Stop: 8407, Start Num: 17

Candidate Starts for Maravista\_11:

(Start: 9 @7526 has 9 MA's), (12, 7541), (Start: 17 @7598 has 221 MA's), (18, 7610), (20, 7688), (21, 7724), (22, 7748), (23, 7754), (26, 7817), (32, 7931), (33, 7934), (34, 7937), (36, 7967), (38, 7988), (39, 7997), (46, 8045), (47, 8051), (48, 8075), (58, 8213), (62, 8285), (64, 8306), (69, 8339), (70, 8357), (71, 8363),

Gene: Marker\_12 Start: 7460, Stop: 8269, Start Num: 17

Candidate Starts for Marker\_12:

(Start: 13 @7403 has 2 MA's), (Start: 17 @7460 has 221 MA's), (18, 7472), (20, 7550), (21, 7586), (22, 7610), (23, 7616), (26, 7679), (31, 7790), (32, 7793), (33, 7796), (34, 7799), (36, 7829), (38, 7850), (39, 7859), (46, 7907), (47, 7913), (49, 7940), (54, 8009), (58, 8075), (62, 8147), (64, 8168), (70, 8219), (71, 8225),

Gene: Martik\_11 Start: 7610, Stop: 8419, Start Num: 17

Candidate Starts for Martik\_11:

(Start: 9 @7538 has 9 MA's), (12, 7553), (Start: 17 @7610 has 221 MA's), (18, 7622), (20, 7700), (21, 7736), (22, 7760), (23, 7766), (26, 7829), (32, 7943), (33, 7946), (34, 7949), (36, 7979), (38, 8000),

(39, 8009), (46, 8057), (47, 8063), (48, 8087), (58, 8225), (62, 8297), (64, 8318), (69, 8351), (70, 8369), (71, 8375),

Gene: Mattes\_11 Start: 7601, Stop: 8410, Start Num: 17

Candidate Starts for Mattes\_11:

(Start: 13 @7544 has 2 MA's), (Start: 17 @7601 has 221 MA's), (18, 7613), (20, 7691), (21, 7727), (22, 7751), (23, 7757), (26, 7820), (32, 7934), (33, 7937), (34, 7940), (36, 7970), (38, 7991), (39, 8000), (46, 8048), (47, 8054), (48, 8078), (58, 8216), (62, 8288), (64, 8309), (69, 8342), (70, 8360), (71, 8366),

Gene: Melissauren88\_11 Start: 7631, Stop: 8440, Start Num: 17

Candidate Starts for Melissauren88\_11:

(Start: 10 @7559 has 1 MA's), (Start: 17 @7631 has 221 MA's), (18, 7643), (19, 7712), (20, 7721), (21, 7757), (22, 7781), (23, 7787), (26, 7850), (31, 7961), (32, 7964), (33, 7967), (36, 8000), (38, 8021), (39, 8030), (47, 8084), (58, 8246), (62, 8318), (64, 8339), (70, 8390), (71, 8396),

Gene: MilanaBonita\_12 Start: 8280, Stop: 9089, Start Num: 17

Candidate Starts for MilanaBonita\_12:

(Start: 17 @8280 has 221 MA's), (18, 8292), (19, 8361), (20, 8370), (21, 8406), (22, 8430), (23, 8436), (26, 8499), (30, 8598), (32, 8613), (33, 8616), (34, 8619), (36, 8649), (38, 8670), (39, 8679), (47, 8733), (58, 8895), (62, 8967), (64, 8988), (70, 9039), (71, 9045),

Gene: MilleniumForce\_12 Start: 8279, Stop: 9088, Start Num: 17

Candidate Starts for MilleniumForce\_12:

(Start: 10 @8207 has 1 MA's), (Start: 17 @8279 has 221 MA's), (18, 8291), (19, 8360), (20, 8369), (21, 8405), (22, 8429), (23, 8435), (26, 8498), (31, 8609), (32, 8612), (33, 8615), (34, 8618), (36, 8648), (38, 8669), (39, 8678), (47, 8732), (58, 8894), (62, 8966), (64, 8987), (70, 9038), (71, 9044),

Gene: MinionDave\_12 Start: 8280, Stop: 9089, Start Num: 17

Candidate Starts for MinionDave\_12:

(Start: 17 @8280 has 221 MA's), (18, 8292), (19, 8361), (20, 8370), (22, 8430), (23, 8436), (26, 8499), (32, 8613), (33, 8616), (34, 8619), (36, 8649), (38, 8670), (39, 8679), (47, 8733), (62, 8967), (64, 8988), (70, 9039), (71, 9045),

Gene: Minnie\_11 Start: 7626, Stop: 8435, Start Num: 17

Candidate Starts for Minnie\_11:

(Start: 17 @7626 has 221 MA's), (18, 7638), (20, 7716), (21, 7752), (22, 7776), (23, 7782), (26, 7845), (32, 7959), (33, 7962), (34, 7965), (36, 7995), (38, 8016), (39, 8025), (47, 8079), (49, 8106), (58, 8241), (64, 8334), (70, 8385), (71, 8391),

Gene: Misha28\_12 Start: 7464, Stop: 8273, Start Num: 17

Candidate Starts for Misha28\_12:

(Start: 13 @7407 has 2 MA's), (Start: 17 @7464 has 221 MA's), (18, 7476), (20, 7554), (21, 7590), (22, 7614), (23, 7620), (26, 7683), (32, 7797), (33, 7800), (34, 7803), (36, 7833), (38, 7854), (39, 7863), (47, 7917), (49, 7944), (58, 8079), (62, 8151), (64, 8172), (70, 8223), (71, 8229),

Gene: MisterCuddles\_11 Start: 7614, Stop: 8423, Start Num: 17

Candidate Starts for MisterCuddles\_11:

(Start: 13 @7557 has 2 MA's), (Start: 17 @7614 has 221 MA's), (18, 7626), (20, 7704), (21, 7740), (22, 7764), (23, 7770), (26, 7833), (32, 7947), (33, 7950), (34, 7953), (36, 7983), (38, 8004), (39, 8013), (47, 8067), (48, 8091), (49, 8094), (58, 8229), (62, 8301), (64, 8322), (69, 8355), (70, 8373), (71, 8379),

Gene: Modragons\_11 Start: 7607, Stop: 8416, Start Num: 17

Candidate Starts for Modragons\_11:

(Start: 13 @7550 has 2 MA's), (Start: 17 @7607 has 221 MA's), (18, 7619), (20, 7697), (21, 7733), (22, 7757), (23, 7763), (26, 7826), (31, 7937), (32, 7940), (33, 7943), (34, 7946), (36, 7976), (38, 7997), (39, 8006), (46, 8054), (47, 8060), (48, 8084), (58, 8222), (62, 8294), (64, 8315), (70, 8366), (71, 8372),

Gene: MooMoo\_11 Start: 7161, Stop: 7961, Start Num: 17

Candidate Starts for MooMoo\_11:

(Start: 14 @7110 has 1 MA's), (Start: 17 @7161 has 221 MA's), (20, 7257), (24, 7353), (27, 7392), (32, 7497), (44, 7602), (51, 7683), (52, 7686), (53, 7701), (57, 7761), (60, 7836), (64, 7869), (65, 7875), (66, 7878),

Gene: Moonbeam\_11 Start: 7611, Stop: 8420, Start Num: 17

Candidate Starts for Moonbeam\_11:

(Start: 17 @7611 has 221 MA's), (18, 7623), (20, 7701), (21, 7737), (22, 7761), (23, 7767), (26, 7830), (31, 7941), (32, 7944), (33, 7947), (34, 7950), (36, 7980), (38, 8001), (39, 8010), (47, 8064), (58, 8226), (62, 8298), (64, 8319), (70, 8370), (71, 8376),

Gene: Mori\_46 Start: 23444, Stop: 24259, Start Num: 17

Candidate Starts for Mori\_46:

(Start: 17 @23444 has 221 MA's), (19, 23525), (26, 23666), (28, 23681), (32, 23780), (35, 23798), (41, 23861), (43, 23873), (45, 23888), (56, 24005), (61, 24131),

Gene: Mova\_12 Start: 7464, Stop: 8273, Start Num: 17

Candidate Starts for Mova\_12:

(Start: 9 @7392 has 9 MA's), (12, 7407), (Start: 17 @7464 has 221 MA's), (18, 7476), (21, 7590), (22, 7614), (23, 7620), (26, 7683), (31, 7794), (32, 7797), (33, 7800), (34, 7803), (36, 7833), (38, 7854), (39, 7863), (47, 7917), (49, 7944), (58, 8079), (62, 8151), (64, 8172), (70, 8223), (71, 8229),

Gene: Mozy\_12 Start: 7477, Stop: 8286, Start Num: 17

Candidate Starts for Mozy\_12:

(Start: 17 @7477 has 221 MA's), (18, 7489), (19, 7558), (20, 7567), (21, 7603), (22, 7627), (23, 7633), (26, 7696), (32, 7810), (33, 7813), (36, 7846), (38, 7867), (39, 7876), (47, 7930), (49, 7957), (55, 8032), (62, 8164), (64, 8185), (70, 8236), (71, 8242),

Gene: Ms6\_11 Start: 7631, Stop: 8440, Start Num: 17

Candidate Starts for Ms6\_11:

(Start: 10 @7559 has 1 MA's), (Start: 17 @7631 has 221 MA's), (18, 7643), (19, 7712), (20, 7721), (22, 7781), (23, 7787), (26, 7850), (32, 7964), (33, 7967), (36, 8000), (38, 8021), (39, 8030), (47, 8084), (58, 8246), (62, 8318), (64, 8339), (70, 8390), (71, 8396),

Gene: MulchSalad\_11 Start: 7612, Stop: 8421, Start Num: 17

Candidate Starts for MulchSalad\_11:

(Start: 17 @7612 has 221 MA's), (18, 7624), (20, 7702), (21, 7738), (22, 7762), (23, 7768), (26, 7831), (32, 7945), (33, 7948), (34, 7951), (36, 7981), (38, 8002), (39, 8011), (47, 8065), (58, 8227), (62, 8299), (64, 8320), (70, 8371), (71, 8377),

Gene: Murai\_47 Start: 23634, Stop: 24449, Start Num: 17

Candidate Starts for Murai\_47:

(Start: 17 @23634 has 221 MA's), (19, 23715), (26, 23856), (28, 23871), (32, 23970), (35, 23988), (41, 24051), (43, 24063), (45, 24078), (56, 24195), (61, 24321),

Gene: Mutaforma13\_11 Start: 7630, Stop: 8439, Start Num: 17

Candidate Starts for Mutaforma13\_11:

(Start: 17 @7630 has 221 MA's), (18, 7642), (19, 7711), (20, 7720), (21, 7756), (22, 7780), (23, 7786), (26, 7849), (31, 7960), (32, 7963), (33, 7966), (34, 7969), (36, 7999), (38, 8020), (39, 8029), (47, 8083), (49, 8110), (62, 8317), (64, 8338), (70, 8389), (71, 8395),

Gene: NiebruSaylor\_46 Start: 23445, Stop: 24260, Start Num: 17

Candidate Starts for NiebruSaylor\_46:

(Start: 17 @23445 has 221 MA's), (19, 23526), (26, 23667), (28, 23682), (32, 23781), (35, 23799), (41, 23862), (43, 23874), (45, 23889), (56, 24006), (61, 24132),

Gene: Nimbo\_11 Start: 7609, Stop: 8418, Start Num: 17

Candidate Starts for Nimbo\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (46, 8056), (47, 8062), (49, 8089), (58, 8224), (62, 8296), (63, 8299), (64, 8317), (70, 8368), (71, 8374),

Gene: Nitzel\_12 Start: 8262, Stop: 9071, Start Num: 17

Candidate Starts for Nitzel\_12:

(Start: 17 @8262 has 221 MA's), (18, 8274), (20, 8352), (21, 8388), (22, 8412), (23, 8418), (26, 8481), (32, 8595), (33, 8598), (34, 8601), (36, 8631), (38, 8652), (39, 8661), (47, 8715), (49, 8742), (58, 8877), (64, 8970), (70, 9021), (71, 9027),

Gene: Nivrat\_11 Start: 7609, Stop: 8418, Start Num: 17

Candidate Starts for Nivrat\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (20, 7699), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (46, 8056), (47, 8062), (48, 8086), (58, 8224), (62, 8296), (64, 8317), (69, 8350), (70, 8368), (71, 8374),

Gene: NormanBulbieJr\_11 Start: 7597, Stop: 8406, Start Num: 17

Candidate Starts for NormanBulbieJr\_11:

(Start: 17 @7597 has 221 MA's), (18, 7609), (20, 7687), (21, 7723), (22, 7747), (23, 7753), (26, 7816), (32, 7930), (33, 7933), (34, 7936), (36, 7966), (38, 7987), (39, 7996), (47, 8050), (49, 8077), (62, 8284), (64, 8305), (70, 8356), (71, 8362),

Gene: Ochi17\_11 Start: 7607, Stop: 8416, Start Num: 17

Candidate Starts for Ochi17\_11:

(Start: 13 @7550 has 2 MA's), (Start: 17 @7607 has 221 MA's), (18, 7619), (20, 7697), (21, 7733), (22, 7757), (23, 7763), (26, 7826), (31, 7937), (32, 7940), (33, 7943), (34, 7946), (36, 7976), (38, 7997), (39, 8006), (46, 8054), (47, 8060), (48, 8084), (58, 8222), (62, 8294), (64, 8315), (70, 8366), (71, 8372),

Gene: OfUltron\_11 Start: 7607, Stop: 8416, Start Num: 17

Candidate Starts for OfUltron\_11:

(Start: 13 @7550 has 2 MA's), (Start: 17 @7607 has 221 MA's), (18, 7619), (20, 7697), (21, 7733), (22, 7757), (23, 7763), (26, 7826), (31, 7937), (32, 7940), (33, 7943), (34, 7946), (36, 7976), (38, 7997), (39, 8006), (46, 8054), (47, 8060), (48, 8084), (58, 8222), (62, 8294), (64, 8315), (70, 8366), (71, 8372),

Gene: Ogopogo\_14 Start: 7806, Stop: 8672, Start Num: 13

Candidate Starts for Ogopogo\_14:

(Start: 13 @7806 has 2 MA's), (Start: 17 @7863 has 221 MA's), (18, 7875), (20, 7953), (21, 7989), (22, 8013), (23, 8019), (26, 8082), (32, 8196), (33, 8199), (34, 8202), (36, 8232), (38, 8253), (39, 8262), (46, 8310), (47, 8316), (48, 8340), (49, 8343), (58, 8478), (62, 8550), (64, 8571), (69, 8604), (70, 8622), (71, 8628),

Gene: Oksu\_12 Start: 7463, Stop: 8272, Start Num: 17

Candidate Starts for Oksu\_12:

(Start: 13 @7406 has 2 MA's), (Start: 17 @7463 has 221 MA's), (18, 7475), (21, 7589), (22, 7613), (23, 7619), (26, 7682), (32, 7796), (33, 7799), (34, 7802), (36, 7832), (38, 7853), (39, 7862), (46, 7910), (47, 7916), (48, 7940), (49, 7943), (58, 8078), (62, 8150), (64, 8171), (69, 8204), (70, 8222), (71, 8228),

Gene: OldBen\_11 Start: 7609, Stop: 8418, Start Num: 17

Candidate Starts for OldBen\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (46, 8056), (47, 8062), (49, 8089), (58, 8224), (62, 8296), (63, 8299), (64, 8317), (70, 8368), (71, 8374),

Gene: OlympiaSaint\_11 Start: 7610, Stop: 8419, Start Num: 17

Candidate Starts for OlympiaSaint\_11:

(Start: 17 @7610 has 221 MA's), (18, 7622), (20, 7700), (21, 7736), (22, 7760), (23, 7766), (26, 7829), (32, 7943), (33, 7946), (34, 7949), (36, 7979), (38, 8000), (39, 8009), (47, 8063), (49, 8090), (62, 8297), (64, 8318), (70, 8369), (71, 8375),

Gene: Ovechkin\_11 Start: 7631, Stop: 8440, Start Num: 17

Candidate Starts for Ovechkin\_11:

(Start: 10 @7559 has 1 MA's), (Start: 17 @7631 has 221 MA's), (18, 7643), (19, 7712), (20, 7721), (22, 7781), (23, 7787), (26, 7850), (32, 7964), (33, 7967), (36, 8000), (38, 8021), (39, 8030), (47, 8084), (58, 8246), (62, 8318), (64, 8339), (70, 8390), (71, 8396),

Gene: OwlsT2W\_12 Start: 7461, Stop: 8270, Start Num: 17

Candidate Starts for OwlsT2W\_12:

(Start: 8 @7386 has 3 MA's), (Start: 9 @7389 has 9 MA's), (12, 7404), (Start: 17 @7461 has 221 MA's), (18, 7473), (20, 7551), (21, 7587), (22, 7611), (23, 7617), (26, 7680), (32, 7794), (33, 7797), (34, 7800), (36, 7830), (38, 7851), (39, 7860), (46, 7908), (47, 7914), (49, 7941), (54, 8010), (58, 8076), (62, 8148), (64, 8169), (70, 8220), (71, 8226),

Gene: PHappiness\_11 Start: 7609, Stop: 8418, Start Num: 17

Candidate Starts for PHappiness\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (46, 8056), (47, 8062), (49, 8089), (58, 8224), (62, 8296), (63, 8299), (64, 8317), (70, 8368), (71, 8374),

Gene: PMC\_11 Start: 7626, Stop: 8435, Start Num: 17

Candidate Starts for PMC\_11:

(Start: 17 @7626 has 221 MA's), (18, 7638), (20, 7716), (21, 7752), (22, 7776), (23, 7782), (26, 7845), (32, 7959), (33, 7962), (34, 7965), (36, 7995), (38, 8016), (39, 8025), (47, 8079), (49, 8106), (58, 8241), (62, 8313), (64, 8334), (70, 8385), (71, 8391),

Gene: Pacc40\_11 Start: 7537, Stop: 8418, Start Num: 9

Candidate Starts for Pacc40\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (46, 8056), (47, 8062), (49, 8089), (58, 8224), (62, 8296), (63, 8299), (64, 8317), (70, 8368), (71, 8374),

Gene: Phalconet\_11 Start: 7631, Stop: 8440, Start Num: 17

Candidate Starts for Phalconet\_11:

(Start: 10 @7559 has 1 MA's), (Start: 17 @7631 has 221 MA's), (18, 7643), (19, 7712), (20, 7721), (21, 7757), (22, 7781), (23, 7787), (26, 7850), (30, 7949), (32, 7964), (33, 7967), (36, 8000), (38, 8021), (39, 8030), (47, 8084), (62, 8318), (64, 8339), (70, 8390), (71, 8396),

Gene: Phanphagia\_11 Start: 7632, Stop: 8441, Start Num: 17

Candidate Starts for Phanphagia\_11:

(Start: 17 @7632 has 221 MA's), (18, 7644), (19, 7713), (20, 7722), (21, 7758), (22, 7782), (23, 7788), (26, 7851), (31, 7962), (32, 7965), (33, 7968), (34, 7971), (36, 8001), (38, 8022), (39, 8031), (47, 8085), (62, 8319), (64, 8340), (70, 8391), (71, 8397),

Gene: Phasih\_11 Start: 7625, Stop: 8434, Start Num: 17

Candidate Starts for Phasih\_11:

(Start: 13 @7568 has 2 MA's), (Start: 17 @7625 has 221 MA's), (18, 7637), (19, 7706), (20, 7715), (22, 7775), (23, 7781), (26, 7844), (32, 7958), (33, 7961), (34, 7964), (36, 7994), (38, 8015), (39, 8024), (47, 8078), (48, 8102), (62, 8312), (64, 8333), (69, 8366), (70, 8384), (71, 8390),

Gene: Phatniss\_11 Start: 7609, Stop: 8418, Start Num: 17

Candidate Starts for Phatniss\_11:

(Start: 17 @7609 has 221 MA's), (18, 7621), (20, 7699), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (47, 8062), (49, 8089), (58, 8224), (62, 8296), (64, 8317), (70, 8368), (71, 8374),

Gene: PhesterPhotato\_11 Start: 7631, Stop: 8440, Start Num: 17

Candidate Starts for PhesterPhotato\_11:

(Start: 10 @7559 has 1 MA's), (12, 7571), (Start: 17 @7631 has 221 MA's), (18, 7643), (19, 7712), (20, 7721), (21, 7757), (22, 7781), (23, 7787), (26, 7850), (31, 7961), (32, 7964), (33, 7967), (34, 7970), (36, 8000), (38, 8021), (39, 8030), (47, 8084), (58, 8246), (62, 8318), (64, 8339), (70, 8390), (71, 8396),

Gene: Philus\_11 Start: 7609, Stop: 8418, Start Num: 17

Candidate Starts for Philus\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (20, 7699), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (46, 8056), (47, 8062), (48, 8086), (58, 8224), (62, 8296), (64, 8317), (69, 8350), (70, 8368), (71, 8374),

Gene: Piper2020\_12 Start: 7463, Stop: 8272, Start Num: 17

Candidate Starts for Piper2020\_12:

(Start: 9 @7391 has 9 MA's), (12, 7406), (Start: 17 @7463 has 221 MA's), (18, 7475), (20, 7553), (21, 7589), (22, 7613), (23, 7619), (26, 7682), (32, 7796), (33, 7799), (34, 7802), (36, 7832), (38, 7853), (39, 7862), (46, 7910), (47, 7916), (49, 7943), (58, 8078), (62, 8150), (64, 8171), (70, 8222), (71, 8228),

Gene: Pippy\_11 Start: 7597, Stop: 8406, Start Num: 17

Candidate Starts for Pippy\_11:

(Start: 17 @7597 has 221 MA's), (18, 7609), (20, 7687), (21, 7723), (22, 7747), (23, 7753), (26, 7816), (32, 7930), (33, 7933), (34, 7936), (36, 7966), (38, 7987), (39, 7996), (47, 8050), (58, 8212), (64, 8305), (70, 8356), (71, 8362),

Gene: Plumbus\_12 Start: 7463, Stop: 8272, Start Num: 17

Candidate Starts for Plumbus\_12:

(12, 7406), (Start: 17 @7463 has 221 MA's), (18, 7475), (21, 7589), (22, 7613), (23, 7619), (26, 7682), (32, 7796), (33, 7799), (34, 7802), (36, 7832), (38, 7853), (39, 7862), (47, 7916), (58, 8078), (62, 8150), (64, 8171), (70, 8222), (71, 8228),

Gene: Poenanya\_11 Start: 7609, Stop: 8418, Start Num: 17

Candidate Starts for Poenanya\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (46, 8056), (47, 8062), (49, 8089), (58, 8224), (62, 8296), (63, 8299), (64, 8317), (70, 8368), (71, 8374),

Gene: Polka14\_11 Start: 7610, Stop: 8419, Start Num: 17

Candidate Starts for Polka14\_11:

(Start: 9 @7538 has 9 MA's), (12, 7553), (Start: 17 @7610 has 221 MA's), (18, 7622), (21, 7736), (22, 7760), (23, 7766), (26, 7829), (32, 7943), (33, 7946), (34, 7949), (36, 7979), (38, 8000), (39, 8009), (47, 8063), (49, 8090), (58, 8225), (62, 8297), (64, 8318), (69, 8351), (70, 8369), (71, 8375),

Gene: Pollywog\_12 Start: 7462, Stop: 8271, Start Num: 17

Candidate Starts for Pollywog\_12:

(Start: 9 @7390 has 9 MA's), (12, 7405), (Start: 17 @7462 has 221 MA's), (18, 7474), (21, 7588), (22, 7612), (23, 7618), (26, 7681), (32, 7795), (33, 7798), (34, 7801), (36, 7831), (38, 7852), (39, 7861), (47, 7915), (49, 7942), (58, 8077), (62, 8149), (64, 8170), (69, 8203), (70, 8221), (71, 8227),

Gene: PopTart\_11 Start: 7631, Stop: 8440, Start Num: 17

Candidate Starts for PopTart\_11:

(Start: 10 @7559 has 1 MA's), (Start: 17 @7631 has 221 MA's), (18, 7643), (19, 7712), (20, 7721), (21, 7757), (22, 7781), (23, 7787), (26, 7850), (31, 7961), (32, 7964), (33, 7967), (34, 7970), (36, 8000), (38, 8021), (39, 8030), (47, 8084), (62, 8318), (64, 8339), (70, 8390), (71, 8396),

Gene: Priscilla\_11 Start: 7610, Stop: 8419, Start Num: 17

Candidate Starts for Priscilla\_11:

(Start: 17 @7610 has 221 MA's), (18, 7622), (20, 7700), (21, 7736), (22, 7760), (23, 7766), (26, 7829), (32, 7943), (33, 7946), (34, 7949), (36, 7979), (38, 8000), (39, 8009), (47, 8063), (49, 8090), (58, 8225), (62, 8297), (64, 8318), (69, 8351), (70, 8369), (71, 8375),

Gene: QueenHazel\_13 Start: 8870, Stop: 9670, Start Num: 17

Candidate Starts for QueenHazel\_13:

(15, 8825), (Start: 17 @8870 has 221 MA's), (20, 8966), (23, 9029), (28, 9107), (32, 9206), (36, 9242), (59, 9518), (64, 9578), (65, 9584),

Gene: QuickMath\_11 Start: 7632, Stop: 8441, Start Num: 17

Candidate Starts for QuickMath\_11:

(Start: 10 @7560 has 1 MA's), (Start: 17 @7632 has 221 MA's), (18, 7644), (19, 7713), (20, 7722), (21, 7758), (22, 7782), (23, 7788), (26, 7851), (31, 7962), (32, 7965), (33, 7968), (36, 8001), (38, 8022), (39, 8031), (47, 8085), (58, 8247), (62, 8319), (64, 8340), (70, 8391), (71, 8397),

Gene: Quico\_12 Start: 7458, Stop: 8267, Start Num: 17



Candidate Starts for Quico\_12:

(Start: 17 @7458 has 221 MA's), (18, 7470), (20, 7548), (21, 7584), (22, 7608), (23, 7614), (26, 7677), (32, 7791), (33, 7794), (34, 7797), (36, 7827), (38, 7848), (39, 7857), (47, 7911), (48, 7935), (58, 8073), (62, 8145), (64, 8166), (70, 8217), (71, 8223),

Gene: Radiance\_11 Start: 7608, Stop: 8417, Start Num: 17

Candidate Starts for Radiance\_11:

(4, 7500), (12, 7551), (Start: 17 @7608 has 221 MA's), (18, 7620), (21, 7734), (22, 7758), (23, 7764), (26, 7827), (32, 7941), (33, 7944), (34, 7947), (36, 7977), (38, 7998), (39, 8007), (47, 8061), (58, 8223), (62, 8295), (64, 8316), (70, 8367), (71, 8373),

Gene: Ramsey\_12 Start: 7460, Stop: 8269, Start Num: 17

Candidate Starts for Ramsey\_12:

(Start: 13 @7403 has 2 MA's), (Start: 17 @7460 has 221 MA's), (18, 7472), (20, 7550), (21, 7586), (22, 7610), (23, 7616), (26, 7679), (31, 7790), (32, 7793), (33, 7796), (34, 7799), (36, 7829), (38, 7850), (39, 7859), (47, 7913), (49, 7940), (58, 8075), (64, 8168), (70, 8219), (71, 8225),

Gene: RedBird\_11 Start: 7609, Stop: 8418, Start Num: 17

Candidate Starts for RedBird\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (46, 8056), (47, 8062), (49, 8089), (58, 8224), (62, 8296), (63, 8299), (64, 8317), (70, 8368), (71, 8374),

Gene: Renaud18\_12 Start: 7913, Stop: 8725, Start Num: 17

Candidate Starts for Renaud18\_12:

(Start: 17 @7913 has 221 MA's), (20, 8003), (21, 8039), (29, 8228), (31, 8243), (32, 8246), (36, 8282), (40, 8318), (57, 8510), (58, 8528), (64, 8621), (67, 8648), (72, 8705),

Gene: Rialto\_12 Start: 7463, Stop: 8272, Start Num: 17

Candidate Starts for Rialto\_12:

(Start: 17 @7463 has 221 MA's), (18, 7475), (20, 7553), (21, 7589), (22, 7613), (23, 7619), (26, 7682), (31, 7793), (32, 7796), (33, 7799), (34, 7802), (36, 7832), (38, 7853), (39, 7862), (47, 7916), (58, 8078), (62, 8150), (64, 8171), (70, 8222), (71, 8228),

Gene: Rita\_11 Start: 7600, Stop: 8409, Start Num: 17

Candidate Starts for Rita\_11:

(Start: 17 @7600 has 221 MA's), (18, 7612), (19, 7681), (21, 7726), (22, 7750), (23, 7756), (26, 7819), (32, 7933), (33, 7936), (36, 7969), (38, 7990), (39, 7999), (47, 8053), (49, 8080), (50, 8086), (58, 8215), (62, 8287), (64, 8308), (70, 8359), (71, 8365),

Gene: RitaG\_11 Start: 7534, Stop: 8418, Start Num: 8

Candidate Starts for RitaG\_11:

(Start: 8 @7534 has 3 MA's), (Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (46, 8056), (47, 8062), (49, 8089), (58, 8224), (62, 8296), (63, 8299), (64, 8317), (70, 8368), (71, 8374),

Gene: Rockne\_11 Start: 7626, Stop: 8435, Start Num: 17

Candidate Starts for Rockne\_11:

(Start: 17 @7626 has 221 MA's), (18, 7638), (20, 7716), (21, 7752), (22, 7776), (23, 7782), (26, 7845), (32, 7959), (33, 7962), (34, 7965), (36, 7995), (38, 8016), (39, 8025), (47, 8079), (49, 8106), (58, 8241), (62, 8313), (64, 8334), (70, 8385), (71, 8391),

Gene: RockyHorror\_12 Start: 7461, Stop: 8270, Start Num: 17

Candidate Starts for RockyHorror\_12:

(Start: 17 @7461 has 221 MA's), (18, 7473), (20, 7551), (21, 7587), (22, 7611), (23, 7617), (26, 7680), (32, 7794), (33, 7797), (34, 7800), (36, 7830), (38, 7851), (39, 7860), (46, 7908), (47, 7914), (49, 7941), (58, 8076), (62, 8148), (63, 8151), (64, 8169), (70, 8220), (71, 8226),

Gene: Royals2015\_11 Start: 7629, Stop: 8438, Start Num: 17

Candidate Starts for Royals2015\_11:

(1, 7431), (2, 7452), (3, 7455), (16, 7590), (Start: 17 @7629 has 221 MA's), (18, 7641), (19, 7710), (20, 7719), (21, 7755), (22, 7779), (23, 7785), (26, 7848), (31, 7959), (32, 7962), (33, 7965), (34, 7968), (36, 7998), (38, 8019), (39, 8028), (47, 8082), (58, 8244), (62, 8316), (64, 8337), (70, 8388), (71, 8394),

Gene: Ruby\_11 Start: 7557, Stop: 8423, Start Num: 13

Candidate Starts for Ruby\_11:

(Start: 13 @7557 has 2 MA's), (Start: 17 @7614 has 221 MA's), (18, 7626), (20, 7704), (21, 7740), (22, 7764), (23, 7770), (26, 7833), (32, 7947), (33, 7950), (34, 7953), (36, 7983), (38, 8004), (39, 8013), (47, 8067), (48, 8091), (49, 8094), (58, 8229), (62, 8301), (64, 8322), (69, 8355), (70, 8373), (71, 8379),

Gene: Ryadel\_51 Start: 24909, Stop: 25724, Start Num: 17

Candidate Starts for Ryadel\_51:

(Start: 17 @24909 has 221 MA's), (19, 24990), (26, 25131), (32, 25245), (35, 25263), (37, 25296), (41, 25326), (43, 25338), (45, 25353), (56, 25470), (61, 25596),

Gene: SG4\_11 Start: 7559, Stop: 8440, Start Num: 10

Candidate Starts for SG4\_11:

(Start: 10 @7559 has 1 MA's), (Start: 17 @7631 has 221 MA's), (18, 7643), (19, 7712), (20, 7721), (21, 7757), (22, 7781), (23, 7787), (26, 7850), (31, 7961), (32, 7964), (33, 7967), (34, 7970), (36, 8000), (38, 8021), (39, 8030), (47, 8084), (58, 8246), (62, 8318), (64, 8339), (70, 8390), (71, 8396),

Gene: Saal\_11 Start: 7598, Stop: 8407, Start Num: 17

Candidate Starts for Saal\_11:

(Start: 17 @7598 has 221 MA's), (18, 7610), (20, 7688), (21, 7724), (22, 7748), (23, 7754), (26, 7817), (32, 7931), (33, 7934), (34, 7937), (36, 7967), (38, 7988), (39, 7997), (47, 8051), (58, 8213), (64, 8306), (70, 8357), (71, 8363),

Gene: Sabbb\_11 Start: 7614, Stop: 8423, Start Num: 17

Candidate Starts for Sabbb\_11:

(Start: 13 @7557 has 2 MA's), (Start: 17 @7614 has 221 MA's), (18, 7626), (20, 7704), (21, 7740), (22, 7764), (23, 7770), (26, 7833), (32, 7947), (33, 7950), (34, 7953), (36, 7983), (38, 8004), (39, 8013), (46, 8061), (47, 8067), (49, 8094), (54, 8163), (58, 8229), (62, 8301), (64, 8322), (69, 8355), (70, 8373), (71, 8379),

Gene: Sandalphon\_11 Start: 7626, Stop: 8435, Start Num: 17

Candidate Starts for Sandalphon\_11:

(Start: 17 @7626 has 221 MA's), (18, 7638), (20, 7716), (21, 7752), (22, 7776), (23, 7782), (26, 7845), (32, 7959), (33, 7962), (34, 7965), (36, 7995), (38, 8016), (39, 8025), (47, 8079), (49, 8106), (58, 8241), (64, 8334), (70, 8385), (71, 8391),

Gene: Sarma624\_12 Start: 7460, Stop: 8269, Start Num: 17

Candidate Starts for Sarma624\_12:

(Start: 13 @7403 has 2 MA's), (Start: 17 @7460 has 221 MA's), (18, 7472), (21, 7586), (22, 7610), (23, 7616), (26, 7679), (32, 7793), (33, 7796), (34, 7799), (36, 7829), (38, 7850), (39, 7859), (47, 7913), (58, 8075), (64, 8168), (70, 8219), (71, 8225),

Gene: Sassafras\_11 Start: 7609, Stop: 8418, Start Num: 17

Candidate Starts for Sassafras\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (47, 8062), (49, 8089), (58, 8224), (62, 8296), (64, 8317), (69, 8350), (70, 8368), (71, 8374),

Gene: SassyB\_11 Start: 7631, Stop: 8440, Start Num: 17

Candidate Starts for SassyB\_11:

(Start: 10 @7559 has 1 MA's), (Start: 17 @7631 has 221 MA's), (18, 7643), (19, 7712), (20, 7721), (21, 7757), (22, 7781), (23, 7787), (26, 7850), (31, 7961), (32, 7964), (33, 7967), (34, 7970), (36, 8000), (38, 8021), (39, 8030), (47, 8084), (62, 8318), (64, 8339), (70, 8390), (71, 8396),

Gene: Sbash\_12 Start: 8452, Stop: 9249, Start Num: 17

Candidate Starts for Sbash\_12:

(6, 8362), (15, 8410), (Start: 17 @8452 has 221 MA's), (19, 8539), (20, 8548), (27, 8683), (28, 8689), (32, 8788), (49, 8935), (57, 9049), (64, 9157), (65, 9163),

Gene: SchoolBus\_47 Start: 23859, Stop: 24674, Start Num: 17

Candidate Starts for SchoolBus\_47:

(Start: 17 @23859 has 221 MA's), (19, 23940), (26, 24081), (28, 24096), (32, 24195), (35, 24213), (41, 24276), (43, 24288), (45, 24303), (56, 24420), (61, 24546),

Gene: Schuy\_45 Start: 23792, Stop: 24607, Start Num: 17

Candidate Starts for Schuy\_45:

(Start: 17 @23792 has 221 MA's), (19, 23873), (26, 24014), (28, 24029), (32, 24128), (35, 24146), (41, 24209), (43, 24221), (45, 24236), (56, 24353), (61, 24479),

Gene: Scottish\_11 Start: 7609, Stop: 8418, Start Num: 17

Candidate Starts for Scottish\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (46, 8056), (47, 8062), (49, 8089), (58, 8224), (62, 8296), (63, 8299), (64, 8317), (70, 8368), (71, 8374),

Gene: Seabastian\_11 Start: 7607, Stop: 8416, Start Num: 17

Candidate Starts for Seabastian\_11:

(Start: 13 @7550 has 2 MA's), (Start: 17 @7607 has 221 MA's), (18, 7619), (20, 7697), (21, 7733), (22, 7757), (23, 7763), (26, 7826), (31, 7937), (32, 7940), (33, 7943), (34, 7946), (36, 7976), (38, 7997), (39, 8006), (46, 8054), (47, 8060), (48, 8084), (58, 8222), (62, 8294), (64, 8315), (70, 8366), (71, 8372),

Gene: Seagreen\_12 Start: 7462, Stop: 8271, Start Num: 17

Candidate Starts for Seagreen\_12:

(Start: 13 @7405 has 2 MA's), (Start: 17 @7462 has 221 MA's), (18, 7474), (20, 7552), (21, 7588), (22, 7612), (23, 7618), (26, 7681), (31, 7792), (32, 7795), (33, 7798), (34, 7801), (36, 7831), (38, 7852), (39, 7861), (47, 7915), (49, 7942), (58, 8077), (62, 8149), (64, 8170), (70, 8221), (71, 8227),

Gene: Shauna1\_11 Start: 7632, Stop: 8441, Start Num: 17

Candidate Starts for Shauna1\_11:

(Start: 17 @7632 has 221 MA's), (18, 7644), (19, 7713), (20, 7722), (21, 7758), (22, 7782), (23, 7788), (26, 7851), (31, 7962), (32, 7965), (33, 7968), (34, 7971), (36, 8001), (38, 8022), (39, 8031), (47, 8085), (62, 8319), (64, 8340), (70, 8391), (71, 8397),

Gene: ShiLan\_11 Start: 7537, Stop: 8418, Start Num: 9

Candidate Starts for ShiLan\_11:

(Start: 9 @7537 has 9 MA's), (12, 7552), (Start: 17 @7609 has 221 MA's), (18, 7621), (20, 7699), (21, 7735), (22, 7759), (23, 7765), (26, 7828), (32, 7942), (33, 7945), (34, 7948), (36, 7978), (38, 7999), (39, 8008), (46, 8056), (47, 8062), (48, 8086), (58, 8224), (62, 8296), (64, 8317), (69, 8350), (70, 8368), (71, 8374),

Gene: Shida\_47 Start: 23699, Stop: 24514, Start Num: 17

Candidate Starts for Shida\_47:

(Start: 17 @23699 has 221 MA's), (19, 23780), (26, 23921), (28, 23936), (32, 24035), (35, 24053), (41, 24116), (43, 24128), (45, 24143), (56, 24260), (61, 24386),

Gene: ShowerHandel\_12 Start: 7610, Stop: 8419, Start Num: 17

Candidate Starts for ShowerHandel\_12:

(Start: 9 @7538 has 9 MA's), (12, 7553), (Start: 17 @7610 has 221 MA's), (18, 7622), (20, 7700), (21, 7736), (22, 7760), (23, 7766), (26, 7829), (32, 7943), (33, 7946), (34, 7949), (36, 7979), (38, 8000), (39, 8009), (46, 8057), (47, 8063), (48, 8087), (58, 8225), (62, 8297), (64, 8318), (69, 8351), (70, 8369), (71, 8375),

Gene: ShroomBoi\_11 Start: 7631, Stop: 8440, Start Num: 17

Candidate Starts for ShroomBoi\_11:

(Start: 10 @7559 has 1 MA's), (Start: 17 @7631 has 221 MA's), (18, 7643), (19, 7712), (20, 7721), (21, 7757), (22, 7781), (23, 7787), (26, 7850), (31, 7961), (32, 7964), (33, 7967), (34, 7970), (36, 8000), (38, 8021), (39, 8030), (47, 8084), (58, 8246), (62, 8318), (64, 8339), (70, 8390), (71, 8396),

Gene: SiSi\_11 Start: 7618, Stop: 8427, Start Num: 17

Candidate Starts for SiSi\_11:

(Start: 17 @7618 has 221 MA's), (18, 7630), (19, 7699), (20, 7708), (22, 7768), (23, 7774), (26, 7837), (30, 7936), (32, 7951), (33, 7954), (36, 7987), (38, 8008), (39, 8017), (47, 8071), (58, 8233), (62, 8305), (64, 8326), (70, 8377), (71, 8383),

Gene: SimranZ1\_12 Start: 7460, Stop: 8269, Start Num: 17

Candidate Starts for SimranZ1\_12:

(Start: 17 @7460 has 221 MA's), (18, 7472), (20, 7550), (21, 7586), (22, 7610), (23, 7616), (26, 7679), (31, 7790), (32, 7793), (33, 7796), (34, 7799), (36, 7829), (38, 7850), (39, 7859), (47, 7913), (49, 7940), (58, 8075), (62, 8147), (64, 8168), (70, 8219), (71, 8225),

Gene: Smooch\_49 Start: 24987, Stop: 25802, Start Num: 17

Candidate Starts for Smooch\_49:

(Start: 17 @24987 has 221 MA's), (19, 25068), (26, 25209), (28, 25224), (32, 25323), (35, 25341), (41, 25404), (43, 25416), (45, 25431), (56, 25548), (61, 25674),

Gene: Sparkdehlily\_11 Start: 7624, Stop: 8433, Start Num: 17

Candidate Starts for Sparkdehlily\_11:

(Start: 9 @7552 has 9 MA's), (12, 7567), (Start: 17 @7624 has 221 MA's), (18, 7636), (20, 7714), (21, 7750), (22, 7774), (23, 7780), (26, 7843), (32, 7957), (33, 7960), (34, 7963), (36, 7993), (38, 8014), (39, 8023), (47, 8077), (49, 8104), (58, 8239), (62, 8311), (64, 8332), (70, 8383), (71, 8389),

Gene: Spartacus\_11 Start: 7617, Stop: 8426, Start Num: 17

Candidate Starts for Spartacus\_11:

(Start: 17 @7617 has 221 MA's), (18, 7629), (19, 7698), (20, 7707), (21, 7743), (22, 7767), (23, 7773), (26, 7836), (31, 7947), (32, 7950), (33, 7953), (34, 7956), (36, 7986), (38, 8007), (39, 8016), (47, 8070), (62, 8304), (64, 8325), (70, 8376), (71, 8382),

Gene: Spikelee\_12 Start: 7461, Stop: 8270, Start Num: 17

Candidate Starts for Spikelee\_12:

(Start: 8 @7386 has 3 MA's), (Start: 9 @7389 has 9 MA's), (12, 7404), (Start: 17 @7461 has 221 MA's), (18, 7473), (20, 7551), (21, 7587), (22, 7611), (23, 7617), (26, 7680), (32, 7794), (33, 7797), (34, 7800), (36, 7830), (38, 7851), (39, 7860), (46, 7908), (47, 7914), (49, 7941), (58, 8076), (62, 8148), (64, 8169), (70, 8220), (71, 8226),

Gene: Spoonbill\_11 Start: 7610, Stop: 8419, Start Num: 17

Candidate Starts for Spoonbill\_11:

(Start: 13 @7553 has 2 MA's), (Start: 17 @7610 has 221 MA's), (18, 7622), (20, 7700), (21, 7736), (22, 7760), (23, 7766), (26, 7829), (32, 7943), (33, 7946), (34, 7949), (36, 7979), (38, 8000), (39, 8009), (47, 8063), (48, 8087), (49, 8090), (58, 8225), (62, 8297), (64, 8318), (69, 8351), (70, 8369), (71, 8375),

Gene: Squirty\_12 Start: 7454, Stop: 8263, Start Num: 17

Candidate Starts for Squirty\_12:

(Start: 17 @7454 has 221 MA's), (18, 7466), (20, 7544), (21, 7580), (22, 7604), (23, 7610), (26, 7673), (32, 7787), (33, 7790), (34, 7793), (36, 7823), (38, 7844), (39, 7853), (47, 7907), (58, 8069), (62, 8141), (64, 8162), (68, 8192), (70, 8213), (71, 8219),

Gene: StAnnes\_11 Start: 7632, Stop: 8441, Start Num: 17

Candidate Starts for StAnnes\_11:

(Start: 17 @7632 has 221 MA's), (18, 7644), (19, 7713), (20, 7722), (22, 7782), (23, 7788), (26, 7851), (32, 7965), (33, 7968), (36, 8001), (38, 8022), (39, 8031), (47, 8085), (58, 8247), (62, 8319), (64, 8340), (70, 8391), (71, 8397),

Gene: Stap\_12 Start: 7461, Stop: 8270, Start Num: 17

Candidate Starts for Stap\_12:

(4, 7353), (12, 7404), (Start: 17 @7461 has 221 MA's), (18, 7473), (21, 7587), (22, 7611), (23, 7617), (26, 7680), (32, 7794), (33, 7797), (34, 7800), (36, 7830), (38, 7851), (39, 7860), (47, 7914), (58, 8076), (62, 8148), (64, 8169), (70, 8220), (71, 8226),

Gene: Starcevich\_12 Start: 7390, Stop: 8271, Start Num: 9

Candidate Starts for Starcevich\_12:

(Start: 9 @7390 has 9 MA's), (12, 7405), (Start: 17 @7462 has 221 MA's), (18, 7474), (21, 7588), (22, 7612), (23, 7618), (26, 7681), (32, 7795), (33, 7798), (34, 7801), (36, 7831), (38, 7852), (39, 7861), (47, 7915), (58, 8077), (62, 8149), (64, 8170), (70, 8221), (71, 8227),

Gene: Strokeseat\_11 Start: 7599, Stop: 8408, Start Num: 17

Candidate Starts for Strokeseat\_11:

(Start: 13 @7542 has 2 MA's), (Start: 17 @7599 has 221 MA's), (18, 7611), (20, 7689), (21, 7725), (22, 7749), (23, 7755), (26, 7818), (31, 7929), (32, 7932), (33, 7935), (34, 7938), (36, 7968), (38, 7989), (39, 7998), (46, 8046), (47, 8052), (48, 8076), (49, 8079), (58, 8214), (62, 8286), (64, 8307), (69, 8340), (70, 8358), (71, 8364),

Gene: SuperGrey\_11 Start: 7599, Stop: 8408, Start Num: 17

Candidate Starts for SuperGrey\_11:

(Start: 17 @7599 has 221 MA's), (18, 7611), (19, 7680), (21, 7725), (22, 7749), (23, 7755), (26, 7818), (32, 7932), (33, 7935), (36, 7968), (38, 7989), (39, 7998), (47, 8052), (49, 8079), (50, 8085), (58, 8214), (62, 8286), (64, 8307), (70, 8358), (71, 8364),

Gene: SwagPiggett\_11 Start: 7610, Stop: 8419, Start Num: 17

Candidate Starts for SwagPiggett\_11:

(Start: 9 @7538 has 9 MA's), (12, 7553), (Start: 17 @7610 has 221 MA's), (18, 7622), (20, 7700), (21, 7736), (22, 7760), (23, 7766), (26, 7829), (32, 7943), (33, 7946), (34, 7949), (36, 7979), (38, 8000), (39, 8009), (46, 8057), (47, 8063), (48, 8087), (58, 8225), (62, 8297), (64, 8318), (69, 8351), (70, 8369), (71, 8375),

Gene: TChen\_12 Start: 8033, Stop: 8845, Start Num: 17

Candidate Starts for TChen\_12:

(Start: 17 @8033 has 221 MA's), (20, 8123), (21, 8159), (29, 8348), (31, 8363), (32, 8366), (40, 8438), (49, 8513), (57, 8630), (58, 8648), (64, 8741), (67, 8768), (72, 8825),

Gene: TDanisky\_11 Start: 7624, Stop: 8433, Start Num: 17

Candidate Starts for TDanisky\_11:

(Start: 9 @7552 has 9 MA's), (12, 7567), (Start: 17 @7624 has 221 MA's), (18, 7636), (20, 7714), (21, 7750), (22, 7774), (23, 7780), (26, 7843), (32, 7957), (33, 7960), (34, 7963), (36, 7993), (38, 8014), (39, 8023), (47, 8077), (49, 8104), (58, 8239), (62, 8311), (64, 8332), (70, 8383), (71, 8389),

Gene: Taj\_11 Start: 7631, Stop: 8440, Start Num: 17

Candidate Starts for Taj\_11:

(Start: 17 @7631 has 221 MA's), (18, 7643), (19, 7712), (20, 7721), (21, 7757), (22, 7781), (23, 7787), (26, 7850), (31, 7961), (32, 7964), (33, 7967), (34, 7970), (36, 8000), (38, 8021), (39, 8030), (47, 8084), (58, 8246), (62, 8318), (64, 8339), (70, 8390), (71, 8396),

Gene: TelAviv\_44 Start: 23853, Stop: 24668, Start Num: 17

Candidate Starts for TelAviv\_44:

(Start: 17 @23853 has 221 MA's), (19, 23934), (26, 24075), (28, 24090), (32, 24189), (35, 24207), (41, 24270), (43, 24282), (45, 24297), (56, 24414), (61, 24540),

Gene: ThetaBob\_12 Start: 7916, Stop: 8728, Start Num: 17

Candidate Starts for ThetaBob\_12:

(Start: 17 @7916 has 221 MA's), (20, 8006), (21, 8042), (29, 8231), (31, 8246), (32, 8249), (40, 8321), (49, 8396), (57, 8513), (58, 8531), (64, 8624), (67, 8651), (72, 8708),

Gene: TootsiePop\_12 Start: 7464, Stop: 8273, Start Num: 17

Candidate Starts for TootsiePop\_12:

(Start: 13 @7407 has 2 MA's), (Start: 17 @7464 has 221 MA's), (18, 7476), (20, 7554), (21, 7590), (22, 7614), (23, 7620), (26, 7683), (32, 7797), (33, 7800), (34, 7803), (36, 7833), (38, 7854), (39, 7863), (47, 7917), (49, 7944), (58, 8079), (62, 8151), (64, 8172), (70, 8223), (71, 8229),

Gene: Tootsieroll\_12 Start: 7461, Stop: 8270, Start Num: 17

Candidate Starts for Tootsieroll\_12:

(4, 7353), (12, 7404), (Start: 17 @7461 has 221 MA's), (18, 7473), (21, 7587), (22, 7611), (23, 7617), (26, 7680), (32, 7794), (33, 7797), (34, 7800), (36, 7830), (38, 7851), (39, 7860), (47, 7914), (58, 8076), (62, 8148), (64, 8169), (70, 8220), (71, 8226),

Gene: Totinger\_12 Start: 7463, Stop: 8272, Start Num: 17

Candidate Starts for Totinger\_12:

(Start: 17 @7463 has 221 MA's), (18, 7475), (20, 7553), (21, 7589), (22, 7613), (23, 7619), (26, 7682), (31, 7793), (32, 7796), (33, 7799), (34, 7802), (36, 7832), (38, 7853), (39, 7862), (47, 7916), (58, 8078), (62, 8150), (64, 8171), (70, 8222), (71, 8228),

Gene: Tweety\_11 Start: 7633, Stop: 8442, Start Num: 17

Candidate Starts for Tweety\_11:

(Start: 17 @7633 has 221 MA's), (18, 7645), (19, 7714), (20, 7723), (22, 7783), (23, 7789), (26, 7852), (32, 7966), (33, 7969), (34, 7972), (36, 8002), (38, 8023), (39, 8032), (47, 8086), (58, 8248), (62, 8320), (64, 8341), (70, 8392), (71, 8398),

Gene: UncleRicky\_12 Start: 7390, Stop: 8271, Start Num: 9

Candidate Starts for UncleRicky\_12:

(Start: 9 @7390 has 9 MA's), (12, 7405), (Start: 17 @7462 has 221 MA's), (18, 7474), (19, 7543), (20, 7552), (21, 7588), (22, 7612), (23, 7618), (26, 7681), (31, 7792), (32, 7795), (33, 7798), (34, 7801), (36, 7831), (38, 7852), (39, 7861), (47, 7915), (62, 8149), (64, 8170), (70, 8221), (71, 8227),

Gene: VRedHorse\_11 Start: 7611, Stop: 8420, Start Num: 17

Candidate Starts for VRedHorse\_11:

(Start: 17 @7611 has 221 MA's), (18, 7623), (20, 7701), (21, 7737), (22, 7761), (23, 7767), (26, 7830), (32, 7944), (33, 7947), (34, 7950), (36, 7980), (38, 8001), (39, 8010), (46, 8058), (47, 8064), (49, 8091), (58, 8226), (62, 8298), (63, 8301), (64, 8319), (70, 8370), (71, 8376),

Gene: Velveteen\_12 Start: 7460, Stop: 8269, Start Num: 17

Candidate Starts for Velveteen\_12:

(Start: 13 @7403 has 2 MA's), (Start: 17 @7460 has 221 MA's), (18, 7472), (21, 7586), (22, 7610), (23, 7616), (26, 7679), (32, 7793), (33, 7796), (34, 7799), (36, 7829), (38, 7850), (39, 7859), (47, 7913), (58, 8075), (64, 8168), (70, 8219), (71, 8225),

Gene: Veteran\_11 Start: 7625, Stop: 8434, Start Num: 17

Candidate Starts for Veteran\_11:

(5, 7517), (12, 7568), (Start: 17 @7625 has 221 MA's), (18, 7637), (19, 7706), (21, 7751), (22, 7775), (23, 7781), (26, 7844), (32, 7958), (33, 7961), (34, 7964), (36, 7994), (38, 8015), (39, 8024), (47, 8078), (58, 8240), (62, 8312), (64, 8333), (70, 8384), (71, 8390),

Gene: Vorrps\_46 Start: 23445, Stop: 24260, Start Num: 17

Candidate Starts for Vorrps\_46:

(Start: 17 @23445 has 221 MA's), (19, 23526), (26, 23667), (28, 23682), (32, 23781), (35, 23799), (41, 23862), (43, 23874), (45, 23889), (56, 24006), (61, 24132),

Gene: Wachhund\_11 Start: 7602, Stop: 8411, Start Num: 17

Candidate Starts for Wachhund\_11:

(Start: 13 @7545 has 2 MA's), (Start: 17 @7602 has 221 MA's), (18, 7614), (20, 7692), (21, 7728), (22, 7752), (23, 7758), (26, 7821), (32, 7935), (33, 7938), (34, 7941), (36, 7971), (38, 7992), (39, 8001), (46, 8049), (47, 8055), (49, 8082), (58, 8217), (62, 8289), (64, 8310), (70, 8361), (71, 8367),

Gene: Wee\_11 Start: 7631, Stop: 8440, Start Num: 17

Candidate Starts for Wee\_11:

(Start: 17 @7631 has 221 MA's), (18, 7643), (19, 7712), (20, 7721), (22, 7781), (23, 7787), (26, 7850), (32, 7964), (33, 7967), (34, 7970), (36, 8000), (38, 8021), (39, 8030), (47, 8084), (58, 8246), (62, 8318), (64, 8339), (70, 8390), (71, 8396),

Gene: Whatsapiecost\_11 Start: 7631, Stop: 8440, Start Num: 17

Candidate Starts for Whatsapiecost\_11:

(Start: 10 @7559 has 1 MA's), (Start: 17 @7631 has 221 MA's), (18, 7643), (19, 7712), (20, 7721), (21, 7757), (22, 7781), (23, 7787), (26, 7850), (30, 7949), (32, 7964), (33, 7967), (36, 8000), (38, 8021), (39, 8030), (47, 8084), (58, 8246), (62, 8318), (64, 8339), (70, 8390), (71, 8396),

Gene: Whouxphf\_11 Start: 7602, Stop: 8411, Start Num: 17

Candidate Starts for Whouxphf\_11:

(Start: 13 @7545 has 2 MA's), (Start: 17 @7602 has 221 MA's), (18, 7614), (21, 7728), (22, 7752), (23, 7758), (26, 7821), (32, 7935), (33, 7938), (34, 7941), (36, 7971), (38, 7992), (39, 8001), (47, 8055), (48, 8079), (49, 8082), (58, 8217), (62, 8289), (64, 8310), (70, 8361), (71, 8367),

Gene: Wildflower\_45 Start: 23431, Stop: 24246, Start Num: 17

Candidate Starts for Wildflower\_45:

(Start: 17 @23431 has 221 MA's), (19, 23512), (26, 23653), (28, 23668), (32, 23767), (35, 23785), (41, 23848), (43, 23860), (45, 23875), (56, 23992), (61, 24118),

Gene: WillSterrel\_11 Start: 7617, Stop: 8426, Start Num: 17

Candidate Starts for WillSterrel\_11:

(Start: 17 @7617 has 221 MA's), (18, 7629), (19, 7698), (20, 7707), (21, 7743), (22, 7767), (23, 7773), (26, 7836), (31, 7947), (32, 7950), (33, 7953), (34, 7956), (36, 7986), (38, 8007), (39, 8016), (47, 8070), (62, 8304), (64, 8325), (70, 8376), (71, 8382),

Gene: Winget\_48 Start: 24125, Stop: 24940, Start Num: 17

Candidate Starts for Winget\_48:

(Start: 17 @24125 has 221 MA's), (19, 24206), (26, 24347), (28, 24362), (32, 24461), (35, 24479), (41, 24542), (43, 24554), (45, 24569), (56, 24686), (61, 24812),

Gene: XFactor\_11 Start: 7631, Stop: 8440, Start Num: 17

Candidate Starts for XFactor\_11:

(Start: 10 @7559 has 1 MA's), (Start: 17 @7631 has 221 MA's), (18, 7643), (19, 7712), (20, 7721), (21, 7757), (22, 7781), (23, 7787), (26, 7850), (31, 7961), (32, 7964), (33, 7967), (34, 7970), (36, 8000), (38, 8021), (39, 8030), (47, 8084), (58, 8246), (62, 8318), (64, 8339), (70, 8390), (71, 8396),

Gene: Xula\_12 Start: 8498, Stop: 9298, Start Num: 17

Candidate Starts for Xula\_12:

(Start: 14 @8447 has 1 MA's), (Start: 17 @8498 has 221 MA's), (20, 8594), (23, 8657), (28, 8735), (32, 8834), (36, 8870), (59, 9146), (64, 9206), (65, 9212),

Gene: Yorick\_11 Start: 7608, Stop: 8417, Start Num: 17

Candidate Starts for Yorick\_11:

(Start: 9 @7536 has 9 MA's), (12, 7551), (Start: 17 @7608 has 221 MA's), (18, 7620), (20, 7698), (21, 7734), (22, 7758), (23, 7764), (26, 7827), (32, 7941), (33, 7944), (34, 7947), (36, 7977), (38, 7998), (39, 8007), (46, 8055), (47, 8061), (49, 8088), (58, 8223), (62, 8295), (64, 8316), (69, 8349), (70, 8367), (71, 8373),

Gene: YungJamal\_50 Start: 24164, Stop: 24979, Start Num: 17

Candidate Starts for YungJamal\_50:

(Start: 17 @24164 has 221 MA's), (19, 24245), (26, 24386), (28, 24401), (32, 24500), (35, 24518), (41, 24581), (43, 24593), (45, 24608), (56, 24725), (61, 24851),

Gene: Zakhe101\_47 Start: 23575, Stop: 24390, Start Num: 17

Candidate Starts for Zakhe101\_47:

(Start: 17 @23575 has 221 MA's), (19, 23656), (26, 23797), (28, 23812), (32, 23911), (35, 23929), (41, 23992), (43, 24004), (45, 24019), (56, 24136), (61, 24262),



Gene: Zerg\_11 Start: 7611, Stop: 8420, Start Num: 17

Candidate Starts for Zerg\_11:

(Start: 17 @7611 has 221 MA's), (18, 7623), (20, 7701), (21, 7737), (22, 7761), (23, 7767), (26, 7830), (32, 7944), (33, 7947), (34, 7950), (36, 7980), (38, 8001), (39, 8010), (47, 8064), (49, 8091), (58, 8226), (64, 8319), (70, 8370), (71, 8376),

Gene: Zizzle\_11 Start: 7612, Stop: 8421, Start Num: 17

Candidate Starts for Zizzle\_11:

(Start: 9 @7540 has 9 MA's), (12, 7555), (Start: 17 @7612 has 221 MA's), (18, 7624), (20, 7702), (21, 7738), (22, 7762), (23, 7768), (26, 7831), (32, 7945), (33, 7948), (34, 7951), (36, 7981), (38, 8002), (39, 8011), (46, 8059), (47, 8065), (48, 8089), (58, 8227), (62, 8299), (64, 8320), (69, 8353), (70, 8371), (71, 8377),