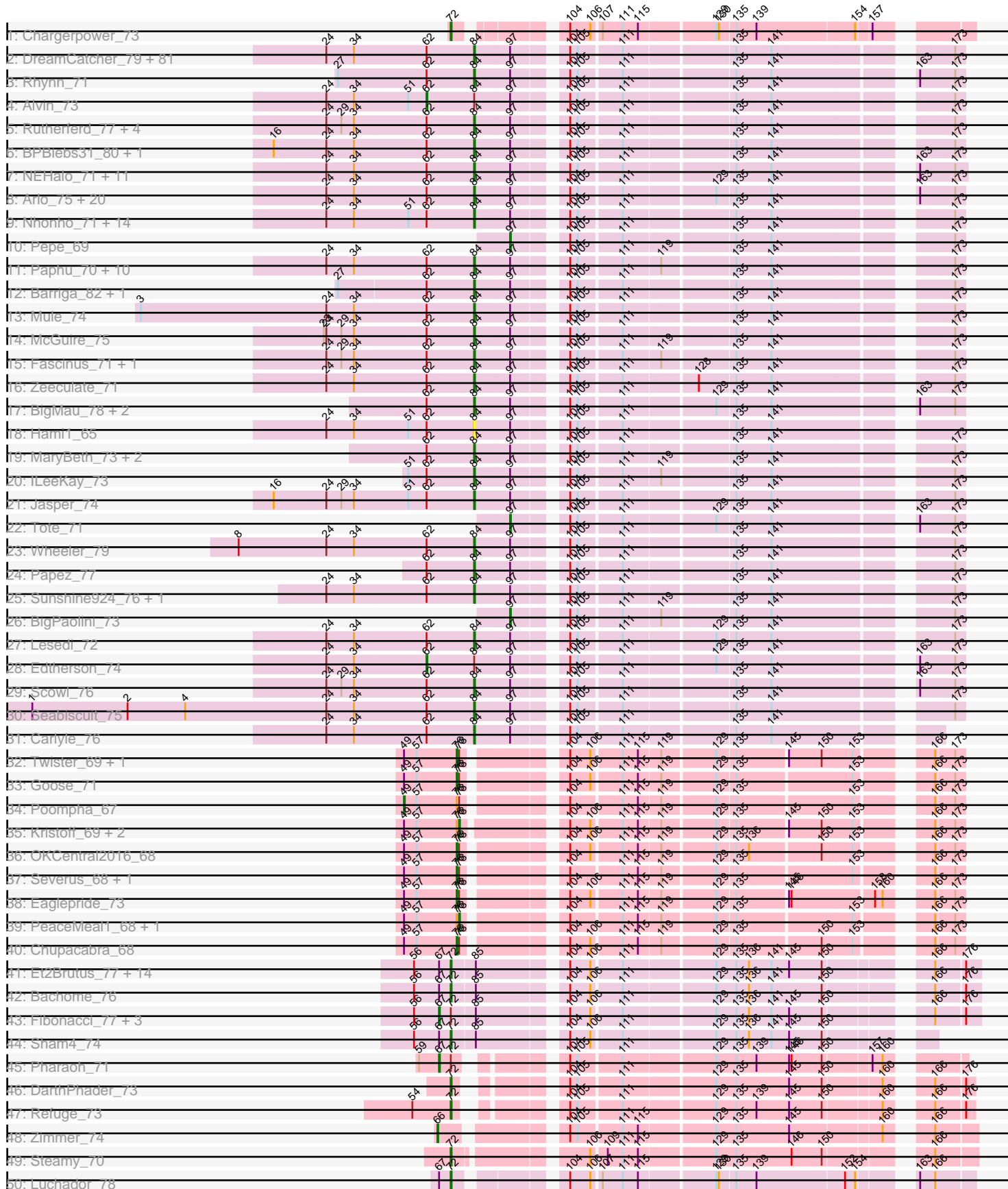
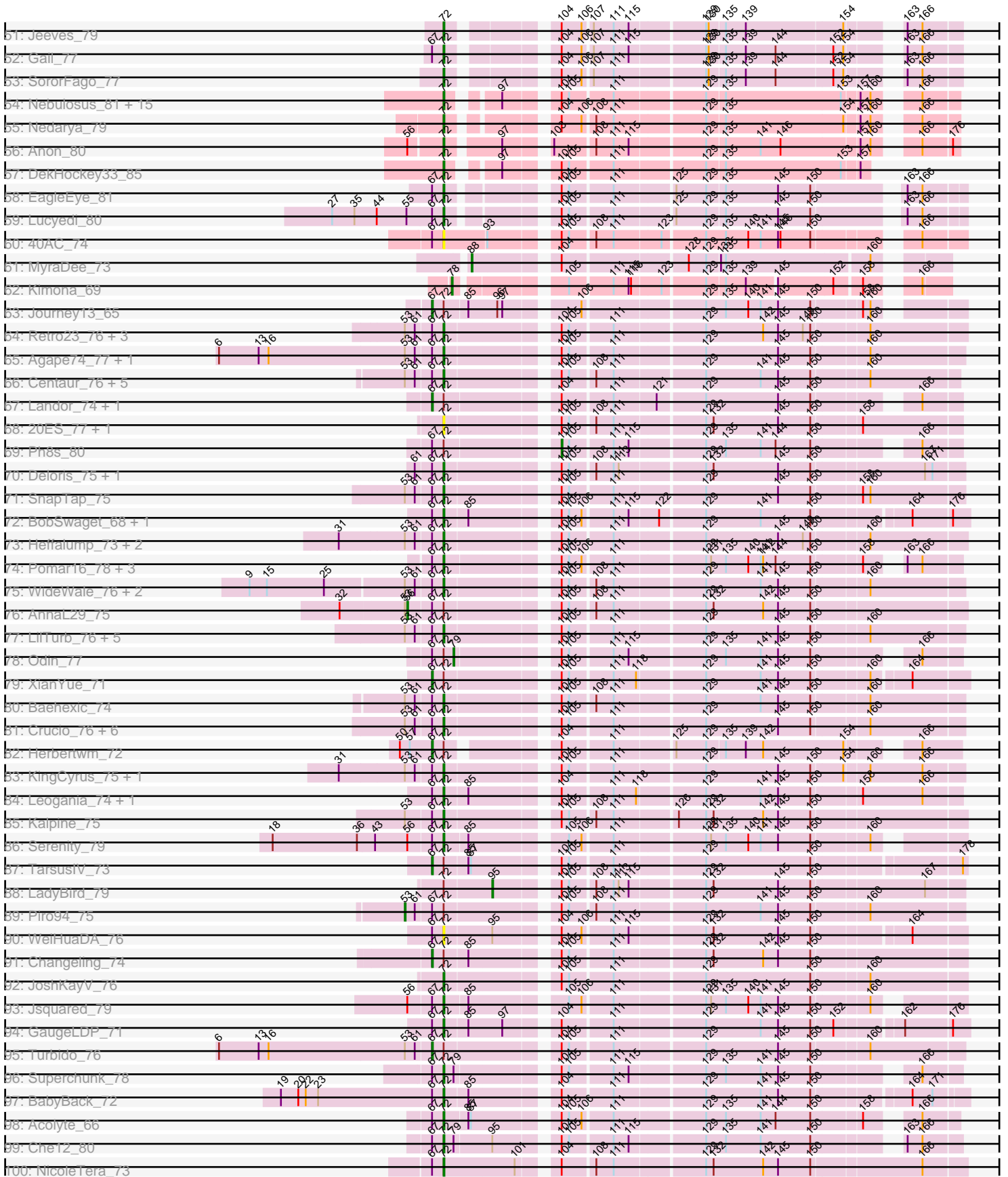


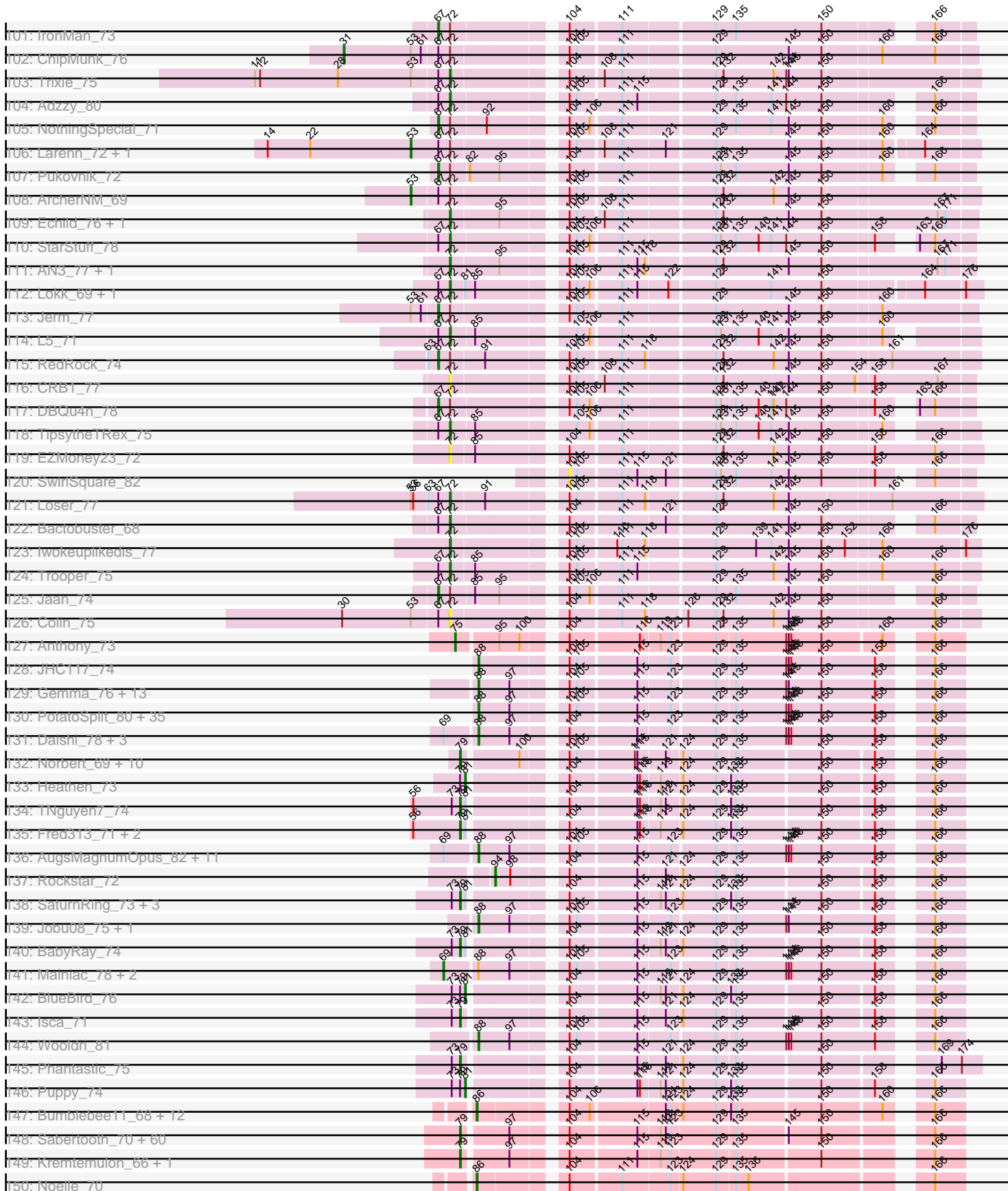
Pham 169557



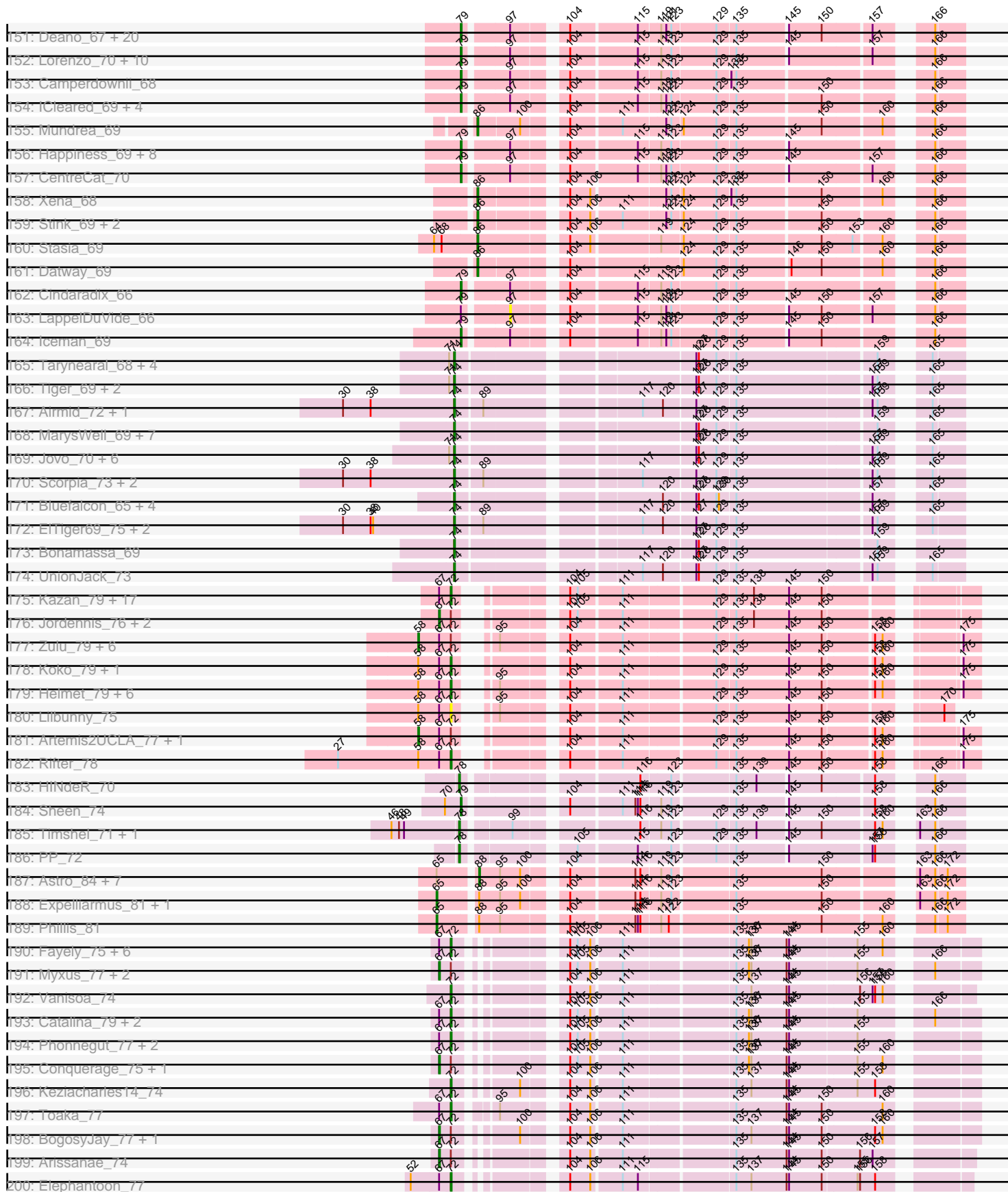
Pham 169557



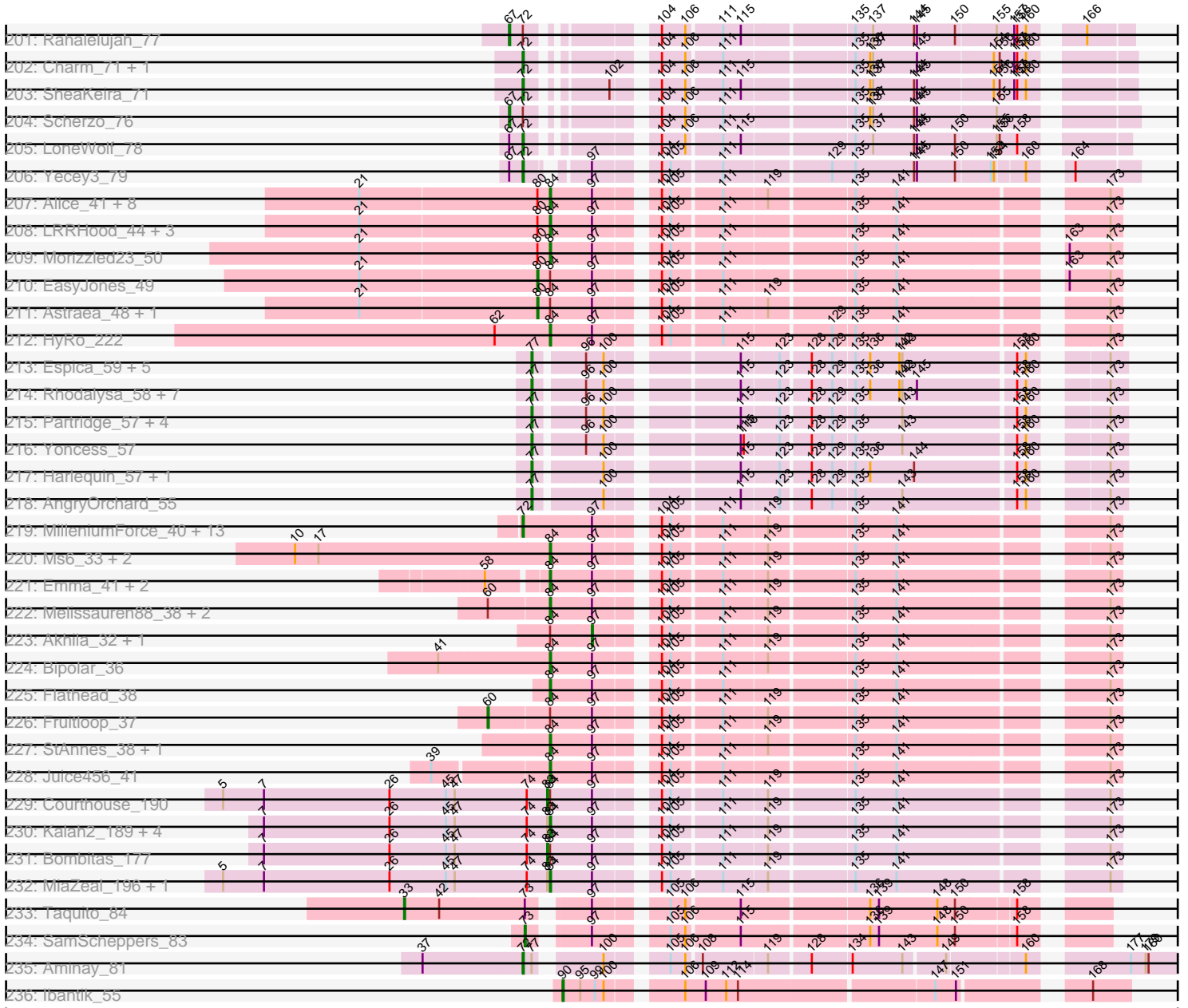
Pham 169557



Pham 169557



Pham 169557



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 169557 Report

This analysis was run 07/09/24 on database version 566.

Pham number 169557 has 795 members, 41 are drafts.

Phages represented in each track:

- Track 1 : Chargerpower\_73
- Track 2 : DreamCatcher\_79, Adahisdi\_71, Dreamboat\_75, JackSparrow\_76, Pari\_80, JC27\_76, Ashballer\_77, Ichabod\_78, Hermia\_70, Magnar\_71, Bxb1\_69, Killigrew\_72, GrecoEtereo\_79, Ringer\_75, Sanya\_70, Rajelicia\_77, Bexan\_70, IgnatiusPatJac\_75, Rufus\_78, Fushigi\_69, Bones\_71, Rubeus\_76, Slagathor\_76, Gwendoluna\_78, Squee\_76, HarryOW\_76, Anglerfish\_77, Espresso\_69, STLscum\_81, Marcell\_68, Tripl3t\_78, Fajezeel\_78, Acme\_79, BluSpix\_72, Eyeball\_74, SpikeBT\_72, Briton15\_78, QTRlifeCrisis\_74, Parliament\_76, Ruotula\_79, Lopton\_74, Greg\_78, Dynamix\_75, Buttons\_72, Gompeii16\_76, BeesKnees\_76, Dulcie\_76, Doom\_68, Fenn\_78, Licorice\_76, MrGordo\_76, Francis47\_77, Euphoria\_76, Michley\_76, Jorgensen\_82, Agaliana\_73, PherrisBueller\_74, Marchy\_64, Perseus\_75, Nerujay\_79, ShortQueendom\_68, Smeagol\_78, Big3\_76, Beatrix\_72, Atkinbua\_81, Sorpresa\_72, U2\_69, Target\_75, StrongArm\_71, GageAP\_78, Zeuska\_77, PascalRango\_73, Violet\_70, TheloniousMonk\_77, Tasp14\_74, BaconJack\_77, Naira\_77, Watermelon\_78, Gandalf20\_74, Sandaddy\_73, MPlant7149\_75, Sagefire\_72
- Track 3 : Rhynn\_71
- Track 4 : Alvin\_73
- Track 5 : Rutherferd\_77, SwissCheese\_79, KSSJEB\_72, Bruns\_78, Corvo\_77
- Track 6 : BPBiebs31\_80, Bethlehem\_78
- Track 7 : NEHalo\_71, Ohno789\_78, ConceptII\_80, Aeneas\_80, Dexes\_76, Abbysshoes\_75, Dussy\_74, Marsha\_75, Niza\_75, Molly\_75, Pinto\_75, Sumter\_72
- Track 8 : Arlo\_75, Treddle\_77, Moose\_77, Kanely\_77, Pelly\_76, Bob3\_76, Forsytheast\_77, JuliaChild\_76, KyMonks1A\_81, Lamina13\_79, Sibs6\_75, Swole\_73, Petp2012\_76, TwoPeat\_75, Altman\_78, Pita2\_76, Snazzy\_76, Mryolo\_70, Burton\_76, Hope4ever\_76, Rohr\_78
- Track 9 : Nhonho\_71, Teodoridan\_72, Ciao\_72, Ajay\_72, AFIS\_72, Paraselene\_73, Marge\_72, Monet\_79, PattyP\_75, Seanderson\_75, Zephyr\_77, Homines\_63, Blue\_72, Pippin\_76, PinkPlastic\_71
- Track 10 : Pepe\_69
- Track 11 : Paphu\_70, DD5\_73, Traft412\_75, Lockley\_72, Oogway\_74, BillKnuckles\_69, Solon\_71, Wilkins\_72, Topgun\_71, Kugel\_77, Graduation\_78
- Track 12 : Barriga\_82, Kykar\_75
- Track 13 : Mule\_74
- Track 14 : McGuire\_75
- Track 15 : Fascinus\_71, CactusRose\_78
- Track 16 : Zeeculate\_71

- Track 17 : BigMau\_78, Jerm2\_77, HermioneGrange\_79
- Track 18 : Hami1\_65
- Track 19 : MaryBeth\_73, MetalQZJ\_72, LilBib\_72
- Track 20 : lLeeKay\_73
- Track 21 : Jasper\_74
- Track 22 : Tote\_71
- Track 23 : Wheeler\_79
- Track 24 : Papez\_77
- Track 25 : Sunshine924\_76, DrFeelGood\_71
- Track 26 : BigPaolini\_73
- Track 27 : Lesedi\_72
- Track 28 : Edtherson\_74
- Track 29 : Scowl\_76
- Track 30 : Seabiscuit\_75
- Track 31 : Carlyle\_76
- Track 32 : Twister\_69, Edison31\_67
- Track 33 : Goose\_71
- Track 34 : Poompha\_67
- Track 35 : Kristoff\_69, Rebeuca\_71, WalterMcMickey\_69
- Track 36 : OKCentral2016\_68
- Track 37 : Severus\_68, KittenMittens\_67
- Track 38 : Eaglepride\_73
- Track 39 : PeaceMeal1\_68, Drake94\_68
- Track 40 : Chupacabra\_68
- Track 41 : Et2Brutus\_77, Flaverint\_79, Joselito\_77, Petersenfast\_72, Snape\_78, Mabel\_78, Gilberta\_75, Timothy\_78, Lucivia\_79, Aneem\_79, Insomnia\_77, Jabith\_77, MaCh\_78, Ebony\_78, Salz\_73
- Track 42 : Bachome\_76
- Track 43 : Fibonacci\_77, Munch\_78, Bud\_73, Mulciber\_76
- Track 44 : Sham4\_74
- Track 45 : Pharaoh\_71
- Track 46 : DARTHPhader\_73
- Track 47 : Refuge\_73
- Track 48 : Zimmer\_74
- Track 49 : Steamy\_70
- Track 50 : Luchador\_78
- Track 51 : Jeeves\_79
- Track 52 : Gail\_77
- Track 53 : SororFago\_77
- Track 54 : Nebulosus\_81, Looper\_83, MinecraftSteve\_84, Epsocamisio\_81, Rosalind\_82, Soups\_83, Battleship\_86, Remus\_84, JSwag\_84, LastResort\_82, Anaysia\_84, KatherineG\_84, Waits\_83, ReMo\_82, Strosahl\_84, Oofda\_83
- Track 55 : Nedarya\_79
- Track 56 : Anon\_80
- Track 57 : DekHockey33\_85
- Track 58 : EagleEye\_81
- Track 59 : Lucyedi\_80
- Track 60 : 40AC\_74
- Track 61 : MyraDee\_73
- Track 62 : Kimona\_69
- Track 63 : Journey13\_65
- Track 64 : Retro23\_76, Dalmatian\_76, Anselm\_77, DudeLittle\_74
- Track 65 : Agape74\_77, AbbyPaige\_77

- Track 66 : Centaur\_76, Drake55\_77, HarryHoudini\_76, NaSiaTalie\_76, Flare16\_76, MiculUcigas\_76
- Track 67 : Landor\_74, Phaded\_71
- Track 68 : 20ES\_77, First\_0076
- Track 69 : Ph8s\_80
- Track 70 : Deloris\_75, BengiVuitton\_75
- Track 71 : SnapTap\_75
- Track 72 : BobSwaget\_68, Miko\_69
- Track 73 : Heffalump\_73, Fameo\_74, QueenB2\_73
- Track 74 : Pomar16\_78, Tomathan\_78, Duplo\_78, Kerberos\_78
- Track 75 : WideWale\_76, Equemioh13\_75, Updawg\_76
- Track 76 : AnnaL29\_75
- Track 77 : LilTurb\_76, Buggy\_77, Whabigail7\_76, Dignity\_77, Leviathan\_77, Smeagan\_78
- Track 78 : Odin\_77
- Track 79 : XianYue\_71
- Track 80 : Baehexic\_74
- Track 81 : Crucio\_76, QueenBeesly\_76, Georgie2\_77, FiringLine\_76, Power\_75, SemperFi\_76, SweetiePie\_75
- Track 82 : Herbertwm\_72
- Track 83 : KingCyrus\_75, EvilGenius\_75
- Track 84 : Leogania\_74, BiancaTri92\_74
- Track 85 : Kalpine\_75
- Track 86 : Serenity\_79
- Track 87 : TarsusIV\_73
- Track 88 : LadyBird\_79
- Track 89 : Piro94\_75
- Track 90 : WeiHuaDA\_76
- Track 91 : Changeling\_74
- Track 92 : JoshKayV\_76
- Track 93 : Jsquared\_79
- Track 94 : GaugeLDP\_71
- Track 95 : Turbido\_76
- Track 96 : Superchunk\_78
- Track 97 : BabyBack\_72
- Track 98 : Acolyte\_66
- Track 99 : Che12\_80
- Track 100 : NicoleTera\_73
- Track 101 : IronMan\_73
- Track 102 : ChipMunk\_76
- Track 103 : Trixie\_75
- Track 104 : Adzzy\_80
- Track 105 : NothingSpecial\_71
- Track 106 : Larenn\_72, Malec\_73
- Track 107 : Pukovnik\_72
- Track 108 : ArcherNM\_69
- Track 109 : Echild\_76, Benvolio\_73
- Track 110 : StarStuff\_78
- Track 111 : AN3\_77, VA6\_75
- Track 112 : Lokk\_69, Rachaly\_71
- Track 113 : Jerm\_77
- Track 114 : L5\_71
- Track 115 : RedRock\_74



- Track 116 : CRB1\_77
- Track 117 : DBQu4n\_78
- Track 118 : TopsytheTRex\_75
- Track 119 : EZMoney23\_72
- Track 120 : SwirlSquare\_82
- Track 121 : Loser\_77
- Track 122 : Bactobuster\_68
- Track 123 : Iwokeuplikedis\_77
- Track 124 : Trooper\_75
- Track 125 : Jaan\_74
- Track 126 : Colin\_75
- Track 127 : Anthony\_73
- Track 128 : JHC117\_74
- Track 129 : Gemma\_76, Kalnoky\_79, PurpleHaze\_78, JeppNRM\_79, Marius\_79, Pawn\_77, Heliosoles\_76, HaveUMetTed\_79, PhishRPhriends\_75, OlanP\_77, Groupthink\_79, Reba\_74, Manu\_78, ACFishhook\_76
- Track 130 : PotatoSplit\_80, Penny1\_79, Grif\_77, Dieselweasel\_79, Taurus\_80, Phoxy\_79, MarQuardt\_79, Aglet\_80, Grum1\_78, Colbster\_75, Anubis\_82, Soshari\_81, GtownJaz\_79, EpicPhail\_80, GingkoMaracino\_79, Tiffany\_78, LBerry\_80, Rummer\_78, Spike509\_79, JenCasNa\_80, Methuselah\_72, Snickers\_75, Cullens\_79, Hercules11\_79, Sabinator\_77, Fernando\_79, LugYA\_82, Farber\_79, P28Green\_79, Beauxregard13\_78, SoYo\_76, Ollie\_79, MoneyMay\_78, Marie\_77, Vix\_75, Phoebe\_80
- Track 131 : Daishi\_78, LarryKay\_79, HashRod\_80, KADY\_76
- Track 132 : Norbert\_69, Margo\_73, Todacoro\_73, QuinnKiro\_72, Panamaxus\_71, Pocahontas\_72, Lambert1\_73, Popcicle\_73, Texage\_71, ResDef\_71, Hookmount\_73
- Track 133 : Heathen\_73
- Track 134 : TNguyen7\_74
- Track 135 : Fred313\_71, HelDan\_73, Scout\_72
- Track 136 : AugsMagnumOpus\_82, Pembroke\_79, Stagni\_76, Malinsilva\_81, MadMarie\_77, BreSam8\_79, Lilith\_77, PGHhamlin\_81, Watson\_78, StepMih\_78, MuchMore\_82, Microwolf\_75
- Track 137 : Rockstar\_72
- Track 138 : SaturnRing\_73, Bugatti\_73, Idleandcovert\_74, Giroux\_72
- Track 139 : Jobu08\_75, SoilDragon\_78
- Track 140 : BabyRay\_74
- Track 141 : Mainiac\_78, Sabia\_77, DaHudson\_78
- Track 142 : BlueBird\_76
- Track 143 : Isca\_71
- Track 144 : Wooldri\_81
- Track 145 : Phantastic\_75
- Track 146 : Puppy\_74
- Track 147 : Bumblebee11\_68, AbbysRanger\_69, Backyardigan\_67, PetiteSangsue\_69, Wizard007\_69, Morpher26\_69, Wile\_68, Katalie136\_69, Cici\_69, Perplexer\_69, Shygu2\_69, Achebe\_68, Badger\_68
- Track 148 : Sabertooth\_70, Romney\_69, MeeZee\_69, Mazhar510\_70, Millski\_69, NorthStar\_68, Peaches\_68, Avle17\_70, Ruin\_70, Pumbaa\_70, KFPoly\_69, Bruiser\_69, Wander\_70, Flux\_70, Ulysses\_69, Kratark\_69, Bombshell\_70, Caelakin\_69, Skipitt\_69, Funston\_69, OKaNui\_69, Melvin\_72, Sparxx\_71, JoongJeon\_69, PeterPeter\_70, Burger\_68, Broseidon\_70, Taquarus\_69, Cocoaberry\_70, Eris\_69, Kyee\_70, Relief\_69, Scamp\_70, Lemur\_70, LittleB\_70, Phighter1804\_70, Maverick\_69, Clarenza\_69, Phacado\_70, HamSlice\_66, Jaykayelowell\_67, Dhanush\_70, Koreni\_69, NotAPhaseMom\_69, Annyong\_69,

Iracema64\_70, LochMonster\_71, Thanksgivukkah\_69, Tinybot\_69, DirtyDunning\_69, Houdini22\_69, Eapen\_70, Palestino\_69, Connomayer\_70, Spino\_69, Wilbur\_70, YoSam321\_70, Nemo27\_69, Arturo\_67, Pipcraft\_67, Gadost\_70

- Track 149 : Kremtemulon\_66, Cintron\_70
- Track 150 : Noelle\_70
- Track 151 : Deano\_67, Bartimeaus\_70, Albee\_70, Druantia\_69, Kingmustik0402\_70, Holli\_69, Alberto7\_71, Baby16\_70, Chaph\_70, Blackmoor\_69, TiroTheta9\_69, Florean\_70, Eros\_70, Phontbonne\_70, BubbleTrouble\_69, Roosevelt\_68, TinaFeyge\_68, Nyxis\_69, TygerBlood\_70, LittleGuy\_70, Citius\_70
- Track 152 : Lorenzo\_70, Kampy\_69, Phelipe\_71, Eagle\_69, TroyPia\_71, Eurydice\_71, BellusTerra\_71, Ohfah\_71, Nebs\_71, LeoAvram\_69, Polymorphads\_70
- Track 153 : Camperdownii\_68
- Track 154 : ICleared\_69, Abdiel\_70, Commander\_68, Lunsford\_70, Medusa\_70
- Track 155 : Mundrea\_69
- Track 156 : Happiness\_69, SheldonCooper\_70, ChampagnePapi\_72, Shaka\_68, BangNhom\_68, JetBlade\_70, Obama12\_71, LHTSCC\_72, Cerulean\_71
- Track 157 : CentreCat\_70
- Track 158 : Xena\_68
- Track 159 : Stink\_69, Miramae\_69, AvatarAhPeg\_69
- Track 160 : Stasia\_69
- Track 161 : Datway\_69
- Track 162 : Cindaradix\_66
- Track 163 : LappelDuVide\_66
- Track 164 : Iceman\_69
- Track 165 : Tarynearal\_68, George\_65, Swirley\_69, Cuco\_68, Milcery\_69
- Track 166 : Tiger\_69, AgentM\_69, Phlorence\_68
- Track 167 : Airmid\_72, Jabiru\_71
- Track 168 : MarysWell\_69, Micasa\_67, LittleCherry\_68, Theia\_68, Dublin\_69, Coog\_66, Midas2\_66, HuhtaEnerson15\_67
- Track 169 : Jovo\_70, PickleBack\_70, Lev2\_70, Aragog\_69, ForGetIt\_70, Conspiracy\_70, Discoknowium\_67
- Track 170 : Scorpia\_73, PetterN\_77, Chadwick\_73
- Track 171 : Bluefalcon\_65, Ghoulboy\_69, Archetta\_67, Zolita\_68, SydNat\_69
- Track 172 : EITiger69\_75, Benedict\_73, Naca\_72
- Track 173 : Bonamassa\_69
- Track 174 : UnionJack\_73
- Track 175 : Kazan\_79, Neeharika16\_77, Candra\_76, SmellyB\_78, Isiphiwo\_75, Hoot\_73, DaVinci\_76, Kipper29\_78, GreedyLawyer\_73, McFly\_79, VohminGhazi\_78, SuperCallie99\_75, BABullseye\_71, Cookiedough\_78, Chartreuse\_75, EricB\_77, Newrala\_77, Dorothea\_75
- Track 176 : Jordennis\_76, SuperAwesome\_78, Pmask\_77
- Track 177 : Zulu\_79, Zaka\_78, Hammer\_78, Blue7\_79, CloudWang3\_78, Gruunaga\_77, Gladiator\_75
- Track 178 : Koko\_79, Roksolana\_78
- Track 179 : Helmet\_79, Indra\_81, Garak\_79, ToneTone\_75, Wiks\_77, Tucker\_78, Yokurt\_77
- Track 180 : Lilbunny\_75
- Track 181 : Artemis2UCLA\_77, Hexamo\_77
- Track 182 : Rifter\_78
- Track 183 : HINdeR\_70
- Track 184 : Sheen\_74
- Track 185 : Timshel\_71, DroogsArmy\_69
- Track 186 : PP\_72

- Track 187 : Astro\_84, Saintus\_80, Danforth\_85, Dixon\_83, NearlyHeadless\_85, Groundhog\_82, Stephig9\_83, Smeadley\_84
- Track 188 : Expelliarmus\_81, Roary\_86
- Track 189 : Phillis\_81
- Track 190 : Fayely\_75, Priya\_75, EmyBug\_74, Alma\_75, Spouty\_72, Qobbit\_75, ExplosioNervosa\_75
- Track 191 : Myxus\_77, HortumSL17\_78, PackMan\_76
- Track 192 : Vanisoa\_74
- Track 193 : Catalina\_79, Tubs\_77, Phaeder\_77
- Track 194 : Phonnegut\_77, Pioneer\_77, Beemo\_77
- Track 195 : Conquerage\_75, Eidsmoe\_75
- Track 196 : Keziacharles14\_74
- Track 197 : Toaka\_77
- Track 198 : BogosyJay\_77, Maminiaina\_77
- Track 199 : Arissanae\_74
- Track 200 : Elephantoon\_77
- Track 201 : Rahalelujah\_77
- Track 202 : Charm\_71, DreamTeam1\_71
- Track 203 : SheaKeira\_71
- Track 204 : Scherzo\_76
- Track 205 : LoneWolf\_78
- Track 206 : Yecey3\_79
- Track 207 : Alice\_41, Shaqnato\_43, Phox\_45, Koguma\_43, Ronan\_41, Lukilu\_41, JulietS\_42, Yassified\_45, DLane\_38
- Track 208 : LRRHood\_44, Rabinovish\_45, Stubby\_43, Pinkcreek\_38
- Track 209 : Morizzled23\_50
- Track 210 : EasyJones\_49
- Track 211 : Astraea\_48, BadAgartude\_49
- Track 212 : HyRo\_222
- Track 213 : Espica\_59, Shuman\_59, Belenaria\_59, AppleCloud\_55, Natosaleda\_57, RexFury\_57
- Track 214 : Rhodalysa\_58, StCroix\_57, Naiad\_57, CosmicSans\_58, TWAMP\_58, Krishelle\_58, Alatin\_57, Lillie\_58
- Track 215 : Partridge\_57, Dinger\_57, Hiro\_58, Bonanza\_59, PhailMary\_57
- Track 216 : Yoncess\_57
- Track 217 : Harlequin\_57, Jester\_57
- Track 218 : AngryOrchard\_55
- Track 219 : MilleniumForce\_40, Coco12\_38, Ovechkin\_39, Donkeykong\_39, KristaRAM\_40, Soul22\_44, Phanphagia\_35, Galactic\_41, Shauna1\_36, Moonbeam\_39, MinionDave\_41, CaptainTrips\_39, Byougenkin\_38, XFactor\_38
- Track 220 : Ms6\_33, Mova\_39, Bobi\_40
- Track 221 : Emma\_41, Kenuha5\_35, Rialto\_43
- Track 222 : Melissauren88\_38, Batiatus\_38, LunaBlu\_42
- Track 223 : Akhila\_32, MilanaBonita\_32
- Track 224 : Bipolar\_36
- Track 225 : Flathead\_38
- Track 226 : Fruitloop\_37
- Track 227 : StAnnes\_38, Phalconet\_39
- Track 228 : Juice456\_41
- Track 229 : Courthouse\_190
- Track 230 : Kalah2\_189, Pound\_183, Squint\_188, Superphikiman\_191, Ariel\_194
- Track 231 : Bombitas\_177
- Track 232 : MiaZeal\_196, LittleE\_195

- Track 233 : Taquito\_84
- Track 234 : SamScheppers\_83
- Track 235 : Aminay\_81
- Track 236 : Ibantik\_55

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

The start number called the most often in the published annotations is 84, it was called in 195 of the 754 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AFIS\_72, Abbyshoes\_75, Acme\_79, Adahisdi\_71, Aeneas\_80, Agaliana\_73, Ajay\_72, Alice\_41, Altman\_78, Anglerfish\_77, Ariel\_194, Arlo\_75, Ashballer\_77, Atkinbua\_81, BPBiebs31\_80, BaconJack\_77, Barriga\_82, Batiatus\_38, Beatrix\_72, BeesKnees\_76, Bethlehem\_78, Bexan\_70, Big3\_76, BigMau\_78, BillKnuckles\_69, Bipolar\_36, BluSpix\_72, Blue\_72, Bob3\_76, Bobi\_40, Bones\_71, Briton15\_78, Bruns\_78, Burton\_76, Buttons\_72, Bxb1\_69, CactusRose\_78, Carlyle\_76, Ciao\_72, Conceptll\_80, Corvo\_77, DD5\_73, DLane\_38, Dexes\_76, Doom\_68, DrFeelGood\_71, DreamCatcher\_79, Dreamboat\_75, Dulcie\_76, Dussy\_74, Dynamix\_75, Emma\_41, Espresso\_69, Euphoria\_76, Eyeball\_74, Fajezeel\_78, Fascinus\_71, Fenn\_78, Flathead\_38, Forsytheast\_77, Francis47\_77, Fushigi\_69, GageAP\_78, Gandalf20\_74, Gompeii16\_76, Graduation\_78, GrecoEtereo\_79, Greg\_78, Gwendoluna\_78, Hami1\_65, HarryOW\_76, Hermia\_70, HermioneGrange\_79, Homines\_63, Hope4ever\_76, HyRo\_222, ILeeKay\_73, Ichabod\_78, IgnatiusPatJac\_75, JC27\_76, JackSparrow\_76, Jasper\_74, Jerm2\_77, Jorgensen\_82, Juice456\_41, JuliaChild\_76, JulietS\_42, KSSJEB\_72, Kalah2\_189, Kanely\_77, Kenuha5\_35, Killigrew\_72, Koguma\_43, Kugel\_77, KyMonks1A\_81, Kykar\_75, LRRHood\_44, Lamina13\_79, Lesedi\_72, Licorice\_76, LilBib\_72, LittleE\_195, Lockley\_72, Lopton\_74, Lukilu\_41, LunaBlu\_42, MPlant7149\_75, Magnar\_71, Marcell\_68, Marchy\_64, Marge\_72, Marsha\_75, MaryBeth\_73, McGuire\_75, Melissauren88\_38, MetalQZJ\_72, MiaZeal\_196, Michley\_76, Molly\_75, Monet\_79, Moose\_77, Morizzled23\_50, Mova\_39, MrGordo\_76, Mryolo\_70, Ms6\_33, Mule\_74, NEHalo\_71, Naira\_77, Nerujay\_79, Nhonho\_71, Niza\_75, Ohno789\_78, Oogway\_74, Papez\_77, Paphu\_70, Paraselene\_73, Pari\_80, Parliament\_76, PascalRango\_73, PattyP\_75, Pelly\_76, Perseus\_75, Petp2012\_76, Phalconet\_39, PherrisBueller\_74, Phox\_45, PinkPlastic\_71, Pinkcreek\_38, Pinto\_75, Pippin\_76, Pita2\_76, Pound\_183, QTRlifeCrisis\_74, Rabinovish\_45, Rajelicia\_77, Rhynn\_71, Rialto\_43, Ringer\_75, Rohr\_78, Ronan\_41, Rubeus\_76, Rufus\_78, Ruotula\_79, Rutherford\_77, STLscum\_81, Sagefire\_72, Sandaddy\_73, Sanya\_70, Scowl\_76, Seabiscuit\_75, Seanderson\_75, Shaqnato\_43, ShortQueendom\_68, Sibs6\_75, Slagathor\_76, Smeagol\_78, Snazzy\_76, Solon\_71, Sorpresa\_72, SpikeBT\_72, Squee\_76, Squint\_188, StAnnes\_38, StrongArm\_71, Stubby\_43, Sumter\_72, Sunshine924\_76, Superphikiman\_191, SwissCheese\_79, Swole\_73, Target\_75, Tasp14\_74, Teodoridan\_72, TheloniousMonk\_77, Topgun\_71, Traft412\_75, Treddle\_77, Tripl3t\_78, TwoPeat\_75, U2\_69, Violet\_70, Watermelon\_78, Wheeler\_79, Wilkins\_72, Yassified\_45, Zeeculate\_71, Zephyr\_77, Zeuska\_77,

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

- Akhila\_32, Alvin\_73, Astraea\_48, BadAgartude\_49, Bombitas\_177, Courthouse\_190, EasyJones\_49, Edtherson\_74, Fruitloop\_37, MilanaBonita\_32,

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

• 20ES\_77, 40AC\_74, ACFishhook\_76, AN3\_77, AbbyPaige\_77, AbbysRanger\_69, Abdiel\_70, Achebe\_68, Acolyte\_66, Adzzy\_80, Agape74\_77, AgentM\_69, Aglet\_80, Airmid\_72, Alatin\_57, Albee\_70, Alberto7\_71, Alma\_75, Aminay\_81, Anaysia\_84, Aneem\_79, AngryOrchard\_55, AnnaL29\_75, Annyong\_69, Anon\_80, Anselm\_77, Anthony\_73, Anubis\_82, AppleCloud\_55, Aragog\_69, ArcherNM\_69, Archetta\_67, Arissanae\_74, Artemis2UCLA\_77, Arturo\_67, Astro\_84, AugsMagnumOpus\_82, AvatarAhPeg\_69, Avle17\_70, BABullseye\_71, Baby16\_70, BabyBack\_72, BabyRay\_74, Bachome\_76, Backyardigan\_67, Bactobuster\_68, Badger\_68, Baehexic\_74, BangNhom\_68, Bartimeaus\_70, Battleship\_86, Beauxregard13\_78, Beemo\_77, Belenaria\_59, BellusTerra\_71, Benedict\_73, BengiVuitton\_75, Benvolio\_73, BiancaTri92\_74, BigPaolini\_73, Blackmoor\_69, Blue7\_79, BlueBird\_76, Bluefalcon\_65, BobSwaget\_68, BogosyJay\_77, Bombshell\_70, Bonamassa\_69, Bonanza\_59, BreSam8\_79, Broseidon\_70, Bruiser\_69, BubbleTrouble\_69, Bud\_73, Bugatti\_73, Buggy\_77, Bumblebee11\_68, Burger\_68, Byougenkin\_38, CRB1\_77, Caelakin\_69, Camperdownii\_68, Candra\_76, CaptainTrips\_39, Catalina\_79, Centaur\_76, CentreCat\_70, Cerulean\_71, Chadwick\_73, ChampagnePapi\_72, Changeling\_74, Chaph\_70, Chargerpower\_73, Charm\_71, Chartreuse\_75, Che12\_80, ChipMunk\_76, Chupacabra\_68, Cici\_69, Cindaradix\_66, Cintron\_70, Citius\_70, Clarenza\_69, CloudWang3\_78, Coco12\_38, Cocoaberry\_70, Colbster\_75, Colin\_75, Commander\_68, Connomayer\_70, Conquerage\_75, Conspiracy\_70, Coog\_66, Cookiedough\_78, CosmicSans\_58, Crucio\_76, Cuco\_68, Cullens\_79, DBQu4n\_78, DaHudson\_78, DaVinci\_76, Daishi\_78, Dalmatian\_76, Danforth\_85, DARTHPhader\_73, Datway\_69, Deano\_67, DekHockey33\_85, Deloris\_75, Dhanush\_70, Dieselweasel\_79, Dignity\_77, Dinger\_57, DirtyDunning\_69, Discoknowium\_67, Dixon\_83, Donkeykong\_39, Dorothea\_75, Drake55\_77, Drake94\_68, DreamTeam1\_71, DroogsArmy\_69, Druantia\_69, Dublin\_69, DudeLittle\_74, Duplo\_78, EZMoney23\_72, EagleEye\_81, Eagle\_69, Eaglepride\_73, Eapen\_70, Ebony\_78, Echild\_76, Edison31\_67, Eidsmoe\_75, ElTiger69\_75, Elephantoon\_77, EmyBug\_74, EpicPhail\_80, Epsocamisio\_81, Equemioh13\_75, EricB\_77, Eris\_69, Eros\_70, Espica\_59, Et2Brutus\_77, Eurydice\_71, EvilGenius\_75, Expelliarmus\_81, ExplosioNervosa\_75, Fameo\_74, Farber\_79, Fayely\_75, Fernando\_79, Fibonacci\_77, FiringLine\_76, First\_0076, Flare16\_76, Flaverint\_79, Florean\_70, Flux\_70, ForGetIt\_70, Fred313\_71, Funston\_69, Gadost\_70, Gail\_77, Galactic\_41, Garak\_79, GaugeLDP\_71, Gemma\_76, George\_65, Georgie2\_77, Ghoulboy\_69, Gilberta\_75, GingkoMaracino\_79, Giroux\_72, Gladiator\_75, Goose\_71, GreedyLawyer\_73, Grif\_77, Groundhog\_82, Groupthink\_79, Grum1\_78, Gruunaga\_77, GtownJaz\_79, HINdeR\_70, HamSlice\_66, Hammer\_78, Happiness\_69, Harlequin\_57, HarryHoudini\_76, HashRod\_80, HaveUMetTed\_79, Heathen\_73, Heffalump\_73, HelDan\_73, Heliosoles\_76, Helmet\_79, Herbertwm\_72, Hercules11\_79, Hexamo\_77, Hiro\_58, Holli\_69, Hookmount\_73, Hoot\_73, HortumSL17\_78, Houdini22\_69, HuhtaEnerson15\_67, ICleared\_69, Ibantik\_55, Iceman\_69, Idleandcovert\_74, Indra\_81, Insomnia\_77, Iracema64\_70, IronMan\_73, Isca\_71, Isiphiwo\_75, Iwokeuplikedis\_77, JHC117\_74, JSwag\_84, Jaan\_74, Jabiru\_71, Jabith\_77, Jaykayelowell\_67, Jeeves\_79, JenCasNa\_80, JeppNRM\_79, Jerm\_77, Jester\_57, JetBlade\_70, Jobu08\_75, JoongJeon\_69, Jordennis\_76, Joselito\_77, JoshKayV\_76, Journey13\_65, Jovo\_70, Jsquared\_79, KADY\_76, KFPoly\_69, Kalnoky\_79, Kalpine\_75, Kamy\_69, Katalie136\_69, KatherineG\_84, Kazan\_79, Kerberos\_78, Keziacharles14\_74, Kimona\_69, KingCyrus\_75, Kingmustik0402\_70, Kipper29\_78, KittenMittens\_67, Koko\_79, Koreni\_69, Kratark\_69, Kremtemulon\_66, Krishelle\_58, KristaRAM\_40, Kristoff\_69, Kyee\_70, L5\_71, LBerry\_80, LHTSCC\_72, LadyBird\_79, Lambert1\_73, Landor\_74,

LappelDuVide\_66, Larenn\_72, LarryKay\_79, LastResort\_82, Lemur\_70, LeoAvram\_69, Leogania\_74, Lev2\_70, Leviathan\_77, LilTurb\_76, Lilbunny\_75, Lilith\_77, Lillie\_58, LittleB\_70, LittleCherry\_68, LittleGuy\_70, LochMonster\_71, Lokk\_69, LoneWolf\_78, Looper\_83, Lorenzo\_70, Loser\_77, Luchador\_78, Lucivia\_79, Lucyedi\_80, LugYA\_82, Lunsford\_70, MaCh\_78, Mabel\_78, MadMarie\_77, Mainiac\_78, Malec\_73, Malinsilva\_81, Maminaiaina\_77, Manu\_78, MarQuardt\_79, Margo\_73, Marie\_77, Marius\_79, MarysWell\_69, Maverick\_69, Mazhar510\_70, McFly\_79, Medusa\_70, MeeZee\_69, Melvin\_72, Methuselah\_72, Micasa\_67, Microwolf\_75, MiculUcigas\_76, Midas2\_66, Miko\_69, Milcery\_69, MilleniumForce\_40, Millski\_69, MinecraftSteve\_84, MinionDave\_41, Miramae\_69, MoneyMay\_78, Moonbeam\_39, Morpher26\_69, MuchMore\_82, Mulciber\_76, Munch\_78, Mundrea\_69, MyraDee\_73, Myxus\_77, NaSiaTalie\_76, Naca\_72, Naiad\_57, Natosaleda\_57, NearlyHeadless\_85, Nebs\_71, Nebulosus\_81, Nedarya\_79, Neeharika16\_77, Nemo27\_69, Newrala\_77, NicoleTera\_73, Noelle\_70, Norbert\_69, NorthStar\_68, NotAPhaseMom\_69, NothingSpecial\_71, Nyxis\_69, OKCentral2016\_68, OKaNui\_69, Obama12\_71, Odin\_77, Ohfah\_71, OlanP\_77, Ollie\_79, Oofda\_83, Ovechkin\_39, P28Green\_79, PGHhamlin\_81, PP\_72, PackMan\_76, Palestino\_69, Panamaxus\_71, Partridge\_57, Pawn\_77, PeaceMeal1\_68, Peaches\_68, Pembroke\_79, Penny1\_79, Pepe\_69, Perplexer\_69, PeterPeter\_70, Petersenfast\_72, PetiteSangsue\_69, PetterN\_77, Ph8s\_80, Phacado\_70, Phaded\_71, Phaeder\_77, PhailMary\_57, Phanphagia\_35, Phantastic\_75, Pharaoh\_71, Phelipe\_71, Phighter1804\_70, Phillis\_81, PhishRPhriends\_75, Phlorence\_68, Phoebe\_80, Phonnegut\_77, Phontbonne\_70, Phoxy\_79, PickleBack\_70, Pioneer\_77, Pipcraft\_67, Piro94\_75, Pmask\_77, Pocahontas\_72, Polymorphads\_70, Pomar16\_78, Poompha\_67, Popcicle\_73, PotatoSplit\_80, Power\_75, Priya\_75, Pukovnik\_72, Pumbaa\_70, Puppy\_74, PurpleHaze\_78, Qobbit\_75, QueenB2\_73, QueenBeesly\_76, QuinnKiro\_72, Rachaly\_71, Rahalelujah\_77, ReMo\_82, Reba\_74, Rebeuca\_71, RedRock\_74, Refuge\_73, Relief\_69, Remus\_84, ResDef\_71, Retro23\_76, RexFury\_57, Rhodalysa\_58, Rifter\_78, Roary\_86, Rockstar\_72, Roksolana\_78, Romney\_69, Roosevelt\_68, Rosalind\_82, Ruin\_70, Rummer\_78, Sabertooth\_70, Sabia\_77, Sabinator\_77, Saintus\_80, Salz\_73, SamScheppers\_83, SaturnRing\_73, Scamp\_70, Scherzo\_76, Scorpia\_73, Scout\_72, SemperFi\_76, Serenity\_79, Severus\_68, Shaka\_68, Sham4\_74, Shauna1\_36, SheaKeira\_71, Sheen\_74, SheldonCooper\_70, Shuman\_59, Shygu2\_69, Skipitt\_69, Smeadley\_84, Smeagan\_78, SmellyB\_78, SnapTap\_75, Snape\_78, Snickers\_75, SoYo\_76, SoilDragon\_78, SororFago\_77, Soshari\_81, Soul22\_44, Soups\_83, Sparxx\_71, Spike509\_79, Spino\_69, Spouty\_72, StCroix\_57, Stagni\_76, StarStuff\_78, Stasia\_69, Steamy\_70, StepMih\_78, Stephig9\_83, Stink\_69, Strosahl\_84, SuperAwesome\_78, SuperCallie99\_75, Superchunk\_78, SweetiePie\_75, SwirlSquare\_82, Swirley\_69, SydNat\_69, TNguyen7\_74, TWAMP\_58, Taquarus\_69, Taquito\_84, TarsusIV\_73, Tarynearal\_68, Taurus\_80, Texage\_71, Thanksgivukkah\_69, Theia\_68, Tiffany\_78, Tiger\_69, Timothy\_78, Timshel\_71, TinaFeyge\_68, Tinybot\_69, TipsytheTRex\_75, TiroTheta9\_69, Toaka\_77, Todacoro\_73, Tomathan\_78, ToneTone\_75, Tote\_71, Trixie\_75, Trooper\_75, TroyPia\_71, Tubs\_77, Tucker\_78, Turbido\_76, Twister\_69, TygerBlood\_70, Ulysses\_69, UnionJack\_73, Updawg\_76, VA6\_75, Vanisoa\_74, Vix\_75, VohminGhazi\_78, Waits\_83, WalterMcMickey\_69, Wander\_70, Watson\_78, WeiHuaDA\_76, Whabigail7\_76, WideWale\_76, Wiks\_77, Wilbur\_70, Wile\_68, Wizard007\_69, Wooldri\_81, XFactor\_38, Xena\_68, XianYue\_71, Yecey3\_79, YoSam321\_70, Yokurt\_77, Yoncess\_57, Zaka\_78, Zimmer\_74, Zolita\_68, Zulu\_79,

**Summary by start number:**

Start 31:

- Found in 6 of 795 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 1 of 754
- Called 16.7% of time when present
- Phage (with cluster) where this start called: ChipMunk\_76 (A2),

Start 33:

- Found in 1 of 795 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 754
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Taquito\_84 (K4),

Start 49:

- Found in 16 of 795 ( 2.0% ) of genes in pham
- Manual Annotations of this start: 1 of 754
- Called 6.2% of time when present
- Phage (with cluster) where this start called: Poompha\_67 (A10),

Start 53:

- Found in 47 of 795 ( 5.9% ) of genes in pham
- Manual Annotations of this start: 4 of 754
- Called 8.5% of time when present
- Phage (with cluster) where this start called: ArcherNM\_69 (A2), Larenn\_72 (A2), Malec\_73 (A2), Piro94\_75 (A2),

Start 56:

- Found in 30 of 795 ( 3.8% ) of genes in pham
- Manual Annotations of this start: 1 of 754
- Called 3.3% of time when present
- Phage (with cluster) where this start called: AnnaL29\_75 (A2),

Start 58:

- Found in 23 of 795 ( 2.9% ) of genes in pham
- Manual Annotations of this start: 9 of 754
- Called 39.1% of time when present
- Phage (with cluster) where this start called: Artemis2UCLA\_77 (A6), Blue7\_79 (A6), CloudWang3\_78 (A6), Gladiator\_75 (A6), Gruunaga\_77 (A6), Hammer\_78 (A6), Hexamo\_77 (A6), Zaka\_78 (A6), Zulu\_79 (A6),

Start 60:

- Found in 4 of 795 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 754
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Fruitloop\_37 (F1),

Start 62:

- Found in 176 of 795 ( 22.1% ) of genes in pham
- Manual Annotations of this start: 2 of 754
- Called 1.1% of time when present
- Phage (with cluster) where this start called: Alvin\_73 (A1), Edtherson\_74 (A1),

Start 65:

- Found in 11 of 795 ( 1.4% ) of genes in pham

- Manual Annotations of this start: 3 of 754
- Called 27.3% of time when present
- Phage (with cluster) where this start called: Expelliarmus\_81 (A8), Phillis\_81 (A8), Roary\_86 (A8),

#### Start 66:

- Found in 1 of 795 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 754
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Zimmer\_74 (A12),

#### Start 67:

- Found in 184 of 795 ( 23.1% ) of genes in pham
- Manual Annotations of this start: 32 of 754
- Called 17.9% of time when present
- Phage (with cluster) where this start called: Arissanae\_74 (A9), BogosyJay\_77 (A9), Bud\_73 (A11), Changeling\_74 (A2), Conquerage\_75 (A9), DBQu4n\_78 (A2), Eidsmoe\_75 (A9), Fibonacci\_77 (A11), Herbertwm\_72 (A2), HortumSL17\_78 (A9), IronMan\_73 (A2), Jaan\_74 (A2), Jerm\_77 (A2), Jordennis\_76 (A6), Journey13\_65 (A2), Landor\_74 (A2), Maminiaina\_77 (A9), Mulciber\_76 (A11), Munch\_78 (A11), Myxus\_77 (A9), NothingSpecial\_71 (A2), PackMan\_76 (A9), Phaded\_71 (A2), Pharaoh\_71 (A12), Pmask\_77 (A6), Pukovnik\_72 (A2), Rahalelujah\_77 (A9), RedRock\_74 (A2), Scherzo\_76 (A9), SuperAwesome\_78 (A6), TarsusIV\_73 (A2), Turbido\_76 (A2), XianYue\_71 (A2),

#### Start 69:

- Found in 19 of 795 ( 2.4% ) of genes in pham
- Manual Annotations of this start: 3 of 754
- Called 15.8% of time when present
- Phage (with cluster) where this start called: DaHudson\_78 (A3), Mainiac\_78 (A3), Sabia\_77 (A3),

#### Start 72:

- Found in 240 of 795 ( 30.2% ) of genes in pham
- Manual Annotations of this start: 173 of 754
- Called 78.8% of time when present
- Phage (with cluster) where this start called: 20ES\_77 (A2), 40AC\_74 (A17), AN3\_77 (A2), AbbyPaige\_77 (A2), Acolyte\_66 (A2), Adzzy\_80 (A2), Agape74\_77 (A2), Alma\_75 (A9), Aminay\_81 (K7), Anaysia\_84 (A15), Aneem\_79 (A11), Anon\_80 (A15), Anselm\_77 (A2), BABullseye\_71 (A6), BabyBack\_72 (A2), Bachome\_76 (A11), Bactobuster\_68 (A2), Baehexic\_74 (A2), Battleship\_86 (A15), Beemo\_77 (A9), BengiVuitton\_75 (A2), Benvolio\_73 (A2), BiancaTri92\_74 (A2), BobSwaget\_68 (A2), Buggy\_77 (A2), Byougenkin\_38 (F1), CRB1\_77 (A2), Candra\_76 (A6), CaptainTrips\_39 (F1), Catalina\_79 (A9), Centaur\_76 (A2), Chargerpower\_73 (A), Charm\_71 (A9), Chartreuse\_75 (A6), Che12\_80 (A2), Coco12\_38 (F1), Colin\_75 (A2), Cookiedough\_78 (A6), Crucio\_76 (A2), DaVinci\_76 (A6), Dalmatian\_76 (A2), DARTHPhader\_73 (A12), DekHockey33\_85 (A15), Deloris\_75 (A2), Dignity\_77 (A2), Donkeykong\_39 (F1), Dorothea\_75 (A6), Drake55\_77 (A2), DreamTeam1\_71 (A9), DudeLittle\_74 (A2), Duplo\_78 (A2), EZMoney23\_72 (A2), EagleEye\_81 (A16), Ebony\_78 (A11), Echid\_76 (A2), Elephantoon\_77 (A9), EmyBug\_74 (A9), Epsocamisio\_81 (A15), Equemioh13\_75 (A2), EricB\_77 (A6), Et2Brutus\_77 (A11), EvilGenius\_75 (A2), ExplosioNervosa\_75 (A9), Fameo\_74 (A2), Fayely\_75 (A9), FiringLine\_76 (A2), First\_0076 (A2), Flare16\_76 (A2), Flaverint\_79 (A11), Gail\_77



(A14), Galactic\_41 (F1), Garak\_79 (A6), GaugeLDP\_71 (A2), Georgie2\_77 (A2), Gilberta\_75 (A11), GreedyLawyer\_73 (A6), HarryHoudini\_76 (A2), Heffalump\_73 (A2), Helmet\_79 (A6), Hoot\_73 (A6), Indra\_81 (A6), Insomnia\_77 (A11), Isiphiwo\_75 (A6), Iwokeuplikedis\_77 (A2), JSwag\_84 (A15), Jabith\_77 (A11), Jeeves\_79 (A14), Joselito\_77 (A11), JoshKayV\_76 (A2), Jsquared\_79 (A2), Kalpine\_75 (A2), KatherineG\_84 (A15), Kazan\_79 (A6), Kerberos\_78 (A2), Keziacharles14\_74 (A9), KingCyrus\_75 (A2), Kipper29\_78 (A6), Koko\_79 (A6), KristaRAM\_40 (F1), L5\_71 (A2), LastResort\_82 (A15), Leogania\_74 (A2), Leviathan\_77 (A2), LilTurb\_76 (A2), Lilbunny\_75 (A6), Lokk\_69 (A2), LoneWolf\_78 (A9), Looper\_83 (A15), Loser\_77 (A2), Luchador\_78 (A14), Lucivia\_79 (A11), Lucyedi\_80 (A16), MaCh\_78 (A11), Mabel\_78 (A11), McFly\_79 (A6), MiculUcigas\_76 (A2), Miko\_69 (A2), MilleniumForce\_40 (F1), MinecraftSteve\_84 (A15), MinionDave\_41 (F1), Moonbeam\_39 (F1), NaSiaTalie\_76 (A2), Nebulosus\_81 (A15), Nedarya\_79 (A15), Neeharika16\_77 (A6), Newrala\_77 (A6), NicoleTera\_73 (A2), Oofda\_83 (A15), Ovechkin\_39 (F1), Petersenfast\_72 (A11), Phaeder\_77 (A9), Phanphagia\_35 (F1), Phonnegut\_77 (A9), Pioneer\_77 (A9), Pomar16\_78 (A2), Power\_75 (A2), Priya\_75 (A9), Qobbit\_75 (A9), QueenB2\_73 (A2), QueenBeesly\_76 (A2), Rachaly\_71 (A2), ReMo\_82 (A15), Refuge\_73 (A12), Remus\_84 (A15), Retro23\_76 (A2), Rifter\_78 (A6), Roksolana\_78 (A6), Rosalind\_82 (A15), Salz\_73 (A11), SemperFi\_76 (A2), Serenity\_79 (A2), Sham4\_74 (A11), Shauna1\_36 (F1), SheaKeira\_71 (A9), Smeagan\_78 (A2), SmellyB\_78 (A6), SnapTap\_75 (A2), Snape\_78 (A11), SororFago\_77 (A14), Soul22\_44 (F2), Soups\_83 (A15), Spouty\_72 (A9), StarStuff\_78 (A2), Steamy\_70 (A12), Strosahl\_84 (A15), SuperCallie99\_75 (A6), Superchunk\_78 (A2), SweetiePie\_75 (A2), Timothy\_78 (A11), TipsytheTRex\_75 (A2), Toaka\_77 (A9), Tomathan\_78 (A2), ToneTone\_75 (A6), Trixie\_75 (A2), Trooper\_75 (A2), Tubs\_77 (A9), Tucker\_78 (A6), Updawg\_76 (A2), VA6\_75 (A2), Vanisoa\_74 (A9), VohminGhazi\_78 (A6), Waits\_83 (A15), WeiHuaDA\_76 (A2), Whabigail7\_76 (A2), WideWale\_76 (A2), Wiks\_77 (A6), XFactor\_38 (F1), Yecey3\_79 (A9), Yokurt\_77 (A6),

#### Start 73:

- Found in 12 of 795 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 1 of 754
- Called 8.3% of time when present
- Phage (with cluster) where this start called: SamScheppers\_83 (K4),

#### Start 74:

- Found in 47 of 795 ( 5.9% ) of genes in pham
- Manual Annotations of this start: 37 of 754
- Called 80.9% of time when present
- Phage (with cluster) where this start called: AgentM\_69 (A5), Airmid\_72 (A5), Aragog\_69 (A5), Archetta\_67 (A5), Benedict\_73 (A5), Bluefalcon\_65 (A5), Bonamassa\_69 (A5), Chadwick\_73 (A5), Conspiracy\_70 (A5), Coog\_66 (A5), Cuco\_68 (A5), Discoknowium\_67 (A5), Dublin\_69 (A5), EITiger69\_75 (A5), ForGetIt\_70 (A5), George\_65 (A5), Ghoulyboy\_69 (A5), HuhtaEnerson15\_67 (A5), Jabiru\_71 (A5), Jovo\_70 (A5), Lev2\_70 (A5), LittleCherry\_68 (A5), MarysWell\_69 (A5), Micasa\_67 (A5), Midas2\_66 (A5), Milcery\_69 (A5), Naca\_72 (A5), PetterN\_77 (A5), Phlorence\_68 (A5), PickleBack\_70 (A5), Scorpio\_73 (A5), Swirley\_69 (A5), SydNat\_69 (A5), Tarynearal\_68 (A5), Theia\_68 (A5), Tiger\_69 (A5), UnionJack\_73 (A5), Zolita\_68 (A5),

#### Start 75:

- Found in 1 of 795 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 754

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anthony\_73 (A20),

#### Start 76:

- Found in 14 of 795 ( 1.8% ) of genes in pham
- Manual Annotations of this start: 8 of 754
- Called 57.1% of time when present
- Phage (with cluster) where this start called: Chupacabra\_68 (A10), Eaglepride\_73 (A10), Edison31\_67 (A10), Goose\_71 (A10), KittenMittens\_67 (A10), OKCentral2016\_68 (A10), Severus\_68 (A10), Twister\_69 (A10),

#### Start 77:

- Found in 24 of 795 ( 3.0% ) of genes in pham
- Manual Annotations of this start: 23 of 754
- Called 95.8% of time when present
- Phage (with cluster) where this start called: Alatin\_57 (CA), AngryOrchard\_55 (CA), AppleCloud\_55 (CA), Belenaria\_59 (CA), Bonanza\_59 (CA), CosmicSans\_58 (CA), Dinger\_57 (CA), Espica\_59 (CA), Harlequin\_57 (CA), Hiro\_58 (CA), Jester\_57 (CA), Krishelle\_58 (CA), Lillie\_58 (CA), Naiad\_57 (CA), Natosaleda\_57 (CA), Partridge\_57 (CA), PhailMary\_57 (CA), RexFury\_57 (CA), Rhodalysa\_58 (CA), Shuman\_59 (CA), StCroix\_57 (CA), TWAMP\_58 (CA), Yoncess\_57 (CA),

#### Start 78:

- Found in 19 of 795 ( 2.4% ) of genes in pham
- Manual Annotations of this start: 10 of 754
- Called 52.6% of time when present
- Phage (with cluster) where this start called: Drake94\_68 (A10), DroogsArmy\_69 (A7), HINdeR\_70 (A7), Kimona\_69 (A19), Kristoff\_69 (A10), PP\_72 (A7), PeaceMeal1\_68 (A10), Rebeuca\_71 (A10), Timshel\_71 (A7), WalterMcMickey\_69 (A10),

#### Start 79:

- Found in 143 of 795 ( 18.0% ) of genes in pham
- Manual Annotations of this start: 132 of 754
- Called 95.8% of time when present
- Phage (with cluster) where this start called: Abdiel\_70 (A4), Albee\_70 (A4), Alberto7\_71 (A4), Annyong\_69 (A4), Arturo\_67 (A4), Avle17\_70 (A4), Baby16\_70 (A4), BabyRay\_74 (A3), BangNhom\_68 (A4), Bartimeaus\_70 (A4), BellusTerra\_71 (A4), Blackmoor\_69 (A4), Bombshell\_70 (A4), Broseidon\_70 (A4), Bruiser\_69 (A4), BubbleTrouble\_69 (A4), Bugatti\_73 (A3), Burger\_68 (A4), Caelakin\_69 (A4), Camperdownii\_68 (A4), CentreCat\_70 (A4), Cerulean\_71 (A4), ChampagnePapi\_72 (A4), Chaph\_70 (A4), Cindaradix\_66 (A4), Cintron\_70 (A4), Citius\_70 (A4), Clarenza\_69 (A4), Cocoaberry\_70 (A4), Commander\_68 (A4), Connomayer\_70 (A4), Deano\_67 (A4), Dhanush\_70 (A4), DirtyDunning\_69 (A4), Druantia\_69 (A4), Eagle\_69 (A4), Eapen\_70 (A4), Eris\_69 (A4), Eros\_70 (A4), Eurydice\_71 (A4), Florean\_70 (A4), Flux\_70 (A4), Fred313\_71 (A3), Funston\_69 (A4), Gadost\_70 (A4), Giroux\_72 (A3), HamSlice\_66 (A4), Happiness\_69 (A4), HelDan\_73 (A3), Holli\_69 (A4), Hookmount\_73 (A3), Houdini22\_69 (A4), ICleared\_69 (A4), Iceman\_69 (A4), Idleandcovert\_74 (A3), Iracema64\_70 (A4), Isca\_71 (A3), Jaykayelowell\_67 (A4), JetBlade\_70 (A4), JoongJeon\_69 (A4), KFPoly\_69 (A4), Kamy\_69 (A4), Kingmustik0402\_70 (A4), Koreni\_69 (A4), Kratark\_69 (A4), Kremtemulon\_66 (A4), Kyee\_70 (A4), LHTSCC\_72 (A4), Lambert1\_73 (A3), Lemur\_70 (A4), LeoAvram\_69 (A4), LittleB\_70 (A4), LittleGuy\_70 (A4), LochMonster\_71 (A4), Lorenzo\_70 (A4),

Lunsford\_70 (A4), Margo\_73 (A3), Maverick\_69 (A4), Mazhar510\_70 (A4), Medusa\_70 (A4), MeeZee\_69 (A4), Melvin\_72 (A4), Millski\_69 (A4), Nebs\_71 (A4), Nemo27\_69 (A4), Norbert\_69 (A3), NorthStar\_68 (A4), NotAPhaseMom\_69 (A4), Nyxis\_69 (A4), OKaNui\_69 (A4), Obama12\_71 (A4), Odin\_77 (A2), Ohfah\_71 (A4), Palestino\_69 (A4), Panamaxus\_71 (A3), Peaches\_68 (A4), PeterPeter\_70 (A4), Phacado\_70 (A4), Phantastic\_75 (A3), Felipe\_71 (A4), Phighter1804\_70 (A4), Phontbonne\_70 (A4), Pipcraft\_67 (A4), Pocahontas\_72 (A3), Polymorphads\_70 (A4), Popcicle\_73 (A3), Pumbaa\_70 (A4), QuinnKiro\_72 (A3), Relief\_69 (A4), ResDef\_71 (A3), Romney\_69 (A4), Roosevelt\_68 (A4), Ruin\_70 (A4), Sabertooth\_70 (A4), SaturnRing\_73 (A3), Scamp\_70 (A4), Scout\_72 (A3), Shaka\_68 (A4), Sheen\_74 (A7), SheldonCooper\_70 (A4), Skipitt\_69 (A4), Sparxx\_71 (A4), Spino\_69 (A4), TNguyen7\_74 (A3), Taquarus\_69 (A4), Texage\_71 (A3), Thanksgivukkah\_69 (A4), TinaFeyge\_68 (A4), Tinybot\_69 (A4), TiroTheta9\_69 (A4), Todacoro\_73 (A3), TroyPia\_71 (A4), TygerBlood\_70 (A4), Ulysses\_69 (A4), Wander\_70 (A4), Wilbur\_70 (A4), YoSam321\_70 (A4),

#### Start 80:

- Found in 17 of 795 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 3 of 754
- Called 17.6% of time when present
- Phage (with cluster) where this start called: Astraea\_48 (C1), BadAgartude\_49 (C1), EasyJones\_49 (C1),

#### Start 81:

- Found in 14 of 795 ( 1.8% ) of genes in pham
- Manual Annotations of this start: 3 of 754
- Called 21.4% of time when present
- Phage (with cluster) where this start called: BlueBird\_76 (A3), Heathen\_73 (A3), Puppy\_74 (A3),

#### Start 83:

- Found in 9 of 795 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 2 of 754
- Called 22.2% of time when present
- Phage (with cluster) where this start called: Bombitas\_177 (J), Courthouse\_190 (J),

#### Start 84:

- Found in 219 of 795 ( 27.5% ) of genes in pham
- Manual Annotations of this start: 195 of 754
- Called 95.4% of time when present
- Phage (with cluster) where this start called: AFIS\_72 (A1), Abbyshoes\_75 (A1), Acme\_79 (A1), Adahisdi\_71 (A1), Aeneas\_80 (A1), Agaliana\_73 (A1), Ajay\_72 (A1), Alice\_41 (C1), Altman\_78 (A1), Anglerfish\_77 (A1), Ariel\_194 (J), Arlo\_75 (A1), Ashballer\_77 (A1), Atkinbua\_81 (A1), BPBiEbs31\_80 (A1), BaconJack\_77 (A1), Barriga\_82 (A1), Batiatus\_38 (F1), Beatrix\_72 (A1), BeesKnees\_76 (A1), Bethlehem\_78 (A1), Bexan\_70 (A1), Big3\_76 (A1), BigMau\_78 (A1), BillKnuckles\_69 (A1), Bipolar\_36 (F1), BluSpix\_72 (A1), Blue\_72 (A1), Bob3\_76 (A1), Bobi\_40 (F1), Bones\_71 (A1), Briton15\_78 (A1), Bruns\_78 (A1), Burton\_76 (A1), Buttons\_72 (A1), Bxb1\_69 (A1), CactusRose\_78 (A1), Carlyle\_76 (A1), Ciao\_72 (A1), Conceptll\_80 (A1), Corvo\_77 (A1), DD5\_73 (A1), DLane\_38 (F1), Dexes\_76 (A1), Doom\_68 (A1), DrFeelGood\_71 (A1), DreamCatcher\_79 (A1), Dreamboat\_75 (A1), Dulcie\_76 (A1), Dussy\_74 (A1), Dynamix\_75 (A1), Emma\_41 (F1), Espresso\_69 (A1), Euphoria\_76 (A1), Eyeball\_74 (A1), Fajezeel\_78 (A1), Fascinus\_71 (A1), Fenn\_78 (A1),

Flathead\_38 (F1), Forsytheast\_77 (A1), Francis47\_77 (A1), Fushigi\_69 (A1), GageAP\_78 (A1), Gandalf20\_74 (A1), Gompeii16\_76 (A1), Graduation\_78 (A1), GrecoEtereo\_79 (A1), Greg\_78 (A1), Gwendoluna\_78 (A1), Hami1\_65 (A1), HarryOW\_76 (A1), Hermia\_70 (A1), HermioneGrange\_79 (A1), Homines\_63 (A1), Hope4ever\_76 (A1), HyRo\_222 (C1), ILeeKay\_73 (A1), Ichabod\_78 (A1), IgnatiusPatJac\_75 (A1), JC27\_76 (A1), JackSparrow\_76 (A1), Jasper\_74 (A1), Jerm2\_77 (A1), Jorgensen\_82 (A1), Juice456\_41 (F1), JuliaChild\_76 (A1), JulietS\_42 (C1), KSSJEB\_72 (A1), Kalah2\_189 (J), Kanely\_77 (A1), Kenuha5\_35 (F1), Killigrew\_72 (A1), Koguma\_43 (C1), Kugel\_77 (A1), KyMonks1A\_81 (A1), Kykar\_75 (A1), LRRHood\_44 (C1), Lamina13\_79 (A1), Lesedi\_72 (A1), Licorice\_76 (A1), LilBib\_72 (A1), LittleE\_195 (J), Lockley\_72 (A1), Lopton\_74 (A1), Lukilu\_41 (C1), LunaBlu\_42 (F1), MPlant7149\_75 (A1), Magnar\_71 (A1), Marcell\_68 (A1), Marchy\_64 (A1), Marge\_72 (A1), Marsha\_75 (A1), MaryBeth\_73 (A1), McGuire\_75 (A1), Melissauren88\_38 (F1), MetalQZJ\_72 (A1), MiaZeal\_196 (J), Michley\_76 (A1), Molly\_75 (A1), Monet\_79 (A1), Moose\_77 (A1), Morizzled23\_50 (C1), Mova\_39 (F1), MrGordo\_76 (A1), Mryolo\_70 (A1), Ms6\_33 (F1), Mule\_74 (A1), NEHalo\_71 (A1), Naira\_77 (A1), Nerujay\_79 (A1), Nhonho\_71 (A1), Niza\_75 (A1), Ohno789\_78 (A1), Oogway\_74 (A1), Papez\_77 (A1), Paphu\_70 (A1), Paraselene\_73 (A1), Pari\_80 (A1), Parliament\_76 (A1), PascalRango\_73 (A1), PattyP\_75 (A1), Pelly\_76 (A1), Perseus\_75 (A1), Petp2012\_76 (A1), Phalconet\_39 (F1), PherrisBueller\_74 (A1), Phox\_45 (C1), PinkPlastic\_71 (A1), Pinkcreek\_38 (C1), Pinto\_75 (A1), Pippin\_76 (A1), Pita2\_76 (A1), Pound\_183 (J), QTRlifeCrisis\_74 (A1), Rabinovich\_45 (C1), Rajelicia\_77 (A1), Rhynn\_71 (A1), Rialto\_43 (F1), Ringer\_75 (A1), Rohr\_78 (A1), Ronan\_41 (C1), Rubeus\_76 (A1), Rufus\_78 (A1), Ruotula\_79 (A1), Rutherford\_77 (A1), STLscum\_81 (A1), Sagefire\_72 (A1), Sandaddy\_73 (A1), Sanya\_70 (A1), Scowl\_76 (A1), Seabiscuit\_75 (A1), Seanderson\_75 (A1), Shaqnato\_43 (C1), ShortQueendom\_68 (A1), Sibs6\_75 (A1), Slagathor\_76 (A1), Smeagol\_78 (A1), Snazzy\_76 (A1), Solon\_71 (A1), Sorpresa\_72 (A1), SpikeBT\_72 (A1), Squee\_76 (A1), Squint\_188 (J), StAnnes\_38 (F1), StrongArm\_71 (A1), Stubby\_43 (C1), Sumter\_72 (A1), Sunshine924\_76 (A1), Superphikiman\_191 (J), SwissCheese\_79 (A1), Swole\_73 (A1), Target\_75 (A1), Tasp14\_74 (A1), Teodoridan\_72 (A1), TheloniousMonk\_77 (A1), Topgun\_71 (A1), Traft412\_75 (A1), Treddle\_77 (A1), Tripl3t\_78 (A1), TwoPeat\_75 (A1), U2\_69 (A1), Violet\_70 (A1), Watermelon\_78 (A1), Wheeler\_79 (A1), Wilkins\_72 (A1), Yassified\_45 (C1), Zeeculate\_71 (A1), Zephyr\_77 (A1), Zeuska\_77 (A1),

#### Start 86:

- Found in 21 of 795 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 21 of 754
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AbbysRanger\_69 (A4), Achebe\_68 (A4), AvatarAhPeg\_69 (A4), Backyardigan\_67 (A4), Badger\_68 (A4), Bumblebee11\_68 (A4), Cici\_69 (A4), Datway\_69 (A4), Katalie136\_69 (A4), Miramae\_69 (A4), Morpher26\_69 (A4), Mundrea\_69 (A4), Noelle\_70 (A4), Perplexer\_69 (A4), PetiteSangsue\_69 (A4), Shygu2\_69 (A4), Stasia\_69 (A4), Stink\_69 (A4), Wile\_68 (A4), Wizard007\_69 (A4), Xena\_68 (A4),

#### Start 88:

- Found in 85 of 795 ( 10.7% ) of genes in pham
- Manual Annotations of this start: 77 of 754
- Called 92.9% of time when present
- Phage (with cluster) where this start called: ACFishhook\_76 (A3), Aglet\_80 (A3), Anubis\_82 (A3), Astro\_84 (A8), AugsMagnumOpus\_82 (A3), Beauxregard13\_78

(A3), BreSam8\_79 (A3), Colbster\_75 (A3), Cullens\_79 (A3), Daishi\_78 (A3), Danforth\_85 (A8), Dieselweasel\_79 (A3), Dixon\_83 (A8), EpicPhail\_80 (A3), Farber\_79 (A3), Fernando\_79 (A3), Gemma\_76 (A3), GingkoMaracino\_79 (A3), Grif\_77 (A3), Groundhog\_82 (A8), Groupthink\_79 (A3), Grum1\_78 (A3), GtownJaz\_79 (A3), HashRod\_80 (A3), HaveUMetTed\_79 (A3), Heliosoles\_76 (A3), Hercules11\_79 (A3), JHC117\_74 (A3), JenCasNa\_80 (A3), JeppNRM\_79 (A3), Jobu08\_75 (A3), KADY\_76 (A3), Kalnoky\_79 (A3), LBerry\_80 (A3), LarryKay\_79 (A3), Lilith\_77 (A3), LugYA\_82 (A3), MadMarie\_77 (A3), Malinsilva\_81 (A3), Manu\_78 (A3), MarQuardt\_79 (A3), Marie\_77 (A3), Marius\_79 (A3), Methuselah\_72 (A3), Microwolf\_75 (A3), MoneyMay\_78 (A3), MuchMore\_82 (A3), MyraDee\_73 (A18), NearlyHeadless\_85 (A8), OlanP\_77 (A3), Ollie\_79 (A3), P28Green\_79 (A3), PGHhamlin\_81 (A3), Pawn\_77 (A3), Pembroke\_79 (A3), Penny1\_79 (A3), PhishRPhriends\_75 (A3), Phoebe\_80 (A3), Phoxy\_79 (A3), PotatoSplit\_80 (A3), PurpleHaze\_78 (A3), Reba\_74 (A3), Rummer\_78 (A3), Sabinator\_77 (A3), Saintus\_80 (A8), Smeadley\_84 (A8), Snickers\_75 (A3), SoYo\_76 (A3), SoilDragon\_78 (A3), Soshari\_81 (A3), Spike509\_79 (A3), Stagni\_76 (A3), StepMih\_78 (A3), Stephig9\_83 (A8), Taurus\_80 (A3), Tiffany\_78 (A3), Vix\_75 (A3), Watson\_78 (A3), Wooldri\_81 (A3),

Start 90:

- Found in 1 of 795 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 754
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ibantik\_55 (singleton),

Start 94:

- Found in 1 of 795 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 754
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rockstar\_72 (A3),

Start 95:

- Found in 38 of 795 ( 4.8% ) of genes in pham
- Manual Annotations of this start: 1 of 754
- Called 2.6% of time when present
- Phage (with cluster) where this start called: LadyBird\_79 (A2),

Start 97:

- Found in 445 of 795 ( 56.0% ) of genes in pham
- Manual Annotations of this start: 5 of 754
- Called 1.3% of time when present
- Phage (with cluster) where this start called: Akhila\_32 (F1), BigPaolini\_73 (A1), LappelDuVide\_66 (A4), MilanaBonita\_32 (F1), Pepe\_69 (A1), Tote\_71 (A1),

Start 104:

- Found in 718 of 795 ( 90.3% ) of genes in pham
- Manual Annotations of this start: 1 of 754
- Called 0.3% of time when present
- Phage (with cluster) where this start called: Ph8s\_80 (A2), SwirlSquare\_82 (A2),

**Summary by clusters:**

There are 28 clusters represented in this pham: singleton, K7, K4, A15, A14, A17, A16, A11, A10, A12, A19, A18, A1, A3, A2, A5, A4, A7, A6, A9, A8, C1, A, CA, J, A20, F1, F2,

Info for manual annotations of cluster A:

- Start number 72 was manually annotated 1 time for cluster A.

Info for manual annotations of cluster A1:

- Start number 62 was manually annotated 2 times for cluster A1.
- Start number 84 was manually annotated 161 times for cluster A1.
- Start number 97 was manually annotated 3 times for cluster A1.

Info for manual annotations of cluster A10:

- Start number 49 was manually annotated 1 time for cluster A10.
- Start number 76 was manually annotated 8 times for cluster A10.
- Start number 78 was manually annotated 5 times for cluster A10.

Info for manual annotations of cluster A11:

- Start number 67 was manually annotated 4 times for cluster A11.
- Start number 72 was manually annotated 16 times for cluster A11.

Info for manual annotations of cluster A12:

- Start number 66 was manually annotated 1 time for cluster A12.
- Start number 67 was manually annotated 1 time for cluster A12.
- Start number 72 was manually annotated 3 times for cluster A12.

Info for manual annotations of cluster A14:

- Start number 72 was manually annotated 4 times for cluster A14.

Info for manual annotations of cluster A15:

- Start number 72 was manually annotated 18 times for cluster A15.

Info for manual annotations of cluster A16:

- Start number 72 was manually annotated 2 times for cluster A16.

Info for manual annotations of cluster A18:

- Start number 88 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A19:

- Start number 78 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:

- Start number 31 was manually annotated 1 time for cluster A2.
- Start number 53 was manually annotated 4 times for cluster A2.
- Start number 56 was manually annotated 1 time for cluster A2.
- Start number 67 was manually annotated 14 times for cluster A2.
- Start number 72 was manually annotated 70 times for cluster A2.
- Start number 79 was manually annotated 1 time for cluster A2.
- Start number 95 was manually annotated 1 time for cluster A2.
- Start number 104 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A20:

- Start number 75 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A3:

- Start number 69 was manually annotated 3 times for cluster A3.
- Start number 79 was manually annotated 18 times for cluster A3.
- Start number 81 was manually annotated 3 times for cluster A3.
- Start number 88 was manually annotated 68 times for cluster A3.
- Start number 94 was manually annotated 1 time for cluster A3.

Info for manual annotations of cluster A4:

- Start number 79 was manually annotated 112 times for cluster A4.
- Start number 86 was manually annotated 21 times for cluster A4.

Info for manual annotations of cluster A5:

- Start number 74 was manually annotated 37 times for cluster A5.

Info for manual annotations of cluster A6:

- Start number 58 was manually annotated 9 times for cluster A6.
- Start number 67 was manually annotated 3 times for cluster A6.
- Start number 72 was manually annotated 23 times for cluster A6.

Info for manual annotations of cluster A7:

- Start number 78 was manually annotated 4 times for cluster A7.
- Start number 79 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster A8:

- Start number 65 was manually annotated 3 times for cluster A8.
- Start number 88 was manually annotated 8 times for cluster A8.

Info for manual annotations of cluster A9:

- Start number 67 was manually annotated 10 times for cluster A9.
- Start number 72 was manually annotated 21 times for cluster A9.

Info for manual annotations of cluster C1:

- Start number 80 was manually annotated 3 times for cluster C1.
- Start number 84 was manually annotated 13 times for cluster C1.

Info for manual annotations of cluster CA:

- Start number 77 was manually annotated 23 times for cluster CA.

Info for manual annotations of cluster F1:

- Start number 60 was manually annotated 1 time for cluster F1.
- Start number 72 was manually annotated 13 times for cluster F1.
- Start number 84 was manually annotated 14 times for cluster F1.
- Start number 97 was manually annotated 2 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 72 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster J:

- Start number 83 was manually annotated 2 times for cluster J.
- Start number 84 was manually annotated 7 times for cluster J.

Info for manual annotations of cluster K4:

- Start number 33 was manually annotated 1 time for cluster K4.
- Start number 73 was manually annotated 1 time for cluster K4.

Info for manual annotations of cluster K7:

- Start number 72 was manually annotated 1 time for cluster K7.

### **Gene Information:**

Gene: 20ES\_77 Start: 45500, Stop: 44928, Start Num: 72

Candidate Starts for 20ES\_77:

(Start: 72 @45500 has 173 MA's), (Start: 104 @45383 has 1 MA's), (105, 45374), (108, 45347), (111, 45326), (129, 45224), (132, 45215), (145, 45137), (150, 45098), (158, 45044),

Gene: 40AC\_74 Start: 45910, Stop: 45359, Start Num: 72

Candidate Starts for 40AC\_74:

(Start: 67 @45922 has 32 MA's), (Start: 72 @45910 has 173 MA's), (93, 45862), (Start: 104 @45793 has 1 MA's), (105, 45784), (108, 45757), (111, 45736), (123, 45682), (129, 45634), (135, 45610), (140, 45583), (141, 45568), (145, 45547), (146, 45544), (150, 45508), (166, 45409),

Gene: ACFishhook\_76 Start: 44888, Stop: 44379, Start Num: 88

Candidate Starts for ACFishhook\_76:

(Start: 88 @44888 has 77 MA's), (Start: 97 @44852 has 5 MA's), (Start: 104 @44801 has 1 MA's), (105, 44792), (115, 44726), (123, 44690), (129, 44642), (135, 44621), (144, 44561), (145, 44558), (150, 44519), (158, 44456), (166, 44411),

Gene: AFIS\_72 Start: 46954, Stop: 46442, Start Num: 84

Candidate Starts for AFIS\_72:

(24, 47128), (34, 47095), (51, 47032), (Start: 62 @47011 has 2 MA's), (Start: 84 @46954 has 195 MA's), (Start: 97 @46912 has 5 MA's), (Start: 104 @46861 has 1 MA's), (105, 46852), (111, 46804), (135, 46681), (141, 46639), (173, 46453),

Gene: AN3\_77 Start: 44285, Stop: 43713, Start Num: 72

Candidate Starts for AN3\_77:

(Start: 72 @44285 has 173 MA's), (Start: 95 @44231 has 1 MA's), (Start: 104 @44168 has 1 MA's), (105, 44159), (111, 44111), (115, 44093), (118, 44084), (129, 44009), (132, 44000), (145, 43922), (150, 43883), (167, 43754), (171, 43745),

Gene: AbbyPaige\_77 Start: 45770, Stop: 45195, Start Num: 72

Candidate Starts for AbbyPaige\_77:

(6, 46034), (13, 45986), (16, 45974), (Start: 53 @45812 has 4 MA's), (61, 45800), (Start: 67 @45782 has 32 MA's), (Start: 72 @45770 has 173 MA's), (Start: 104 @45653 has 1 MA's), (105, 45644), (111, 45596), (129, 45494), (145, 45407), (150, 45368), (160, 45305),

Gene: AbbysRanger\_69 Start: 44366, Stop: 43866, Start Num: 86

Candidate Starts for AbbysRanger\_69:

(Start: 86 @44366 has 21 MA's), (Start: 104 @44279 has 1 MA's), (106, 44255), (121, 44174), (123, 44168), (124, 44156), (129, 44117), (133, 44102), (135, 44096), (150, 44000), (160, 43934), (166, 43898),

Gene: Abbyshoes\_75 Start: 46207, Stop: 45695, Start Num: 84



Candidate Starts for Abbyshoes\_75:

(24, 46381), (34, 46348), (Start: 62 @46264 has 2 MA's), (Start: 84 @46207 has 195 MA's), (Start: 97 @46165 has 5 MA's), (Start: 104 @46114 has 1 MA's), (105, 46105), (111, 46057), (135, 45934), (141, 45892), (163, 45748), (173, 45706),

Gene: Abdiel\_70 Start: 44184, Stop: 43672, Start Num: 79

Candidate Starts for Abdiel\_70:

(Start: 79 @44184 has 132 MA's), (Start: 97 @44136 has 5 MA's), (Start: 104 @44085 has 1 MA's), (115, 44010), (119, 43986), (121, 43980), (123, 43974), (129, 43923), (135, 43902), (150, 43806), (166, 43704),

Gene: Achebe\_68 Start: 44349, Stop: 43849, Start Num: 86

Candidate Starts for Achebe\_68:

(Start: 86 @44349 has 21 MA's), (Start: 104 @44262 has 1 MA's), (106, 44238), (121, 44157), (123, 44151), (124, 44139), (129, 44100), (133, 44085), (135, 44079), (150, 43983), (160, 43917), (166, 43881),

Gene: Acme\_79 Start: 48278, Stop: 47766, Start Num: 84

Candidate Starts for Acme\_79:

(24, 48452), (34, 48419), (Start: 62 @48335 has 2 MA's), (Start: 84 @48278 has 195 MA's), (Start: 97 @48236 has 5 MA's), (Start: 104 @48185 has 1 MA's), (105, 48176), (111, 48128), (135, 48005), (141, 47963), (173, 47777),

Gene: Acolyte\_66 Start: 43348, Stop: 42803, Start Num: 72

Candidate Starts for Acolyte\_66:

(Start: 67 @43360 has 32 MA's), (Start: 72 @43348 has 173 MA's), (85, 43321), (87, 43318), (Start: 104 @43231 has 1 MA's), (105, 43222), (106, 43207), (111, 43174), (129, 43072), (135, 43048), (141, 43006), (144, 42988), (150, 42946), (158, 42889), (166, 42844),

Gene: Adahisdi\_71 Start: 46277, Stop: 45765, Start Num: 84

Candidate Starts for Adahisdi\_71:

(24, 46451), (34, 46418), (Start: 62 @46334 has 2 MA's), (Start: 84 @46277 has 195 MA's), (Start: 97 @46235 has 5 MA's), (Start: 104 @46184 has 1 MA's), (105, 46175), (111, 46127), (135, 46004), (141, 45962), (173, 45776),

Gene: Adzzy\_80 Start: 45187, Stop: 44639, Start Num: 72

Candidate Starts for Adzzy\_80:

(Start: 67 @45199 has 32 MA's), (Start: 72 @45187 has 173 MA's), (Start: 104 @45070 has 1 MA's), (105, 45061), (111, 45013), (115, 44995), (129, 44911), (135, 44887), (141, 44845), (144, 44827), (150, 44785), (166, 44683),

Gene: Aeneas\_80 Start: 48566, Stop: 48054, Start Num: 84

Candidate Starts for Aeneas\_80:

(24, 48740), (34, 48707), (Start: 62 @48623 has 2 MA's), (Start: 84 @48566 has 195 MA's), (Start: 97 @48524 has 5 MA's), (Start: 104 @48473 has 1 MA's), (105, 48464), (111, 48416), (135, 48293), (141, 48251), (163, 48107), (173, 48065),

Gene: Agaliana\_73 Start: 45095, Stop: 44583, Start Num: 84

Candidate Starts for Agaliana\_73:

(24, 45269), (34, 45236), (Start: 62 @45152 has 2 MA's), (Start: 84 @45095 has 195 MA's), (Start: 97 @45053 has 5 MA's), (Start: 104 @45002 has 1 MA's), (105, 44993), (111, 44945), (135, 44822), (141, 44780), (173, 44594),

Gene: Agape74\_77 Start: 45765, Stop: 45190, Start Num: 72

Candidate Starts for Agape74\_77:

(6, 46029), (13, 45981), (16, 45969), (Start: 53 @45807 has 4 MA's), (61, 45795), (Start: 67 @45777 has 32 MA's), (Start: 72 @45765 has 173 MA's), (Start: 104 @45648 has 1 MA's), (105, 45639), (111, 45591), (129, 45489), (145, 45402), (150, 45363), (160, 45300),

Gene: AgentM\_69 Start: 43551, Stop: 43021, Start Num: 74

Candidate Starts for AgentM\_69:

(71, 43557), (Start: 74 @43551 has 37 MA's), (127, 43299), (128, 43296), (129, 43275), (135, 43254), (157, 43101), (159, 43095), (165, 43056),

Gene: Aglet\_80 Start: 45006, Stop: 44497, Start Num: 88

Candidate Starts for Aglet\_80:

(Start: 88 @45006 has 77 MA's), (Start: 97 @44970 has 5 MA's), (Start: 104 @44919 has 1 MA's), (105, 44910), (115, 44844), (123, 44808), (129, 44760), (135, 44739), (144, 44679), (145, 44676), (146, 44673), (150, 44637), (158, 44574), (166, 44529),

Gene: Airmid\_72 Start: 44380, Stop: 43850, Start Num: 74

Candidate Starts for Airmid\_72:

(30, 44512), (38, 44479), (Start: 74 @44380 has 37 MA's), (89, 44350), (117, 44188), (120, 44164), (127, 44128), (129, 44104), (135, 44083), (157, 43930), (159, 43924), (165, 43885),

Gene: Ajay\_72 Start: 45478, Stop: 44966, Start Num: 84

Candidate Starts for Ajay\_72:

(24, 45652), (34, 45619), (51, 45556), (Start: 62 @45535 has 2 MA's), (Start: 84 @45478 has 195 MA's), (Start: 97 @45436 has 5 MA's), (Start: 104 @45385 has 1 MA's), (105, 45376), (111, 45328), (135, 45205), (141, 45163), (173, 44977),

Gene: Akhila\_32 Start: 27185, Stop: 26715, Start Num: 97

Candidate Starts for Akhila\_32:

(Start: 84 @27227 has 195 MA's), (Start: 97 @27185 has 5 MA's), (Start: 104 @27134 has 1 MA's), (105, 27125), (111, 27077), (119, 27035), (135, 26954), (141, 26912), (173, 26726),

Gene: Alatin\_57 Start: 40202, Stop: 39678, Start Num: 77

Candidate Starts for Alatin\_57:

(Start: 77 @40202 has 23 MA's), (96, 40157), (100, 40139), (115, 40025), (123, 39989), (128, 39962), (129, 39941), (135, 39920), (136, 39905), (142, 39875), (143, 39872), (145, 39857), (158, 39761), (160, 39752), (173, 39695),

Gene: Albee\_70 Start: 44171, Stop: 43659, Start Num: 79

Candidate Starts for Albee\_70:

(Start: 79 @44171 has 132 MA's), (Start: 97 @44123 has 5 MA's), (Start: 104 @44072 has 1 MA's), (115, 43997), (119, 43973), (121, 43967), (123, 43961), (129, 43910), (135, 43889), (145, 43832), (150, 43793), (157, 43739), (166, 43691),

Gene: Alberto7\_71 Start: 44508, Stop: 43996, Start Num: 79

Candidate Starts for Alberto7\_71:

(Start: 79 @44508 has 132 MA's), (Start: 97 @44460 has 5 MA's), (Start: 104 @44409 has 1 MA's), (115, 44334), (119, 44310), (121, 44304), (123, 44298), (129, 44247), (135, 44226), (145, 44169), (150, 44130), (157, 44076), (166, 44028),

Gene: Alice\_41 Start: 14045, Stop: 14557, Start Num: 84

Candidate Starts for Alice\_41:

(21, 13856), (Start: 80 @14033 has 3 MA's), (Start: 84 @14045 has 195 MA's), (Start: 97 @14087 has 5 MA's), (Start: 104 @14138 has 1 MA's), (105, 14147), (111, 14195), (119, 14237), (135, 14318), (141, 14360), (173, 14546),

Gene: Alma\_75 Start: 44677, Stop: 44141, Start Num: 72

Candidate Starts for Alma\_75:

(Start: 67 @44689 has 32 MA's), (Start: 72 @44677 has 173 MA's), (Start: 104 @44581 has 1 MA's), (105, 44572), (106, 44557), (111, 44524), (135, 44401), (136, 44386), (137, 44383), (144, 44341), (145, 44338), (155, 44260), (160, 44230),

Gene: Altman\_78 Start: 47286, Stop: 46774, Start Num: 84

Candidate Starts for Altman\_78:

(24, 47460), (34, 47427), (Start: 62 @47343 has 2 MA's), (Start: 84 @47286 has 195 MA's), (Start: 97 @47244 has 5 MA's), (Start: 104 @47193 has 1 MA's), (105, 47184), (111, 47136), (129, 47034), (135, 47013), (141, 46971), (163, 46827), (173, 46785),

Gene: Alvin\_73 Start: 45755, Stop: 45186, Start Num: 62

Candidate Starts for Alvin\_73:

(24, 45872), (34, 45839), (51, 45776), (Start: 62 @45755 has 2 MA's), (Start: 84 @45698 has 195 MA's), (Start: 97 @45656 has 5 MA's), (Start: 104 @45605 has 1 MA's), (105, 45596), (111, 45548), (135, 45425), (141, 45383), (173, 45197),

Gene: Aminay\_81 Start: 51706, Stop: 52278, Start Num: 72

Candidate Starts for Aminay\_81:

(37, 51604), (Start: 72 @51706 has 173 MA's), (Start: 77 @51715 has 23 MA's), (100, 51769), (105, 51817), (106, 51832), (108, 51844), (119, 51907), (128, 51946), (134, 51985), (143, 52036), (149, 52075), (160, 52147), (177, 52228), (179, 52243), (180, 52246),

Gene: Anaysia\_84 Start: 45925, Stop: 45386, Start Num: 72

Candidate Starts for Anaysia\_84:

(Start: 72 @45925 has 173 MA's), (Start: 97 @45880 has 5 MA's), (Start: 104 @45811 has 1 MA's), (105, 45802), (111, 45754), (129, 45652), (135, 45631), (153, 45493), (157, 45475), (160, 45463), (166, 45427),

Gene: Aneem\_79 Start: 45350, Stop: 44799, Start Num: 72

Candidate Starts for Aneem\_79:

(Start: 56 @45392 has 1 MA's), (Start: 67 @45362 has 32 MA's), (Start: 72 @45350 has 173 MA's), (85, 45323), (Start: 104 @45233 has 1 MA's), (106, 45209), (111, 45176), (129, 45074), (135, 45050), (136, 45035), (141, 45008), (145, 44987), (150, 44948), (166, 44849), (176, 44816),

Gene: Anglerfish\_77 Start: 47609, Stop: 47097, Start Num: 84

Candidate Starts for Anglerfish\_77:

(24, 47783), (34, 47750), (Start: 62 @47666 has 2 MA's), (Start: 84 @47609 has 195 MA's), (Start: 97 @47567 has 5 MA's), (Start: 104 @47516 has 1 MA's), (105, 47507), (111, 47459), (135, 47336), (141, 47294), (173, 47108),

Gene: AngryOrchard\_55 Start: 40257, Stop: 39733, Start Num: 77

Candidate Starts for AngryOrchard\_55:

(Start: 77 @40257 has 23 MA's), (100, 40194), (115, 40080), (123, 40044), (128, 40017), (129, 39996), (135, 39975), (143, 39927), (158, 39816), (160, 39807), (173, 39750),

Gene: AnnaL29\_75 Start: 45761, Stop: 45144, Start Num: 56

Candidate Starts for AnnaL29\_75:

(32, 45839), (Start: 53 @45764 has 4 MA's), (Start: 56 @45761 has 1 MA's), (Start: 67 @45734 has 32 MA's), (Start: 72 @45722 has 173 MA's), (Start: 104 @45605 has 1 MA's), (105, 45596), (108, 45569), (111, 45548), (129, 45446), (132, 45437), (142, 45377), (145, 45359), (150, 45320),

Gene: Annyong\_69 Start: 44216, Stop: 43704, Start Num: 79

Candidate Starts for Annyong\_69:

(Start: 79 @44216 has 132 MA's), (Start: 97 @44168 has 5 MA's), (Start: 104 @44117 has 1 MA's), (115, 44042), (119, 44018), (121, 44012), (123, 44006), (129, 43955), (135, 43934), (145, 43877), (150, 43838), (166, 43736),

Gene: Anon\_80 Start: 45240, Stop: 44707, Start Num: 72

Candidate Starts for Anon\_80:

(Start: 56 @45279 has 1 MA's), (Start: 72 @45240 has 173 MA's), (Start: 97 @45183 has 5 MA's), (103, 45141), (108, 45096), (111, 45075), (115, 45057), (129, 44973), (135, 44952), (141, 44910), (146, 44886), (157, 44796), (160, 44784), (166, 44748), (176, 44715),

Gene: Anselm\_77 Start: 45836, Stop: 45258, Start Num: 72

Candidate Starts for Anselm\_77:

(Start: 53 @45878 has 4 MA's), (61, 45866), (Start: 67 @45848 has 32 MA's), (Start: 72 @45836 has 173 MA's), (Start: 104 @45719 has 1 MA's), (105, 45710), (111, 45662), (129, 45560), (142, 45491), (145, 45473), (149, 45443), (150, 45434), (160, 45371),

Gene: Anthony\_73 Start: 44766, Stop: 44242, Start Num: 75

Candidate Starts for Anthony\_73:

(Start: 75 @44766 has 1 MA's), (Start: 95 @44721 has 1 MA's), (100, 44697), (Start: 104 @44658 has 1 MA's), (116, 44580), (119, 44559), (123, 44547), (129, 44499), (135, 44478), (144, 44418), (145, 44415), (146, 44412), (150, 44376), (160, 44310), (166, 44274),

Gene: Anubis\_82 Start: 44892, Stop: 44383, Start Num: 88

Candidate Starts for Anubis\_82:

(Start: 88 @44892 has 77 MA's), (Start: 97 @44856 has 5 MA's), (Start: 104 @44805 has 1 MA's), (105, 44796), (115, 44730), (123, 44694), (129, 44646), (135, 44625), (144, 44565), (145, 44562), (146, 44559), (150, 44523), (158, 44460), (166, 44415),

Gene: AppleCloud\_55 Start: 39917, Stop: 39393, Start Num: 77

Candidate Starts for AppleCloud\_55:

(Start: 77 @39917 has 23 MA's), (96, 39872), (100, 39854), (115, 39740), (123, 39704), (128, 39677), (129, 39656), (135, 39635), (136, 39620), (142, 39590), (143, 39587), (158, 39476), (160, 39467), (173, 39410),

Gene: Aragog\_69 Start: 43571, Stop: 43041, Start Num: 74

Candidate Starts for Aragog\_69:

(71, 43577), (Start: 74 @43571 has 37 MA's), (127, 43319), (128, 43316), (129, 43295), (135, 43274), (157, 43121), (159, 43115), (165, 43076),

Gene: ArcherNM\_69 Start: 45032, Stop: 44412, Start Num: 53

Candidate Starts for ArcherNM\_69:

(Start: 53 @45032 has 4 MA's), (Start: 67 @45002 has 32 MA's), (Start: 72 @44990 has 173 MA's), (Start: 104 @44873 has 1 MA's), (105, 44864), (111, 44816), (129, 44714), (132, 44705), (142, 44645), (145, 44627), (150, 44588),

Gene: Archetta\_67 Start: 43517, Stop: 42987, Start Num: 74

Candidate Starts for Archetta\_67:

(Start: 74 @43517 has 37 MA's), (120, 43301), (127, 43265), (128, 43262), (129, 43241), (130, 43238), (135, 43220), (157, 43067), (165, 43022),

Gene: Ariel\_194 Start: 94262, Stop: 93750, Start Num: 84

Candidate Starts for Ariel\_194:

(7, 94553), (26, 94424), (45, 94367), (47, 94358), (Start: 74 @94286 has 37 MA's), (Start: 83 @94265 has 2 MA's), (Start: 84 @94262 has 195 MA's), (Start: 97 @94220 has 5 MA's), (Start: 104 @94169 has 1 MA's), (105, 94160), (111, 94112), (119, 94070), (135, 93989), (141, 93947), (173, 93761),

Gene: Arissanae\_74 Start: 45012, Stop: 44470, Start Num: 67

Candidate Starts for Arissanae\_74:

(Start: 67 @45012 has 32 MA's), (Start: 72 @45000 has 173 MA's), (Start: 104 @44904 has 1 MA's), (106, 44880), (111, 44847), (135, 44724), (144, 44664), (145, 44661), (150, 44622), (156, 44580), (157, 44565),

Gene: Arlo\_75 Start: 47001, Stop: 46489, Start Num: 84

Candidate Starts for Arlo\_75:

(24, 47175), (34, 47142), (Start: 62 @47058 has 2 MA's), (Start: 84 @47001 has 195 MA's), (Start: 97 @46959 has 5 MA's), (Start: 104 @46908 has 1 MA's), (105, 46899), (111, 46851), (129, 46749), (135, 46728), (141, 46686), (163, 46542), (173, 46500),

Gene: Artemis2UCLA\_77 Start: 43914, Stop: 43363, Start Num: 58

Candidate Starts for Artemis2UCLA\_77:

(Start: 58 @43914 has 9 MA's), (Start: 67 @43890 has 32 MA's), (Start: 72 @43878 has 173 MA's), (Start: 104 @43791 has 1 MA's), (111, 43734), (129, 43632), (135, 43611), (145, 43548), (150, 43509), (158, 43455), (160, 43446), (175, 43383),

Gene: Arturo\_67 Start: 44298, Stop: 43786, Start Num: 79

Candidate Starts for Arturo\_67:

(Start: 79 @44298 has 132 MA's), (Start: 97 @44250 has 5 MA's), (Start: 104 @44199 has 1 MA's), (115, 44124), (119, 44100), (121, 44094), (123, 44088), (129, 44037), (135, 44016), (145, 43959), (150, 43920), (166, 43818),

Gene: Ashballer\_77 Start: 47054, Stop: 46542, Start Num: 84

Candidate Starts for Ashballer\_77:

(24, 47228), (34, 47195), (Start: 62 @47111 has 2 MA's), (Start: 84 @47054 has 195 MA's), (Start: 97 @47012 has 5 MA's), (Start: 104 @46961 has 1 MA's), (105, 46952), (111, 46904), (135, 46781), (141, 46739), (173, 46553),

Gene: Astraea\_48 Start: 15429, Stop: 15953, Start Num: 80

Candidate Starts for Astraea\_48:

(21, 15252), (Start: 80 @15429 has 3 MA's), (Start: 84 @15441 has 195 MA's), (Start: 97 @15483 has 5 MA's), (Start: 104 @15534 has 1 MA's), (105, 15543), (111, 15591), (119, 15633), (135, 15714), (141, 15756), (173, 15942),

Gene: Astro\_84 Start: 46044, Stop: 45541, Start Num: 88

Candidate Starts for Astro\_84:

(Start: 65 @46083 has 3 MA's), (Start: 88 @46044 has 77 MA's), (Start: 95 @46020 has 1 MA's), (100, 45996), (Start: 104 @45957 has 1 MA's), (114, 45885), (116, 45879), (119, 45858), (123, 45846), (135, 45777), (150, 45675), (163, 45591), (166, 45573), (172, 45561),

Gene: Atkinbua\_81 Start: 47613, Stop: 47101, Start Num: 84

Candidate Starts for Atkinbua\_81:

(24, 47787), (34, 47754), (Start: 62 @47670 has 2 MA's), (Start: 84 @47613 has 195 MA's), (Start: 97 @47571 has 5 MA's), (Start: 104 @47520 has 1 MA's), (105, 47511), (111, 47463), (135, 47340), (141, 47298), (173, 47112),

Gene: AugsMagnumOpus\_82 Start: 44994, Stop: 44485, Start Num: 88

Candidate Starts for AugsMagnumOpus\_82:

(Start: 69 @45030 has 3 MA's), (Start: 88 @44994 has 77 MA's), (Start: 97 @44958 has 5 MA's), (Start: 104 @44907 has 1 MA's), (105, 44898), (115, 44832), (123, 44796), (129, 44748), (135, 44727), (144, 44667), (145, 44664), (146, 44661), (150, 44625), (158, 44562), (166, 44517),

Gene: AvatarAhPeg\_69 Start: 44245, Stop: 43745, Start Num: 86

Candidate Starts for AvatarAhPeg\_69:

(Start: 86 @44245 has 21 MA's), (Start: 104 @44158 has 1 MA's), (106, 44134), (111, 44101), (121, 44053), (123, 44047), (124, 44035), (129, 43996), (135, 43975), (150, 43879), (166, 43777),

Gene: Avle17\_70 Start: 44165, Stop: 43653, Start Num: 79

Candidate Starts for Avle17\_70:

(Start: 79 @44165 has 132 MA's), (Start: 97 @44117 has 5 MA's), (Start: 104 @44066 has 1 MA's), (115, 43991), (119, 43967), (121, 43961), (123, 43955), (129, 43904), (135, 43883), (145, 43826), (150, 43787), (166, 43685),

Gene: BABullseye\_71 Start: 42519, Stop: 42004, Start Num: 72

Candidate Starts for BABullseye\_71:

(Start: 67 @42531 has 32 MA's), (Start: 72 @42519 has 173 MA's), (Start: 104 @42432 has 1 MA's), (105, 42423), (111, 42375), (129, 42273), (135, 42252), (138, 42231), (145, 42189), (150, 42150),

Gene: BPBiebs31\_80 Start: 48113, Stop: 47601, Start Num: 84

Candidate Starts for BPBiebs31\_80:

(16, 48350), (24, 48287), (34, 48254), (Start: 62 @48170 has 2 MA's), (Start: 84 @48113 has 195 MA's), (Start: 97 @48071 has 5 MA's), (Start: 104 @48020 has 1 MA's), (105, 48011), (111, 47963), (135, 47840), (141, 47798), (173, 47612),

Gene: Baby16\_70 Start: 44182, Stop: 43670, Start Num: 79

Candidate Starts for Baby16\_70:

(Start: 79 @44182 has 132 MA's), (Start: 97 @44134 has 5 MA's), (Start: 104 @44083 has 1 MA's), (115, 44008), (119, 43984), (121, 43978), (123, 43972), (129, 43921), (135, 43900), (145, 43843), (150, 43804), (157, 43750), (166, 43702),

Gene: BabyBack\_72 Start: 45412, Stop: 44843, Start Num: 72

Candidate Starts for BabyBack\_72:

(19, 45607), (20, 45586), (22, 45577), (23, 45562), (Start: 67 @45424 has 32 MA's), (Start: 72 @45412 has 173 MA's), (85, 45385), (Start: 104 @45295 has 1 MA's), (111, 45238), (129, 45136), (141, 45070), (145, 45049), (150, 45010), (164, 44905), (171, 44881),

Gene: BabyRay\_74 Start: 44621, Stop: 44109, Start Num: 79

Candidate Starts for BabyRay\_74:

(Start: 73 @44630 has 1 MA's), (Start: 79 @44621 has 132 MA's), (Start: 81 @44615 has 3 MA's), (Start: 104 @44522 has 1 MA's), (115, 44447), (119, 44423), (121, 44417), (124, 44399), (129, 44360), (135, 44339), (150, 44243), (158, 44186), (166, 44141),

Gene: Bachome\_76 Start: 44229, Stop: 43678, Start Num: 72

Candidate Starts for Bachome\_76:

(Start: 56 @44271 has 1 MA's), (Start: 67 @44241 has 32 MA's), (Start: 72 @44229 has 173 MA's), (85, 44202), (Start: 104 @44112 has 1 MA's), (106, 44088), (111, 44055), (129, 43953), (135, 43929), (136, 43914), (141, 43887), (150, 43827), (166, 43728), (176, 43695),

Gene: Backyardigan\_67 Start: 44382, Stop: 43882, Start Num: 86

Candidate Starts for Backyardigan\_67:

(Start: 86 @44382 has 21 MA's), (Start: 104 @44295 has 1 MA's), (106, 44271), (121, 44190), (123, 44184), (124, 44172), (129, 44133), (133, 44118), (135, 44112), (150, 44016), (160, 43950), (166, 43914),

Gene: BaconJack\_77 Start: 48268, Stop: 47756, Start Num: 84

Candidate Starts for BaconJack\_77:

(24, 48442), (34, 48409), (Start: 62 @48325 has 2 MA's), (Start: 84 @48268 has 195 MA's), (Start: 97 @48226 has 5 MA's), (Start: 104 @48175 has 1 MA's), (105, 48166), (111, 48118), (135, 47995), (141, 47953), (173, 47767),

Gene: Bactobuster\_68 Start: 45050, Stop: 44505, Start Num: 72

Candidate Starts for Bactobuster\_68:

(Start: 67 @45062 has 32 MA's), (Start: 72 @45050 has 173 MA's), (Start: 104 @44933 has 1 MA's), (111, 44876), (121, 44828), (129, 44774), (145, 44687), (150, 44648), (166, 44549),

Gene: BadAgartude\_49 Start: 16114, Stop: 16638, Start Num: 80

Candidate Starts for BadAgartude\_49:

(21, 15937), (Start: 80 @16114 has 3 MA's), (Start: 84 @16126 has 195 MA's), (Start: 97 @16168 has 5 MA's), (Start: 104 @16219 has 1 MA's), (105, 16228), (111, 16276), (119, 16318), (135, 16399), (141, 16441), (173, 16627),

Gene: Badger\_68 Start: 44350, Stop: 43850, Start Num: 86

Candidate Starts for Badger\_68:

(Start: 86 @44350 has 21 MA's), (Start: 104 @44263 has 1 MA's), (106, 44239), (121, 44158), (123, 44152), (124, 44140), (129, 44101), (133, 44086), (135, 44080), (150, 43984), (160, 43918), (166, 43882),

Gene: Baehexic\_74 Start: 45162, Stop: 44587, Start Num: 72

Candidate Starts for Baehexic\_74:

(Start: 53 @45204 has 4 MA's), (61, 45192), (Start: 67 @45174 has 32 MA's), (Start: 72 @45162 has 173 MA's), (Start: 104 @45045 has 1 MA's), (105, 45036), (108, 45009), (111, 44988), (129, 44886), (141, 44820), (145, 44799), (150, 44760), (160, 44697),

Gene: BangNhom\_68 Start: 44607, Stop: 44095, Start Num: 79

Candidate Starts for BangNhom\_68:

(Start: 79 @44607 has 132 MA's), (Start: 97 @44559 has 5 MA's), (Start: 104 @44508 has 1 MA's), (115, 44433), (119, 44409), (123, 44397), (129, 44346), (135, 44325), (145, 44268), (166, 44127),

Gene: Barriga\_82 Start: 47008, Stop: 46496, Start Num: 84

Candidate Starts for Barriga\_82:

(27, 47167), (Start: 62 @47065 has 2 MA's), (Start: 84 @47008 has 195 MA's), (Start: 97 @46966 has 5 MA's), (Start: 104 @46915 has 1 MA's), (105, 46906), (111, 46858), (135, 46735), (141, 46693), (173, 46507),

Gene: Bartimeaus\_70 Start: 44173, Stop: 43661, Start Num: 79

Candidate Starts for Bartimeaus\_70:

(Start: 79 @44173 has 132 MA's), (Start: 97 @44125 has 5 MA's), (Start: 104 @44074 has 1 MA's), (115, 43999), (119, 43975), (121, 43969), (123, 43963), (129, 43912), (135, 43891), (145, 43834), (150, 43795), (157, 43741), (166, 43693),

Gene: Batiatus\_38 Start: 31135, Stop: 30623, Start Num: 84

Candidate Starts for Batiatus\_38:

(Start: 60 @31195 has 1 MA's), (Start: 84 @31135 has 195 MA's), (Start: 97 @31093 has 5 MA's), (Start: 104 @31042 has 1 MA's), (105, 31033), (111, 30985), (119, 30943), (135, 30862), (141, 30820), (173, 30634),

Gene: Battleship\_86 Start: 45780, Stop: 45259, Start Num: 72

Candidate Starts for Battleship\_86:

(Start: 72 @45780 has 173 MA's), (Start: 97 @45735 has 5 MA's), (Start: 104 @45684 has 1 MA's), (105, 45675), (111, 45627), (129, 45525), (135, 45504), (153, 45366), (157, 45348), (160, 45336), (166, 45300),

Gene: Beatrix\_72 Start: 46273, Stop: 45761, Start Num: 84

Candidate Starts for Beatrix\_72:

(24, 46447), (34, 46414), (Start: 62 @46330 has 2 MA's), (Start: 84 @46273 has 195 MA's), (Start: 97 @46231 has 5 MA's), (Start: 104 @46180 has 1 MA's), (105, 46171), (111, 46123), (135, 46000), (141, 45958), (173, 45772),

Gene: Beauxregard13\_78 Start: 45009, Stop: 44500, Start Num: 88

Candidate Starts for Beauxregard13\_78:

(Start: 88 @45009 has 77 MA's), (Start: 97 @44973 has 5 MA's), (Start: 104 @44922 has 1 MA's), (105, 44913), (115, 44847), (123, 44811), (129, 44763), (135, 44742), (144, 44682), (145, 44679), (146, 44676), (150, 44640), (158, 44577), (166, 44532),

Gene: Beemo\_77 Start: 44717, Stop: 44181, Start Num: 72

Candidate Starts for Beemo\_77:

(Start: 67 @44729 has 32 MA's), (Start: 72 @44717 has 173 MA's), (Start: 104 @44621 has 1 MA's), (105, 44612), (106, 44597), (111, 44564), (135, 44441), (136, 44426), (137, 44423), (144, 44381), (145, 44378), (155, 44300),

Gene: BeesKnees\_76 Start: 45376, Stop: 44864, Start Num: 84

Candidate Starts for BeesKnees\_76:

(24, 45550), (34, 45517), (Start: 62 @45433 has 2 MA's), (Start: 84 @45376 has 195 MA's), (Start: 97 @45334 has 5 MA's), (Start: 104 @45283 has 1 MA's), (105, 45274), (111, 45226), (135, 45103), (141, 45061), (173, 44875),

Gene: Belenaria\_59 Start: 40065, Stop: 39541, Start Num: 77

Candidate Starts for Belenaria\_59:

(Start: 77 @40065 has 23 MA's), (96, 40020), (100, 40002), (115, 39888), (123, 39852), (128, 39825), (129, 39804), (135, 39783), (136, 39768), (142, 39738), (143, 39735), (158, 39624), (160, 39615), (173, 39558),

Gene: BellusTerra\_71 Start: 44211, Stop: 43699, Start Num: 79

Candidate Starts for BellusTerra\_71:

(Start: 79 @44211 has 132 MA's), (Start: 97 @44163 has 5 MA's), (Start: 104 @44112 has 1 MA's), (115, 44037), (119, 44013), (123, 44001), (129, 43950), (135, 43929), (145, 43872), (157, 43779), (166, 43731),

Gene: Benedict\_73 Start: 44112, Stop: 43582, Start Num: 74



Candidate Starts for Benedict\_73:

(30, 44244), (38, 44211), (40, 44208), (Start: 74 @44112 has 37 MA's), (89, 44082), (117, 43920), (120, 43896), (127, 43860), (129, 43836), (135, 43815), (157, 43662), (159, 43656), (165, 43617),

Gene: BengiVuitton\_75 Start: 45458, Stop: 44883, Start Num: 72

Candidate Starts for BengiVuitton\_75:

(61, 45488), (Start: 67 @45470 has 32 MA's), (Start: 72 @45458 has 173 MA's), (Start: 104 @45341 has 1 MA's), (105, 45332), (108, 45305), (111, 45284), (113, 45278), (129, 45182), (132, 45173), (145, 45095), (150, 45056), (167, 44927), (171, 44918),

Gene: Benvolio\_73 Start: 45053, Stop: 44478, Start Num: 72

Candidate Starts for Benvolio\_73:

(Start: 72 @45053 has 173 MA's), (Start: 95 @44999 has 1 MA's), (Start: 104 @44936 has 1 MA's), (105, 44927), (108, 44900), (111, 44879), (129, 44777), (132, 44768), (145, 44690), (150, 44651), (167, 44522), (171, 44513),

Gene: Bethlehem\_78 Start: 49153, Stop: 48641, Start Num: 84

Candidate Starts for Bethlehem\_78:

(16, 49390), (24, 49327), (34, 49294), (Start: 62 @49210 has 2 MA's), (Start: 84 @49153 has 195 MA's), (Start: 97 @49111 has 5 MA's), (Start: 104 @49060 has 1 MA's), (105, 49051), (111, 49003), (135, 48880), (141, 48838), (173, 48652),

Gene: Bexan\_70 Start: 46047, Stop: 45535, Start Num: 84

Candidate Starts for Bexan\_70:

(24, 46221), (34, 46188), (Start: 62 @46104 has 2 MA's), (Start: 84 @46047 has 195 MA's), (Start: 97 @46005 has 5 MA's), (Start: 104 @45954 has 1 MA's), (105, 45945), (111, 45897), (135, 45774), (141, 45732), (173, 45546),

Gene: BiancaTri92\_74 Start: 45410, Stop: 44838, Start Num: 72

Candidate Starts for BiancaTri92\_74:

(Start: 67 @45422 has 32 MA's), (Start: 72 @45410 has 173 MA's), (85, 45383), (Start: 104 @45293 has 1 MA's), (111, 45236), (118, 45209), (129, 45134), (141, 45068), (145, 45047), (150, 45008), (158, 44954), (166, 44882),

Gene: Big3\_76 Start: 48080, Stop: 47568, Start Num: 84

Candidate Starts for Big3\_76:

(24, 48254), (34, 48221), (Start: 62 @48137 has 2 MA's), (Start: 84 @48080 has 195 MA's), (Start: 97 @48038 has 5 MA's), (Start: 104 @47987 has 1 MA's), (105, 47978), (111, 47930), (135, 47807), (141, 47765), (173, 47579),

Gene: BigMau\_78 Start: 47862, Stop: 47350, Start Num: 84

Candidate Starts for BigMau\_78:

(Start: 62 @47919 has 2 MA's), (Start: 84 @47862 has 195 MA's), (Start: 97 @47820 has 5 MA's), (Start: 104 @47769 has 1 MA's), (105, 47760), (111, 47712), (129, 47610), (135, 47589), (141, 47547), (163, 47403), (173, 47361),

Gene: BigPaolini\_73 Start: 45203, Stop: 44733, Start Num: 97

Candidate Starts for BigPaolini\_73:

(Start: 97 @45203 has 5 MA's), (Start: 104 @45152 has 1 MA's), (105, 45143), (111, 45095), (119, 45053), (135, 44972), (141, 44930), (173, 44744),

Gene: BillKnuckles\_69 Start: 46250, Stop: 45738, Start Num: 84

Candidate Starts for BillKnuckles\_69:

(24, 46424), (34, 46391), (Start: 62 @46307 has 2 MA's), (Start: 84 @46250 has 195 MA's), (Start: 97 @46208 has 5 MA's), (Start: 104 @46157 has 1 MA's), (105, 46148), (111, 46100), (119, 46058), (135, 45977), (141, 45935), (173, 45749),

Gene: Bipolar\_36 Start: 30223, Stop: 29711, Start Num: 84

Candidate Starts for Bipolar\_36:

(41, 30334), (Start: 84 @30223 has 195 MA's), (Start: 97 @30181 has 5 MA's), (Start: 104 @30130 has 1 MA's), (105, 30121), (111, 30073), (119, 30031), (135, 29950), (141, 29908), (173, 29722),

Gene: Blackmoor\_69 Start: 44173, Stop: 43661, Start Num: 79

Candidate Starts for Blackmoor\_69:

(Start: 79 @44173 has 132 MA's), (Start: 97 @44125 has 5 MA's), (Start: 104 @44074 has 1 MA's), (115, 43999), (119, 43975), (121, 43969), (123, 43963), (129, 43912), (135, 43891), (145, 43834), (150, 43795), (157, 43741), (166, 43693),

Gene: BluSpix\_72 Start: 41802, Stop: 41290, Start Num: 84

Candidate Starts for BluSpix\_72:

(24, 41976), (34, 41943), (Start: 62 @41859 has 2 MA's), (Start: 84 @41802 has 195 MA's), (Start: 97 @41760 has 5 MA's), (Start: 104 @41709 has 1 MA's), (105, 41700), (111, 41652), (135, 41529), (141, 41487), (173, 41301),

Gene: Blue\_72 Start: 46154, Stop: 45642, Start Num: 84

Candidate Starts for Blue\_72:

(24, 46328), (34, 46295), (51, 46232), (Start: 62 @46211 has 2 MA's), (Start: 84 @46154 has 195 MA's), (Start: 97 @46112 has 5 MA's), (Start: 104 @46061 has 1 MA's), (105, 46052), (111, 46004), (135, 45881), (141, 45839), (173, 45653),

Gene: Blue7\_79 Start: 44134, Stop: 43583, Start Num: 58

Candidate Starts for Blue7\_79:

(Start: 58 @44134 has 9 MA's), (Start: 67 @44110 has 32 MA's), (Start: 72 @44098 has 173 MA's), (Start: 95 @44074 has 1 MA's), (Start: 104 @44011 has 1 MA's), (111, 43954), (129, 43852), (135, 43831), (145, 43768), (150, 43729), (158, 43675), (160, 43666), (175, 43603),

Gene: BlueBird\_76 Start: 44686, Stop: 44180, Start Num: 81

Candidate Starts for BlueBird\_76:

(Start: 73 @44701 has 1 MA's), (Start: 79 @44692 has 132 MA's), (Start: 81 @44686 has 3 MA's), (Start: 104 @44593 has 1 MA's), (115, 44518), (119, 44494), (121, 44488), (124, 44470), (129, 44431), (133, 44416), (135, 44410), (150, 44314), (158, 44257), (166, 44212),

Gene: Bluefalcon\_65 Start: 43537, Stop: 43007, Start Num: 74

Candidate Starts for Bluefalcon\_65:

(Start: 74 @43537 has 37 MA's), (120, 43321), (127, 43285), (128, 43282), (129, 43261), (130, 43258), (135, 43240), (157, 43087), (165, 43042),

Gene: Bob3\_76 Start: 47130, Stop: 46618, Start Num: 84

Candidate Starts for Bob3\_76:

(24, 47304), (34, 47271), (Start: 62 @47187 has 2 MA's), (Start: 84 @47130 has 195 MA's), (Start: 97 @47088 has 5 MA's), (Start: 104 @47037 has 1 MA's), (105, 47028), (111, 46980), (129, 46878), (135, 46857), (141, 46815), (163, 46671), (173, 46629),

Gene: BobSwaget\_68 Start: 43285, Stop: 42713, Start Num: 72

Candidate Starts for BobSwaget\_68:

(Start: 67 @43297 has 32 MA's), (Start: 72 @43285 has 173 MA's), (85, 43258), (Start: 104 @43168 has 1 MA's), (105, 43159), (106, 43144), (111, 43111), (115, 43093), (122, 43060), (129, 43009), (141, 42943), (150, 42883), (164, 42778), (176, 42733),

Gene: Bobi\_40 Start: 31847, Stop: 31335, Start Num: 84

Candidate Starts for Bobi\_40:

(10, 32105), (17, 32081), (Start: 84 @31847 has 195 MA's), (Start: 97 @31805 has 5 MA's), (Start: 104 @31754 has 1 MA's), (105, 31745), (111, 31697), (119, 31655), (135, 31574), (141, 31532), (173, 31346),

Gene: BogosyJay\_77 Start: 44961, Stop: 44413, Start Num: 67

Candidate Starts for BogosyJay\_77:

(Start: 67 @44961 has 32 MA's), (Start: 72 @44949 has 173 MA's), (100, 44892), (Start: 104 @44853 has 1 MA's), (106, 44829), (111, 44796), (135, 44673), (137, 44655), (144, 44613), (145, 44610), (150, 44571), (158, 44511), (160, 44502),

Gene: Bombitas\_177 Start: 94010, Stop: 93495, Start Num: 83

Candidate Starts for Bombitas\_177:

(7, 94298), (26, 94169), (45, 94112), (47, 94103), (Start: 74 @94031 has 37 MA's), (Start: 83 @94010 has 2 MA's), (Start: 84 @94007 has 195 MA's), (Start: 97 @93965 has 5 MA's), (Start: 104 @93914 has 1 MA's), (105, 93905), (111, 93857), (119, 93815), (135, 93734), (141, 93692), (173, 93506),

Gene: Bombshell\_70 Start: 44168, Stop: 43656, Start Num: 79

Candidate Starts for Bombshell\_70:

(Start: 79 @44168 has 132 MA's), (Start: 97 @44120 has 5 MA's), (Start: 104 @44069 has 1 MA's), (115, 43994), (119, 43970), (121, 43964), (123, 43958), (129, 43907), (135, 43886), (145, 43829), (150, 43790), (166, 43688),

Gene: Bonamassa\_69 Start: 43739, Stop: 43209, Start Num: 74

Candidate Starts for Bonamassa\_69:

(Start: 74 @43739 has 37 MA's), (127, 43487), (128, 43484), (129, 43463), (135, 43442), (159, 43283),

Gene: Bonanza\_59 Start: 40477, Stop: 39953, Start Num: 77

Candidate Starts for Bonanza\_59:

(Start: 77 @40477 has 23 MA's), (96, 40432), (100, 40414), (115, 40300), (123, 40264), (128, 40237), (129, 40216), (135, 40195), (143, 40147), (158, 40036), (160, 40027), (173, 39970),

Gene: Bones\_71 Start: 46436, Stop: 45924, Start Num: 84

Candidate Starts for Bones\_71:

(24, 46610), (34, 46577), (Start: 62 @46493 has 2 MA's), (Start: 84 @46436 has 195 MA's), (Start: 97 @46394 has 5 MA's), (Start: 104 @46343 has 1 MA's), (105, 46334), (111, 46286), (135, 46163), (141, 46121), (173, 45935),

Gene: BreSam8\_79 Start: 44999, Stop: 44490, Start Num: 88

Candidate Starts for BreSam8\_79:

(Start: 69 @45035 has 3 MA's), (Start: 88 @44999 has 77 MA's), (Start: 97 @44963 has 5 MA's), (Start: 104 @44912 has 1 MA's), (105, 44903), (115, 44837), (123, 44801), (129, 44753), (135, 44732), (144, 44672), (145, 44669), (146, 44666), (150, 44630), (158, 44567), (166, 44522),

Gene: Briton15\_78 Start: 47516, Stop: 47004, Start Num: 84

Candidate Starts for Briton15\_78:

(24, 47690), (34, 47657), (Start: 62 @47573 has 2 MA's), (Start: 84 @47516 has 195 MA's), (Start: 97 @47474 has 5 MA's), (Start: 104 @47423 has 1 MA's), (105, 47414), (111, 47366), (135, 47243), (141, 47201), (173, 47015),

Gene: Broseidon\_70 Start: 44174, Stop: 43662, Start Num: 79

Candidate Starts for Broseidon\_70:

(Start: 79 @44174 has 132 MA's), (Start: 97 @44126 has 5 MA's), (Start: 104 @44075 has 1 MA's), (115, 44000), (119, 43976), (121, 43970), (123, 43964), (129, 43913), (135, 43892), (145, 43835), (150, 43796), (166, 43694),

Gene: Bruiser\_69 Start: 44171, Stop: 43659, Start Num: 79

Candidate Starts for Bruiser\_69:

(Start: 79 @44171 has 132 MA's), (Start: 97 @44123 has 5 MA's), (Start: 104 @44072 has 1 MA's), (115, 43997), (119, 43973), (121, 43967), (123, 43961), (129, 43910), (135, 43889), (145, 43832), (150, 43793), (166, 43691),

Gene: Bruns\_78 Start: 46379, Stop: 45867, Start Num: 84

Candidate Starts for Bruns\_78:

(24, 46553), (29, 46535), (34, 46520), (Start: 62 @46436 has 2 MA's), (Start: 84 @46379 has 195 MA's), (Start: 97 @46337 has 5 MA's), (Start: 104 @46286 has 1 MA's), (105, 46277), (111, 46229), (135, 46106), (141, 46064), (173, 45878),

Gene: BubbleTrouble\_69 Start: 44198, Stop: 43686, Start Num: 79

Candidate Starts for BubbleTrouble\_69:

(Start: 79 @44198 has 132 MA's), (Start: 97 @44150 has 5 MA's), (Start: 104 @44099 has 1 MA's), (115, 44024), (119, 44000), (121, 43994), (123, 43988), (129, 43937), (135, 43916), (145, 43859), (150, 43820), (157, 43766), (166, 43718),

Gene: Bud\_73 Start: 43799, Stop: 43236, Start Num: 67

Candidate Starts for Bud\_73:

(Start: 56 @43829 has 1 MA's), (Start: 67 @43799 has 32 MA's), (Start: 72 @43787 has 173 MA's), (85, 43760), (Start: 104 @43670 has 1 MA's), (106, 43646), (111, 43613), (129, 43511), (135, 43487), (136, 43472), (141, 43445), (145, 43424), (150, 43385), (166, 43286), (176, 43253),

Gene: Bugatti\_73 Start: 44692, Stop: 44180, Start Num: 79

Candidate Starts for Bugatti\_73:

(Start: 73 @44701 has 1 MA's), (Start: 79 @44692 has 132 MA's), (Start: 81 @44686 has 3 MA's), (Start: 104 @44593 has 1 MA's), (115, 44518), (119, 44494), (121, 44488), (124, 44470), (129, 44431), (133, 44416), (135, 44410), (150, 44314), (158, 44257), (166, 44212),

Gene: Buggy\_77 Start: 45815, Stop: 45240, Start Num: 72

Candidate Starts for Buggy\_77:

(Start: 53 @45857 has 4 MA's), (61, 45845), (Start: 67 @45827 has 32 MA's), (Start: 72 @45815 has 173 MA's), (Start: 104 @45698 has 1 MA's), (105, 45689), (111, 45641), (129, 45539), (145, 45452), (150, 45413), (160, 45350),

Gene: Bumblebee11\_68 Start: 44352, Stop: 43852, Start Num: 86

Candidate Starts for Bumblebee11\_68:

(Start: 86 @44352 has 21 MA's), (Start: 104 @44265 has 1 MA's), (106, 44241), (121, 44160), (123, 44154), (124, 44142), (129, 44103), (133, 44088), (135, 44082), (150, 43986), (160, 43920), (166, 43884),

Gene: Burger\_68 Start: 44171, Stop: 43659, Start Num: 79

Candidate Starts for Burger\_68:

(Start: 79 @44171 has 132 MA's), (Start: 97 @44123 has 5 MA's), (Start: 104 @44072 has 1 MA's), (115, 43997), (119, 43973), (121, 43967), (123, 43961), (129, 43910), (135, 43889), (145, 43832), (150, 43793), (166, 43691),

Gene: Burton\_76 Start: 48545, Stop: 48030, Start Num: 84

Candidate Starts for Burton\_76:

(24, 48719), (34, 48686), (Start: 62 @48602 has 2 MA's), (Start: 84 @48545 has 195 MA's), (Start: 97 @48503 has 5 MA's), (Start: 104 @48452 has 1 MA's), (105, 48443), (111, 48395), (129, 48293), (135, 48272), (141, 48230), (163, 48086), (173, 48044),

Gene: Buttons\_72 Start: 44646, Stop: 44134, Start Num: 84

Candidate Starts for Buttons\_72:

(24, 44820), (34, 44787), (Start: 62 @44703 has 2 MA's), (Start: 84 @44646 has 195 MA's), (Start: 97 @44604 has 5 MA's), (Start: 104 @44553 has 1 MA's), (105, 44544), (111, 44496), (135, 44373), (141, 44331), (173, 44145),

Gene: Bxb1\_69 Start: 44762, Stop: 44250, Start Num: 84

Candidate Starts for Bxb1\_69:

(24, 44936), (34, 44903), (Start: 62 @44819 has 2 MA's), (Start: 84 @44762 has 195 MA's), (Start: 97 @44720 has 5 MA's), (Start: 104 @44669 has 1 MA's), (105, 44660), (111, 44612), (135, 44489), (141, 44447), (173, 44261),

Gene: Byougenkin\_38 Start: 31250, Stop: 30714, Start Num: 72

Candidate Starts for Byougenkin\_38:

(Start: 72 @31250 has 173 MA's), (Start: 97 @31184 has 5 MA's), (Start: 104 @31133 has 1 MA's), (105, 31124), (111, 31076), (119, 31034), (135, 30953), (141, 30911), (173, 30725),

Gene: CRB1\_77 Start: 46002, Stop: 45430, Start Num: 72

Candidate Starts for CRB1\_77:

(Start: 72 @46002 has 173 MA's), (Start: 104 @45885 has 1 MA's), (105, 45876), (108, 45849), (111, 45828), (129, 45726), (132, 45717), (145, 45639), (150, 45600), (154, 45564), (158, 45546), (167, 45471),

Gene: CactusRose\_78 Start: 47360, Stop: 46848, Start Num: 84

Candidate Starts for CactusRose\_78:

(24, 47534), (29, 47516), (34, 47501), (Start: 62 @47417 has 2 MA's), (Start: 84 @47360 has 195 MA's), (Start: 97 @47318 has 5 MA's), (Start: 104 @47267 has 1 MA's), (105, 47258), (111, 47210), (119, 47168), (135, 47087), (141, 47045), (173, 46859),

Gene: Caelakin\_69 Start: 44171, Stop: 43659, Start Num: 79

Candidate Starts for Caelakin\_69:

(Start: 79 @44171 has 132 MA's), (Start: 97 @44123 has 5 MA's), (Start: 104 @44072 has 1 MA's), (115, 43997), (119, 43973), (121, 43967), (123, 43961), (129, 43910), (135, 43889), (145, 43832), (150, 43793), (166, 43691),

Gene: Camperdownii\_68 Start: 43842, Stop: 43330, Start Num: 79

Candidate Starts for Camperdownii\_68:

(Start: 79 @43842 has 132 MA's), (Start: 97 @43794 has 5 MA's), (Start: 104 @43743 has 1 MA's), (115, 43668), (119, 43644), (123, 43632), (129, 43581), (133, 43566), (135, 43560), (166, 43362),

Gene: Candra\_76 Start: 44214, Stop: 43699, Start Num: 72

Candidate Starts for Candra\_76:

(Start: 67 @44226 has 32 MA's), (Start: 72 @44214 has 173 MA's), (Start: 104 @44127 has 1 MA's), (105, 44118), (111, 44070), (129, 43968), (135, 43947), (138, 43926), (145, 43884), (150, 43845),

Gene: CaptainTrips\_39 Start: 31571, Stop: 31035, Start Num: 72

Candidate Starts for CaptainTrips\_39:

(Start: 72 @31571 has 173 MA's), (Start: 97 @31505 has 5 MA's), (Start: 104 @31454 has 1 MA's), (105, 31445), (111, 31397), (119, 31355), (135, 31274), (141, 31232), (173, 31046),

Gene: Carlyle\_76 Start: 45834, Stop: 45346, Start Num: 84

Candidate Starts for Carlyle\_76:

(24, 46008), (34, 45975), (Start: 62 @45891 has 2 MA's), (Start: 84 @45834 has 195 MA's), (Start: 97 @45792 has 5 MA's), (Start: 104 @45741 has 1 MA's), (105, 45732), (111, 45684), (135, 45561), (141, 45519),

Gene: Catalina\_79 Start: 44771, Stop: 44235, Start Num: 72

Candidate Starts for Catalina\_79:

(Start: 67 @44783 has 32 MA's), (Start: 72 @44771 has 173 MA's), (Start: 104 @44675 has 1 MA's), (105, 44666), (106, 44651), (111, 44618), (135, 44495), (136, 44480), (137, 44477), (144, 44435), (145, 44432), (155, 44354), (166, 44285),

Gene: Centaur\_76 Start: 45368, Stop: 44799, Start Num: 72

Candidate Starts for Centaur\_76:

(Start: 53 @45410 has 4 MA's), (61, 45398), (Start: 67 @45380 has 32 MA's), (Start: 72 @45368 has 173 MA's), (Start: 104 @45251 has 1 MA's), (105, 45242), (108, 45215), (111, 45194), (129, 45092), (141, 45026), (145, 45005), (150, 44966), (160, 44903),

Gene: CentreCat\_70 Start: 44210, Stop: 43698, Start Num: 79

Candidate Starts for CentreCat\_70:

(Start: 79 @44210 has 132 MA's), (Start: 97 @44162 has 5 MA's), (Start: 104 @44111 has 1 MA's), (115, 44036), (119, 44012), (121, 44006), (123, 44000), (129, 43949), (135, 43928), (145, 43871), (157, 43778), (166, 43730),

Gene: Cerulean\_71 Start: 44608, Stop: 44096, Start Num: 79

Candidate Starts for Cerulean\_71:

(Start: 79 @44608 has 132 MA's), (Start: 97 @44560 has 5 MA's), (Start: 104 @44509 has 1 MA's), (115, 44434), (119, 44410), (123, 44398), (129, 44347), (135, 44326), (145, 44269), (166, 44128),

Gene: Chadwick\_73 Start: 43856, Stop: 43326, Start Num: 74

Candidate Starts for Chadwick\_73:

(30, 43988), (38, 43955), (Start: 74 @43856 has 37 MA's), (89, 43826), (117, 43664), (127, 43604), (129, 43580), (135, 43559), (157, 43406), (159, 43400), (165, 43361),

Gene: ChampagnePapi\_72 Start: 44607, Stop: 44095, Start Num: 79

Candidate Starts for ChampagnePapi\_72:

(Start: 79 @44607 has 132 MA's), (Start: 97 @44559 has 5 MA's), (Start: 104 @44508 has 1 MA's), (115, 44433), (119, 44409), (123, 44397), (129, 44346), (135, 44325), (145, 44268), (166, 44127),

Gene: Changeling\_74 Start: 45726, Stop: 45136, Start Num: 67

Candidate Starts for Changeling\_74:

(Start: 67 @45726 has 32 MA's), (Start: 72 @45714 has 173 MA's), (85, 45687), (Start: 104 @45597 has 1 MA's), (105, 45588), (111, 45540), (129, 45438), (132, 45429), (142, 45369), (145, 45351), (150, 45312),

Gene: Chaph\_70 Start: 44182, Stop: 43670, Start Num: 79

Candidate Starts for Chaph\_70:

(Start: 79 @44182 has 132 MA's), (Start: 97 @44134 has 5 MA's), (Start: 104 @44083 has 1 MA's), (115, 44008), (119, 43984), (121, 43978), (123, 43972), (129, 43921), (135, 43900), (145, 43843), (150, 43804), (157, 43750), (166, 43702),

Gene: Chargerpower\_73 Start: 43754, Stop: 43230, Start Num: 72

Candidate Starts for Chargerpower\_73:

(Start: 72 @43754 has 173 MA's), (Start: 104 @43655 has 1 MA's), (106, 43631), (107, 43622), (111, 43598), (115, 43580), (129, 43496), (130, 43493), (135, 43475), (139, 43451), (154, 43337), (157, 43322),

Gene: Charm\_71 Start: 43884, Stop: 43351, Start Num: 72

Candidate Starts for Charm\_71:

(Start: 72 @43884 has 173 MA's), (Start: 104 @43788 has 1 MA's), (106, 43764), (111, 43731), (135, 43608), (136, 43593), (137, 43590), (145, 43545), (154, 43470), (156, 43464), (157, 43449), (158, 43446), (160, 43437),

Gene: Chartreuse\_75 Start: 43525, Stop: 43010, Start Num: 72

Candidate Starts for Chartreuse\_75:

(Start: 67 @43537 has 32 MA's), (Start: 72 @43525 has 173 MA's), (Start: 104 @43438 has 1 MA's), (105, 43429), (111, 43381), (129, 43279), (135, 43258), (138, 43237), (145, 43195), (150, 43156),

Gene: Che12\_80 Start: 45086, Stop: 44538, Start Num: 72

Candidate Starts for Che12\_80:

(Start: 67 @45098 has 32 MA's), (Start: 72 @45086 has 173 MA's), (Start: 79 @45074 has 132 MA's), (Start: 95 @45032 has 1 MA's), (Start: 104 @44969 has 1 MA's), (105, 44960), (111, 44912), (115, 44894), (129, 44810), (135, 44786), (141, 44744), (150, 44684), (163, 44600), (166, 44582),

Gene: ChipMunk\_76 Start: 46976, Stop: 46281, Start Num: 31

Candidate Starts for ChipMunk\_76:

(Start: 31 @46976 has 1 MA's), (Start: 53 @46898 has 4 MA's), (61, 46886), (Start: 67 @46868 has 32 MA's), (Start: 72 @46856 has 173 MA's), (Start: 104 @46739 has 1 MA's), (105, 46730), (111, 46682), (129, 46580), (145, 46493), (150, 46454), (160, 46391), (166, 46328),

Gene: Chupacabra\_68 Start: 44005, Stop: 43499, Start Num: 76

Candidate Starts for Chupacabra\_68:

(Start: 49 @44068 has 1 MA's), (57, 44053), (Start: 76 @44005 has 8 MA's), (Start: 78 @44002 has 10 MA's), (Start: 104 @43909 has 1 MA's), (106, 43885), (111, 43852), (115, 43834), (119, 43810), (129, 43750), (135, 43729), (150, 43633), (153, 43597), (166, 43531), (173, 43510),

Gene: Ciao\_72 Start: 44955, Stop: 44443, Start Num: 84

Candidate Starts for Ciao\_72:

(24, 45129), (34, 45096), (51, 45033), (Start: 62 @45012 has 2 MA's), (Start: 84 @44955 has 195 MA's), (Start: 97 @44913 has 5 MA's), (Start: 104 @44862 has 1 MA's), (105, 44853), (111, 44805), (135, 44682), (141, 44640), (173, 44454),

Gene: Cici\_69 Start: 44367, Stop: 43867, Start Num: 86

Candidate Starts for Cici\_69:

(Start: 86 @44367 has 21 MA's), (Start: 104 @44280 has 1 MA's), (106, 44256), (121, 44175), (123, 44169), (124, 44157), (129, 44118), (133, 44103), (135, 44097), (150, 44001), (160, 43935), (166, 43899),

Gene: Cindaradix\_66 Start: 44070, Stop: 43558, Start Num: 79

Candidate Starts for Cindaradix\_66:

(Start: 79 @44070 has 132 MA's), (Start: 97 @44022 has 5 MA's), (Start: 104 @43971 has 1 MA's), (115, 43896), (119, 43872), (123, 43860), (129, 43809), (135, 43788), (166, 43590),

Gene: Cintron\_70 Start: 44321, Stop: 43809, Start Num: 79

Candidate Starts for Cintron\_70:

(Start: 79 @44321 has 132 MA's), (Start: 97 @44273 has 5 MA's), (Start: 104 @44222 has 1 MA's), (115, 44147), (119, 44123), (123, 44111), (129, 44060), (135, 44039), (150, 43943), (166, 43841),

Gene: Citius\_70 Start: 44192, Stop: 43680, Start Num: 79

Candidate Starts for Citius\_70:

(Start: 79 @44192 has 132 MA's), (Start: 97 @44144 has 5 MA's), (Start: 104 @44093 has 1 MA's), (115, 44018), (119, 43994), (121, 43988), (123, 43982), (129, 43931), (135, 43910), (145, 43853), (150, 43814), (157, 43760), (166, 43712),

Gene: Clarenza\_69 Start: 44168, Stop: 43656, Start Num: 79

Candidate Starts for Clarenza\_69:

(Start: 79 @44168 has 132 MA's), (Start: 97 @44120 has 5 MA's), (Start: 104 @44069 has 1 MA's), (115, 43994), (119, 43970), (121, 43964), (123, 43958), (129, 43907), (135, 43886), (145, 43829), (150, 43790), (166, 43688),

Gene: CloudWang3\_78 Start: 44426, Stop: 43875, Start Num: 58

Candidate Starts for CloudWang3\_78:

(Start: 58 @44426 has 9 MA's), (Start: 67 @44402 has 32 MA's), (Start: 72 @44390 has 173 MA's), (Start: 95 @44366 has 1 MA's), (Start: 104 @44303 has 1 MA's), (111, 44246), (129, 44144), (135, 44123), (145, 44060), (150, 44021), (158, 43967), (160, 43958), (175, 43895),

Gene: Coco12\_38 Start: 31229, Stop: 30693, Start Num: 72

Candidate Starts for Coco12\_38:

(Start: 72 @31229 has 173 MA's), (Start: 97 @31163 has 5 MA's), (Start: 104 @31112 has 1 MA's), (105, 31103), (111, 31055), (119, 31013), (135, 30932), (141, 30890), (173, 30704),

Gene: Cocoaberry\_70 Start: 44172, Stop: 43660, Start Num: 79

Candidate Starts for Cocoaberry\_70:

(Start: 79 @44172 has 132 MA's), (Start: 97 @44124 has 5 MA's), (Start: 104 @44073 has 1 MA's), (115, 43998), (119, 43974), (121, 43968), (123, 43962), (129, 43911), (135, 43890), (145, 43833), (150, 43794), (166, 43692),

Gene: Colbster\_75 Start: 45009, Stop: 44500, Start Num: 88

Candidate Starts for Colbster\_75:

(Start: 88 @45009 has 77 MA's), (Start: 97 @44973 has 5 MA's), (Start: 104 @44922 has 1 MA's), (105, 44913), (115, 44847), (123, 44811), (129, 44763), (135, 44742), (144, 44682), (145, 44679), (146, 44676), (150, 44640), (158, 44577), (166, 44532),

Gene: Colin\_75 Start: 46429, Stop: 45851, Start Num: 72

Candidate Starts for Colin\_75:

(30, 46552), (Start: 53 @46471 has 4 MA's), (Start: 67 @46441 has 32 MA's), (Start: 72 @46429 has 173 MA's), (Start: 104 @46312 has 1 MA's), (111, 46255), (118, 46228), (126, 46186), (129, 46153), (132, 46144), (142, 46084), (145, 46066), (150, 46027), (166, 45901),

Gene: Commander\_68 Start: 44170, Stop: 43658, Start Num: 79

Candidate Starts for Commander\_68:



(Start: 79 @44170 has 132 MA's), (Start: 97 @44122 has 5 MA's), (Start: 104 @44071 has 1 MA's), (115, 43996), (119, 43972), (121, 43966), (123, 43960), (129, 43909), (135, 43888), (150, 43792), (166, 43690),

Gene: Conceptll\_80 Start: 48387, Stop: 47875, Start Num: 84

Candidate Starts for Conceptll\_80:

(24, 48561), (34, 48528), (Start: 62 @48444 has 2 MA's), (Start: 84 @48387 has 195 MA's), (Start: 97 @48345 has 5 MA's), (Start: 104 @48294 has 1 MA's), (105, 48285), (111, 48237), (135, 48114), (141, 48072), (163, 47928), (173, 47886),

Gene: Connomayer\_70 Start: 44171, Stop: 43659, Start Num: 79

Candidate Starts for Connomayer\_70:

(Start: 79 @44171 has 132 MA's), (Start: 97 @44123 has 5 MA's), (Start: 104 @44072 has 1 MA's), (115, 43997), (119, 43973), (121, 43967), (123, 43961), (129, 43910), (135, 43889), (145, 43832), (150, 43793), (166, 43691),

Gene: Conquerage\_75 Start: 44458, Stop: 43910, Start Num: 67

Candidate Starts for Conquerage\_75:

(Start: 67 @44458 has 32 MA's), (Start: 72 @44446 has 173 MA's), (Start: 104 @44350 has 1 MA's), (105, 44341), (106, 44326), (111, 44293), (135, 44170), (136, 44155), (137, 44152), (144, 44110), (145, 44107), (155, 44029), (160, 43999),

Gene: Conspiracy\_70 Start: 43793, Stop: 43263, Start Num: 74

Candidate Starts for Conspiracy\_70:

(71, 43799), (Start: 74 @43793 has 37 MA's), (127, 43541), (128, 43538), (129, 43517), (135, 43496), (157, 43343), (159, 43337), (165, 43298),

Gene: Coog\_66 Start: 43560, Stop: 43030, Start Num: 74

Candidate Starts for Coog\_66:

(Start: 74 @43560 has 37 MA's), (127, 43308), (128, 43305), (129, 43284), (135, 43263), (159, 43104), (165, 43065),

Gene: Cookiedough\_78 Start: 44829, Stop: 44314, Start Num: 72

Candidate Starts for Cookiedough\_78:

(Start: 67 @44841 has 32 MA's), (Start: 72 @44829 has 173 MA's), (Start: 104 @44742 has 1 MA's), (105, 44733), (111, 44685), (129, 44583), (135, 44562), (138, 44541), (145, 44499), (150, 44460),

Gene: Corvo\_77 Start: 48036, Stop: 47524, Start Num: 84

Candidate Starts for Corvo\_77:

(24, 48210), (29, 48192), (34, 48177), (Start: 62 @48093 has 2 MA's), (Start: 84 @48036 has 195 MA's), (Start: 97 @47994 has 5 MA's), (Start: 104 @47943 has 1 MA's), (105, 47934), (111, 47886), (135, 47763), (141, 47721), (173, 47535),

Gene: CosmicSans\_58 Start: 40126, Stop: 39602, Start Num: 77

Candidate Starts for CosmicSans\_58:

(Start: 77 @40126 has 23 MA's), (96, 40081), (100, 40063), (115, 39949), (123, 39913), (128, 39886), (129, 39865), (135, 39844), (136, 39829), (142, 39799), (143, 39796), (145, 39781), (158, 39685), (160, 39676), (173, 39619),

Gene: Courthouse\_190 Start: 94714, Stop: 94199, Start Num: 83

Candidate Starts for Courthouse\_190:

(5, 95044), (7, 95002), (26, 94873), (45, 94816), (47, 94807), (Start: 74 @94735 has 37 MA's), (Start: 83 @94714 has 2 MA's), (Start: 84 @94711 has 195 MA's), (Start: 97 @94669 has 5 MA's), (Start: 104

@94618 has 1 MA's), (105, 94609), (111, 94561), (119, 94519), (135, 94438), (141, 94396), (173, 94210),

Gene: Crucio\_76 Start: 45736, Stop: 45161, Start Num: 72

Candidate Starts for Crucio\_76:

(Start: 53 @45778 has 4 MA's), (61, 45766), (Start: 67 @45748 has 32 MA's), (Start: 72 @45736 has 173 MA's), (Start: 104 @45619 has 1 MA's), (105, 45610), (111, 45562), (129, 45460), (145, 45373), (150, 45334), (160, 45271),

Gene: Cuco\_68 Start: 43420, Stop: 42890, Start Num: 74

Candidate Starts for Cuco\_68:

(71, 43426), (Start: 74 @43420 has 37 MA's), (127, 43168), (128, 43165), (129, 43144), (135, 43123), (159, 42964), (165, 42925),

Gene: Cullens\_79 Start: 45008, Stop: 44499, Start Num: 88

Candidate Starts for Cullens\_79:

(Start: 88 @45008 has 77 MA's), (Start: 97 @44972 has 5 MA's), (Start: 104 @44921 has 1 MA's), (105, 44912), (115, 44846), (123, 44810), (129, 44762), (135, 44741), (144, 44681), (145, 44678), (146, 44675), (150, 44639), (158, 44576), (166, 44531),

Gene: DBQu4n\_78 Start: 45869, Stop: 45312, Start Num: 67

Candidate Starts for DBQu4n\_78:

(Start: 67 @45869 has 32 MA's), (Start: 72 @45857 has 173 MA's), (Start: 104 @45740 has 1 MA's), (105, 45731), (106, 45716), (111, 45683), (129, 45581), (131, 45575), (135, 45557), (140, 45530), (141, 45515), (142, 45512), (144, 45497), (150, 45455), (158, 45401), (163, 45374), (166, 45356),

Gene: DD5\_73 Start: 46562, Stop: 46050, Start Num: 84

Candidate Starts for DD5\_73:

(24, 46736), (34, 46703), (Start: 62 @46619 has 2 MA's), (Start: 84 @46562 has 195 MA's), (Start: 97 @46520 has 5 MA's), (Start: 104 @46469 has 1 MA's), (105, 46460), (111, 46412), (119, 46370), (135, 46289), (141, 46247), (173, 46061),

Gene: DLane\_38 Start: 31116, Stop: 30604, Start Num: 84

Candidate Starts for DLane\_38:

(21, 31305), (Start: 80 @31128 has 3 MA's), (Start: 84 @31116 has 195 MA's), (Start: 97 @31074 has 5 MA's), (Start: 104 @31023 has 1 MA's), (105, 31014), (111, 30966), (119, 30924), (135, 30843), (141, 30801), (173, 30615),

Gene: DaHudson\_78 Start: 45034, Stop: 44489, Start Num: 69

Candidate Starts for DaHudson\_78:

(Start: 69 @45034 has 3 MA's), (Start: 88 @44998 has 77 MA's), (Start: 97 @44962 has 5 MA's), (Start: 104 @44911 has 1 MA's), (105, 44902), (115, 44836), (123, 44800), (129, 44752), (135, 44731), (144, 44671), (145, 44668), (146, 44665), (150, 44629), (158, 44566), (166, 44521),

Gene: DaVinci\_76 Start: 43579, Stop: 43064, Start Num: 72

Candidate Starts for DaVinci\_76:

(Start: 67 @43591 has 32 MA's), (Start: 72 @43579 has 173 MA's), (Start: 104 @43492 has 1 MA's), (105, 43483), (111, 43435), (129, 43333), (135, 43312), (138, 43291), (145, 43249), (150, 43210),

Gene: Daishi\_78 Start: 43873, Stop: 43364, Start Num: 88

Candidate Starts for Daishi\_78:

(Start: 69 @43909 has 3 MA's), (Start: 88 @43873 has 77 MA's), (Start: 97 @43837 has 5 MA's), (Start: 104 @43786 has 1 MA's), (115, 43711), (123, 43675), (129, 43627), (135, 43606), (144,

43546), (145, 43543), (146, 43540), (150, 43504), (158, 43441), (166, 43396),

Gene: Dalmatian\_76 Start: 45555, Stop: 44977, Start Num: 72

Candidate Starts for Dalmatian\_76:

(Start: 53 @45597 has 4 MA's), (61, 45585), (Start: 67 @45567 has 32 MA's), (Start: 72 @45555 has 173 MA's), (Start: 104 @45438 has 1 MA's), (105, 45429), (111, 45381), (129, 45279), (142, 45210), (145, 45192), (149, 45162), (150, 45153), (160, 45090),

Gene: Danforth\_85 Start: 46121, Stop: 45618, Start Num: 88

Candidate Starts for Danforth\_85:

(Start: 65 @46160 has 3 MA's), (Start: 88 @46121 has 77 MA's), (Start: 95 @46097 has 1 MA's), (100, 46073), (Start: 104 @46034 has 1 MA's), (114, 45962), (116, 45956), (119, 45935), (123, 45923), (135, 45854), (150, 45752), (163, 45668), (166, 45650), (172, 45638),

Gene: DarthPhader\_73 Start: 45812, Stop: 45297, Start Num: 72

Candidate Starts for DarthPhader\_73:

(Start: 72 @45812 has 173 MA's), (Start: 104 @45722 has 1 MA's), (105, 45713), (111, 45665), (129, 45563), (135, 45539), (145, 45476), (150, 45437), (160, 45374), (166, 45338), (176, 45305),

Gene: Datway\_69 Start: 44341, Stop: 43841, Start Num: 86

Candidate Starts for Datway\_69:

(Start: 86 @44341 has 21 MA's), (Start: 104 @44254 has 1 MA's), (124, 44131), (129, 44092), (135, 44071), (146, 44011), (150, 43975), (160, 43909), (166, 43873),

Gene: Deano\_67 Start: 44179, Stop: 43667, Start Num: 79

Candidate Starts for Deano\_67:

(Start: 79 @44179 has 132 MA's), (Start: 97 @44131 has 5 MA's), (Start: 104 @44080 has 1 MA's), (115, 44005), (119, 43981), (121, 43975), (123, 43969), (129, 43918), (135, 43897), (145, 43840), (150, 43801), (157, 43747), (166, 43699),

Gene: DekHockey33\_85 Start: 45865, Stop: 45422, Start Num: 72

Candidate Starts for DekHockey33\_85:

(Start: 72 @45865 has 173 MA's), (Start: 97 @45820 has 5 MA's), (Start: 104 @45769 has 1 MA's), (105, 45760), (111, 45712), (129, 45610), (135, 45589), (153, 45451), (157, 45433),

Gene: Deloris\_75 Start: 45154, Stop: 44579, Start Num: 72

Candidate Starts for Deloris\_75:

(61, 45184), (Start: 67 @45166 has 32 MA's), (Start: 72 @45154 has 173 MA's), (Start: 104 @45037 has 1 MA's), (105, 45028), (108, 45001), (111, 44980), (113, 44974), (129, 44878), (132, 44869), (145, 44791), (150, 44752), (167, 44623), (171, 44614),

Gene: Dexes\_76 Start: 48978, Stop: 48466, Start Num: 84

Candidate Starts for Dexes\_76:

(24, 49152), (34, 49119), (Start: 62 @49035 has 2 MA's), (Start: 84 @48978 has 195 MA's), (Start: 97 @48936 has 5 MA's), (Start: 104 @48885 has 1 MA's), (105, 48876), (111, 48828), (135, 48705), (141, 48663), (163, 48519), (173, 48477),

Gene: Dhanush\_70 Start: 44174, Stop: 43662, Start Num: 79

Candidate Starts for Dhanush\_70:

(Start: 79 @44174 has 132 MA's), (Start: 97 @44126 has 5 MA's), (Start: 104 @44075 has 1 MA's), (115, 44000), (119, 43976), (121, 43970), (123, 43964), (129, 43913), (135, 43892), (145, 43835), (150, 43796), (166, 43694),

Gene: Dieselweasel\_79 Start: 45007, Stop: 44498, Start Num: 88

Candidate Starts for Dieselweasel\_79:

(Start: 88 @45007 has 77 MA's), (Start: 97 @44971 has 5 MA's), (Start: 104 @44920 has 1 MA's), (105, 44911), (115, 44845), (123, 44809), (129, 44761), (135, 44740), (144, 44680), (145, 44677), (146, 44674), (150, 44638), (158, 44575), (166, 44530),

Gene: Dignity\_77 Start: 45853, Stop: 45278, Start Num: 72

Candidate Starts for Dignity\_77:

(Start: 53 @45895 has 4 MA's), (61, 45883), (Start: 67 @45865 has 32 MA's), (Start: 72 @45853 has 173 MA's), (Start: 104 @45736 has 1 MA's), (105, 45727), (111, 45679), (129, 45577), (145, 45490), (150, 45451), (160, 45388),

Gene: Dinger\_57 Start: 40270, Stop: 39746, Start Num: 77

Candidate Starts for Dinger\_57:

(Start: 77 @40270 has 23 MA's), (96, 40225), (100, 40207), (115, 40093), (123, 40057), (128, 40030), (129, 40009), (135, 39988), (143, 39940), (158, 39829), (160, 39820), (173, 39763),

Gene: DirtyDunning\_69 Start: 44183, Stop: 43671, Start Num: 79

Candidate Starts for DirtyDunning\_69:

(Start: 79 @44183 has 132 MA's), (Start: 97 @44135 has 5 MA's), (Start: 104 @44084 has 1 MA's), (115, 44009), (119, 43985), (121, 43979), (123, 43973), (129, 43922), (135, 43901), (145, 43844), (150, 43805), (166, 43703),

Gene: Discoknowium\_67 Start: 43310, Stop: 42780, Start Num: 74

Candidate Starts for Discoknowium\_67:

(71, 43316), (Start: 74 @43310 has 37 MA's), (127, 43058), (128, 43055), (129, 43034), (135, 43013), (157, 42860), (159, 42854), (165, 42815),

Gene: Dixon\_83 Start: 45603, Stop: 45100, Start Num: 88

Candidate Starts for Dixon\_83:

(Start: 65 @45642 has 3 MA's), (Start: 88 @45603 has 77 MA's), (Start: 95 @45579 has 1 MA's), (100, 45555), (Start: 104 @45516 has 1 MA's), (114, 45444), (116, 45438), (119, 45417), (123, 45405), (135, 45336), (150, 45234), (163, 45150), (166, 45132), (172, 45120),

Gene: Donkeykong\_39 Start: 31357, Stop: 30821, Start Num: 72

Candidate Starts for Donkeykong\_39:

(Start: 72 @31357 has 173 MA's), (Start: 97 @31291 has 5 MA's), (Start: 104 @31240 has 1 MA's), (105, 31231), (111, 31183), (119, 31141), (135, 31060), (141, 31018), (173, 30832),

Gene: Doom\_68 Start: 45189, Stop: 44677, Start Num: 84

Candidate Starts for Doom\_68:

(24, 45363), (34, 45330), (Start: 62 @45246 has 2 MA's), (Start: 84 @45189 has 195 MA's), (Start: 97 @45147 has 5 MA's), (Start: 104 @45096 has 1 MA's), (105, 45087), (111, 45039), (135, 44916), (141, 44874), (173, 44688),

Gene: Dorothea\_75 Start: 44825, Stop: 44310, Start Num: 72

Candidate Starts for Dorothea\_75:

(Start: 67 @44837 has 32 MA's), (Start: 72 @44825 has 173 MA's), (Start: 104 @44738 has 1 MA's), (105, 44729), (111, 44681), (129, 44579), (135, 44558), (138, 44537), (145, 44495), (150, 44456),

Gene: DrFeelGood\_71 Start: 44565, Stop: 44053, Start Num: 84

Candidate Starts for DrFeelGood\_71:

(24, 44739), (34, 44706), (Start: 62 @44622 has 2 MA's), (Start: 84 @44565 has 195 MA's), (Start: 97 @44523 has 5 MA's), (Start: 104 @44472 has 1 MA's), (105, 44463), (111, 44415), (135, 44292), (141, 44250), (173, 44064),

Gene: Drake55\_77 Start: 45449, Stop: 44874, Start Num: 72

Candidate Starts for Drake55\_77:

(Start: 53 @45491 has 4 MA's), (61, 45479), (Start: 67 @45461 has 32 MA's), (Start: 72 @45449 has 173 MA's), (Start: 104 @45332 has 1 MA's), (105, 45323), (108, 45296), (111, 45275), (129, 45173), (141, 45107), (145, 45086), (150, 45047), (160, 44984),

Gene: Drake94\_68 Start: 43133, Stop: 42630, Start Num: 78

Candidate Starts for Drake94\_68:

(Start: 49 @43199 has 1 MA's), (57, 43184), (Start: 76 @43136 has 8 MA's), (Start: 78 @43133 has 10 MA's), (Start: 104 @43040 has 1 MA's), (111, 42983), (115, 42965), (119, 42941), (129, 42881), (135, 42860), (153, 42728), (166, 42662), (173, 42641),

Gene: DreamCatcher\_79 Start: 47366, Stop: 46854, Start Num: 84

Candidate Starts for DreamCatcher\_79:

(24, 47540), (34, 47507), (Start: 62 @47423 has 2 MA's), (Start: 84 @47366 has 195 MA's), (Start: 97 @47324 has 5 MA's), (Start: 104 @47273 has 1 MA's), (105, 47264), (111, 47216), (135, 47093), (141, 47051), (173, 46865),

Gene: DreamTeam1\_71 Start: 43731, Stop: 43198, Start Num: 72

Candidate Starts for DreamTeam1\_71:

(Start: 72 @43731 has 173 MA's), (Start: 104 @43635 has 1 MA's), (106, 43611), (111, 43578), (135, 43455), (136, 43440), (137, 43437), (145, 43392), (154, 43317), (156, 43311), (157, 43296), (158, 43293), (160, 43284),

Gene: Dreamboat\_75 Start: 44848, Stop: 44336, Start Num: 84

Candidate Starts for Dreamboat\_75:

(24, 45022), (34, 44989), (Start: 62 @44905 has 2 MA's), (Start: 84 @44848 has 195 MA's), (Start: 97 @44806 has 5 MA's), (Start: 104 @44755 has 1 MA's), (105, 44746), (111, 44698), (135, 44575), (141, 44533), (173, 44347),

Gene: DroogsArmy\_69 Start: 47376, Stop: 46870, Start Num: 78

Candidate Starts for DroogsArmy\_69:

(46, 47454), (48, 47445), (Start: 49 @47439 has 1 MA's), (Start: 78 @47376 has 10 MA's), (99, 47328), (116, 47202), (119, 47181), (123, 47169), (129, 47121), (135, 47100), (139, 47076), (145, 47043), (150, 47004), (158, 46947), (160, 46938), (163, 46920), (166, 46902),

Gene: Druantia\_69 Start: 44174, Stop: 43662, Start Num: 79

Candidate Starts for Druantia\_69:

(Start: 79 @44174 has 132 MA's), (Start: 97 @44126 has 5 MA's), (Start: 104 @44075 has 1 MA's), (115, 44000), (119, 43976), (121, 43970), (123, 43964), (129, 43913), (135, 43892), (145, 43835), (150, 43796), (157, 43742), (166, 43694),

Gene: Dublin\_69 Start: 43699, Stop: 43169, Start Num: 74

Candidate Starts for Dublin\_69:

(Start: 74 @43699 has 37 MA's), (127, 43447), (128, 43444), (129, 43423), (135, 43402), (159, 43243), (165, 43204),

Gene: DudeLittle\_74 Start: 45321, Stop: 44743, Start Num: 72

Candidate Starts for DudeLittle\_74:

(Start: 53 @45363 has 4 MA's), (61, 45351), (Start: 67 @45333 has 32 MA's), (Start: 72 @45321 has 173 MA's), (Start: 104 @45204 has 1 MA's), (105, 45195), (111, 45147), (129, 45045), (142, 44976), (145, 44958), (149, 44928), (150, 44919), (160, 44856),

Gene: Dulcie\_76 Start: 48642, Stop: 48130, Start Num: 84

Candidate Starts for Dulcie\_76:

(24, 48816), (34, 48783), (Start: 62 @48699 has 2 MA's), (Start: 84 @48642 has 195 MA's), (Start: 97 @48600 has 5 MA's), (Start: 104 @48549 has 1 MA's), (105, 48540), (111, 48492), (135, 48369), (141, 48327), (173, 48141),

Gene: Duplo\_78 Start: 45914, Stop: 45369, Start Num: 72

Candidate Starts for Duplo\_78:

(Start: 67 @45926 has 32 MA's), (Start: 72 @45914 has 173 MA's), (Start: 104 @45797 has 1 MA's), (105, 45788), (106, 45773), (111, 45740), (129, 45638), (131, 45632), (135, 45614), (140, 45587), (141, 45572), (142, 45569), (144, 45554), (150, 45512), (158, 45458), (163, 45431), (166, 45413),

Gene: Dussy\_74 Start: 46227, Stop: 45715, Start Num: 84

Candidate Starts for Dussy\_74:

(24, 46401), (34, 46368), (Start: 62 @46284 has 2 MA's), (Start: 84 @46227 has 195 MA's), (Start: 97 @46185 has 5 MA's), (Start: 104 @46134 has 1 MA's), (105, 46125), (111, 46077), (135, 45954), (141, 45912), (163, 45768), (173, 45726),

Gene: Dynamix\_75 Start: 45282, Stop: 44770, Start Num: 84

Candidate Starts for Dynamix\_75:

(24, 45456), (34, 45423), (Start: 62 @45339 has 2 MA's), (Start: 84 @45282 has 195 MA's), (Start: 97 @45240 has 5 MA's), (Start: 104 @45189 has 1 MA's), (105, 45180), (111, 45132), (135, 45009), (141, 44967), (173, 44781),

Gene: EZMoney23\_72 Start: 45225, Stop: 44641, Start Num: 72

Candidate Starts for EZMoney23\_72:

(Start: 72 @45225 has 173 MA's), (85, 45198), (Start: 104 @45108 has 1 MA's), (111, 45051), (129, 44949), (132, 44940), (142, 44880), (145, 44862), (150, 44823), (158, 44766), (166, 44694),

Gene: Eagle\_69 Start: 44232, Stop: 43720, Start Num: 79

Candidate Starts for Eagle\_69:

(Start: 79 @44232 has 132 MA's), (Start: 97 @44184 has 5 MA's), (Start: 104 @44133 has 1 MA's), (115, 44058), (119, 44034), (123, 44022), (129, 43971), (135, 43950), (145, 43893), (157, 43800), (166, 43752),

Gene: EagleEye\_81 Start: 45914, Stop: 45372, Start Num: 72

Candidate Starts for EagleEye\_81:

(Start: 67 @45926 has 32 MA's), (Start: 72 @45914 has 173 MA's), (Start: 104 @45809 has 1 MA's), (105, 45800), (111, 45752), (125, 45686), (129, 45650), (135, 45629), (145, 45566), (150, 45527), (163, 45437), (166, 45419),

Gene: Eaglepride\_73 Start: 44100, Stop: 43594, Start Num: 76

Candidate Starts for Eaglepride\_73:

(Start: 49 @44163 has 1 MA's), (57, 44148), (Start: 76 @44100 has 8 MA's), (Start: 78 @44097 has 10 MA's), (Start: 104 @44004 has 1 MA's), (106, 43980), (111, 43947), (115, 43929), (119, 43905), (129, 43845), (135, 43824), (145, 43767), (146, 43764), (158, 43671), (160, 43662), (166, 43626), (173, 43605),

Gene: Eapen\_70 Start: 44166, Stop: 43654, Start Num: 79

Candidate Starts for Eapen\_70:

(Start: 79 @44166 has 132 MA's), (Start: 97 @44118 has 5 MA's), (Start: 104 @44067 has 1 MA's), (115, 43992), (119, 43968), (121, 43962), (123, 43956), (129, 43905), (135, 43884), (145, 43827), (150, 43788), (166, 43686),

Gene: EasyJones\_49 Start: 15112, Stop: 15636, Start Num: 80

Candidate Starts for EasyJones\_49:

(21, 14935), (Start: 80 @15112 has 3 MA's), (Start: 84 @15124 has 195 MA's), (Start: 97 @15166 has 5 MA's), (Start: 104 @15217 has 1 MA's), (105, 15226), (111, 15274), (135, 15397), (141, 15439), (163, 15583), (173, 15625),

Gene: Ebony\_78 Start: 44921, Stop: 44370, Start Num: 72

Candidate Starts for Ebony\_78:

(Start: 56 @44963 has 1 MA's), (Start: 67 @44933 has 32 MA's), (Start: 72 @44921 has 173 MA's), (85, 44894), (Start: 104 @44804 has 1 MA's), (106, 44780), (111, 44747), (129, 44645), (135, 44621), (136, 44606), (141, 44579), (145, 44558), (150, 44519), (166, 44420), (176, 44387),

Gene: Echild\_76 Start: 45077, Stop: 44502, Start Num: 72

Candidate Starts for Echild\_76:

(Start: 72 @45077 has 173 MA's), (Start: 95 @45023 has 1 MA's), (Start: 104 @44960 has 1 MA's), (105, 44951), (108, 44924), (111, 44903), (129, 44801), (132, 44792), (145, 44714), (150, 44675), (167, 44546), (171, 44537),

Gene: Edison31\_67 Start: 43873, Stop: 43367, Start Num: 76

Candidate Starts for Edison31\_67:

(Start: 49 @43936 has 1 MA's), (57, 43921), (Start: 76 @43873 has 8 MA's), (Start: 78 @43870 has 10 MA's), (Start: 104 @43777 has 1 MA's), (106, 43753), (111, 43720), (115, 43702), (119, 43678), (129, 43618), (135, 43597), (145, 43540), (150, 43501), (153, 43465), (166, 43399), (173, 43378),

Gene: Edtherson\_74 Start: 46515, Stop: 45946, Start Num: 62

Candidate Starts for Edtherson\_74:

(24, 46632), (34, 46599), (Start: 62 @46515 has 2 MA's), (Start: 84 @46458 has 195 MA's), (Start: 97 @46416 has 5 MA's), (Start: 104 @46365 has 1 MA's), (105, 46356), (111, 46308), (129, 46206), (135, 46185), (141, 46143), (163, 45999), (173, 45957),

Gene: Eidsmoe\_75 Start: 44450, Stop: 43902, Start Num: 67

Candidate Starts for Eidsmoe\_75:

(Start: 67 @44450 has 32 MA's), (Start: 72 @44438 has 173 MA's), (Start: 104 @44342 has 1 MA's), (105, 44333), (106, 44318), (111, 44285), (135, 44162), (136, 44147), (137, 44144), (144, 44102), (145, 44099), (155, 44021), (160, 43991),

Gene: EITiger69\_75 Start: 44783, Stop: 44253, Start Num: 74

Candidate Starts for EITiger69\_75:

(30, 44915), (38, 44882), (40, 44879), (Start: 74 @44783 has 37 MA's), (89, 44753), (117, 44591), (120, 44567), (127, 44531), (129, 44507), (135, 44486), (157, 44333), (159, 44327), (165, 44288),

Gene: Elephantoon\_77 Start: 44590, Stop: 44063, Start Num: 72

Candidate Starts for Elephantoon\_77:

(52, 44635), (Start: 67 @44602 has 32 MA's), (Start: 72 @44590 has 173 MA's), (Start: 104 @44494 has 1 MA's), (106, 44470), (111, 44437), (115, 44419), (135, 44314), (137, 44296), (144, 44254), (145, 44251), (150, 44212), (155, 44173), (156, 44170), (158, 44152),

Gene: Emma\_41 Start: 31756, Stop: 31244, Start Num: 84

Candidate Starts for Emma\_41:

(Start: 58 @31810 has 9 MA's), (Start: 84 @31756 has 195 MA's), (Start: 97 @31714 has 5 MA's), (Start: 104 @31663 has 1 MA's), (105, 31654), (111, 31606), (119, 31564), (135, 31483), (141, 31441), (173, 31255),

Gene: EmyBug\_74 Start: 44440, Stop: 43904, Start Num: 72

Candidate Starts for EmyBug\_74:

(Start: 67 @44452 has 32 MA's), (Start: 72 @44440 has 173 MA's), (Start: 104 @44344 has 1 MA's), (105, 44335), (106, 44320), (111, 44287), (135, 44164), (136, 44149), (137, 44146), (144, 44104), (145, 44101), (155, 44023), (160, 43993),

Gene: EpicPhail\_80 Start: 45009, Stop: 44500, Start Num: 88

Candidate Starts for EpicPhail\_80:

(Start: 88 @45009 has 77 MA's), (Start: 97 @44973 has 5 MA's), (Start: 104 @44922 has 1 MA's), (105, 44913), (115, 44847), (123, 44811), (129, 44763), (135, 44742), (144, 44682), (145, 44679), (146, 44676), (150, 44640), (158, 44577), (166, 44532),

Gene: Epsocamisio\_81 Start: 45155, Stop: 44634, Start Num: 72

Candidate Starts for Epsocamisio\_81:

(Start: 72 @45155 has 173 MA's), (Start: 97 @45110 has 5 MA's), (Start: 104 @45059 has 1 MA's), (105, 45050), (111, 45002), (129, 44900), (135, 44879), (153, 44741), (157, 44723), (160, 44711), (166, 44675),

Gene: Equemioh13\_75 Start: 45271, Stop: 44696, Start Num: 72

Candidate Starts for Equemioh13\_75:

(9, 45496), (15, 45475), (25, 45406), (Start: 53 @45313 has 4 MA's), (61, 45301), (Start: 67 @45283 has 32 MA's), (Start: 72 @45271 has 173 MA's), (Start: 104 @45154 has 1 MA's), (105, 45145), (108, 45118), (111, 45097), (129, 44995), (141, 44929), (145, 44908), (150, 44869), (160, 44806),

Gene: EricB\_77 Start: 44171, Stop: 43656, Start Num: 72

Candidate Starts for EricB\_77:

(Start: 67 @44183 has 32 MA's), (Start: 72 @44171 has 173 MA's), (Start: 104 @44084 has 1 MA's), (105, 44075), (111, 44027), (129, 43925), (135, 43904), (138, 43883), (145, 43841), (150, 43802),

Gene: Eris\_69 Start: 44183, Stop: 43671, Start Num: 79

Candidate Starts for Eris\_69:

(Start: 79 @44183 has 132 MA's), (Start: 97 @44135 has 5 MA's), (Start: 104 @44084 has 1 MA's), (115, 44009), (119, 43985), (121, 43979), (123, 43973), (129, 43922), (135, 43901), (145, 43844), (150, 43805), (166, 43703),

Gene: Eros\_70 Start: 44173, Stop: 43661, Start Num: 79

Candidate Starts for Eros\_70:

(Start: 79 @44173 has 132 MA's), (Start: 97 @44125 has 5 MA's), (Start: 104 @44074 has 1 MA's), (115, 43999), (119, 43975), (121, 43969), (123, 43963), (129, 43912), (135, 43891), (145, 43834), (150, 43795), (157, 43741), (166, 43693),

Gene: Espica\_59 Start: 40065, Stop: 39541, Start Num: 77

Candidate Starts for Espica\_59:

(Start: 77 @40065 has 23 MA's), (96, 40020), (100, 40002), (115, 39888), (123, 39852), (128, 39825), (129, 39804), (135, 39783), (136, 39768), (142, 39738), (143, 39735), (158, 39624), (160, 39615), (173, 39558),

Gene: Espresso\_69 Start: 45130, Stop: 44618, Start Num: 84



Candidate Starts for Espresso\_69:

(24, 45304), (34, 45271), (Start: 62 @45187 has 2 MA's), (Start: 84 @45130 has 195 MA's), (Start: 97 @45088 has 5 MA's), (Start: 104 @45037 has 1 MA's), (105, 45028), (111, 44980), (135, 44857), (141, 44815), (173, 44629),

Gene: Et2Brutus\_77 Start: 44884, Stop: 44333, Start Num: 72

Candidate Starts for Et2Brutus\_77:

(Start: 56 @44926 has 1 MA's), (Start: 67 @44896 has 32 MA's), (Start: 72 @44884 has 173 MA's), (85, 44857), (Start: 104 @44767 has 1 MA's), (106, 44743), (111, 44710), (129, 44608), (135, 44584), (136, 44569), (141, 44542), (145, 44521), (150, 44482), (166, 44383), (176, 44350),

Gene: Euphoria\_76 Start: 47047, Stop: 46535, Start Num: 84

Candidate Starts for Euphoria\_76:

(24, 47221), (34, 47188), (Start: 62 @47104 has 2 MA's), (Start: 84 @47047 has 195 MA's), (Start: 97 @47005 has 5 MA's), (Start: 104 @46954 has 1 MA's), (105, 46945), (111, 46897), (135, 46774), (141, 46732), (173, 46546),

Gene: Eurydice\_71 Start: 44207, Stop: 43695, Start Num: 79

Candidate Starts for Eurydice\_71:

(Start: 79 @44207 has 132 MA's), (Start: 97 @44159 has 5 MA's), (Start: 104 @44108 has 1 MA's), (115, 44033), (119, 44009), (123, 43997), (129, 43946), (135, 43925), (145, 43868), (157, 43775), (166, 43727),

Gene: EvilGenius\_75 Start: 46857, Stop: 46282, Start Num: 72

Candidate Starts for EvilGenius\_75:

(Start: 31 @46977 has 1 MA's), (Start: 53 @46899 has 4 MA's), (61, 46887), (Start: 67 @46869 has 32 MA's), (Start: 72 @46857 has 173 MA's), (Start: 104 @46740 has 1 MA's), (105, 46731), (111, 46683), (129, 46581), (145, 46494), (150, 46455), (154, 46419), (160, 46392), (166, 46329),

Gene: Expelliarmus\_81 Start: 45856, Stop: 45314, Start Num: 65

Candidate Starts for Expelliarmus\_81:

(Start: 65 @45856 has 3 MA's), (Start: 88 @45817 has 77 MA's), (Start: 95 @45793 has 1 MA's), (100, 45769), (Start: 104 @45730 has 1 MA's), (114, 45658), (116, 45652), (119, 45631), (123, 45619), (135, 45550), (150, 45448), (163, 45364), (166, 45346), (172, 45334),

Gene: ExplosioNervosa\_75 Start: 44506, Stop: 43970, Start Num: 72

Candidate Starts for ExplosioNervosa\_75:

(Start: 67 @44518 has 32 MA's), (Start: 72 @44506 has 173 MA's), (Start: 104 @44410 has 1 MA's), (105, 44401), (106, 44386), (111, 44353), (135, 44230), (136, 44215), (137, 44212), (144, 44170), (145, 44167), (155, 44089), (160, 44059),

Gene: Eyeball\_74 Start: 46332, Stop: 45820, Start Num: 84

Candidate Starts for Eyeball\_74:

(24, 46506), (34, 46473), (Start: 62 @46389 has 2 MA's), (Start: 84 @46332 has 195 MA's), (Start: 97 @46290 has 5 MA's), (Start: 104 @46239 has 1 MA's), (105, 46230), (111, 46182), (135, 46059), (141, 46017), (173, 45831),

Gene: Fajezeel\_78 Start: 47568, Stop: 47056, Start Num: 84

Candidate Starts for Fajezeel\_78:

(24, 47742), (34, 47709), (Start: 62 @47625 has 2 MA's), (Start: 84 @47568 has 195 MA's), (Start: 97 @47526 has 5 MA's), (Start: 104 @47475 has 1 MA's), (105, 47466), (111, 47418), (135, 47295), (141, 47253), (173, 47067),

Gene: Fameo\_74 Start: 45363, Stop: 44785, Start Num: 72

Candidate Starts for Fameo\_74:

(Start: 31 @45483 has 1 MA's), (Start: 53 @45405 has 4 MA's), (61, 45393), (Start: 67 @45375 has 32 MA's), (Start: 72 @45363 has 173 MA's), (Start: 104 @45246 has 1 MA's), (105, 45237), (111, 45189), (129, 45087), (145, 45000), (149, 44970), (150, 44961), (160, 44898),

Gene: Farber\_79 Start: 44995, Stop: 44486, Start Num: 88

Candidate Starts for Farber\_79:

(Start: 88 @44995 has 77 MA's), (Start: 97 @44959 has 5 MA's), (Start: 104 @44908 has 1 MA's), (105, 44899), (115, 44833), (123, 44797), (129, 44749), (135, 44728), (144, 44668), (145, 44665), (146, 44662), (150, 44626), (158, 44563), (166, 44518),

Gene: Fascinus\_71 Start: 46856, Stop: 46344, Start Num: 84

Candidate Starts for Fascinus\_71:

(24, 47030), (29, 47012), (34, 46997), (Start: 62 @46913 has 2 MA's), (Start: 84 @46856 has 195 MA's), (Start: 97 @46814 has 5 MA's), (Start: 104 @46763 has 1 MA's), (105, 46754), (111, 46706), (119, 46664), (135, 46583), (141, 46541), (173, 46355),

Gene: Fayely\_75 Start: 44407, Stop: 43871, Start Num: 72

Candidate Starts for Fayely\_75:

(Start: 67 @44419 has 32 MA's), (Start: 72 @44407 has 173 MA's), (Start: 104 @44311 has 1 MA's), (105, 44302), (106, 44287), (111, 44254), (135, 44131), (136, 44116), (137, 44113), (144, 44071), (145, 44068), (155, 43990), (160, 43960),

Gene: Fenn\_78 Start: 47387, Stop: 46875, Start Num: 84

Candidate Starts for Fenn\_78:

(24, 47561), (34, 47528), (Start: 62 @47444 has 2 MA's), (Start: 84 @47387 has 195 MA's), (Start: 97 @47345 has 5 MA's), (Start: 104 @47294 has 1 MA's), (105, 47285), (111, 47237), (135, 47114), (141, 47072), (173, 46886),

Gene: Fernando\_79 Start: 45008, Stop: 44499, Start Num: 88

Candidate Starts for Fernando\_79:

(Start: 88 @45008 has 77 MA's), (Start: 97 @44972 has 5 MA's), (Start: 104 @44921 has 1 MA's), (105, 44912), (115, 44846), (123, 44810), (129, 44762), (135, 44741), (144, 44681), (145, 44678), (146, 44675), (150, 44639), (158, 44576), (166, 44531),

Gene: Fibonacci\_77 Start: 44902, Stop: 44339, Start Num: 67

Candidate Starts for Fibonacci\_77:

(Start: 56 @44932 has 1 MA's), (Start: 67 @44902 has 32 MA's), (Start: 72 @44890 has 173 MA's), (85, 44863), (Start: 104 @44773 has 1 MA's), (106, 44749), (111, 44716), (129, 44614), (135, 44590), (136, 44575), (141, 44548), (145, 44527), (150, 44488), (166, 44389), (176, 44356),

Gene: FiringLine\_76 Start: 45718, Stop: 45143, Start Num: 72

Candidate Starts for FiringLine\_76:

(Start: 53 @45760 has 4 MA's), (61, 45748), (Start: 67 @45730 has 32 MA's), (Start: 72 @45718 has 173 MA's), (Start: 104 @45601 has 1 MA's), (105, 45592), (111, 45544), (129, 45442), (145, 45355), (150, 45316), (160, 45253),

Gene: First\_0076 Start: 45400, Stop: 44828, Start Num: 72

Candidate Starts for First\_0076:

(Start: 72 @45400 has 173 MA's), (Start: 104 @45283 has 1 MA's), (105, 45274), (108, 45247), (111, 45226), (129, 45124), (132, 45115), (145, 45037), (150, 44998), (158, 44944),

Gene: Flare16\_76 Start: 45412, Stop: 44843, Start Num: 72

Candidate Starts for Flare16\_76:

(Start: 53 @45454 has 4 MA's), (61, 45442), (Start: 67 @45424 has 32 MA's), (Start: 72 @45412 has 173 MA's), (Start: 104 @45295 has 1 MA's), (105, 45286), (108, 45259), (111, 45238), (129, 45136), (141, 45070), (145, 45049), (150, 45010), (160, 44947),

Gene: Flathead\_38 Start: 31750, Stop: 31238, Start Num: 84

Candidate Starts for Flathead\_38:

(Start: 84 @31750 has 195 MA's), (Start: 97 @31708 has 5 MA's), (Start: 104 @31657 has 1 MA's), (105, 31648), (111, 31600), (135, 31477), (141, 31435), (173, 31249),

Gene: Flaverint\_79 Start: 45348, Stop: 44797, Start Num: 72

Candidate Starts for Flaverint\_79:

(Start: 56 @45390 has 1 MA's), (Start: 67 @45360 has 32 MA's), (Start: 72 @45348 has 173 MA's), (85, 45321), (Start: 104 @45231 has 1 MA's), (106, 45207), (111, 45174), (129, 45072), (135, 45048), (136, 45033), (141, 45006), (145, 44985), (150, 44946), (166, 44847), (176, 44814),

Gene: Florean\_70 Start: 44170, Stop: 43658, Start Num: 79

Candidate Starts for Florean\_70:

(Start: 79 @44170 has 132 MA's), (Start: 97 @44122 has 5 MA's), (Start: 104 @44071 has 1 MA's), (115, 43996), (119, 43972), (121, 43966), (123, 43960), (129, 43909), (135, 43888), (145, 43831), (150, 43792), (157, 43738), (166, 43690),

Gene: Flux\_70 Start: 44170, Stop: 43658, Start Num: 79

Candidate Starts for Flux\_70:

(Start: 79 @44170 has 132 MA's), (Start: 97 @44122 has 5 MA's), (Start: 104 @44071 has 1 MA's), (115, 43996), (119, 43972), (121, 43966), (123, 43960), (129, 43909), (135, 43888), (145, 43831), (150, 43792), (166, 43690),

Gene: ForGetIt\_70 Start: 43818, Stop: 43288, Start Num: 74

Candidate Starts for ForGetIt\_70:

(71, 43824), (Start: 74 @43818 has 37 MA's), (127, 43566), (128, 43563), (129, 43542), (135, 43521), (157, 43368), (159, 43362), (165, 43323),

Gene: Forsytheast\_77 Start: 47070, Stop: 46555, Start Num: 84

Candidate Starts for Forsytheast\_77:

(24, 47244), (34, 47211), (Start: 62 @47127 has 2 MA's), (Start: 84 @47070 has 195 MA's), (Start: 97 @47028 has 5 MA's), (Start: 104 @46977 has 1 MA's), (105, 46968), (111, 46920), (129, 46818), (135, 46797), (141, 46755), (163, 46611), (173, 46569),

Gene: Francis47\_77 Start: 48939, Stop: 48427, Start Num: 84

Candidate Starts for Francis47\_77:

(24, 49113), (34, 49080), (Start: 62 @48996 has 2 MA's), (Start: 84 @48939 has 195 MA's), (Start: 97 @48897 has 5 MA's), (Start: 104 @48846 has 1 MA's), (105, 48837), (111, 48789), (135, 48666), (141, 48624), (173, 48438),

Gene: Fred313\_71 Start: 44311, Stop: 43799, Start Num: 79

Candidate Starts for Fred313\_71:

(Start: 56 @44365 has 1 MA's), (Start: 79 @44311 has 132 MA's), (Start: 81 @44305 has 3 MA's), (Start: 104 @44212 has 1 MA's), (115, 44137), (116, 44134), (119, 44113), (124, 44089), (129, 44050), (133, 44035), (135, 44029), (150, 43933), (158, 43876), (166, 43831),

Gene: Fruitloop\_37 Start: 31358, Stop: 30786, Start Num: 60

Candidate Starts for Fruitloop\_37:

(Start: 60 @31358 has 1 MA's), (Start: 84 @31298 has 195 MA's), (Start: 97 @31256 has 5 MA's), (Start: 104 @31205 has 1 MA's), (105, 31196), (111, 31148), (119, 31106), (135, 31025), (141, 30983), (173, 30797),

Gene: Funston\_69 Start: 44168, Stop: 43656, Start Num: 79

Candidate Starts for Funston\_69:

(Start: 79 @44168 has 132 MA's), (Start: 97 @44120 has 5 MA's), (Start: 104 @44069 has 1 MA's), (115, 43994), (119, 43970), (121, 43964), (123, 43958), (129, 43907), (135, 43886), (145, 43829), (150, 43790), (166, 43688),

Gene: Fushigi\_69 Start: 43388, Stop: 42876, Start Num: 84

Candidate Starts for Fushigi\_69:

(24, 43562), (34, 43529), (Start: 62 @43445 has 2 MA's), (Start: 84 @43388 has 195 MA's), (Start: 97 @43346 has 5 MA's), (Start: 104 @43295 has 1 MA's), (105, 43286), (111, 43238), (135, 43115), (141, 43073), (173, 42887),

Gene: Gadost\_70 Start: 44172, Stop: 43660, Start Num: 79

Candidate Starts for Gadost\_70:

(Start: 79 @44172 has 132 MA's), (Start: 97 @44124 has 5 MA's), (Start: 104 @44073 has 1 MA's), (115, 43998), (119, 43974), (121, 43968), (123, 43962), (129, 43911), (135, 43890), (145, 43833), (150, 43794), (166, 43692),

Gene: GageAP\_78 Start: 48292, Stop: 47780, Start Num: 84

Candidate Starts for GageAP\_78:

(24, 48466), (34, 48433), (Start: 62 @48349 has 2 MA's), (Start: 84 @48292 has 195 MA's), (Start: 97 @48250 has 5 MA's), (Start: 104 @48199 has 1 MA's), (105, 48190), (111, 48142), (135, 48019), (141, 47977), (173, 47791),

Gene: Gail\_77 Start: 45694, Stop: 45167, Start Num: 72

Candidate Starts for Gail\_77:

(Start: 67 @45706 has 32 MA's), (Start: 72 @45694 has 173 MA's), (Start: 104 @45592 has 1 MA's), (106, 45568), (107, 45559), (111, 45535), (115, 45517), (129, 45433), (130, 45430), (135, 45412), (139, 45388), (144, 45352), (152, 45286), (154, 45274), (163, 45229), (166, 45211),

Gene: Galactic\_41 Start: 32019, Stop: 31483, Start Num: 72

Candidate Starts for Galactic\_41:

(Start: 72 @32019 has 173 MA's), (Start: 97 @31953 has 5 MA's), (Start: 104 @31902 has 1 MA's), (105, 31893), (111, 31845), (119, 31803), (135, 31722), (141, 31680), (173, 31494),

Gene: Gandalf20\_74 Start: 46415, Stop: 45903, Start Num: 84

Candidate Starts for Gandalf20\_74:

(24, 46589), (34, 46556), (Start: 62 @46472 has 2 MA's), (Start: 84 @46415 has 195 MA's), (Start: 97 @46373 has 5 MA's), (Start: 104 @46322 has 1 MA's), (105, 46313), (111, 46265), (135, 46142), (141, 46100), (173, 45914),

Gene: Garak\_79 Start: 44341, Stop: 43826, Start Num: 72

Candidate Starts for Garak\_79:

(Start: 58 @44377 has 9 MA's), (Start: 67 @44353 has 32 MA's), (Start: 72 @44341 has 173 MA's), (Start: 95 @44317 has 1 MA's), (Start: 104 @44254 has 1 MA's), (111, 44197), (129, 44095), (135, 44074), (145, 44011), (150, 43972), (158, 43918), (160, 43909), (175, 43846),

Gene: GaugeLDP\_71 Start: 44968, Stop: 44396, Start Num: 72

Candidate Starts for GaugeLDP\_71:

(Start: 67 @44980 has 32 MA's), (Start: 72 @44968 has 173 MA's), (85, 44941), (Start: 97 @44902 has 5 MA's), (Start: 104 @44851 has 1 MA's), (111, 44794), (129, 44692), (141, 44626), (145, 44605), (150, 44566), (152, 44542), (162, 44470), (176, 44416),

Gene: Gemma\_76 Start: 44815, Stop: 44306, Start Num: 88

Candidate Starts for Gemma\_76:

(Start: 88 @44815 has 77 MA's), (Start: 97 @44779 has 5 MA's), (Start: 104 @44728 has 1 MA's), (105, 44719), (115, 44653), (123, 44617), (129, 44569), (135, 44548), (144, 44488), (145, 44485), (150, 44446), (158, 44383), (166, 44338),

Gene: George\_65 Start: 43483, Stop: 42953, Start Num: 74

Candidate Starts for George\_65:

(71, 43489), (Start: 74 @43483 has 37 MA's), (127, 43231), (128, 43228), (129, 43207), (135, 43186), (159, 43027), (165, 42988),

Gene: Georgie2\_77 Start: 45763, Stop: 45188, Start Num: 72

Candidate Starts for Georgie2\_77:

(Start: 53 @45805 has 4 MA's), (61, 45793), (Start: 67 @45775 has 32 MA's), (Start: 72 @45763 has 173 MA's), (Start: 104 @45646 has 1 MA's), (105, 45637), (111, 45589), (129, 45487), (145, 45400), (150, 45361), (160, 45298),

Gene: Ghoulboy\_69 Start: 43791, Stop: 43261, Start Num: 74

Candidate Starts for Ghoulboy\_69:

(Start: 74 @43791 has 37 MA's), (120, 43575), (127, 43539), (128, 43536), (129, 43515), (130, 43512), (135, 43494), (157, 43341), (165, 43296),

Gene: Gilberta\_75 Start: 44224, Stop: 43673, Start Num: 72

Candidate Starts for Gilberta\_75:

(Start: 56 @44266 has 1 MA's), (Start: 67 @44236 has 32 MA's), (Start: 72 @44224 has 173 MA's), (85, 44197), (Start: 104 @44107 has 1 MA's), (106, 44083), (111, 44050), (129, 43948), (135, 43924), (136, 43909), (141, 43882), (145, 43861), (150, 43822), (166, 43723), (176, 43690),

Gene: GingkoMaracino\_79 Start: 44891, Stop: 44382, Start Num: 88

Candidate Starts for GingkoMaracino\_79:

(Start: 88 @44891 has 77 MA's), (Start: 97 @44855 has 5 MA's), (Start: 104 @44804 has 1 MA's), (105, 44795), (115, 44729), (123, 44693), (129, 44645), (135, 44624), (144, 44564), (145, 44561), (146, 44558), (150, 44522), (158, 44459), (166, 44414),

Gene: Giroux\_72 Start: 44691, Stop: 44179, Start Num: 79

Candidate Starts for Giroux\_72:

(Start: 73 @44700 has 1 MA's), (Start: 79 @44691 has 132 MA's), (Start: 81 @44685 has 3 MA's), (Start: 104 @44592 has 1 MA's), (115, 44517), (119, 44493), (121, 44487), (124, 44469), (129, 44430), (133, 44415), (135, 44409), (150, 44313), (158, 44256), (166, 44211),

Gene: Gladiator\_75 Start: 44280, Stop: 43729, Start Num: 58

Candidate Starts for Gladiator\_75:

(Start: 58 @44280 has 9 MA's), (Start: 67 @44256 has 32 MA's), (Start: 72 @44244 has 173 MA's), (Start: 95 @44220 has 1 MA's), (Start: 104 @44157 has 1 MA's), (111, 44100), (129, 43998), (135, 43977), (145, 43914), (150, 43875), (158, 43821), (160, 43812), (175, 43749),

Gene: Gompeii16\_76 Start: 48939, Stop: 48427, Start Num: 84

Candidate Starts for Gompeii16\_76:

(24, 49113), (34, 49080), (Start: 62 @48996 has 2 MA's), (Start: 84 @48939 has 195 MA's), (Start: 97 @48897 has 5 MA's), (Start: 104 @48846 has 1 MA's), (105, 48837), (111, 48789), (135, 48666), (141, 48624), (173, 48438),

Gene: Goose\_71 Start: 43816, Stop: 43310, Start Num: 76

Candidate Starts for Goose\_71:

(Start: 49 @43879 has 1 MA's), (57, 43864), (Start: 76 @43816 has 8 MA's), (Start: 78 @43813 has 10 MA's), (Start: 104 @43720 has 1 MA's), (106, 43696), (111, 43663), (115, 43645), (119, 43621), (129, 43561), (135, 43540), (153, 43408), (166, 43342), (173, 43321),

Gene: Graduation\_78 Start: 46915, Stop: 46403, Start Num: 84

Candidate Starts for Graduation\_78:

(24, 47089), (34, 47056), (Start: 62 @46972 has 2 MA's), (Start: 84 @46915 has 195 MA's), (Start: 97 @46873 has 5 MA's), (Start: 104 @46822 has 1 MA's), (105, 46813), (111, 46765), (119, 46723), (135, 46642), (141, 46600), (173, 46414),

Gene: GrecoEtereo\_79 Start: 48044, Stop: 47532, Start Num: 84

Candidate Starts for GrecoEtereo\_79:

(24, 48218), (34, 48185), (Start: 62 @48101 has 2 MA's), (Start: 84 @48044 has 195 MA's), (Start: 97 @48002 has 5 MA's), (Start: 104 @47951 has 1 MA's), (105, 47942), (111, 47894), (135, 47771), (141, 47729), (173, 47543),

Gene: GreedyLawyer\_73 Start: 44144, Stop: 43629, Start Num: 72

Candidate Starts for GreedyLawyer\_73:

(Start: 67 @44156 has 32 MA's), (Start: 72 @44144 has 173 MA's), (Start: 104 @44057 has 1 MA's), (105, 44048), (111, 44000), (129, 43898), (135, 43877), (138, 43856), (145, 43814), (150, 43775),

Gene: Greg\_78 Start: 47568, Stop: 47056, Start Num: 84

Candidate Starts for Greg\_78:

(24, 47742), (34, 47709), (Start: 62 @47625 has 2 MA's), (Start: 84 @47568 has 195 MA's), (Start: 97 @47526 has 5 MA's), (Start: 104 @47475 has 1 MA's), (105, 47466), (111, 47418), (135, 47295), (141, 47253), (173, 47067),

Gene: Grif\_77 Start: 45082, Stop: 44573, Start Num: 88

Candidate Starts for Grif\_77:

(Start: 88 @45082 has 77 MA's), (Start: 97 @45046 has 5 MA's), (Start: 104 @44995 has 1 MA's), (105, 44986), (115, 44920), (123, 44884), (129, 44836), (135, 44815), (144, 44755), (145, 44752), (146, 44749), (150, 44713), (158, 44650), (166, 44605),

Gene: Groundhog\_82 Start: 45873, Stop: 45370, Start Num: 88

Candidate Starts for Groundhog\_82:

(Start: 65 @45912 has 3 MA's), (Start: 88 @45873 has 77 MA's), (Start: 95 @45849 has 1 MA's), (100, 45825), (Start: 104 @45786 has 1 MA's), (114, 45714), (116, 45708), (119, 45687), (123, 45675), (135, 45606), (150, 45504), (163, 45420), (166, 45402), (172, 45390),

Gene: Groupthink\_79 Start: 44816, Stop: 44307, Start Num: 88

Candidate Starts for Groupthink\_79:

(Start: 88 @44816 has 77 MA's), (Start: 97 @44780 has 5 MA's), (Start: 104 @44729 has 1 MA's), (105, 44720), (115, 44654), (123, 44618), (129, 44570), (135, 44549), (144, 44489), (145, 44486), (150, 44447), (158, 44384), (166, 44339),

Gene: Grum1\_78 Start: 45008, Stop: 44499, Start Num: 88

Candidate Starts for Grum1\_78:

(Start: 88 @45008 has 77 MA's), (Start: 97 @44972 has 5 MA's), (Start: 104 @44921 has 1 MA's), (105, 44912), (115, 44846), (123, 44810), (129, 44762), (135, 44741), (144, 44681), (145, 44678), (146, 44675), (150, 44639), (158, 44576), (166, 44531),

Gene: Gruunaga\_77 Start: 44235, Stop: 43684, Start Num: 58

Candidate Starts for Gruunaga\_77:

(Start: 58 @44235 has 9 MA's), (Start: 67 @44211 has 32 MA's), (Start: 72 @44199 has 173 MA's), (Start: 95 @44175 has 1 MA's), (Start: 104 @44112 has 1 MA's), (111, 44055), (129, 43953), (135, 43932), (145, 43869), (150, 43830), (158, 43776), (160, 43767), (175, 43704),

Gene: GtownJaz\_79 Start: 45006, Stop: 44497, Start Num: 88

Candidate Starts for GtownJaz\_79:

(Start: 88 @45006 has 77 MA's), (Start: 97 @44970 has 5 MA's), (Start: 104 @44919 has 1 MA's), (105, 44910), (115, 44844), (123, 44808), (129, 44760), (135, 44739), (144, 44679), (145, 44676), (146, 44673), (150, 44637), (158, 44574), (166, 44529),

Gene: Gwendoluna\_78 Start: 47881, Stop: 47369, Start Num: 84

Candidate Starts for Gwendoluna\_78:

(24, 48055), (34, 48022), (Start: 62 @47938 has 2 MA's), (Start: 84 @47881 has 195 MA's), (Start: 97 @47839 has 5 MA's), (Start: 104 @47788 has 1 MA's), (105, 47779), (111, 47731), (135, 47608), (141, 47566), (173, 47380),

Gene: HINdeR\_70 Start: 46802, Stop: 46296, Start Num: 78

Candidate Starts for HINdeR\_70:

(Start: 78 @46802 has 10 MA's), (116, 46628), (123, 46595), (135, 46526), (139, 46502), (145, 46469), (150, 46430), (158, 46373), (166, 46328),

Gene: HamSlice\_66 Start: 44170, Stop: 43658, Start Num: 79

Candidate Starts for HamSlice\_66:

(Start: 79 @44170 has 132 MA's), (Start: 97 @44122 has 5 MA's), (Start: 104 @44071 has 1 MA's), (115, 43996), (119, 43972), (121, 43966), (123, 43960), (129, 43909), (135, 43888), (145, 43831), (150, 43792), (166, 43690),

Gene: Hami1\_65 Start: 41281, Stop: 40769, Start Num: 84

Candidate Starts for Hami1\_65:

(24, 41455), (34, 41422), (51, 41359), (Start: 62 @41338 has 2 MA's), (Start: 84 @41281 has 195 MA's), (Start: 97 @41239 has 5 MA's), (Start: 104 @41188 has 1 MA's), (105, 41179), (111, 41131), (135, 41008), (141, 40966),

Gene: Hammer\_78 Start: 43942, Stop: 43391, Start Num: 58

Candidate Starts for Hammer\_78:

(Start: 58 @43942 has 9 MA's), (Start: 67 @43918 has 32 MA's), (Start: 72 @43906 has 173 MA's), (Start: 95 @43882 has 1 MA's), (Start: 104 @43819 has 1 MA's), (111, 43762), (129, 43660), (135, 43639), (145, 43576), (150, 43537), (158, 43483), (160, 43474), (175, 43411),

Gene: Happiness\_69 Start: 44190, Stop: 43678, Start Num: 79

Candidate Starts for Happiness\_69:

(Start: 79 @44190 has 132 MA's), (Start: 97 @44142 has 5 MA's), (Start: 104 @44091 has 1 MA's), (115, 44016), (119, 43992), (123, 43980), (129, 43929), (135, 43908), (145, 43851), (166, 43710),

Gene: Harlequin\_57 Start: 39912, Stop: 39388, Start Num: 77

Candidate Starts for Harlequin\_57:

(Start: 77 @39912 has 23 MA's), (100, 39849), (115, 39735), (123, 39699), (128, 39672), (129, 39651), (135, 39630), (136, 39615), (144, 39570), (158, 39471), (160, 39462), (173, 39405),

Gene: HarryHoudini\_76 Start: 45446, Stop: 44871, Start Num: 72

Candidate Starts for HarryHoudini\_76:

(Start: 53 @45488 has 4 MA's), (61, 45476), (Start: 67 @45458 has 32 MA's), (Start: 72 @45446 has 173 MA's), (Start: 104 @45329 has 1 MA's), (105, 45320), (108, 45293), (111, 45272), (129, 45170), (141, 45104), (145, 45083), (150, 45044), (160, 44981),

Gene: HarryOW\_76 Start: 48092, Stop: 47580, Start Num: 84

Candidate Starts for HarryOW\_76:

(24, 48266), (34, 48233), (Start: 62 @48149 has 2 MA's), (Start: 84 @48092 has 195 MA's), (Start: 97 @48050 has 5 MA's), (Start: 104 @47999 has 1 MA's), (105, 47990), (111, 47942), (135, 47819), (141, 47777), (173, 47591),

Gene: HashRod\_80 Start: 45033, Stop: 44524, Start Num: 88

Candidate Starts for HashRod\_80:

(Start: 69 @45069 has 3 MA's), (Start: 88 @45033 has 77 MA's), (Start: 97 @44997 has 5 MA's), (Start: 104 @44946 has 1 MA's), (115, 44871), (123, 44835), (129, 44787), (135, 44766), (144, 44706), (145, 44703), (146, 44700), (150, 44664), (158, 44601), (166, 44556),

Gene: HaveUMetTed\_79 Start: 44804, Stop: 44295, Start Num: 88

Candidate Starts for HaveUMetTed\_79:

(Start: 88 @44804 has 77 MA's), (Start: 97 @44768 has 5 MA's), (Start: 104 @44717 has 1 MA's), (105, 44708), (115, 44642), (123, 44606), (129, 44558), (135, 44537), (144, 44477), (145, 44474), (150, 44435), (158, 44372), (166, 44327),

Gene: Heathen\_73 Start: 44400, Stop: 43894, Start Num: 81

Candidate Starts for Heathen\_73:

(Start: 79 @44406 has 132 MA's), (Start: 81 @44400 has 3 MA's), (Start: 104 @44307 has 1 MA's), (115, 44232), (116, 44229), (119, 44208), (124, 44184), (129, 44145), (133, 44130), (135, 44124), (150, 44028), (158, 43971), (166, 43926),

Gene: Heffalump\_73 Start: 45831, Stop: 45253, Start Num: 72

Candidate Starts for Heffalump\_73:

(Start: 31 @45951 has 1 MA's), (Start: 53 @45873 has 4 MA's), (61, 45861), (Start: 67 @45843 has 32 MA's), (Start: 72 @45831 has 173 MA's), (Start: 104 @45714 has 1 MA's), (105, 45705), (111, 45657), (129, 45555), (145, 45468), (149, 45438), (150, 45429), (160, 45366),

Gene: HelDan\_73 Start: 44622, Stop: 44110, Start Num: 79

Candidate Starts for HelDan\_73:

(Start: 56 @44676 has 1 MA's), (Start: 79 @44622 has 132 MA's), (Start: 81 @44616 has 3 MA's), (Start: 104 @44523 has 1 MA's), (115, 44448), (116, 44445), (119, 44424), (124, 44400), (129, 44361), (133, 44346), (135, 44340), (150, 44244), (158, 44187), (166, 44142),

Gene: Heliosoles\_76 Start: 44819, Stop: 44310, Start Num: 88

Candidate Starts for Heliosoles\_76:

(Start: 88 @44819 has 77 MA's), (Start: 97 @44783 has 5 MA's), (Start: 104 @44732 has 1 MA's), (105, 44723), (115, 44657), (123, 44621), (129, 44573), (135, 44552), (144, 44492), (145, 44489), (150, 44450), (158, 44387), (166, 44342),

Gene: Helmet\_79 Start: 44341, Stop: 43826, Start Num: 72

Candidate Starts for Helmet\_79:



(Start: 58 @44377 has 9 MA's), (Start: 67 @44353 has 32 MA's), (Start: 72 @44341 has 173 MA's), (Start: 95 @44317 has 1 MA's), (Start: 104 @44254 has 1 MA's), (111, 44197), (129, 44095), (135, 44074), (145, 44011), (150, 43972), (158, 43918), (160, 43909), (175, 43846),

Gene: Herbertwm\_72 Start: 45070, Stop: 44522, Start Num: 67

Candidate Starts for Herbertwm\_72:

(50, 45109), (57, 45097), (Start: 67 @45070 has 32 MA's), (Start: 72 @45058 has 173 MA's), (Start: 104 @44953 has 1 MA's), (111, 44896), (125, 44830), (129, 44794), (135, 44773), (139, 44749), (142, 44728), (154, 44632), (166, 44569),

Gene: Hercules11\_79 Start: 45017, Stop: 44508, Start Num: 88

Candidate Starts for Hercules11\_79:

(Start: 88 @45017 has 77 MA's), (Start: 97 @44981 has 5 MA's), (Start: 104 @44930 has 1 MA's), (105, 44921), (115, 44855), (123, 44819), (129, 44771), (135, 44750), (144, 44690), (145, 44687), (146, 44684), (150, 44648), (158, 44585), (166, 44540),

Gene: Hermia\_70 Start: 44971, Stop: 44459, Start Num: 84

Candidate Starts for Hermia\_70:

(24, 45145), (34, 45112), (Start: 62 @45028 has 2 MA's), (Start: 84 @44971 has 195 MA's), (Start: 97 @44929 has 5 MA's), (Start: 104 @44878 has 1 MA's), (105, 44869), (111, 44821), (135, 44698), (141, 44656), (173, 44470),

Gene: HermioneGrange\_79 Start: 48356, Stop: 47844, Start Num: 84

Candidate Starts for HermioneGrange\_79:

(Start: 62 @48413 has 2 MA's), (Start: 84 @48356 has 195 MA's), (Start: 97 @48314 has 5 MA's), (Start: 104 @48263 has 1 MA's), (105, 48254), (111, 48206), (129, 48104), (135, 48083), (141, 48041), (163, 47897), (173, 47855),

Gene: Hexamo\_77 Start: 43911, Stop: 43360, Start Num: 58

Candidate Starts for Hexamo\_77:

(Start: 58 @43911 has 9 MA's), (Start: 67 @43887 has 32 MA's), (Start: 72 @43875 has 173 MA's), (Start: 104 @43788 has 1 MA's), (111, 43731), (129, 43629), (135, 43608), (145, 43545), (150, 43506), (158, 43452), (160, 43443), (175, 43380),

Gene: Hiro\_58 Start: 40386, Stop: 39862, Start Num: 77

Candidate Starts for Hiro\_58:

(Start: 77 @40386 has 23 MA's), (96, 40341), (100, 40323), (115, 40209), (123, 40173), (128, 40146), (129, 40125), (135, 40104), (143, 40056), (158, 39945), (160, 39936), (173, 39879),

Gene: Holli\_69 Start: 43961, Stop: 43449, Start Num: 79

Candidate Starts for Holli\_69:

(Start: 79 @43961 has 132 MA's), (Start: 97 @43913 has 5 MA's), (Start: 104 @43862 has 1 MA's), (115, 43787), (119, 43763), (121, 43757), (123, 43751), (129, 43700), (135, 43679), (145, 43622), (150, 43583), (157, 43529), (166, 43481),

Gene: Homines\_63 Start: 41301, Stop: 40789, Start Num: 84

Candidate Starts for Homines\_63:

(24, 41475), (34, 41442), (51, 41379), (Start: 62 @41358 has 2 MA's), (Start: 84 @41301 has 195 MA's), (Start: 97 @41259 has 5 MA's), (Start: 104 @41208 has 1 MA's), (105, 41199), (111, 41151), (135, 41028), (141, 40986), (173, 40800),

Gene: Hookmount\_73 Start: 44647, Stop: 44138, Start Num: 79

Candidate Starts for Hookmount\_73:

(Start: 79 @44647 has 132 MA's), (100, 44590), (Start: 104 @44551 has 1 MA's), (105, 44542), (114, 44479), (115, 44476), (121, 44446), (124, 44428), (129, 44389), (135, 44368), (150, 44272), (158, 44215), (166, 44170),

Gene: Hoot\_73 Start: 42029, Stop: 41514, Start Num: 72

Candidate Starts for Hoot\_73:

(Start: 67 @42041 has 32 MA's), (Start: 72 @42029 has 173 MA's), (Start: 104 @41942 has 1 MA's), (105, 41933), (111, 41885), (129, 41783), (135, 41762), (138, 41741), (145, 41699), (150, 41660),

Gene: Hope4ever\_76 Start: 46572, Stop: 46060, Start Num: 84

Candidate Starts for Hope4ever\_76:

(24, 46746), (34, 46713), (Start: 62 @46629 has 2 MA's), (Start: 84 @46572 has 195 MA's), (Start: 97 @46530 has 5 MA's), (Start: 104 @46479 has 1 MA's), (105, 46470), (111, 46422), (129, 46320), (135, 46299), (141, 46257), (163, 46113), (173, 46071),

Gene: HortumSL17\_78 Start: 44781, Stop: 44233, Start Num: 67

Candidate Starts for HortumSL17\_78:

(Start: 67 @44781 has 32 MA's), (Start: 72 @44769 has 173 MA's), (Start: 104 @44673 has 1 MA's), (105, 44664), (106, 44649), (111, 44616), (135, 44493), (136, 44478), (137, 44475), (144, 44433), (145, 44430), (155, 44352), (166, 44283),

Gene: Houdini22\_69 Start: 44172, Stop: 43660, Start Num: 79

Candidate Starts for Houdini22\_69:

(Start: 79 @44172 has 132 MA's), (Start: 97 @44124 has 5 MA's), (Start: 104 @44073 has 1 MA's), (115, 43998), (119, 43974), (121, 43968), (123, 43962), (129, 43911), (135, 43890), (145, 43833), (150, 43794), (166, 43692),

Gene: HuhtaEnerson15\_67 Start: 43392, Stop: 42862, Start Num: 74

Candidate Starts for HuhtaEnerson15\_67:

(Start: 74 @43392 has 37 MA's), (127, 43140), (128, 43137), (129, 43116), (135, 43095), (159, 42936), (165, 42897),

Gene: HyRo\_222 Start: 131397, Stop: 131909, Start Num: 84

Candidate Starts for HyRo\_222:

(Start: 62 @131340 has 2 MA's), (Start: 84 @131397 has 195 MA's), (Start: 97 @131439 has 5 MA's), (Start: 104 @131490 has 1 MA's), (105, 131499), (111, 131547), (129, 131649), (135, 131670), (141, 131712), (173, 131898),

Gene: ICleared\_69 Start: 44239, Stop: 43727, Start Num: 79

Candidate Starts for ICleared\_69:

(Start: 79 @44239 has 132 MA's), (Start: 97 @44191 has 5 MA's), (Start: 104 @44140 has 1 MA's), (115, 44065), (119, 44041), (121, 44035), (123, 44029), (129, 43978), (135, 43957), (150, 43861), (166, 43759),

Gene: ILeeKay\_73 Start: 44882, Stop: 44370, Start Num: 84

Candidate Starts for ILeeKay\_73:

(51, 44960), (Start: 62 @44939 has 2 MA's), (Start: 84 @44882 has 195 MA's), (Start: 97 @44840 has 5 MA's), (Start: 104 @44789 has 1 MA's), (105, 44780), (111, 44732), (119, 44690), (135, 44609), (141, 44567), (173, 44381),

Gene: Ibantik\_55 Start: 24380, Stop: 23871, Start Num: 90

Candidate Starts for Ibantik\_55:

(Start: 90 @24380 has 1 MA's), (Start: 95 @24362 has 1 MA's), (99, 24347), (100, 24338), (106, 24275), (109, 24254), (112, 24233), (114, 24221), (147, 24035), (151, 24014), (168, 23909),

Gene: Iceman\_69 Start: 44460, Stop: 43948, Start Num: 79

Candidate Starts for Iceman\_69:

(Start: 79 @44460 has 132 MA's), (Start: 97 @44412 has 5 MA's), (Start: 104 @44361 has 1 MA's), (115, 44286), (119, 44262), (121, 44256), (123, 44250), (129, 44199), (135, 44178), (145, 44121), (150, 44082), (166, 43980),

Gene: Ichabod\_78 Start: 47129, Stop: 46617, Start Num: 84

Candidate Starts for Ichabod\_78:

(24, 47303), (34, 47270), (Start: 62 @47186 has 2 MA's), (Start: 84 @47129 has 195 MA's), (Start: 97 @47087 has 5 MA's), (Start: 104 @47036 has 1 MA's), (105, 47027), (111, 46979), (135, 46856), (141, 46814), (173, 46628),

Gene: Idleandcovert\_74 Start: 44692, Stop: 44180, Start Num: 79

Candidate Starts for Idleandcovert\_74:

(Start: 73 @44701 has 1 MA's), (Start: 79 @44692 has 132 MA's), (Start: 81 @44686 has 3 MA's), (Start: 104 @44593 has 1 MA's), (115, 44518), (119, 44494), (121, 44488), (124, 44470), (129, 44431), (133, 44416), (135, 44410), (150, 44314), (158, 44257), (166, 44212),

Gene: IgnatiusPatJac\_75 Start: 45747, Stop: 45235, Start Num: 84

Candidate Starts for IgnatiusPatJac\_75:

(24, 45921), (34, 45888), (Start: 62 @45804 has 2 MA's), (Start: 84 @45747 has 195 MA's), (Start: 97 @45705 has 5 MA's), (Start: 104 @45654 has 1 MA's), (105, 45645), (111, 45597), (135, 45474), (141, 45432), (173, 45246),

Gene: Indra\_81 Start: 44342, Stop: 43827, Start Num: 72

Candidate Starts for Indra\_81:

(Start: 58 @44378 has 9 MA's), (Start: 67 @44354 has 32 MA's), (Start: 72 @44342 has 173 MA's), (Start: 95 @44318 has 1 MA's), (Start: 104 @44255 has 1 MA's), (111, 44198), (129, 44096), (135, 44075), (145, 44012), (150, 43973), (158, 43919), (160, 43910), (175, 43847),

Gene: Insomnia\_77 Start: 45065, Stop: 44514, Start Num: 72

Candidate Starts for Insomnia\_77:

(Start: 56 @45107 has 1 MA's), (Start: 67 @45077 has 32 MA's), (Start: 72 @45065 has 173 MA's), (85, 45038), (Start: 104 @44948 has 1 MA's), (106, 44924), (111, 44891), (129, 44789), (135, 44765), (136, 44750), (141, 44723), (145, 44702), (150, 44663), (166, 44564), (176, 44531),

Gene: Iracema64\_70 Start: 44435, Stop: 43923, Start Num: 79

Candidate Starts for Iracema64\_70:

(Start: 79 @44435 has 132 MA's), (Start: 97 @44387 has 5 MA's), (Start: 104 @44336 has 1 MA's), (115, 44261), (119, 44237), (121, 44231), (123, 44225), (129, 44174), (135, 44153), (145, 44096), (150, 44057), (166, 43955),

Gene: IronMan\_73 Start: 46531, Stop: 45974, Start Num: 67

Candidate Starts for IronMan\_73:

(Start: 67 @46531 has 32 MA's), (Start: 72 @46519 has 173 MA's), (Start: 104 @46402 has 1 MA's), (111, 46345), (129, 46243), (135, 46219), (150, 46117), (166, 46018),

Gene: Isca\_71 Start: 44174, Stop: 43662, Start Num: 79

Candidate Starts for Isca\_71:

(Start: 73 @44183 has 1 MA's), (Start: 79 @44174 has 132 MA's), (Start: 104 @44075 has 1 MA's), (115, 44000), (121, 43970), (124, 43952), (129, 43913), (135, 43892), (150, 43796), (158, 43739), (166, 43694),

Gene: Isiphiwo\_75 Start: 44195, Stop: 43680, Start Num: 72

Candidate Starts for Isiphiwo\_75:

(Start: 67 @44207 has 32 MA's), (Start: 72 @44195 has 173 MA's), (Start: 104 @44108 has 1 MA's), (105, 44099), (111, 44051), (129, 43949), (135, 43928), (138, 43907), (145, 43865), (150, 43826),

Gene: Iwokeuplikedis\_77 Start: 45892, Stop: 45314, Start Num: 72

Candidate Starts for Iwokeuplikedis\_77:

(Start: 72 @45892 has 173 MA's), (Start: 104 @45775 has 1 MA's), (105, 45766), (110, 45724), (111, 45718), (118, 45691), (129, 45616), (139, 45568), (141, 45550), (145, 45529), (150, 45490), (152, 45466), (160, 45427), (176, 45331),

Gene: JC27\_76 Start: 46157, Stop: 45645, Start Num: 84

Candidate Starts for JC27\_76:

(24, 46331), (34, 46298), (Start: 62 @46214 has 2 MA's), (Start: 84 @46157 has 195 MA's), (Start: 97 @46115 has 5 MA's), (Start: 104 @46064 has 1 MA's), (105, 46055), (111, 46007), (135, 45884), (141, 45842), (173, 45656),

Gene: JHC117\_74 Start: 45003, Stop: 44494, Start Num: 88

Candidate Starts for JHC117\_74:

(Start: 88 @45003 has 77 MA's), (Start: 104 @44916 has 1 MA's), (105, 44907), (115, 44841), (123, 44805), (129, 44757), (135, 44736), (144, 44676), (145, 44673), (146, 44670), (150, 44634), (158, 44571), (166, 44526),

Gene: JSwag\_84 Start: 45440, Stop: 44919, Start Num: 72

Candidate Starts for JSwag\_84:

(Start: 72 @45440 has 173 MA's), (Start: 97 @45395 has 5 MA's), (Start: 104 @45344 has 1 MA's), (105, 45335), (111, 45287), (129, 45185), (135, 45164), (153, 45026), (157, 45008), (160, 44996), (166, 44960),

Gene: Jaan\_74 Start: 46696, Stop: 46139, Start Num: 67

Candidate Starts for Jaan\_74:

(Start: 67 @46696 has 32 MA's), (Start: 72 @46684 has 173 MA's), (85, 46657), (Start: 95 @46630 has 1 MA's), (Start: 104 @46567 has 1 MA's), (105, 46558), (106, 46543), (111, 46510), (129, 46408), (135, 46384), (145, 46321), (150, 46282), (166, 46183),

Gene: Jabiru\_71 Start: 43967, Stop: 43437, Start Num: 74

Candidate Starts for Jabiru\_71:

(30, 44099), (38, 44066), (Start: 74 @43967 has 37 MA's), (89, 43937), (117, 43775), (120, 43751), (127, 43715), (129, 43691), (135, 43670), (157, 43517), (159, 43511), (165, 43472),

Gene: Jabith\_77 Start: 45082, Stop: 44531, Start Num: 72

Candidate Starts for Jabith\_77:

(Start: 56 @45124 has 1 MA's), (Start: 67 @45094 has 32 MA's), (Start: 72 @45082 has 173 MA's), (85, 45055), (Start: 104 @44965 has 1 MA's), (106, 44941), (111, 44908), (129, 44806), (135, 44782), (136, 44767), (141, 44740), (145, 44719), (150, 44680), (166, 44581), (176, 44548),

Gene: JackSparrow\_76 Start: 45982, Stop: 45470, Start Num: 84

Candidate Starts for JackSparrow\_76:

(24, 46156), (34, 46123), (Start: 62 @46039 has 2 MA's), (Start: 84 @45982 has 195 MA's), (Start: 97 @45940 has 5 MA's), (Start: 104 @45889 has 1 MA's), (105, 45880), (111, 45832), (135, 45709), (141, 45667), (173, 45481),

Gene: Jasper\_74 Start: 44734, Stop: 44222, Start Num: 84

Candidate Starts for Jasper\_74:

(16, 44971), (24, 44908), (29, 44890), (34, 44875), (51, 44812), (Start: 62 @44791 has 2 MA's), (Start: 84 @44734 has 195 MA's), (Start: 97 @44692 has 5 MA's), (Start: 104 @44641 has 1 MA's), (105, 44632), (111, 44584), (135, 44461), (141, 44419), (173, 44233),

Gene: Jaykayelowell\_67 Start: 44164, Stop: 43652, Start Num: 79

Candidate Starts for Jaykayelowell\_67:

(Start: 79 @44164 has 132 MA's), (Start: 97 @44116 has 5 MA's), (Start: 104 @44065 has 1 MA's), (115, 43990), (119, 43966), (121, 43960), (123, 43954), (129, 43903), (135, 43882), (145, 43825), (150, 43786), (166, 43684),

Gene: Jeeves\_79 Start: 44610, Stop: 44083, Start Num: 72

Candidate Starts for Jeeves\_79:

(Start: 72 @44610 has 173 MA's), (Start: 104 @44508 has 1 MA's), (106, 44484), (107, 44475), (111, 44451), (115, 44433), (129, 44349), (130, 44346), (135, 44328), (139, 44304), (154, 44190), (163, 44145), (166, 44127),

Gene: JenCasNa\_80 Start: 45008, Stop: 44499, Start Num: 88

Candidate Starts for JenCasNa\_80:

(Start: 88 @45008 has 77 MA's), (Start: 97 @44972 has 5 MA's), (Start: 104 @44921 has 1 MA's), (105, 44912), (115, 44846), (123, 44810), (129, 44762), (135, 44741), (144, 44681), (145, 44678), (146, 44675), (150, 44639), (158, 44576), (166, 44531),

Gene: JeppNRM\_79 Start: 44817, Stop: 44308, Start Num: 88

Candidate Starts for JeppNRM\_79:

(Start: 88 @44817 has 77 MA's), (Start: 97 @44781 has 5 MA's), (Start: 104 @44730 has 1 MA's), (105, 44721), (115, 44655), (123, 44619), (129, 44571), (135, 44550), (144, 44490), (145, 44487), (150, 44448), (158, 44385), (166, 44340),

Gene: Jerm\_77 Start: 45848, Stop: 45261, Start Num: 67

Candidate Starts for Jerm\_77:

(Start: 53 @45878 has 4 MA's), (61, 45866), (Start: 67 @45848 has 32 MA's), (Start: 72 @45836 has 173 MA's), (Start: 104 @45719 has 1 MA's), (105, 45710), (111, 45662), (129, 45560), (145, 45473), (150, 45434), (160, 45371),

Gene: Jerm2\_77 Start: 48426, Stop: 47914, Start Num: 84

Candidate Starts for Jerm2\_77:

(Start: 62 @48483 has 2 MA's), (Start: 84 @48426 has 195 MA's), (Start: 97 @48384 has 5 MA's), (Start: 104 @48333 has 1 MA's), (105, 48324), (111, 48276), (129, 48174), (135, 48153), (141, 48111), (163, 47967), (173, 47925),

Gene: Jester\_57 Start: 39843, Stop: 39319, Start Num: 77

Candidate Starts for Jester\_57:

(Start: 77 @39843 has 23 MA's), (100, 39780), (115, 39666), (123, 39630), (128, 39603), (129, 39582), (135, 39561), (136, 39546), (144, 39501), (158, 39402), (160, 39393), (173, 39336),

Gene: JetBlade\_70 Start: 44198, Stop: 43686, Start Num: 79

Candidate Starts for JetBlade\_70:

(Start: 79 @44198 has 132 MA's), (Start: 97 @44150 has 5 MA's), (Start: 104 @44099 has 1 MA's), (115, 44024), (119, 44000), (123, 43988), (129, 43937), (135, 43916), (145, 43859), (166, 43718),

Gene: Jobu08\_75 Start: 44833, Stop: 44324, Start Num: 88

Candidate Starts for Jobu08\_75:

(Start: 88 @44833 has 77 MA's), (Start: 97 @44797 has 5 MA's), (Start: 104 @44746 has 1 MA's), (105, 44737), (115, 44671), (123, 44635), (129, 44587), (135, 44566), (144, 44506), (145, 44503), (150, 44464), (158, 44401), (166, 44356),

Gene: JoongJeon\_69 Start: 44165, Stop: 43653, Start Num: 79

Candidate Starts for JoongJeon\_69:

(Start: 79 @44165 has 132 MA's), (Start: 97 @44117 has 5 MA's), (Start: 104 @44066 has 1 MA's), (115, 43991), (119, 43967), (121, 43961), (123, 43955), (129, 43904), (135, 43883), (145, 43826), (150, 43787), (166, 43685),

Gene: Jordennis\_76 Start: 44422, Stop: 43895, Start Num: 67

Candidate Starts for Jordennis\_76:

(Start: 67 @44422 has 32 MA's), (Start: 72 @44410 has 173 MA's), (Start: 104 @44323 has 1 MA's), (105, 44314), (111, 44266), (129, 44164), (135, 44143), (138, 44122), (145, 44080), (150, 44041),

Gene: Jorgensen\_82 Start: 48016, Stop: 47504, Start Num: 84

Candidate Starts for Jorgensen\_82:

(24, 48190), (34, 48157), (Start: 62 @48073 has 2 MA's), (Start: 84 @48016 has 195 MA's), (Start: 97 @47974 has 5 MA's), (Start: 104 @47923 has 1 MA's), (105, 47914), (111, 47866), (135, 47743), (141, 47701), (173, 47515),

Gene: Joselito\_77 Start: 45102, Stop: 44551, Start Num: 72

Candidate Starts for Joselito\_77:

(Start: 56 @45144 has 1 MA's), (Start: 67 @45114 has 32 MA's), (Start: 72 @45102 has 173 MA's), (85, 45075), (Start: 104 @44985 has 1 MA's), (106, 44961), (111, 44928), (129, 44826), (135, 44802), (136, 44787), (141, 44760), (145, 44739), (150, 44700), (166, 44601), (176, 44568),

Gene: JoshKayV\_76 Start: 45870, Stop: 45292, Start Num: 72

Candidate Starts for JoshKayV\_76:

(Start: 72 @45870 has 173 MA's), (Start: 104 @45753 has 1 MA's), (105, 45744), (111, 45696), (129, 45594), (150, 45468), (160, 45405),

Gene: Journey13\_65 Start: 42021, Stop: 41458, Start Num: 67

Candidate Starts for Journey13\_65:

(Start: 67 @42021 has 32 MA's), (Start: 72 @42009 has 173 MA's), (85, 41982), (96, 41949), (Start: 97 @41943 has 5 MA's), (106, 41868), (129, 41733), (135, 41709), (140, 41682), (141, 41667), (145, 41646), (150, 41607), (158, 41553), (160, 41544),

Gene: Jovo\_70 Start: 44074, Stop: 43544, Start Num: 74

Candidate Starts for Jovo\_70:

(71, 44080), (Start: 74 @44074 has 37 MA's), (127, 43822), (128, 43819), (129, 43798), (135, 43777), (157, 43624), (159, 43618), (165, 43579),

Gene: Jsquared\_79 Start: 44953, Stop: 44402, Start Num: 72

Candidate Starts for Jsquared\_79:

(Start: 56 @44992 has 1 MA's), (Start: 67 @44965 has 32 MA's), (Start: 72 @44953 has 173 MA's), (85, 44926), (105, 44827), (106, 44812), (111, 44779), (129, 44677), (131, 44671), (135, 44653), (140, 44626), (141, 44611), (145, 44590), (150, 44551), (160, 44488),

Gene: Juice456\_41 Start: 32453, Stop: 31941, Start Num: 84

Candidate Starts for Juice456\_41:

(39, 32564), (Start: 84 @32453 has 195 MA's), (Start: 97 @32411 has 5 MA's), (Start: 104 @32360 has 1 MA's), (105, 32351), (111, 32303), (135, 32180), (141, 32138), (173, 31952),

Gene: JuliaChild\_76 Start: 46975, Stop: 46463, Start Num: 84

Candidate Starts for JuliaChild\_76:

(24, 47149), (34, 47116), (Start: 62 @47032 has 2 MA's), (Start: 84 @46975 has 195 MA's), (Start: 97 @46933 has 5 MA's), (Start: 104 @46882 has 1 MA's), (105, 46873), (111, 46825), (129, 46723), (135, 46702), (141, 46660), (163, 46516), (173, 46474),

Gene: JulietS\_42 Start: 13163, Stop: 13675, Start Num: 84

Candidate Starts for JulietS\_42:

(21, 12974), (Start: 80 @13151 has 3 MA's), (Start: 84 @13163 has 195 MA's), (Start: 97 @13205 has 5 MA's), (Start: 104 @13256 has 1 MA's), (105, 13265), (111, 13313), (119, 13355), (135, 13436), (141, 13478), (173, 13664),

Gene: KADY\_76 Start: 45033, Stop: 44524, Start Num: 88

Candidate Starts for KADY\_76:

(Start: 69 @45069 has 3 MA's), (Start: 88 @45033 has 77 MA's), (Start: 97 @44997 has 5 MA's), (Start: 104 @44946 has 1 MA's), (115, 44871), (123, 44835), (129, 44787), (135, 44766), (144, 44706), (145, 44703), (146, 44700), (150, 44664), (158, 44601), (166, 44556),

Gene: KFPoly\_69 Start: 44165, Stop: 43653, Start Num: 79

Candidate Starts for KFPoly\_69:

(Start: 79 @44165 has 132 MA's), (Start: 97 @44117 has 5 MA's), (Start: 104 @44066 has 1 MA's), (115, 43991), (119, 43967), (121, 43961), (123, 43955), (129, 43904), (135, 43883), (145, 43826), (150, 43787), (166, 43685),

Gene: KSSJEB\_72 Start: 45207, Stop: 44695, Start Num: 84

Candidate Starts for KSSJEB\_72:

(24, 45381), (29, 45363), (34, 45348), (Start: 62 @45264 has 2 MA's), (Start: 84 @45207 has 195 MA's), (Start: 97 @45165 has 5 MA's), (Start: 104 @45114 has 1 MA's), (105, 45105), (111, 45057), (135, 44934), (141, 44892), (173, 44706),

Gene: Kalah2\_189 Start: 98070, Stop: 97558, Start Num: 84

Candidate Starts for Kalah2\_189:

(7, 98361), (26, 98232), (45, 98175), (47, 98166), (Start: 74 @98094 has 37 MA's), (Start: 83 @98073 has 2 MA's), (Start: 84 @98070 has 195 MA's), (Start: 97 @98028 has 5 MA's), (Start: 104 @97977 has 1 MA's), (105, 97968), (111, 97920), (119, 97878), (135, 97797), (141, 97755), (173, 97569),

Gene: Kalnoky\_79 Start: 44813, Stop: 44304, Start Num: 88

Candidate Starts for Kalnoky\_79:

(Start: 88 @44813 has 77 MA's), (Start: 97 @44777 has 5 MA's), (Start: 104 @44726 has 1 MA's), (105, 44717), (115, 44651), (123, 44615), (129, 44567), (135, 44546), (144, 44486), (145, 44483), (150, 44444), (158, 44381), (166, 44336),

Gene: Kalpine\_75 Start: 45776, Stop: 45198, Start Num: 72

Candidate Starts for Kalpine\_75:

(Start: 53 @45818 has 4 MA's), (Start: 67 @45788 has 32 MA's), (Start: 72 @45776 has 173 MA's), (Start: 104 @45659 has 1 MA's), (105, 45650), (108, 45623), (111, 45602), (126, 45533), (129, 45500), (132, 45491), (142, 45431), (145, 45413), (150, 45374),

Gene: Kamy\_69 Start: 44173, Stop: 43661, Start Num: 79

Candidate Starts for Kamy\_69:

(Start: 79 @44173 has 132 MA's), (Start: 97 @44125 has 5 MA's), (Start: 104 @44074 has 1 MA's), (115, 43999), (119, 43975), (123, 43963), (129, 43912), (135, 43891), (145, 43834), (157, 43741), (166, 43693),

Gene: Kanely\_77 Start: 47063, Stop: 46551, Start Num: 84

Candidate Starts for Kanely\_77:

(24, 47237), (34, 47204), (Start: 62 @47120 has 2 MA's), (Start: 84 @47063 has 195 MA's), (Start: 97 @47021 has 5 MA's), (Start: 104 @46970 has 1 MA's), (105, 46961), (111, 46913), (129, 46811), (135, 46790), (141, 46748), (163, 46604), (173, 46562),

Gene: Katalie136\_69 Start: 44352, Stop: 43852, Start Num: 86

Candidate Starts for Katalie136\_69:

(Start: 86 @44352 has 21 MA's), (Start: 104 @44265 has 1 MA's), (106, 44241), (121, 44160), (123, 44154), (124, 44142), (129, 44103), (133, 44088), (135, 44082), (150, 43986), (160, 43920), (166, 43884),

Gene: KatherineG\_84 Start: 45752, Stop: 45231, Start Num: 72

Candidate Starts for KatherineG\_84:

(Start: 72 @45752 has 173 MA's), (Start: 97 @45707 has 5 MA's), (Start: 104 @45656 has 1 MA's), (105, 45647), (111, 45599), (129, 45497), (135, 45476), (153, 45338), (157, 45320), (160, 45308), (166, 45272),

Gene: Kazan\_79 Start: 44184, Stop: 43669, Start Num: 72

Candidate Starts for Kazan\_79:

(Start: 67 @44196 has 32 MA's), (Start: 72 @44184 has 173 MA's), (Start: 104 @44097 has 1 MA's), (105, 44088), (111, 44040), (129, 43938), (135, 43917), (138, 43896), (145, 43854), (150, 43815),

Gene: Kenuha5\_35 Start: 30267, Stop: 29755, Start Num: 84

Candidate Starts for Kenuha5\_35:

(Start: 58 @30321 has 9 MA's), (Start: 84 @30267 has 195 MA's), (Start: 97 @30225 has 5 MA's), (Start: 104 @30174 has 1 MA's), (105, 30165), (111, 30117), (119, 30075), (135, 29994), (141, 29952), (173, 29766),

Gene: Kerberos\_78 Start: 45877, Stop: 45332, Start Num: 72

Candidate Starts for Kerberos\_78:

(Start: 67 @45889 has 32 MA's), (Start: 72 @45877 has 173 MA's), (Start: 104 @45760 has 1 MA's), (105, 45751), (106, 45736), (111, 45703), (129, 45601), (131, 45595), (135, 45577), (140, 45550), (141, 45535), (142, 45532), (144, 45517), (150, 45475), (158, 45421), (163, 45394), (166, 45376),

Gene: Keziacharles14\_74 Start: 45393, Stop: 44857, Start Num: 72

Candidate Starts for Keziacharles14\_74:

(Start: 72 @45393 has 173 MA's), (100, 45336), (Start: 104 @45297 has 1 MA's), (106, 45273), (111, 45240), (135, 45117), (137, 45099), (144, 45057), (145, 45054), (155, 44976), (158, 44955),

Gene: Killigrew\_72 Start: 45573, Stop: 45061, Start Num: 84

Candidate Starts for Killigrew\_72:

(24, 45747), (34, 45714), (Start: 62 @45630 has 2 MA's), (Start: 84 @45573 has 195 MA's), (Start: 97 @45531 has 5 MA's), (Start: 104 @45480 has 1 MA's), (105, 45471), (111, 45423), (135, 45300), (141, 45258), (173, 45072),



Gene: Kimona\_69 Start: 43171, Stop: 42665, Start Num: 78

Candidate Starts for Kimona\_69:

(Start: 78 @43171 has 10 MA's), (105, 43066), (111, 43018), (115, 43000), (116, 42997), (123, 42964), (129, 42916), (135, 42895), (139, 42871), (145, 42838), (152, 42772), (158, 42742), (166, 42697),

Gene: KingCyrus\_75 Start: 46852, Stop: 46277, Start Num: 72

Candidate Starts for KingCyrus\_75:

(Start: 31 @46972 has 1 MA's), (Start: 53 @46894 has 4 MA's), (61, 46882), (Start: 67 @46864 has 32 MA's), (Start: 72 @46852 has 173 MA's), (Start: 104 @46735 has 1 MA's), (105, 46726), (111, 46678), (129, 46576), (145, 46489), (150, 46450), (154, 46414), (160, 46387), (166, 46324),

Gene: Kingmustik0402\_70 Start: 44160, Stop: 43648, Start Num: 79

Candidate Starts for Kingmustik0402\_70:

(Start: 79 @44160 has 132 MA's), (Start: 97 @44112 has 5 MA's), (Start: 104 @44061 has 1 MA's), (115, 43986), (119, 43962), (121, 43956), (123, 43950), (129, 43899), (135, 43878), (145, 43821), (150, 43782), (157, 43728), (166, 43680),

Gene: Kipper29\_78 Start: 44197, Stop: 43682, Start Num: 72

Candidate Starts for Kipper29\_78:

(Start: 67 @44209 has 32 MA's), (Start: 72 @44197 has 173 MA's), (Start: 104 @44110 has 1 MA's), (105, 44101), (111, 44053), (129, 43951), (135, 43930), (138, 43909), (145, 43867), (150, 43828),

Gene: KittenMittens\_67 Start: 43144, Stop: 42638, Start Num: 76

Candidate Starts for KittenMittens\_67:

(Start: 49 @43207 has 1 MA's), (57, 43192), (Start: 76 @43144 has 8 MA's), (Start: 78 @43141 has 10 MA's), (Start: 104 @43048 has 1 MA's), (111, 42991), (115, 42973), (119, 42949), (129, 42889), (135, 42868), (153, 42736), (166, 42670), (173, 42649),

Gene: Koguma\_43 Start: 13506, Stop: 14018, Start Num: 84

Candidate Starts for Koguma\_43:

(21, 13317), (Start: 80 @13494 has 3 MA's), (Start: 84 @13506 has 195 MA's), (Start: 97 @13548 has 5 MA's), (Start: 104 @13599 has 1 MA's), (105, 13608), (111, 13656), (119, 13698), (135, 13779), (141, 13821), (173, 14007),

Gene: Koko\_79 Start: 44730, Stop: 44215, Start Num: 72

Candidate Starts for Koko\_79:

(Start: 58 @44766 has 9 MA's), (Start: 67 @44742 has 32 MA's), (Start: 72 @44730 has 173 MA's), (Start: 104 @44643 has 1 MA's), (111, 44586), (129, 44484), (135, 44463), (145, 44400), (150, 44361), (158, 44307), (160, 44298), (175, 44235),

Gene: Koreni\_69 Start: 43852, Stop: 43340, Start Num: 79

Candidate Starts for Koreni\_69:

(Start: 79 @43852 has 132 MA's), (Start: 97 @43804 has 5 MA's), (Start: 104 @43753 has 1 MA's), (115, 43678), (119, 43654), (121, 43648), (123, 43642), (129, 43591), (135, 43570), (145, 43513), (150, 43474), (166, 43372),

Gene: Kratark\_69 Start: 44205, Stop: 43693, Start Num: 79

Candidate Starts for Kratark\_69:

(Start: 79 @44205 has 132 MA's), (Start: 97 @44157 has 5 MA's), (Start: 104 @44106 has 1 MA's), (115, 44031), (119, 44007), (121, 44001), (123, 43995), (129, 43944), (135, 43923), (145, 43866), (150, 43827), (166, 43725),

Gene: Kremtemulon\_66 Start: 44304, Stop: 43792, Start Num: 79

Candidate Starts for Kremtemulon\_66:

(Start: 79 @44304 has 132 MA's), (Start: 97 @44256 has 5 MA's), (Start: 104 @44205 has 1 MA's), (115, 44130), (119, 44106), (123, 44094), (129, 44043), (135, 44022), (150, 43926), (166, 43824),

Gene: Krishelle\_58 Start: 40495, Stop: 39971, Start Num: 77

Candidate Starts for Krishelle\_58:

(Start: 77 @40495 has 23 MA's), (96, 40450), (100, 40432), (115, 40318), (123, 40282), (128, 40255), (129, 40234), (135, 40213), (136, 40198), (142, 40168), (143, 40165), (145, 40150), (158, 40054), (160, 40045), (173, 39988),

Gene: KristaRAM\_40 Start: 32001, Stop: 31465, Start Num: 72

Candidate Starts for KristaRAM\_40:

(Start: 72 @32001 has 173 MA's), (Start: 97 @31935 has 5 MA's), (Start: 104 @31884 has 1 MA's), (105, 31875), (111, 31827), (119, 31785), (135, 31704), (141, 31662), (173, 31476),

Gene: Kristoff\_69 Start: 44449, Stop: 43943, Start Num: 78

Candidate Starts for Kristoff\_69:

(Start: 49 @44515 has 1 MA's), (57, 44500), (Start: 76 @44452 has 8 MA's), (Start: 78 @44449 has 10 MA's), (Start: 104 @44353 has 1 MA's), (106, 44329), (111, 44296), (115, 44278), (119, 44254), (129, 44194), (135, 44173), (145, 44116), (150, 44077), (153, 44041), (166, 43975), (173, 43954),

Gene: Kugel\_77 Start: 47215, Stop: 46703, Start Num: 84

Candidate Starts for Kugel\_77:

(24, 47389), (34, 47356), (Start: 62 @47272 has 2 MA's), (Start: 84 @47215 has 195 MA's), (Start: 97 @47173 has 5 MA's), (Start: 104 @47122 has 1 MA's), (105, 47113), (111, 47065), (119, 47023), (135, 46942), (141, 46900), (173, 46714),

Gene: KyMonks1A\_81 Start: 47684, Stop: 47172, Start Num: 84

Candidate Starts for KyMonks1A\_81:

(24, 47858), (34, 47825), (Start: 62 @47741 has 2 MA's), (Start: 84 @47684 has 195 MA's), (Start: 97 @47642 has 5 MA's), (Start: 104 @47591 has 1 MA's), (105, 47582), (111, 47534), (129, 47432), (135, 47411), (141, 47369), (163, 47225), (173, 47183),

Gene: Kyee\_70 Start: 44166, Stop: 43654, Start Num: 79

Candidate Starts for Kyee\_70:

(Start: 79 @44166 has 132 MA's), (Start: 97 @44118 has 5 MA's), (Start: 104 @44067 has 1 MA's), (115, 43992), (119, 43968), (121, 43962), (123, 43956), (129, 43905), (135, 43884), (145, 43827), (150, 43788), (166, 43686),

Gene: Kykar\_75 Start: 46261, Stop: 45749, Start Num: 84

Candidate Starts for Kykar\_75:

(27, 46420), (Start: 62 @46318 has 2 MA's), (Start: 84 @46261 has 195 MA's), (Start: 97 @46219 has 5 MA's), (Start: 104 @46168 has 1 MA's), (105, 46159), (111, 46111), (135, 45988), (141, 45946), (173, 45760),

Gene: L5\_71 Start: 44882, Stop: 44331, Start Num: 72

Candidate Starts for L5\_71:

(Start: 67 @44894 has 32 MA's), (Start: 72 @44882 has 173 MA's), (85, 44855), (105, 44756), (106, 44741), (111, 44708), (129, 44606), (131, 44600), (135, 44582), (140, 44555), (141, 44540), (145, 44519), (150, 44480), (160, 44417),

Gene: LBerry\_80 Start: 45009, Stop: 44500, Start Num: 88

Candidate Starts for LBerry\_80:

(Start: 88 @45009 has 77 MA's), (Start: 97 @44973 has 5 MA's), (Start: 104 @44922 has 1 MA's), (105, 44913), (115, 44847), (123, 44811), (129, 44763), (135, 44742), (144, 44682), (145, 44679), (146, 44676), (150, 44640), (158, 44577), (166, 44532),

Gene: LHTSCC\_72 Start: 44607, Stop: 44095, Start Num: 79

Candidate Starts for LHTSCC\_72:

(Start: 79 @44607 has 132 MA's), (Start: 97 @44559 has 5 MA's), (Start: 104 @44508 has 1 MA's), (115, 44433), (119, 44409), (123, 44397), (129, 44346), (135, 44325), (145, 44268), (166, 44127),

Gene: LRRHood\_44 Start: 15429, Stop: 15941, Start Num: 84

Candidate Starts for LRRHood\_44:

(21, 15240), (Start: 80 @15417 has 3 MA's), (Start: 84 @15429 has 195 MA's), (Start: 97 @15471 has 5 MA's), (Start: 104 @15522 has 1 MA's), (105, 15531), (111, 15579), (135, 15702), (141, 15744), (173, 15930),

Gene: LadyBird\_79 Start: 46012, Stop: 45491, Start Num: 95

Candidate Starts for LadyBird\_79:

(Start: 72 @46066 has 173 MA's), (Start: 95 @46012 has 1 MA's), (Start: 104 @45949 has 1 MA's), (105, 45940), (108, 45913), (111, 45892), (113, 45886), (115, 45874), (129, 45790), (132, 45781), (145, 45703), (150, 45664), (167, 45535),

Gene: Lambert1\_73 Start: 44648, Stop: 44139, Start Num: 79

Candidate Starts for Lambert1\_73:

(Start: 79 @44648 has 132 MA's), (100, 44591), (Start: 104 @44552 has 1 MA's), (105, 44543), (114, 44480), (115, 44477), (121, 44447), (124, 44429), (129, 44390), (135, 44369), (150, 44273), (158, 44216), (166, 44171),

Gene: Lamina13\_79 Start: 48707, Stop: 48195, Start Num: 84

Candidate Starts for Lamina13\_79:

(24, 48881), (34, 48848), (Start: 62 @48764 has 2 MA's), (Start: 84 @48707 has 195 MA's), (Start: 97 @48665 has 5 MA's), (Start: 104 @48614 has 1 MA's), (105, 48605), (111, 48557), (129, 48455), (135, 48434), (141, 48392), (163, 48248), (173, 48206),

Gene: Landor\_74 Start: 46619, Stop: 46062, Start Num: 67

Candidate Starts for Landor\_74:

(Start: 67 @46619 has 32 MA's), (Start: 72 @46607 has 173 MA's), (Start: 104 @46490 has 1 MA's), (111, 46433), (121, 46385), (129, 46331), (145, 46244), (150, 46205), (166, 46106),

Gene: LappelDuVide\_66 Start: 44122, Stop: 43658, Start Num: 97

Candidate Starts for LappelDuVide\_66:

(Start: 79 @44170 has 132 MA's), (Start: 97 @44122 has 5 MA's), (Start: 104 @44071 has 1 MA's), (115, 43996), (119, 43972), (121, 43966), (123, 43960), (129, 43909), (135, 43888), (145, 43831), (150, 43792), (157, 43738), (166, 43690),

Gene: Larenn\_72 Start: 45147, Stop: 44536, Start Num: 53

Candidate Starts for Larenn\_72:

(14, 45318), (22, 45267), (Start: 53 @45147 has 4 MA's), (Start: 67 @45117 has 32 MA's), (Start: 72 @45105 has 173 MA's), (Start: 104 @44988 has 1 MA's), (105, 44979), (108, 44952), (111, 44931), (121, 44883), (129, 44829), (145, 44742), (150, 44703), (160, 44640), (164, 44598),

Gene: LarryKay\_79 Start: 45037, Stop: 44528, Start Num: 88

Candidate Starts for LarryKay\_79:

(Start: 69 @45073 has 3 MA's), (Start: 88 @45037 has 77 MA's), (Start: 97 @45001 has 5 MA's), (Start: 104 @44950 has 1 MA's), (115, 44875), (123, 44839), (129, 44791), (135, 44770), (144, 44710), (145, 44707), (146, 44704), (150, 44668), (158, 44605), (166, 44560),

Gene: LastResort\_82 Start: 45683, Stop: 45162, Start Num: 72

Candidate Starts for LastResort\_82:

(Start: 72 @45683 has 173 MA's), (Start: 97 @45638 has 5 MA's), (Start: 104 @45587 has 1 MA's), (105, 45578), (111, 45530), (129, 45428), (135, 45407), (153, 45269), (157, 45251), (160, 45239), (166, 45203),

Gene: Lemur\_70 Start: 44168, Stop: 43656, Start Num: 79

Candidate Starts for Lemur\_70:

(Start: 79 @44168 has 132 MA's), (Start: 97 @44120 has 5 MA's), (Start: 104 @44069 has 1 MA's), (115, 43994), (119, 43970), (121, 43964), (123, 43958), (129, 43907), (135, 43886), (145, 43829), (150, 43790), (166, 43688),

Gene: LeoAvram\_69 Start: 44201, Stop: 43689, Start Num: 79

Candidate Starts for LeoAvram\_69:

(Start: 79 @44201 has 132 MA's), (Start: 97 @44153 has 5 MA's), (Start: 104 @44102 has 1 MA's), (115, 44027), (119, 44003), (123, 43991), (129, 43940), (135, 43919), (145, 43862), (157, 43769), (166, 43721),

Gene: Leogania\_74 Start: 45788, Stop: 45216, Start Num: 72

Candidate Starts for Leogania\_74:

(Start: 67 @45800 has 32 MA's), (Start: 72 @45788 has 173 MA's), (85, 45761), (Start: 104 @45671 has 1 MA's), (111, 45614), (118, 45587), (129, 45512), (141, 45446), (145, 45425), (150, 45386), (158, 45332), (166, 45260),

Gene: Lesedi\_72 Start: 44841, Stop: 44329, Start Num: 84

Candidate Starts for Lesedi\_72:

(24, 45015), (34, 44982), (Start: 62 @44898 has 2 MA's), (Start: 84 @44841 has 195 MA's), (Start: 97 @44799 has 5 MA's), (Start: 104 @44748 has 1 MA's), (105, 44739), (111, 44691), (129, 44589), (135, 44568), (141, 44526), (173, 44340),

Gene: Lev2\_70 Start: 43706, Stop: 43176, Start Num: 74

Candidate Starts for Lev2\_70:

(71, 43712), (Start: 74 @43706 has 37 MA's), (127, 43454), (128, 43451), (129, 43430), (135, 43409), (157, 43256), (159, 43250), (165, 43211),

Gene: Leviathan\_77 Start: 45902, Stop: 45327, Start Num: 72

Candidate Starts for Leviathan\_77:

(Start: 53 @45944 has 4 MA's), (61, 45932), (Start: 67 @45914 has 32 MA's), (Start: 72 @45902 has 173 MA's), (Start: 104 @45785 has 1 MA's), (105, 45776), (111, 45728), (129, 45626), (145, 45539), (150, 45500), (160, 45437),

Gene: Licorice\_76 Start: 48364, Stop: 47852, Start Num: 84

Candidate Starts for Licorice\_76:

(24, 48538), (34, 48505), (Start: 62 @48421 has 2 MA's), (Start: 84 @48364 has 195 MA's), (Start: 97 @48322 has 5 MA's), (Start: 104 @48271 has 1 MA's), (105, 48262), (111, 48214), (135, 48091), (141, 48049), (173, 47863),

Gene: LilBib\_72 Start: 46594, Stop: 46082, Start Num: 84

Candidate Starts for LilBib\_72:

(Start: 62 @46651 has 2 MA's), (Start: 84 @46594 has 195 MA's), (Start: 97 @46552 has 5 MA's), (Start: 104 @46501 has 1 MA's), (105, 46492), (111, 46444), (135, 46321), (141, 46279), (173, 46093),

Gene: LilTurb\_76 Start: 45716, Stop: 45141, Start Num: 72

Candidate Starts for LilTurb\_76:

(Start: 53 @45758 has 4 MA's), (61, 45746), (Start: 67 @45728 has 32 MA's), (Start: 72 @45716 has 173 MA's), (Start: 104 @45599 has 1 MA's), (105, 45590), (111, 45542), (129, 45440), (145, 45353), (150, 45314), (160, 45251),

Gene: Lilbunny\_75 Start: 43973, Stop: 43482, Start Num: 72

Candidate Starts for Lilbunny\_75:

(Start: 58 @44009 has 9 MA's), (Start: 67 @43985 has 32 MA's), (Start: 72 @43973 has 173 MA's), (Start: 95 @43949 has 1 MA's), (Start: 104 @43886 has 1 MA's), (111, 43829), (129, 43727), (135, 43706), (145, 43643), (150, 43604), (170, 43493),

Gene: Lilith\_77 Start: 44998, Stop: 44489, Start Num: 88

Candidate Starts for Lilith\_77:

(Start: 69 @45034 has 3 MA's), (Start: 88 @44998 has 77 MA's), (Start: 97 @44962 has 5 MA's), (Start: 104 @44911 has 1 MA's), (105, 44902), (115, 44836), (123, 44800), (129, 44752), (135, 44731), (144, 44671), (145, 44668), (146, 44665), (150, 44629), (158, 44566), (166, 44521),

Gene: Lillie\_58 Start: 40126, Stop: 39602, Start Num: 77

Candidate Starts for Lillie\_58:

(Start: 77 @40126 has 23 MA's), (96, 40081), (100, 40063), (115, 39949), (123, 39913), (128, 39886), (129, 39865), (135, 39844), (136, 39829), (142, 39799), (143, 39796), (145, 39781), (158, 39685), (160, 39676), (173, 39619),

Gene: LittleB\_70 Start: 44172, Stop: 43660, Start Num: 79

Candidate Starts for LittleB\_70:

(Start: 79 @44172 has 132 MA's), (Start: 97 @44124 has 5 MA's), (Start: 104 @44073 has 1 MA's), (115, 43998), (119, 43974), (121, 43968), (123, 43962), (129, 43911), (135, 43890), (145, 43833), (150, 43794), (166, 43692),

Gene: LittleCherry\_68 Start: 43262, Stop: 42732, Start Num: 74

Candidate Starts for LittleCherry\_68:

(Start: 74 @43262 has 37 MA's), (127, 43010), (128, 43007), (129, 42986), (135, 42965), (159, 42806), (165, 42767),

Gene: LittleE\_195 Start: 96949, Stop: 96437, Start Num: 84

Candidate Starts for LittleE\_195:

(5, 97282), (7, 97240), (26, 97111), (45, 97054), (47, 97045), (Start: 74 @96973 has 37 MA's), (Start: 83 @96952 has 2 MA's), (Start: 84 @96949 has 195 MA's), (Start: 97 @96907 has 5 MA's), (Start: 104 @96856 has 1 MA's), (105, 96847), (111, 96799), (119, 96757), (135, 96676), (141, 96634), (173, 96448),

Gene: LittleGuy\_70 Start: 44067, Stop: 43555, Start Num: 79

Candidate Starts for LittleGuy\_70:

(Start: 79 @44067 has 132 MA's), (Start: 97 @44019 has 5 MA's), (Start: 104 @43968 has 1 MA's), (115, 43893), (119, 43869), (121, 43863), (123, 43857), (129, 43806), (135, 43785), (145, 43728), (150, 43689), (157, 43635), (166, 43587),

Gene: LochMonster\_71 Start: 44407, Stop: 43895, Start Num: 79

Candidate Starts for LochMonster\_71:

(Start: 79 @44407 has 132 MA's), (Start: 97 @44359 has 5 MA's), (Start: 104 @44308 has 1 MA's), (115, 44233), (119, 44209), (121, 44203), (123, 44197), (129, 44146), (135, 44125), (145, 44068), (150, 44029), (166, 43927),

Gene: Lockley\_72 Start: 45724, Stop: 45212, Start Num: 84

Candidate Starts for Lockley\_72:

(24, 45898), (34, 45865), (Start: 62 @45781 has 2 MA's), (Start: 84 @45724 has 195 MA's), (Start: 97 @45682 has 5 MA's), (Start: 104 @45631 has 1 MA's), (105, 45622), (111, 45574), (119, 45532), (135, 45451), (141, 45409), (173, 45223),

Gene: Loko\_69 Start: 43909, Stop: 43337, Start Num: 72

Candidate Starts for Loko\_69:

(Start: 67 @43921 has 32 MA's), (Start: 72 @43909 has 173 MA's), (Start: 81 @43894 has 3 MA's), (85, 43882), (Start: 104 @43792 has 1 MA's), (105, 43783), (106, 43768), (111, 43735), (115, 43717), (122, 43684), (129, 43633), (141, 43567), (150, 43507), (164, 43402), (176, 43357),

Gene: LoneWolf\_78 Start: 45014, Stop: 44487, Start Num: 72

Candidate Starts for LoneWolf\_78:

(Start: 67 @45026 has 32 MA's), (Start: 72 @45014 has 173 MA's), (Start: 104 @44918 has 1 MA's), (106, 44894), (111, 44861), (115, 44843), (135, 44738), (137, 44720), (144, 44678), (145, 44675), (150, 44636), (155, 44597), (156, 44594), (158, 44576),

Gene: Looper\_83 Start: 45595, Stop: 45074, Start Num: 72

Candidate Starts for Looper\_83:

(Start: 72 @45595 has 173 MA's), (Start: 97 @45550 has 5 MA's), (Start: 104 @45499 has 1 MA's), (105, 45490), (111, 45442), (129, 45340), (135, 45319), (153, 45181), (157, 45163), (160, 45151), (166, 45115),

Gene: Lopton\_74 Start: 47686, Stop: 47174, Start Num: 84

Candidate Starts for Lopton\_74:

(24, 47860), (34, 47827), (Start: 62 @47743 has 2 MA's), (Start: 84 @47686 has 195 MA's), (Start: 97 @47644 has 5 MA's), (Start: 104 @47593 has 1 MA's), (105, 47584), (111, 47536), (135, 47413), (141, 47371), (173, 47185),

Gene: Lorenzo\_70 Start: 44171, Stop: 43659, Start Num: 79

Candidate Starts for Lorenzo\_70:

(Start: 79 @44171 has 132 MA's), (Start: 97 @44123 has 5 MA's), (Start: 104 @44072 has 1 MA's), (115, 43997), (119, 43973), (123, 43961), (129, 43910), (135, 43889), (145, 43832), (157, 43739), (166, 43691),

Gene: Loser\_77 Start: 45980, Stop: 45399, Start Num: 72

Candidate Starts for Loser\_77:

(Start: 53 @46022 has 4 MA's), (Start: 56 @46019 has 1 MA's), (63, 46004), (Start: 67 @45992 has 32 MA's), (Start: 72 @45980 has 173 MA's), (91, 45941), (Start: 104 @45863 has 1 MA's), (105, 45854), (111, 45806), (118, 45779), (129, 45704), (132, 45695), (142, 45635), (145, 45617), (161, 45503),

Gene: Luchador\_78 Start: 46094, Stop: 45567, Start Num: 72

Candidate Starts for Luchador\_78:

(Start: 67 @46106 has 32 MA's), (Start: 72 @46094 has 173 MA's), (Start: 104 @45992 has 1 MA's), (106, 45968), (107, 45959), (111, 45935), (115, 45917), (129, 45833), (130, 45830), (135, 45812), (139, 45788), (152, 45686), (154, 45674), (163, 45629), (166, 45611),

Gene: Lucivia\_79 Start: 45381, Stop: 44830, Start Num: 72

Candidate Starts for Lucivia\_79:

(Start: 56 @45423 has 1 MA's), (Start: 67 @45393 has 32 MA's), (Start: 72 @45381 has 173 MA's), (85, 45354), (Start: 104 @45264 has 1 MA's), (106, 45240), (111, 45207), (129, 45105), (135, 45081), (136, 45066), (141, 45039), (145, 45018), (150, 44979), (166, 44880), (176, 44847),

Gene: Lucyedi\_80 Start: 46110, Stop: 45568, Start Num: 72

Candidate Starts for Lucyedi\_80:

(27, 46242), (35, 46215), (44, 46188), (55, 46152), (Start: 67 @46122 has 32 MA's), (Start: 72 @46110 has 173 MA's), (Start: 104 @46005 has 1 MA's), (105, 45996), (111, 45948), (125, 45882), (129, 45846), (135, 45825), (145, 45762), (150, 45723), (163, 45633), (166, 45615),

Gene: LugYA\_82 Start: 45009, Stop: 44500, Start Num: 88

Candidate Starts for LugYA\_82:

(Start: 88 @45009 has 77 MA's), (Start: 97 @44973 has 5 MA's), (Start: 104 @44922 has 1 MA's), (105, 44913), (115, 44847), (123, 44811), (129, 44763), (135, 44742), (144, 44682), (145, 44679), (146, 44676), (150, 44640), (158, 44577), (166, 44532),

Gene: Lukilu\_41 Start: 14631, Stop: 15143, Start Num: 84

Candidate Starts for Lukilu\_41:

(21, 14442), (Start: 80 @14619 has 3 MA's), (Start: 84 @14631 has 195 MA's), (Start: 97 @14673 has 5 MA's), (Start: 104 @14724 has 1 MA's), (105, 14733), (111, 14781), (119, 14823), (135, 14904), (141, 14946), (173, 15132),

Gene: LunaBlu\_42 Start: 32167, Stop: 31655, Start Num: 84

Candidate Starts for LunaBlu\_42:

(Start: 60 @32227 has 1 MA's), (Start: 84 @32167 has 195 MA's), (Start: 97 @32125 has 5 MA's), (Start: 104 @32074 has 1 MA's), (105, 32065), (111, 32017), (119, 31975), (135, 31894), (141, 31852), (173, 31666),

Gene: Lunsford\_70 Start: 44165, Stop: 43653, Start Num: 79

Candidate Starts for Lunsford\_70:

(Start: 79 @44165 has 132 MA's), (Start: 97 @44117 has 5 MA's), (Start: 104 @44066 has 1 MA's), (115, 43991), (119, 43967), (121, 43961), (123, 43955), (129, 43904), (135, 43883), (150, 43787), (166, 43685),

Gene: MPlant7149\_75 Start: 46240, Stop: 45728, Start Num: 84

Candidate Starts for MPlant7149\_75:

(24, 46414), (34, 46381), (Start: 62 @46297 has 2 MA's), (Start: 84 @46240 has 195 MA's), (Start: 97 @46198 has 5 MA's), (Start: 104 @46147 has 1 MA's), (105, 46138), (111, 46090), (135, 45967), (141, 45925), (173, 45739),

Gene: MaCh\_78 Start: 45345, Stop: 44794, Start Num: 72

Candidate Starts for MaCh\_78:

(Start: 56 @45387 has 1 MA's), (Start: 67 @45357 has 32 MA's), (Start: 72 @45345 has 173 MA's), (85, 45318), (Start: 104 @45228 has 1 MA's), (106, 45204), (111, 45171), (129, 45069), (135, 45045), (136, 45030), (141, 45003), (145, 44982), (150, 44943), (166, 44844), (176, 44811),

Gene: Mabel\_78 Start: 45346, Stop: 44795, Start Num: 72

Candidate Starts for Mabel\_78:

(Start: 56 @45388 has 1 MA's), (Start: 67 @45358 has 32 MA's), (Start: 72 @45346 has 173 MA's), (85, 45319), (Start: 104 @45229 has 1 MA's), (106, 45205), (111, 45172), (129, 45070), (135, 45046),

(136, 45031), (141, 45004), (145, 44983), (150, 44944), (166, 44845), (176, 44812),

Gene: MadMarie\_77 Start: 45006, Stop: 44497, Start Num: 88

Candidate Starts for MadMarie\_77:

(Start: 69 @45042 has 3 MA's), (Start: 88 @45006 has 77 MA's), (Start: 97 @44970 has 5 MA's), (Start: 104 @44919 has 1 MA's), (105, 44910), (115, 44844), (123, 44808), (129, 44760), (135, 44739), (144, 44679), (145, 44676), (146, 44673), (150, 44637), (158, 44574), (166, 44529),

Gene: Magnar\_71 Start: 45368, Stop: 44856, Start Num: 84

Candidate Starts for Magnar\_71:

(24, 45542), (34, 45509), (Start: 62 @45425 has 2 MA's), (Start: 84 @45368 has 195 MA's), (Start: 97 @45326 has 5 MA's), (Start: 104 @45275 has 1 MA's), (105, 45266), (111, 45218), (135, 45095), (141, 45053), (173, 44867),

Gene: Mainiac\_78 Start: 45034, Stop: 44489, Start Num: 69

Candidate Starts for Mainiac\_78:

(Start: 69 @45034 has 3 MA's), (Start: 88 @44998 has 77 MA's), (Start: 97 @44962 has 5 MA's), (Start: 104 @44911 has 1 MA's), (105, 44902), (115, 44836), (123, 44800), (129, 44752), (135, 44731), (144, 44671), (145, 44668), (146, 44665), (150, 44629), (158, 44566), (166, 44521),

Gene: Malec\_73 Start: 45714, Stop: 45103, Start Num: 53

Candidate Starts for Malec\_73:

(14, 45885), (22, 45834), (Start: 53 @45714 has 4 MA's), (Start: 67 @45684 has 32 MA's), (Start: 72 @45672 has 173 MA's), (Start: 104 @45555 has 1 MA's), (105, 45546), (108, 45519), (111, 45498), (121, 45450), (129, 45396), (145, 45309), (150, 45270), (160, 45207), (164, 45165),

Gene: Malinsilva\_81 Start: 44997, Stop: 44488, Start Num: 88

Candidate Starts for Malinsilva\_81:

(Start: 69 @45033 has 3 MA's), (Start: 88 @44997 has 77 MA's), (Start: 97 @44961 has 5 MA's), (Start: 104 @44910 has 1 MA's), (105, 44901), (115, 44835), (123, 44799), (129, 44751), (135, 44730), (144, 44670), (145, 44667), (146, 44664), (150, 44628), (158, 44565), (166, 44520),

Gene: Maminiaina\_77 Start: 44943, Stop: 44395, Start Num: 67

Candidate Starts for Maminiaina\_77:

(Start: 67 @44943 has 32 MA's), (Start: 72 @44931 has 173 MA's), (100, 44874), (Start: 104 @44835 has 1 MA's), (106, 44811), (111, 44778), (135, 44655), (137, 44637), (144, 44595), (145, 44592), (150, 44553), (158, 44493), (160, 44484),

Gene: Manu\_78 Start: 44819, Stop: 44310, Start Num: 88

Candidate Starts for Manu\_78:

(Start: 88 @44819 has 77 MA's), (Start: 97 @44783 has 5 MA's), (Start: 104 @44732 has 1 MA's), (105, 44723), (115, 44657), (123, 44621), (129, 44573), (135, 44552), (144, 44492), (145, 44489), (150, 44450), (158, 44387), (166, 44342),

Gene: MarQuardt\_79 Start: 45007, Stop: 44498, Start Num: 88

Candidate Starts for MarQuardt\_79:

(Start: 88 @45007 has 77 MA's), (Start: 97 @44971 has 5 MA's), (Start: 104 @44920 has 1 MA's), (105, 44911), (115, 44845), (123, 44809), (129, 44761), (135, 44740), (144, 44680), (145, 44677), (146, 44674), (150, 44638), (158, 44575), (166, 44530),

Gene: Marcell\_68 Start: 43988, Stop: 43476, Start Num: 84

Candidate Starts for Marcell\_68:



(24, 44162), (34, 44129), (Start: 62 @44045 has 2 MA's), (Start: 84 @43988 has 195 MA's), (Start: 97 @43946 has 5 MA's), (Start: 104 @43895 has 1 MA's), (105, 43886), (111, 43838), (135, 43715), (141, 43673), (173, 43487),

Gene: Marchy\_64 Start: 42792, Stop: 42280, Start Num: 84

Candidate Starts for Marchy\_64:

(24, 42966), (34, 42933), (Start: 62 @42849 has 2 MA's), (Start: 84 @42792 has 195 MA's), (Start: 97 @42750 has 5 MA's), (Start: 104 @42699 has 1 MA's), (105, 42690), (111, 42642), (135, 42519), (141, 42477), (173, 42291),

Gene: Marge\_72 Start: 45485, Stop: 44973, Start Num: 84

Candidate Starts for Marge\_72:

(24, 45659), (34, 45626), (51, 45563), (Start: 62 @45542 has 2 MA's), (Start: 84 @45485 has 195 MA's), (Start: 97 @45443 has 5 MA's), (Start: 104 @45392 has 1 MA's), (105, 45383), (111, 45335), (135, 45212), (141, 45170), (173, 44984),

Gene: Margo\_73 Start: 44673, Stop: 44164, Start Num: 79

Candidate Starts for Margo\_73:

(Start: 79 @44673 has 132 MA's), (100, 44616), (Start: 104 @44577 has 1 MA's), (105, 44568), (114, 44505), (115, 44502), (121, 44472), (124, 44454), (129, 44415), (135, 44394), (150, 44298), (158, 44241), (166, 44196),

Gene: Marie\_77 Start: 45008, Stop: 44499, Start Num: 88

Candidate Starts for Marie\_77:

(Start: 88 @45008 has 77 MA's), (Start: 97 @44972 has 5 MA's), (Start: 104 @44921 has 1 MA's), (105, 44912), (115, 44846), (123, 44810), (129, 44762), (135, 44741), (144, 44681), (145, 44678), (146, 44675), (150, 44639), (158, 44576), (166, 44531),

Gene: Marius\_79 Start: 44813, Stop: 44304, Start Num: 88

Candidate Starts for Marius\_79:

(Start: 88 @44813 has 77 MA's), (Start: 97 @44777 has 5 MA's), (Start: 104 @44726 has 1 MA's), (105, 44717), (115, 44651), (123, 44615), (129, 44567), (135, 44546), (144, 44486), (145, 44483), (150, 44444), (158, 44381), (166, 44336),

Gene: Marsha\_75 Start: 47927, Stop: 47415, Start Num: 84

Candidate Starts for Marsha\_75:

(24, 48101), (34, 48068), (Start: 62 @47984 has 2 MA's), (Start: 84 @47927 has 195 MA's), (Start: 97 @47885 has 5 MA's), (Start: 104 @47834 has 1 MA's), (105, 47825), (111, 47777), (135, 47654), (141, 47612), (163, 47468), (173, 47426),

Gene: MaryBeth\_73 Start: 46510, Stop: 45998, Start Num: 84

Candidate Starts for MaryBeth\_73:

(Start: 62 @46567 has 2 MA's), (Start: 84 @46510 has 195 MA's), (Start: 97 @46468 has 5 MA's), (Start: 104 @46417 has 1 MA's), (105, 46408), (111, 46360), (135, 46237), (141, 46195), (173, 46009),

Gene: MarysWell\_69 Start: 43942, Stop: 43412, Start Num: 74

Candidate Starts for MarysWell\_69:

(Start: 74 @43942 has 37 MA's), (127, 43690), (128, 43687), (129, 43666), (135, 43645), (159, 43486), (165, 43447),

Gene: Maverick\_69 Start: 44168, Stop: 43656, Start Num: 79

Candidate Starts for Maverick\_69:

(Start: 79 @44168 has 132 MA's), (Start: 97 @44120 has 5 MA's), (Start: 104 @44069 has 1 MA's), (115, 43994), (119, 43970), (121, 43964), (123, 43958), (129, 43907), (135, 43886), (145, 43829), (150, 43790), (166, 43688),

Gene: Mazhar510\_70 Start: 44169, Stop: 43657, Start Num: 79

Candidate Starts for Mazhar510\_70:

(Start: 79 @44169 has 132 MA's), (Start: 97 @44121 has 5 MA's), (Start: 104 @44070 has 1 MA's), (115, 43995), (119, 43971), (121, 43965), (123, 43959), (129, 43908), (135, 43887), (145, 43830), (150, 43791), (166, 43689),

Gene: McFly\_79 Start: 44813, Stop: 44298, Start Num: 72

Candidate Starts for McFly\_79:

(Start: 67 @44825 has 32 MA's), (Start: 72 @44813 has 173 MA's), (Start: 104 @44726 has 1 MA's), (105, 44717), (111, 44669), (129, 44567), (135, 44546), (138, 44525), (145, 44483), (150, 44444),

Gene: McGuire\_75 Start: 45524, Stop: 45012, Start Num: 84

Candidate Starts for McGuire\_75:

(23, 45701), (24, 45698), (29, 45680), (34, 45665), (Start: 62 @45581 has 2 MA's), (Start: 84 @45524 has 195 MA's), (Start: 97 @45482 has 5 MA's), (Start: 104 @45431 has 1 MA's), (105, 45422), (111, 45374), (135, 45251), (141, 45209), (173, 45023),

Gene: Medusa\_70 Start: 44185, Stop: 43673, Start Num: 79

Candidate Starts for Medusa\_70:

(Start: 79 @44185 has 132 MA's), (Start: 97 @44137 has 5 MA's), (Start: 104 @44086 has 1 MA's), (115, 44011), (119, 43987), (121, 43981), (123, 43975), (129, 43924), (135, 43903), (150, 43807), (166, 43705),

Gene: MeeZee\_69 Start: 44165, Stop: 43653, Start Num: 79

Candidate Starts for MeeZee\_69:

(Start: 79 @44165 has 132 MA's), (Start: 97 @44117 has 5 MA's), (Start: 104 @44066 has 1 MA's), (115, 43991), (119, 43967), (121, 43961), (123, 43955), (129, 43904), (135, 43883), (145, 43826), (150, 43787), (166, 43685),

Gene: Melissauren88\_38 Start: 31294, Stop: 30782, Start Num: 84

Candidate Starts for Melissauren88\_38:

(Start: 60 @31354 has 1 MA's), (Start: 84 @31294 has 195 MA's), (Start: 97 @31252 has 5 MA's), (Start: 104 @31201 has 1 MA's), (105, 31192), (111, 31144), (119, 31102), (135, 31021), (141, 30979), (173, 30793),

Gene: Melvin\_72 Start: 44166, Stop: 43654, Start Num: 79

Candidate Starts for Melvin\_72:

(Start: 79 @44166 has 132 MA's), (Start: 97 @44118 has 5 MA's), (Start: 104 @44067 has 1 MA's), (115, 43992), (119, 43968), (121, 43962), (123, 43956), (129, 43905), (135, 43884), (145, 43827), (150, 43788), (166, 43686),

Gene: MetalQZJ\_72 Start: 46510, Stop: 45998, Start Num: 84

Candidate Starts for MetalQZJ\_72:

(Start: 62 @46567 has 2 MA's), (Start: 84 @46510 has 195 MA's), (Start: 97 @46468 has 5 MA's), (Start: 104 @46417 has 1 MA's), (105, 46408), (111, 46360), (135, 46237), (141, 46195), (173, 46009),

Gene: Methuselah\_72 Start: 45029, Stop: 44520, Start Num: 88

Candidate Starts for Methuselah\_72:

(Start: 88 @45029 has 77 MA's), (Start: 97 @44993 has 5 MA's), (Start: 104 @44942 has 1 MA's), (105, 44933), (115, 44867), (123, 44831), (129, 44783), (135, 44762), (144, 44702), (145, 44699), (146, 44696), (150, 44660), (158, 44597), (166, 44552),

Gene: MiaZeal\_196 Start: 94928, Stop: 94416, Start Num: 84

Candidate Starts for MiaZeal\_196:

(5, 95261), (7, 95219), (26, 95090), (45, 95033), (47, 95024), (Start: 74 @94952 has 37 MA's), (Start: 83 @94931 has 2 MA's), (Start: 84 @94928 has 195 MA's), (Start: 97 @94886 has 5 MA's), (Start: 104 @94835 has 1 MA's), (105, 94826), (111, 94778), (119, 94736), (135, 94655), (141, 94613), (173, 94427),

Gene: Micasa\_67 Start: 43664, Stop: 43134, Start Num: 74

Candidate Starts for Micasa\_67:

(Start: 74 @43664 has 37 MA's), (127, 43412), (128, 43409), (129, 43388), (135, 43367), (159, 43208), (165, 43169),

Gene: Michley\_76 Start: 46252, Stop: 45740, Start Num: 84

Candidate Starts for Michley\_76:

(24, 46426), (34, 46393), (Start: 62 @46309 has 2 MA's), (Start: 84 @46252 has 195 MA's), (Start: 97 @46210 has 5 MA's), (Start: 104 @46159 has 1 MA's), (105, 46150), (111, 46102), (135, 45979), (141, 45937), (173, 45751),

Gene: Microwolf\_75 Start: 45021, Stop: 44512, Start Num: 88

Candidate Starts for Microwolf\_75:

(Start: 69 @45057 has 3 MA's), (Start: 88 @45021 has 77 MA's), (Start: 97 @44985 has 5 MA's), (Start: 104 @44934 has 1 MA's), (105, 44925), (115, 44859), (123, 44823), (129, 44775), (135, 44754), (144, 44694), (145, 44691), (146, 44688), (150, 44652), (158, 44589), (166, 44544),

Gene: MiculUcigas\_76 Start: 45315, Stop: 44746, Start Num: 72

Candidate Starts for MiculUcigas\_76:

(Start: 53 @45357 has 4 MA's), (61, 45345), (Start: 67 @45327 has 32 MA's), (Start: 72 @45315 has 173 MA's), (Start: 104 @45198 has 1 MA's), (105, 45189), (108, 45162), (111, 45141), (129, 45039), (141, 44973), (145, 44952), (150, 44913), (160, 44850),

Gene: Midas2\_66 Start: 43560, Stop: 43030, Start Num: 74

Candidate Starts for Midas2\_66:

(Start: 74 @43560 has 37 MA's), (127, 43308), (128, 43305), (129, 43284), (135, 43263), (159, 43104), (165, 43065),

Gene: Miko\_69 Start: 44687, Stop: 44115, Start Num: 72

Candidate Starts for Miko\_69:

(Start: 67 @44699 has 32 MA's), (Start: 72 @44687 has 173 MA's), (85, 44660), (Start: 104 @44570 has 1 MA's), (105, 44561), (106, 44546), (111, 44513), (115, 44495), (122, 44462), (129, 44411), (141, 44345), (150, 44285), (164, 44180), (176, 44135),

Gene: MilanaBonita\_32 Start: 27185, Stop: 26715, Start Num: 97

Candidate Starts for MilanaBonita\_32:

(Start: 84 @27227 has 195 MA's), (Start: 97 @27185 has 5 MA's), (Start: 104 @27134 has 1 MA's), (105, 27125), (111, 27077), (119, 27035), (135, 26954), (141, 26912), (173, 26726),

Gene: Milcery\_69 Start: 43451, Stop: 42921, Start Num: 74

Candidate Starts for Milcery\_69:

(71, 43457), (Start: 74 @43451 has 37 MA's), (127, 43199), (128, 43196), (129, 43175), (135, 43154), (159, 42995), (165, 42956),

Gene: MilleniumForce\_40 Start: 32109, Stop: 31573, Start Num: 72

Candidate Starts for MilleniumForce\_40:

(Start: 72 @32109 has 173 MA's), (Start: 97 @32043 has 5 MA's), (Start: 104 @31992 has 1 MA's), (105, 31983), (111, 31935), (119, 31893), (135, 31812), (141, 31770), (173, 31584),

Gene: Millski\_69 Start: 44172, Stop: 43660, Start Num: 79

Candidate Starts for Millski\_69:

(Start: 79 @44172 has 132 MA's), (Start: 97 @44124 has 5 MA's), (Start: 104 @44073 has 1 MA's), (115, 43998), (119, 43974), (121, 43968), (123, 43962), (129, 43911), (135, 43890), (145, 43833), (150, 43794), (166, 43692),

Gene: MinecraftSteve\_84 Start: 45576, Stop: 45055, Start Num: 72

Candidate Starts for MinecraftSteve\_84:

(Start: 72 @45576 has 173 MA's), (Start: 97 @45531 has 5 MA's), (Start: 104 @45480 has 1 MA's), (105, 45471), (111, 45423), (129, 45321), (135, 45300), (153, 45162), (157, 45144), (160, 45132), (166, 45096),

Gene: MinionDave\_41 Start: 32346, Stop: 31810, Start Num: 72

Candidate Starts for MinionDave\_41:

(Start: 72 @32346 has 173 MA's), (Start: 97 @32280 has 5 MA's), (Start: 104 @32229 has 1 MA's), (105, 32220), (111, 32172), (119, 32130), (135, 32049), (141, 32007), (173, 31821),

Gene: Miramae\_69 Start: 43907, Stop: 43407, Start Num: 86

Candidate Starts for Miramae\_69:

(Start: 86 @43907 has 21 MA's), (Start: 104 @43820 has 1 MA's), (106, 43796), (111, 43763), (121, 43715), (123, 43709), (124, 43697), (129, 43658), (135, 43637), (150, 43541), (166, 43439),

Gene: Molly\_75 Start: 45897, Stop: 45385, Start Num: 84

Candidate Starts for Molly\_75:

(24, 46071), (34, 46038), (Start: 62 @45954 has 2 MA's), (Start: 84 @45897 has 195 MA's), (Start: 97 @45855 has 5 MA's), (Start: 104 @45804 has 1 MA's), (105, 45795), (111, 45747), (135, 45624), (141, 45582), (163, 45438), (173, 45396),

Gene: Monet\_79 Start: 47934, Stop: 47422, Start Num: 84

Candidate Starts for Monet\_79:

(24, 48108), (34, 48075), (51, 48012), (Start: 62 @47991 has 2 MA's), (Start: 84 @47934 has 195 MA's), (Start: 97 @47892 has 5 MA's), (Start: 104 @47841 has 1 MA's), (105, 47832), (111, 47784), (135, 47661), (141, 47619), (173, 47433),

Gene: MoneyMay\_78 Start: 45008, Stop: 44499, Start Num: 88

Candidate Starts for MoneyMay\_78:

(Start: 88 @45008 has 77 MA's), (Start: 97 @44972 has 5 MA's), (Start: 104 @44921 has 1 MA's), (105, 44912), (115, 44846), (123, 44810), (129, 44762), (135, 44741), (144, 44681), (145, 44678), (146, 44675), (150, 44639), (158, 44576), (166, 44531),

Gene: Moonbeam\_39 Start: 31863, Stop: 31327, Start Num: 72

Candidate Starts for Moonbeam\_39:

(Start: 72 @31863 has 173 MA's), (Start: 97 @31797 has 5 MA's), (Start: 104 @31746 has 1 MA's), (105, 31737), (111, 31689), (119, 31647), (135, 31566), (141, 31524), (173, 31338),

Gene: Moose\_77 Start: 47070, Stop: 46555, Start Num: 84

Candidate Starts for Moose\_77:

(24, 47244), (34, 47211), (Start: 62 @47127 has 2 MA's), (Start: 84 @47070 has 195 MA's), (Start: 97 @47028 has 5 MA's), (Start: 104 @46977 has 1 MA's), (105, 46968), (111, 46920), (129, 46818), (135, 46797), (141, 46755), (163, 46611), (173, 46569),

Gene: Morizzled23\_50 Start: 15132, Stop: 15644, Start Num: 84

Candidate Starts for Morizzled23\_50:

(21, 14943), (Start: 80 @15120 has 3 MA's), (Start: 84 @15132 has 195 MA's), (Start: 97 @15174 has 5 MA's), (Start: 104 @15225 has 1 MA's), (105, 15234), (111, 15282), (135, 15405), (141, 15447), (163, 15591), (173, 15633),

Gene: Morpher26\_69 Start: 44373, Stop: 43873, Start Num: 86

Candidate Starts for Morpher26\_69:

(Start: 86 @44373 has 21 MA's), (Start: 104 @44286 has 1 MA's), (106, 44262), (121, 44181), (123, 44175), (124, 44163), (129, 44124), (133, 44109), (135, 44103), (150, 44007), (160, 43941), (166, 43905),

Gene: Mova\_39 Start: 30975, Stop: 30466, Start Num: 84

Candidate Starts for Mova\_39:

(10, 31233), (17, 31209), (Start: 84 @30975 has 195 MA's), (Start: 97 @30933 has 5 MA's), (Start: 104 @30882 has 1 MA's), (105, 30873), (111, 30825), (119, 30783), (135, 30702), (141, 30660), (173, 30477),

Gene: MrGordo\_76 Start: 45826, Stop: 45314, Start Num: 84

Candidate Starts for MrGordo\_76:

(24, 46000), (34, 45967), (Start: 62 @45883 has 2 MA's), (Start: 84 @45826 has 195 MA's), (Start: 97 @45784 has 5 MA's), (Start: 104 @45733 has 1 MA's), (105, 45724), (111, 45676), (135, 45553), (141, 45511), (173, 45325),

Gene: Mryolo\_70 Start: 44855, Stop: 44343, Start Num: 84

Candidate Starts for Mryolo\_70:

(24, 45029), (34, 44996), (Start: 62 @44912 has 2 MA's), (Start: 84 @44855 has 195 MA's), (Start: 97 @44813 has 5 MA's), (Start: 104 @44762 has 1 MA's), (105, 44753), (111, 44705), (129, 44603), (135, 44582), (141, 44540), (163, 44396), (173, 44354),

Gene: Ms6\_33 Start: 26759, Stop: 26250, Start Num: 84

Candidate Starts for Ms6\_33:

(10, 27017), (17, 26993), (Start: 84 @26759 has 195 MA's), (Start: 97 @26717 has 5 MA's), (Start: 104 @26666 has 1 MA's), (105, 26657), (111, 26609), (119, 26567), (135, 26486), (141, 26444), (173, 26261),

Gene: MuchMore\_82 Start: 44994, Stop: 44485, Start Num: 88

Candidate Starts for MuchMore\_82:

(Start: 69 @45030 has 3 MA's), (Start: 88 @44994 has 77 MA's), (Start: 97 @44958 has 5 MA's), (Start: 104 @44907 has 1 MA's), (105, 44898), (115, 44832), (123, 44796), (129, 44748), (135, 44727), (144, 44667), (145, 44664), (146, 44661), (150, 44625), (158, 44562), (166, 44517),

Gene: Mulciber\_76 Start: 44899, Stop: 44336, Start Num: 67

Candidate Starts for Mulciber\_76:

(Start: 56 @44929 has 1 MA's), (Start: 67 @44899 has 32 MA's), (Start: 72 @44887 has 173 MA's), (85, 44860), (Start: 104 @44770 has 1 MA's), (106, 44746), (111, 44713), (129, 44611), (135, 44587), (136, 44572), (141, 44545), (145, 44524), (150, 44485), (166, 44386), (176, 44353),

Gene: Mule\_74 Start: 45924, Stop: 45412, Start Num: 84

Candidate Starts for Mule\_74:

(3, 46320), (24, 46098), (34, 46065), (Start: 62 @45981 has 2 MA's), (Start: 84 @45924 has 195 MA's), (Start: 97 @45882 has 5 MA's), (Start: 104 @45831 has 1 MA's), (105, 45822), (111, 45774), (135, 45651), (141, 45609), (173, 45423),

Gene: Munch\_78 Start: 45362, Stop: 44799, Start Num: 67

Candidate Starts for Munch\_78:

(Start: 56 @45392 has 1 MA's), (Start: 67 @45362 has 32 MA's), (Start: 72 @45350 has 173 MA's), (85, 45323), (Start: 104 @45233 has 1 MA's), (106, 45209), (111, 45176), (129, 45074), (135, 45050), (136, 45035), (141, 45008), (145, 44987), (150, 44948), (166, 44849), (176, 44816),

Gene: Mundrea\_69 Start: 44369, Stop: 43869, Start Num: 86

Candidate Starts for Mundrea\_69:

(Start: 86 @44369 has 21 MA's), (100, 44321), (Start: 104 @44282 has 1 MA's), (111, 44225), (121, 44177), (123, 44171), (124, 44159), (129, 44120), (135, 44099), (150, 44003), (160, 43937), (166, 43901),

Gene: MyraDee\_73 Start: 42375, Stop: 41872, Start Num: 88

Candidate Starts for MyraDee\_73:

(Start: 88 @42375 has 77 MA's), (Start: 104 @42288 has 1 MA's), (128, 42150), (129, 42129), (133, 42114), (135, 42108), (160, 41940),

Gene: Myxus\_77 Start: 44781, Stop: 44233, Start Num: 67

Candidate Starts for Myxus\_77:

(Start: 67 @44781 has 32 MA's), (Start: 72 @44769 has 173 MA's), (Start: 104 @44673 has 1 MA's), (105, 44664), (106, 44649), (111, 44616), (135, 44493), (136, 44478), (137, 44475), (144, 44433), (145, 44430), (155, 44352), (166, 44283),

Gene: NEHalo\_71 Start: 45770, Stop: 45255, Start Num: 84

Candidate Starts for NEHalo\_71:

(24, 45944), (34, 45911), (Start: 62 @45827 has 2 MA's), (Start: 84 @45770 has 195 MA's), (Start: 97 @45728 has 5 MA's), (Start: 104 @45677 has 1 MA's), (105, 45668), (111, 45620), (135, 45497), (141, 45455), (163, 45311), (173, 45269),

Gene: NaSiaTalie\_76 Start: 45409, Stop: 44840, Start Num: 72

Candidate Starts for NaSiaTalie\_76:

(Start: 53 @45451 has 4 MA's), (61, 45439), (Start: 67 @45421 has 32 MA's), (Start: 72 @45409 has 173 MA's), (Start: 104 @45292 has 1 MA's), (105, 45283), (108, 45256), (111, 45235), (129, 45133), (141, 45067), (145, 45046), (150, 45007), (160, 44944),

Gene: Naca\_72 Start: 44855, Stop: 44325, Start Num: 74

Candidate Starts for Naca\_72:

(30, 44987), (38, 44954), (40, 44951), (Start: 74 @44855 has 37 MA's), (89, 44825), (117, 44663), (120, 44639), (127, 44603), (129, 44579), (135, 44558), (157, 44405), (159, 44399), (165, 44360),

Gene: Naiad\_57 Start: 40148, Stop: 39624, Start Num: 77

Candidate Starts for Naiad\_57:

(Start: 77 @40148 has 23 MA's), (96, 40103), (100, 40085), (115, 39971), (123, 39935), (128, 39908), (129, 39887), (135, 39866), (136, 39851), (142, 39821), (143, 39818), (145, 39803), (158, 39707), (160, 39698), (173, 39641),

Gene: Naira\_77 Start: 47443, Stop: 46931, Start Num: 84

Candidate Starts for Naira\_77:

(24, 47617), (34, 47584), (Start: 62 @47500 has 2 MA's), (Start: 84 @47443 has 195 MA's), (Start: 97 @47401 has 5 MA's), (Start: 104 @47350 has 1 MA's), (105, 47341), (111, 47293), (135, 47170), (141, 47128), (173, 46942),

Gene: Natosaleda\_57 Start: 40064, Stop: 39540, Start Num: 77

Candidate Starts for Natosaleda\_57:

(Start: 77 @40064 has 23 MA's), (96, 40019), (100, 40001), (115, 39887), (123, 39851), (128, 39824), (129, 39803), (135, 39782), (136, 39767), (142, 39737), (143, 39734), (158, 39623), (160, 39614), (173, 39557),

Gene: NearlyHeadless\_85 Start: 45887, Stop: 45384, Start Num: 88

Candidate Starts for NearlyHeadless\_85:

(Start: 65 @45926 has 3 MA's), (Start: 88 @45887 has 77 MA's), (Start: 95 @45863 has 1 MA's), (100, 45839), (Start: 104 @45800 has 1 MA's), (114, 45728), (116, 45722), (119, 45701), (123, 45689), (135, 45620), (150, 45518), (163, 45434), (166, 45416), (172, 45404),

Gene: Nebs\_71 Start: 44210, Stop: 43698, Start Num: 79

Candidate Starts for Nebs\_71:

(Start: 79 @44210 has 132 MA's), (Start: 97 @44162 has 5 MA's), (Start: 104 @44111 has 1 MA's), (115, 44036), (119, 44012), (123, 44000), (129, 43949), (135, 43928), (145, 43871), (157, 43778), (166, 43730),

Gene: Nebulosus\_81 Start: 45240, Stop: 44719, Start Num: 72

Candidate Starts for Nebulosus\_81:

(Start: 72 @45240 has 173 MA's), (Start: 97 @45195 has 5 MA's), (Start: 104 @45144 has 1 MA's), (105, 45135), (111, 45087), (129, 44985), (135, 44964), (153, 44826), (157, 44808), (160, 44796), (166, 44760),

Gene: Nedarya\_79 Start: 45469, Stop: 44945, Start Num: 72

Candidate Starts for Nedarya\_79:

(Start: 72 @45469 has 173 MA's), (Start: 104 @45370 has 1 MA's), (106, 45346), (108, 45334), (111, 45313), (129, 45211), (135, 45190), (154, 45049), (157, 45034), (160, 45022), (166, 44986),

Gene: Neeharika16\_77 Start: 44280, Stop: 43765, Start Num: 72

Candidate Starts for Neeharika16\_77:

(Start: 67 @44292 has 32 MA's), (Start: 72 @44280 has 173 MA's), (Start: 104 @44193 has 1 MA's), (105, 44184), (111, 44136), (129, 44034), (135, 44013), (138, 43992), (145, 43950), (150, 43911),

Gene: Nemo27\_69 Start: 44167, Stop: 43655, Start Num: 79

Candidate Starts for Nemo27\_69:

(Start: 79 @44167 has 132 MA's), (Start: 97 @44119 has 5 MA's), (Start: 104 @44068 has 1 MA's), (115, 43993), (119, 43969), (121, 43963), (123, 43957), (129, 43906), (135, 43885), (145, 43828), (150, 43789), (166, 43687),

Gene: Nerujay\_79 Start: 48212, Stop: 47700, Start Num: 84

Candidate Starts for Nerujay\_79:

(24, 48386), (34, 48353), (Start: 62 @48269 has 2 MA's), (Start: 84 @48212 has 195 MA's), (Start: 97 @48170 has 5 MA's), (Start: 104 @48119 has 1 MA's), (105, 48110), (111, 48062), (135, 47939), (141, 47897), (173, 47711),

Gene: Newrala\_77 Start: 44619, Stop: 44104, Start Num: 72

Candidate Starts for Newrala\_77:

(Start: 67 @44631 has 32 MA's), (Start: 72 @44619 has 173 MA's), (Start: 104 @44532 has 1 MA's), (105, 44523), (111, 44475), (129, 44373), (135, 44352), (138, 44331), (145, 44289), (150, 44250),

Gene: Nhonho\_71 Start: 45931, Stop: 45419, Start Num: 84

Candidate Starts for Nhonho\_71:

(24, 46105), (34, 46072), (51, 46009), (Start: 62 @45988 has 2 MA's), (Start: 84 @45931 has 195 MA's), (Start: 97 @45889 has 5 MA's), (Start: 104 @45838 has 1 MA's), (105, 45829), (111, 45781), (135, 45658), (141, 45616), (173, 45430),

Gene: NicoleTera\_73 Start: 45439, Stop: 44858, Start Num: 72

Candidate Starts for NicoleTera\_73:

(Start: 67 @45451 has 32 MA's), (Start: 72 @45439 has 173 MA's), (101, 45355), (Start: 104 @45319 has 1 MA's), (108, 45283), (111, 45262), (129, 45160), (132, 45151), (142, 45091), (145, 45073), (150, 45034), (166, 44908),

Gene: Niza\_75 Start: 47243, Stop: 46731, Start Num: 84

Candidate Starts for Niza\_75:

(24, 47417), (34, 47384), (Start: 62 @47300 has 2 MA's), (Start: 84 @47243 has 195 MA's), (Start: 97 @47201 has 5 MA's), (Start: 104 @47150 has 1 MA's), (105, 47141), (111, 47093), (135, 46970), (141, 46928), (163, 46784), (173, 46742),

Gene: Noelle\_70 Start: 44689, Stop: 44189, Start Num: 86

Candidate Starts for Noelle\_70:

(Start: 86 @44689 has 21 MA's), (Start: 104 @44602 has 1 MA's), (111, 44545), (123, 44491), (124, 44479), (129, 44440), (135, 44419), (136, 44404), (166, 44221),

Gene: Norbert\_69 Start: 44646, Stop: 44137, Start Num: 79

Candidate Starts for Norbert\_69:

(Start: 79 @44646 has 132 MA's), (100, 44589), (Start: 104 @44550 has 1 MA's), (105, 44541), (114, 44478), (115, 44475), (121, 44445), (124, 44427), (129, 44388), (135, 44367), (150, 44271), (158, 44214), (166, 44169),

Gene: NorthStar\_68 Start: 44171, Stop: 43659, Start Num: 79

Candidate Starts for NorthStar\_68:

(Start: 79 @44171 has 132 MA's), (Start: 97 @44123 has 5 MA's), (Start: 104 @44072 has 1 MA's), (115, 43997), (119, 43973), (121, 43967), (123, 43961), (129, 43910), (135, 43889), (145, 43832), (150, 43793), (166, 43691),

Gene: NotAPhaseMom\_69 Start: 44172, Stop: 43660, Start Num: 79

Candidate Starts for NotAPhaseMom\_69:

(Start: 79 @44172 has 132 MA's), (Start: 97 @44124 has 5 MA's), (Start: 104 @44073 has 1 MA's), (115, 43998), (119, 43974), (121, 43968), (123, 43962), (129, 43911), (135, 43890), (145, 43833), (150, 43794), (166, 43692),

Gene: NothingSpecial\_71 Start: 45368, Stop: 44808, Start Num: 67

Candidate Starts for NothingSpecial\_71:

(Start: 67 @45368 has 32 MA's), (Start: 72 @45356 has 173 MA's), (92, 45317), (Start: 104 @45239 has 1 MA's), (106, 45215), (111, 45182), (129, 45080), (135, 45056), (141, 45014), (145, 44993), (150, 44954), (160, 44888), (166, 44852),

Gene: Nyxis\_69 Start: 44061, Stop: 43549, Start Num: 79

Candidate Starts for Nyxis\_69:



(Start: 79 @44061 has 132 MA's), (Start: 97 @44013 has 5 MA's), (Start: 104 @43962 has 1 MA's), (115, 43887), (119, 43863), (121, 43857), (123, 43851), (129, 43800), (135, 43779), (145, 43722), (150, 43683), (157, 43629), (166, 43581),

Gene: OKCentral2016\_68 Start: 43243, Stop: 42737, Start Num: 76

Candidate Starts for OKCentral2016\_68:

(Start: 49 @43306 has 1 MA's), (57, 43291), (Start: 76 @43243 has 8 MA's), (Start: 78 @43240 has 10 MA's), (Start: 104 @43147 has 1 MA's), (106, 43123), (111, 43090), (115, 43072), (119, 43048), (129, 42988), (135, 42967), (136, 42952), (150, 42871), (153, 42835), (166, 42769), (173, 42748),

Gene: OKaNui\_69 Start: 44221, Stop: 43709, Start Num: 79

Candidate Starts for OKaNui\_69:

(Start: 79 @44221 has 132 MA's), (Start: 97 @44173 has 5 MA's), (Start: 104 @44122 has 1 MA's), (115, 44047), (119, 44023), (121, 44017), (123, 44011), (129, 43960), (135, 43939), (145, 43882), (150, 43843), (166, 43741),

Gene: Obama12\_71 Start: 44591, Stop: 44079, Start Num: 79

Candidate Starts for Obama12\_71:

(Start: 79 @44591 has 132 MA's), (Start: 97 @44543 has 5 MA's), (Start: 104 @44492 has 1 MA's), (115, 44417), (119, 44393), (123, 44381), (129, 44330), (135, 44309), (145, 44252), (166, 44111),

Gene: Odin\_77 Start: 45353, Stop: 44817, Start Num: 79

Candidate Starts for Odin\_77:

(Start: 67 @45377 has 32 MA's), (Start: 72 @45365 has 173 MA's), (Start: 79 @45353 has 132 MA's), (Start: 104 @45248 has 1 MA's), (105, 45239), (111, 45191), (115, 45173), (129, 45089), (135, 45065), (141, 45023), (145, 45002), (150, 44963), (166, 44861),

Gene: Ohfah\_71 Start: 44210, Stop: 43698, Start Num: 79

Candidate Starts for Ohfah\_71:

(Start: 79 @44210 has 132 MA's), (Start: 97 @44162 has 5 MA's), (Start: 104 @44111 has 1 MA's), (115, 44036), (119, 44012), (123, 44000), (129, 43949), (135, 43928), (145, 43871), (157, 43778), (166, 43730),

Gene: Ohno789\_78 Start: 47993, Stop: 47478, Start Num: 84

Candidate Starts for Ohno789\_78:

(24, 48167), (34, 48134), (Start: 62 @48050 has 2 MA's), (Start: 84 @47993 has 195 MA's), (Start: 97 @47951 has 5 MA's), (Start: 104 @47900 has 1 MA's), (105, 47891), (111, 47843), (135, 47720), (141, 47678), (163, 47534), (173, 47492),

Gene: OlanP\_77 Start: 44992, Stop: 44483, Start Num: 88

Candidate Starts for OlanP\_77:

(Start: 88 @44992 has 77 MA's), (Start: 97 @44956 has 5 MA's), (Start: 104 @44905 has 1 MA's), (105, 44896), (115, 44830), (123, 44794), (129, 44746), (135, 44725), (144, 44665), (145, 44662), (150, 44623), (158, 44560), (166, 44515),

Gene: Ollie\_79 Start: 44876, Stop: 44367, Start Num: 88

Candidate Starts for Ollie\_79:

(Start: 88 @44876 has 77 MA's), (Start: 97 @44840 has 5 MA's), (Start: 104 @44789 has 1 MA's), (105, 44780), (115, 44714), (123, 44678), (129, 44630), (135, 44609), (144, 44549), (145, 44546), (146, 44543), (150, 44507), (158, 44444), (166, 44399),

Gene: Oofda\_83 Start: 45531, Stop: 45010, Start Num: 72

Candidate Starts for Oofda\_83:

(Start: 72 @45531 has 173 MA's), (Start: 97 @45486 has 5 MA's), (Start: 104 @45435 has 1 MA's), (105, 45426), (111, 45378), (129, 45276), (135, 45255), (153, 45117), (157, 45099), (160, 45087), (166, 45051),

Gene: Oogway\_74 Start: 46824, Stop: 46312, Start Num: 84

Candidate Starts for Oogway\_74:

(24, 46998), (34, 46965), (Start: 62 @46881 has 2 MA's), (Start: 84 @46824 has 195 MA's), (Start: 97 @46782 has 5 MA's), (Start: 104 @46731 has 1 MA's), (105, 46722), (111, 46674), (119, 46632), (135, 46551), (141, 46509), (173, 46323),

Gene: Ovechkin\_39 Start: 32190, Stop: 31654, Start Num: 72

Candidate Starts for Ovechkin\_39:

(Start: 72 @32190 has 173 MA's), (Start: 97 @32124 has 5 MA's), (Start: 104 @32073 has 1 MA's), (105, 32064), (111, 32016), (119, 31974), (135, 31893), (141, 31851), (173, 31665),

Gene: P28Green\_79 Start: 45011, Stop: 44502, Start Num: 88

Candidate Starts for P28Green\_79:

(Start: 88 @45011 has 77 MA's), (Start: 97 @44975 has 5 MA's), (Start: 104 @44924 has 1 MA's), (105, 44915), (115, 44849), (123, 44813), (129, 44765), (135, 44744), (144, 44684), (145, 44681), (146, 44678), (150, 44642), (158, 44579), (166, 44534),

Gene: PGHhamlin\_81 Start: 44997, Stop: 44488, Start Num: 88

Candidate Starts for PGHhamlin\_81:

(Start: 69 @45033 has 3 MA's), (Start: 88 @44997 has 77 MA's), (Start: 97 @44961 has 5 MA's), (Start: 104 @44910 has 1 MA's), (105, 44901), (115, 44835), (123, 44799), (129, 44751), (135, 44730), (144, 44670), (145, 44667), (146, 44664), (150, 44628), (158, 44565), (166, 44520),

Gene: PP\_72 Start: 48590, Stop: 48084, Start Num: 78

Candidate Starts for PP\_72:

(Start: 78 @48590 has 10 MA's), (105, 48485), (115, 48419), (123, 48383), (129, 48335), (135, 48314), (145, 48257), (157, 48164), (158, 48161), (166, 48116),

Gene: PackMan\_76 Start: 44656, Stop: 44108, Start Num: 67

Candidate Starts for PackMan\_76:

(Start: 67 @44656 has 32 MA's), (Start: 72 @44644 has 173 MA's), (Start: 104 @44548 has 1 MA's), (105, 44539), (106, 44524), (111, 44491), (135, 44368), (136, 44353), (137, 44350), (144, 44308), (145, 44305), (155, 44227), (166, 44158),

Gene: Palestino\_69 Start: 44168, Stop: 43656, Start Num: 79

Candidate Starts for Palestino\_69:

(Start: 79 @44168 has 132 MA's), (Start: 97 @44120 has 5 MA's), (Start: 104 @44069 has 1 MA's), (115, 43994), (119, 43970), (121, 43964), (123, 43958), (129, 43907), (135, 43886), (145, 43829), (150, 43790), (166, 43688),

Gene: Panamaxus\_71 Start: 44648, Stop: 44139, Start Num: 79

Candidate Starts for Panamaxus\_71:

(Start: 79 @44648 has 132 MA's), (100, 44591), (Start: 104 @44552 has 1 MA's), (105, 44543), (114, 44480), (115, 44477), (121, 44447), (124, 44429), (129, 44390), (135, 44369), (150, 44273), (158, 44216), (166, 44171),

Gene: Papez\_77 Start: 47434, Stop: 46922, Start Num: 84

Candidate Starts for Papez\_77:

(Start: 62 @47491 has 2 MA's), (Start: 84 @47434 has 195 MA's), (Start: 97 @47392 has 5 MA's), (Start: 104 @47341 has 1 MA's), (105, 47332), (111, 47284), (135, 47161), (141, 47119), (173, 46933),

Gene: Paphu\_70 Start: 45468, Stop: 44956, Start Num: 84

Candidate Starts for Paphu\_70:

(24, 45642), (34, 45609), (Start: 62 @45525 has 2 MA's), (Start: 84 @45468 has 195 MA's), (Start: 97 @45426 has 5 MA's), (Start: 104 @45375 has 1 MA's), (105, 45366), (111, 45318), (119, 45276), (135, 45195), (141, 45153), (173, 44967),

Gene: Paraselene\_73 Start: 46117, Stop: 45605, Start Num: 84

Candidate Starts for Paraselene\_73:

(24, 46291), (34, 46258), (51, 46195), (Start: 62 @46174 has 2 MA's), (Start: 84 @46117 has 195 MA's), (Start: 97 @46075 has 5 MA's), (Start: 104 @46024 has 1 MA's), (105, 46015), (111, 45967), (135, 45844), (141, 45802), (173, 45616),

Gene: Pari\_80 Start: 46837, Stop: 46325, Start Num: 84

Candidate Starts for Pari\_80:

(24, 47011), (34, 46978), (Start: 62 @46894 has 2 MA's), (Start: 84 @46837 has 195 MA's), (Start: 97 @46795 has 5 MA's), (Start: 104 @46744 has 1 MA's), (105, 46735), (111, 46687), (135, 46564), (141, 46522), (173, 46336),

Gene: Parliament\_76 Start: 49018, Stop: 48506, Start Num: 84

Candidate Starts for Parliament\_76:

(24, 49192), (34, 49159), (Start: 62 @49075 has 2 MA's), (Start: 84 @49018 has 195 MA's), (Start: 97 @48976 has 5 MA's), (Start: 104 @48925 has 1 MA's), (105, 48916), (111, 48868), (135, 48745), (141, 48703), (173, 48517),

Gene: Partridge\_57 Start: 40427, Stop: 39903, Start Num: 77

Candidate Starts for Partridge\_57:

(Start: 77 @40427 has 23 MA's), (96, 40382), (100, 40364), (115, 40250), (123, 40214), (128, 40187), (129, 40166), (135, 40145), (143, 40097), (158, 39986), (160, 39977), (173, 39920),

Gene: PascalRango\_73 Start: 46112, Stop: 45600, Start Num: 84

Candidate Starts for PascalRango\_73:

(24, 46286), (34, 46253), (Start: 62 @46169 has 2 MA's), (Start: 84 @46112 has 195 MA's), (Start: 97 @46070 has 5 MA's), (Start: 104 @46019 has 1 MA's), (105, 46010), (111, 45962), (135, 45839), (141, 45797), (173, 45611),

Gene: PattyP\_75 Start: 46666, Stop: 46154, Start Num: 84

Candidate Starts for PattyP\_75:

(24, 46840), (34, 46807), (51, 46744), (Start: 62 @46723 has 2 MA's), (Start: 84 @46666 has 195 MA's), (Start: 97 @46624 has 5 MA's), (Start: 104 @46573 has 1 MA's), (105, 46564), (111, 46516), (135, 46393), (141, 46351), (173, 46165),

Gene: Pawn\_77 Start: 44820, Stop: 44311, Start Num: 88

Candidate Starts for Pawn\_77:

(Start: 88 @44820 has 77 MA's), (Start: 97 @44784 has 5 MA's), (Start: 104 @44733 has 1 MA's), (105, 44724), (115, 44658), (123, 44622), (129, 44574), (135, 44553), (144, 44493), (145, 44490), (150, 44451), (158, 44388), (166, 44343),

Gene: PeaceMeal1\_68 Start: 43142, Stop: 42639, Start Num: 78

Candidate Starts for PeaceMeal1\_68:

(Start: 49 @43208 has 1 MA's), (57, 43193), (Start: 76 @43145 has 8 MA's), (Start: 78 @43142 has 10 MA's), (Start: 104 @43049 has 1 MA's), (111, 42992), (115, 42974), (119, 42950), (129, 42890), (135, 42869), (153, 42737), (166, 42671), (173, 42650),

Gene: Peaches\_68 Start: 44170, Stop: 43658, Start Num: 79

Candidate Starts for Peaches\_68:

(Start: 79 @44170 has 132 MA's), (Start: 97 @44122 has 5 MA's), (Start: 104 @44071 has 1 MA's), (115, 43996), (119, 43972), (121, 43966), (123, 43960), (129, 43909), (135, 43888), (145, 43831), (150, 43792), (166, 43690),

Gene: Pelly\_76 Start: 49199, Stop: 48687, Start Num: 84

Candidate Starts for Pelly\_76:

(24, 49373), (34, 49340), (Start: 62 @49256 has 2 MA's), (Start: 84 @49199 has 195 MA's), (Start: 97 @49157 has 5 MA's), (Start: 104 @49106 has 1 MA's), (105, 49097), (111, 49049), (129, 48947), (135, 48926), (141, 48884), (163, 48740), (173, 48698),

Gene: Pembroke\_79 Start: 45006, Stop: 44497, Start Num: 88

Candidate Starts for Pembroke\_79:

(Start: 69 @45042 has 3 MA's), (Start: 88 @45006 has 77 MA's), (Start: 97 @44970 has 5 MA's), (Start: 104 @44919 has 1 MA's), (105, 44910), (115, 44844), (123, 44808), (129, 44760), (135, 44739), (144, 44679), (145, 44676), (146, 44673), (150, 44637), (158, 44574), (166, 44529),

Gene: Penny1\_79 Start: 45009, Stop: 44500, Start Num: 88

Candidate Starts for Penny1\_79:

(Start: 88 @45009 has 77 MA's), (Start: 97 @44973 has 5 MA's), (Start: 104 @44922 has 1 MA's), (105, 44913), (115, 44847), (123, 44811), (129, 44763), (135, 44742), (144, 44682), (145, 44679), (146, 44676), (150, 44640), (158, 44577), (166, 44532),

Gene: Pepe\_69 Start: 44078, Stop: 43608, Start Num: 97

Candidate Starts for Pepe\_69:

(Start: 97 @44078 has 5 MA's), (Start: 104 @44027 has 1 MA's), (105, 44018), (111, 43970), (135, 43847), (141, 43805), (173, 43619),

Gene: Perplexer\_69 Start: 44349, Stop: 43849, Start Num: 86

Candidate Starts for Perplexer\_69:

(Start: 86 @44349 has 21 MA's), (Start: 104 @44262 has 1 MA's), (106, 44238), (121, 44157), (123, 44151), (124, 44139), (129, 44100), (133, 44085), (135, 44079), (150, 43983), (160, 43917), (166, 43881),

Gene: Perseus\_75 Start: 48099, Stop: 47587, Start Num: 84

Candidate Starts for Perseus\_75:

(24, 48273), (34, 48240), (Start: 62 @48156 has 2 MA's), (Start: 84 @48099 has 195 MA's), (Start: 97 @48057 has 5 MA's), (Start: 104 @48006 has 1 MA's), (105, 47997), (111, 47949), (135, 47826), (141, 47784), (173, 47598),

Gene: PeterPeter\_70 Start: 44165, Stop: 43653, Start Num: 79

Candidate Starts for PeterPeter\_70:

(Start: 79 @44165 has 132 MA's), (Start: 97 @44117 has 5 MA's), (Start: 104 @44066 has 1 MA's), (115, 43991), (119, 43967), (121, 43961), (123, 43955), (129, 43904), (135, 43883), (145, 43826), (150, 43787), (166, 43685),

Gene: Petersenfast\_72 Start: 43781, Stop: 43230, Start Num: 72

Candidate Starts for Petersenfast\_72:

(Start: 56 @43823 has 1 MA's), (Start: 67 @43793 has 32 MA's), (Start: 72 @43781 has 173 MA's), (85, 43754), (Start: 104 @43664 has 1 MA's), (106, 43640), (111, 43607), (129, 43505), (135, 43481), (136, 43466), (141, 43439), (145, 43418), (150, 43379), (166, 43280), (176, 43247),

Gene: PetiteSangsue\_69 Start: 44352, Stop: 43852, Start Num: 86

Candidate Starts for PetiteSangsue\_69:

(Start: 86 @44352 has 21 MA's), (Start: 104 @44265 has 1 MA's), (106, 44241), (121, 44160), (123, 44154), (124, 44142), (129, 44103), (133, 44088), (135, 44082), (150, 43986), (160, 43920), (166, 43884),

Gene: Petp2012\_76 Start: 47447, Stop: 46932, Start Num: 84

Candidate Starts for Petp2012\_76:

(24, 47621), (34, 47588), (Start: 62 @47504 has 2 MA's), (Start: 84 @47447 has 195 MA's), (Start: 97 @47405 has 5 MA's), (Start: 104 @47354 has 1 MA's), (105, 47345), (111, 47297), (129, 47195), (135, 47174), (141, 47132), (163, 46988), (173, 46946),

Gene: PetterN\_77 Start: 44642, Stop: 44112, Start Num: 74

Candidate Starts for PetterN\_77:

(30, 44774), (38, 44741), (Start: 74 @44642 has 37 MA's), (89, 44612), (117, 44450), (127, 44390), (129, 44366), (135, 44345), (157, 44192), (159, 44186), (165, 44147),

Gene: Ph8s\_80 Start: 45284, Stop: 44853, Start Num: 104

Candidate Starts for Ph8s\_80:

(Start: 67 @45413 has 32 MA's), (Start: 72 @45401 has 173 MA's), (Start: 104 @45284 has 1 MA's), (105, 45275), (111, 45227), (115, 45209), (129, 45125), (135, 45101), (141, 45059), (144, 45041), (150, 44999), (166, 44897),

Gene: Phacado\_70 Start: 44167, Stop: 43655, Start Num: 79

Candidate Starts for Phacado\_70:

(Start: 79 @44167 has 132 MA's), (Start: 97 @44119 has 5 MA's), (Start: 104 @44068 has 1 MA's), (115, 43993), (119, 43969), (121, 43963), (123, 43957), (129, 43906), (135, 43885), (145, 43828), (150, 43789), (166, 43687),

Gene: Phaded\_71 Start: 46578, Stop: 46021, Start Num: 67

Candidate Starts for Phaded\_71:

(Start: 67 @46578 has 32 MA's), (Start: 72 @46566 has 173 MA's), (Start: 104 @46449 has 1 MA's), (111, 46392), (121, 46344), (129, 46290), (145, 46203), (150, 46164), (166, 46065),

Gene: Phaeder\_77 Start: 44644, Stop: 44108, Start Num: 72

Candidate Starts for Phaeder\_77:

(Start: 67 @44656 has 32 MA's), (Start: 72 @44644 has 173 MA's), (Start: 104 @44548 has 1 MA's), (105, 44539), (106, 44524), (111, 44491), (135, 44368), (136, 44353), (137, 44350), (144, 44308), (145, 44305), (155, 44227), (166, 44158),

Gene: PhailMary\_57 Start: 40448, Stop: 39924, Start Num: 77

Candidate Starts for PhailMary\_57:

(Start: 77 @40448 has 23 MA's), (96, 40403), (100, 40385), (115, 40271), (123, 40235), (128, 40208), (129, 40187), (135, 40166), (143, 40118), (158, 40007), (160, 39998), (173, 39941),

Gene: Phalconet\_39 Start: 31262, Stop: 30750, Start Num: 84

Candidate Starts for Phalconet\_39:

(Start: 84 @31262 has 195 MA's), (Start: 97 @31220 has 5 MA's), (Start: 104 @31169 has 1 MA's), (105, 31160), (111, 31112), (119, 31070), (135, 30989), (141, 30947), (173, 30761),

Gene: Phanphagia\_35 Start: 30304, Stop: 29768, Start Num: 72

Candidate Starts for Phanphagia\_35:

(Start: 72 @30304 has 173 MA's), (Start: 97 @30238 has 5 MA's), (Start: 104 @30187 has 1 MA's), (105, 30178), (111, 30130), (119, 30088), (135, 30007), (141, 29965), (173, 29779),

Gene: Phantastic\_75 Start: 44335, Stop: 43802, Start Num: 79

Candidate Starts for Phantastic\_75:

(Start: 73 @44344 has 1 MA's), (Start: 79 @44335 has 132 MA's), (Start: 104 @44236 has 1 MA's), (115, 44161), (121, 44131), (124, 44113), (129, 44074), (135, 44053), (150, 43957), (169, 43849), (174, 43825),

Gene: Pharaoh\_71 Start: 44723, Stop: 44199, Start Num: 67

Candidate Starts for Pharaoh\_71:

(59, 44747), (Start: 67 @44723 has 32 MA's), (Start: 72 @44711 has 173 MA's), (Start: 104 @44618 has 1 MA's), (105, 44609), (111, 44561), (129, 44459), (135, 44435), (139, 44411), (145, 44372), (146, 44369), (150, 44333), (157, 44282), (160, 44270),

Gene: Phelipe\_71 Start: 44210, Stop: 43698, Start Num: 79

Candidate Starts for Phelipe\_71:

(Start: 79 @44210 has 132 MA's), (Start: 97 @44162 has 5 MA's), (Start: 104 @44111 has 1 MA's), (115, 44036), (119, 44012), (123, 44000), (129, 43949), (135, 43928), (145, 43871), (157, 43778), (166, 43730),

Gene: PherrisBueller\_74 Start: 44385, Stop: 43873, Start Num: 84

Candidate Starts for PherrisBueller\_74:

(24, 44559), (34, 44526), (Start: 62 @44442 has 2 MA's), (Start: 84 @44385 has 195 MA's), (Start: 97 @44343 has 5 MA's), (Start: 104 @44292 has 1 MA's), (105, 44283), (111, 44235), (135, 44112), (141, 44070), (173, 43884),

Gene: Phighter1804\_70 Start: 44232, Stop: 43720, Start Num: 79

Candidate Starts for Phighter1804\_70:

(Start: 79 @44232 has 132 MA's), (Start: 97 @44184 has 5 MA's), (Start: 104 @44133 has 1 MA's), (115, 44058), (119, 44034), (121, 44028), (123, 44022), (129, 43971), (135, 43950), (145, 43893), (150, 43854), (166, 43752),

Gene: Phillis\_81 Start: 44943, Stop: 44401, Start Num: 65

Candidate Starts for Phillis\_81:

(Start: 65 @44943 has 3 MA's), (Start: 88 @44904 has 77 MA's), (Start: 95 @44880 has 1 MA's), (Start: 104 @44817 has 1 MA's), (114, 44745), (115, 44742), (116, 44739), (119, 44718), (122, 44709), (135, 44637), (150, 44535), (160, 44469), (166, 44433), (172, 44421),

Gene: PhishRPhriends\_75 Start: 44000, Stop: 43491, Start Num: 88

Candidate Starts for PhishRPhriends\_75:

(Start: 88 @44000 has 77 MA's), (Start: 97 @43964 has 5 MA's), (Start: 104 @43913 has 1 MA's), (105, 43904), (115, 43838), (123, 43802), (129, 43754), (135, 43733), (144, 43673), (145, 43670), (150, 43631), (158, 43568), (166, 43523),

Gene: Phlorence\_68 Start: 43451, Stop: 42921, Start Num: 74

Candidate Starts for Phlorence\_68:

(71, 43457), (Start: 74 @43451 has 37 MA's), (127, 43199), (128, 43196), (129, 43175), (135, 43154), (157, 43001), (159, 42995), (165, 42956),

Gene: Phoebe\_80 Start: 45001, Stop: 44492, Start Num: 88

Candidate Starts for Phoebe\_80:

(Start: 88 @45001 has 77 MA's), (Start: 97 @44965 has 5 MA's), (Start: 104 @44914 has 1 MA's), (105, 44905), (115, 44839), (123, 44803), (129, 44755), (135, 44734), (144, 44674), (145, 44671), (146, 44668), (150, 44632), (158, 44569), (166, 44524),

Gene: Phonnegut\_77 Start: 44716, Stop: 44180, Start Num: 72

Candidate Starts for Phonnegut\_77:

(Start: 67 @44728 has 32 MA's), (Start: 72 @44716 has 173 MA's), (Start: 104 @44620 has 1 MA's), (105, 44611), (106, 44596), (111, 44563), (135, 44440), (136, 44425), (137, 44422), (144, 44380), (145, 44377), (155, 44299),

Gene: Phontbonne\_70 Start: 44077, Stop: 43565, Start Num: 79

Candidate Starts for Phontbonne\_70:

(Start: 79 @44077 has 132 MA's), (Start: 97 @44029 has 5 MA's), (Start: 104 @43978 has 1 MA's), (115, 43903), (119, 43879), (121, 43873), (123, 43867), (129, 43816), (135, 43795), (145, 43738), (150, 43699), (157, 43645), (166, 43597),

Gene: Phox\_45 Start: 15891, Stop: 16403, Start Num: 84

Candidate Starts for Phox\_45:

(21, 15702), (Start: 80 @15879 has 3 MA's), (Start: 84 @15891 has 195 MA's), (Start: 97 @15933 has 5 MA's), (Start: 104 @15984 has 1 MA's), (105, 15993), (111, 16041), (119, 16083), (135, 16164), (141, 16206), (173, 16392),

Gene: Phoxy\_79 Start: 45030, Stop: 44521, Start Num: 88

Candidate Starts for Phoxy\_79:

(Start: 88 @45030 has 77 MA's), (Start: 97 @44994 has 5 MA's), (Start: 104 @44943 has 1 MA's), (105, 44934), (115, 44868), (123, 44832), (129, 44784), (135, 44763), (144, 44703), (145, 44700), (146, 44697), (150, 44661), (158, 44598), (166, 44553),

Gene: PickleBack\_70 Start: 43628, Stop: 43098, Start Num: 74

Candidate Starts for PickleBack\_70:

(71, 43634), (Start: 74 @43628 has 37 MA's), (127, 43376), (128, 43373), (129, 43352), (135, 43331), (157, 43178), (159, 43172), (165, 43133),

Gene: PinkPlastic\_71 Start: 45033, Stop: 44521, Start Num: 84

Candidate Starts for PinkPlastic\_71:

(24, 45207), (34, 45174), (51, 45111), (Start: 62 @45090 has 2 MA's), (Start: 84 @45033 has 195 MA's), (Start: 97 @44991 has 5 MA's), (Start: 104 @44940 has 1 MA's), (105, 44931), (111, 44883), (135, 44760), (141, 44718), (173, 44532),

Gene: Pinkcreek\_38 Start: 13361, Stop: 13873, Start Num: 84

Candidate Starts for Pinkcreek\_38:

(21, 13172), (Start: 80 @13349 has 3 MA's), (Start: 84 @13361 has 195 MA's), (Start: 97 @13403 has 5 MA's), (Start: 104 @13454 has 1 MA's), (105, 13463), (111, 13511), (135, 13634), (141, 13676), (173, 13862),

Gene: Pinto\_75 Start: 46896, Stop: 46384, Start Num: 84

Candidate Starts for Pinto\_75:

(24, 47070), (34, 47037), (Start: 62 @46953 has 2 MA's), (Start: 84 @46896 has 195 MA's), (Start: 97 @46854 has 5 MA's), (Start: 104 @46803 has 1 MA's), (105, 46794), (111, 46746), (135, 46623), (141, 46581), (163, 46437), (173, 46395),

Gene: Pioneer\_77 Start: 44716, Stop: 44180, Start Num: 72

Candidate Starts for Pioneer\_77:

(Start: 67 @44728 has 32 MA's), (Start: 72 @44716 has 173 MA's), (Start: 104 @44620 has 1 MA's), (105, 44611), (106, 44596), (111, 44563), (135, 44440), (136, 44425), (137, 44422), (144, 44380), (145, 44377), (155, 44299),

Gene: Pipcraft\_67 Start: 44172, Stop: 43660, Start Num: 79

Candidate Starts for Pipcraft\_67:

(Start: 79 @44172 has 132 MA's), (Start: 97 @44124 has 5 MA's), (Start: 104 @44073 has 1 MA's), (115, 43998), (119, 43974), (121, 43968), (123, 43962), (129, 43911), (135, 43890), (145, 43833), (150, 43794), (166, 43692),

Gene: Pippin\_76 Start: 46538, Stop: 46026, Start Num: 84

Candidate Starts for Pippin\_76:

(24, 46712), (34, 46679), (51, 46616), (Start: 62 @46595 has 2 MA's), (Start: 84 @46538 has 195 MA's), (Start: 97 @46496 has 5 MA's), (Start: 104 @46445 has 1 MA's), (105, 46436), (111, 46388), (135, 46265), (141, 46223), (173, 46037),

Gene: Piro94\_75 Start: 45423, Stop: 44806, Start Num: 53

Candidate Starts for Piro94\_75:

(Start: 53 @45423 has 4 MA's), (61, 45411), (Start: 67 @45393 has 32 MA's), (Start: 72 @45381 has 173 MA's), (Start: 104 @45264 has 1 MA's), (105, 45255), (108, 45228), (111, 45207), (129, 45105), (141, 45039), (145, 45018), (150, 44979), (160, 44916),

Gene: Pita2\_76 Start: 46539, Stop: 46027, Start Num: 84

Candidate Starts for Pita2\_76:

(24, 46713), (34, 46680), (Start: 62 @46596 has 2 MA's), (Start: 84 @46539 has 195 MA's), (Start: 97 @46497 has 5 MA's), (Start: 104 @46446 has 1 MA's), (105, 46437), (111, 46389), (129, 46287), (135, 46266), (141, 46224), (163, 46080), (173, 46038),

Gene: Pmask\_77 Start: 44829, Stop: 44302, Start Num: 67

Candidate Starts for Pmask\_77:

(Start: 67 @44829 has 32 MA's), (Start: 72 @44817 has 173 MA's), (Start: 104 @44730 has 1 MA's), (105, 44721), (111, 44673), (129, 44571), (135, 44550), (138, 44529), (145, 44487), (150, 44448),

Gene: Pocahontas\_72 Start: 44643, Stop: 44134, Start Num: 79

Candidate Starts for Pocahontas\_72:

(Start: 79 @44643 has 132 MA's), (100, 44586), (Start: 104 @44547 has 1 MA's), (105, 44538), (114, 44475), (115, 44472), (121, 44442), (124, 44424), (129, 44385), (135, 44364), (150, 44268), (158, 44211), (166, 44166),

Gene: Polymorphads\_70 Start: 44191, Stop: 43679, Start Num: 79

Candidate Starts for Polymorphads\_70:

(Start: 79 @44191 has 132 MA's), (Start: 97 @44143 has 5 MA's), (Start: 104 @44092 has 1 MA's), (115, 44017), (119, 43993), (123, 43981), (129, 43930), (135, 43909), (145, 43852), (157, 43759), (166, 43711),

Gene: Pomar16\_78 Start: 45917, Stop: 45372, Start Num: 72

Candidate Starts for Pomar16\_78:

(Start: 67 @45929 has 32 MA's), (Start: 72 @45917 has 173 MA's), (Start: 104 @45800 has 1 MA's), (105, 45791), (106, 45776), (111, 45743), (129, 45641), (131, 45635), (135, 45617), (140, 45590), (141, 45575), (142, 45572), (144, 45557), (150, 45515), (158, 45461), (163, 45434), (166, 45416),



Gene: Poompha\_67 Start: 43206, Stop: 42637, Start Num: 49

Candidate Starts for Poompha\_67:

(Start: 49 @43206 has 1 MA's), (57, 43191), (Start: 76 @43143 has 8 MA's), (Start: 78 @43140 has 10 MA's), (Start: 104 @43047 has 1 MA's), (111, 42990), (115, 42972), (119, 42948), (129, 42888), (135, 42867), (153, 42735), (166, 42669), (173, 42648),

Gene: Popcicle\_73 Start: 44643, Stop: 44134, Start Num: 79

Candidate Starts for Popcicle\_73:

(Start: 79 @44643 has 132 MA's), (100, 44586), (Start: 104 @44547 has 1 MA's), (105, 44538), (114, 44475), (115, 44472), (121, 44442), (124, 44424), (129, 44385), (135, 44364), (150, 44268), (158, 44211), (166, 44166),

Gene: PotatoSplit\_80 Start: 45009, Stop: 44500, Start Num: 88

Candidate Starts for PotatoSplit\_80:

(Start: 88 @45009 has 77 MA's), (Start: 97 @44973 has 5 MA's), (Start: 104 @44922 has 1 MA's), (105, 44913), (115, 44847), (123, 44811), (129, 44763), (135, 44742), (144, 44682), (145, 44679), (146, 44676), (150, 44640), (158, 44577), (166, 44532),

Gene: Pound\_183 Start: 95495, Stop: 94983, Start Num: 84

Candidate Starts for Pound\_183:

(7, 95786), (26, 95657), (45, 95600), (47, 95591), (Start: 74 @95519 has 37 MA's), (Start: 83 @95498 has 2 MA's), (Start: 84 @95495 has 195 MA's), (Start: 97 @95453 has 5 MA's), (Start: 104 @95402 has 1 MA's), (105, 95393), (111, 95345), (119, 95303), (135, 95222), (141, 95180), (173, 94994),

Gene: Power\_75 Start: 45761, Stop: 45186, Start Num: 72

Candidate Starts for Power\_75:

(Start: 53 @45803 has 4 MA's), (61, 45791), (Start: 67 @45773 has 32 MA's), (Start: 72 @45761 has 173 MA's), (Start: 104 @45644 has 1 MA's), (105, 45635), (111, 45587), (129, 45485), (145, 45398), (150, 45359), (160, 45296),

Gene: Priya\_75 Start: 44441, Stop: 43905, Start Num: 72

Candidate Starts for Priya\_75:

(Start: 67 @44453 has 32 MA's), (Start: 72 @44441 has 173 MA's), (Start: 104 @44345 has 1 MA's), (105, 44336), (106, 44321), (111, 44288), (135, 44165), (136, 44150), (137, 44147), (144, 44105), (145, 44102), (155, 44024), (160, 43994),

Gene: Pukovnik\_72 Start: 46197, Stop: 45637, Start Num: 67

Candidate Starts for Pukovnik\_72:

(Start: 67 @46197 has 32 MA's), (Start: 72 @46185 has 173 MA's), (82, 46164), (Start: 95 @46131 has 1 MA's), (Start: 104 @46068 has 1 MA's), (111, 46011), (129, 45909), (131, 45903), (135, 45885), (145, 45822), (150, 45783), (160, 45717), (166, 45681),

Gene: Pumbaa\_70 Start: 44116, Stop: 43604, Start Num: 79

Candidate Starts for Pumbaa\_70:

(Start: 79 @44116 has 132 MA's), (Start: 97 @44068 has 5 MA's), (Start: 104 @44017 has 1 MA's), (115, 43942), (119, 43918), (121, 43912), (123, 43906), (129, 43855), (135, 43834), (145, 43777), (150, 43738), (166, 43636),

Gene: Puppy\_74 Start: 44305, Stop: 43799, Start Num: 81

Candidate Starts for Puppy\_74:

(Start: 73 @44320 has 1 MA's), (Start: 79 @44311 has 132 MA's), (Start: 81 @44305 has 3 MA's), (Start: 104 @44212 has 1 MA's), (115, 44137), (116, 44134), (119, 44113), (121, 44107), (124, 44089), (129, 44050), (133, 44035), (135, 44029), (150, 43933), (158, 43876), (166, 43831),

Gene: PurpleHaze\_78 Start: 44815, Stop: 44306, Start Num: 88

Candidate Starts for PurpleHaze\_78:

(Start: 88 @44815 has 77 MA's), (Start: 97 @44779 has 5 MA's), (Start: 104 @44728 has 1 MA's), (105, 44719), (115, 44653), (123, 44617), (129, 44569), (135, 44548), (144, 44488), (145, 44485), (150, 44446), (158, 44383), (166, 44338),

Gene: QTRlifeCrisis\_74 Start: 45881, Stop: 45369, Start Num: 84

Candidate Starts for QTRlifeCrisis\_74:

(24, 46055), (34, 46022), (Start: 62 @45938 has 2 MA's), (Start: 84 @45881 has 195 MA's), (Start: 97 @45839 has 5 MA's), (Start: 104 @45788 has 1 MA's), (105, 45779), (111, 45731), (135, 45608), (141, 45566), (173, 45380),

Gene: Qobbit\_75 Start: 44403, Stop: 43867, Start Num: 72

Candidate Starts for Qobbit\_75:

(Start: 67 @44415 has 32 MA's), (Start: 72 @44403 has 173 MA's), (Start: 104 @44307 has 1 MA's), (105, 44298), (106, 44283), (111, 44250), (135, 44127), (136, 44112), (137, 44109), (144, 44067), (145, 44064), (155, 43986), (160, 43956),

Gene: QueenB2\_73 Start: 45044, Stop: 44466, Start Num: 72

Candidate Starts for QueenB2\_73:

(Start: 31 @45164 has 1 MA's), (Start: 53 @45086 has 4 MA's), (61, 45074), (Start: 67 @45056 has 32 MA's), (Start: 72 @45044 has 173 MA's), (Start: 104 @44927 has 1 MA's), (105, 44918), (111, 44870), (129, 44768), (145, 44681), (149, 44651), (150, 44642), (160, 44579),

Gene: QueenBeesly\_76 Start: 45718, Stop: 45143, Start Num: 72

Candidate Starts for QueenBeesly\_76:

(Start: 53 @45760 has 4 MA's), (61, 45748), (Start: 67 @45730 has 32 MA's), (Start: 72 @45718 has 173 MA's), (Start: 104 @45601 has 1 MA's), (105, 45592), (111, 45544), (129, 45442), (145, 45355), (150, 45316), (160, 45253),

Gene: QuinnKiro\_72 Start: 44647, Stop: 44138, Start Num: 79

Candidate Starts for QuinnKiro\_72:

(Start: 79 @44647 has 132 MA's), (100, 44590), (Start: 104 @44551 has 1 MA's), (105, 44542), (114, 44479), (115, 44476), (121, 44446), (124, 44428), (129, 44389), (135, 44368), (150, 44272), (158, 44215), (166, 44170),

Gene: Rabinovish\_45 Start: 16067, Stop: 16579, Start Num: 84

Candidate Starts for Rabinovish\_45:

(21, 15878), (Start: 80 @16055 has 3 MA's), (Start: 84 @16067 has 195 MA's), (Start: 97 @16109 has 5 MA's), (Start: 104 @16160 has 1 MA's), (105, 16169), (111, 16217), (135, 16340), (141, 16382), (173, 16568),

Gene: Rachaly\_71 Start: 44832, Stop: 44260, Start Num: 72

Candidate Starts for Rachaly\_71:

(Start: 67 @44844 has 32 MA's), (Start: 72 @44832 has 173 MA's), (Start: 81 @44817 has 3 MA's), (85, 44805), (Start: 104 @44715 has 1 MA's), (105, 44706), (106, 44691), (111, 44658), (115, 44640), (122, 44607), (129, 44556), (141, 44490), (150, 44430), (164, 44325), (176, 44280),

Gene: Rahalelujah\_77 Start: 44590, Stop: 44048, Start Num: 67

Candidate Starts for Rahalelujah\_77:

(Start: 67 @44590 has 32 MA's), (Start: 72 @44578 has 173 MA's), (Start: 104 @44482 has 1 MA's), (106, 44458), (111, 44425), (115, 44407), (135, 44302), (137, 44284), (144, 44242), (145, 44239),

(150, 44200), (155, 44161), (157, 44143), (158, 44140), (160, 44131), (166, 44092),

Gene: Rajelicia\_77 Start: 48719, Stop: 48207, Start Num: 84

Candidate Starts for Rajelicia\_77:

(24, 48893), (34, 48860), (Start: 62 @48776 has 2 MA's), (Start: 84 @48719 has 195 MA's), (Start: 97 @48677 has 5 MA's), (Start: 104 @48626 has 1 MA's), (105, 48617), (111, 48569), (135, 48446), (141, 48404), (173, 48218),

Gene: ReMo\_82 Start: 45680, Stop: 45159, Start Num: 72

Candidate Starts for ReMo\_82:

(Start: 72 @45680 has 173 MA's), (Start: 97 @45635 has 5 MA's), (Start: 104 @45584 has 1 MA's), (105, 45575), (111, 45527), (129, 45425), (135, 45404), (153, 45266), (157, 45248), (160, 45236), (166, 45200),

Gene: Reba\_74 Start: 43656, Stop: 43147, Start Num: 88

Candidate Starts for Reba\_74:

(Start: 88 @43656 has 77 MA's), (Start: 97 @43620 has 5 MA's), (Start: 104 @43569 has 1 MA's), (105, 43560), (115, 43494), (123, 43458), (129, 43410), (135, 43389), (144, 43329), (145, 43326), (150, 43287), (158, 43224), (166, 43179),

Gene: Rebeuca\_71 Start: 44450, Stop: 43944, Start Num: 78

Candidate Starts for Rebeuca\_71:

(Start: 49 @44516 has 1 MA's), (57, 44501), (Start: 76 @44453 has 8 MA's), (Start: 78 @44450 has 10 MA's), (Start: 104 @44354 has 1 MA's), (106, 44330), (111, 44297), (115, 44279), (119, 44255), (129, 44195), (135, 44174), (145, 44117), (150, 44078), (153, 44042), (166, 43976), (173, 43955),

Gene: RedRock\_74 Start: 45760, Stop: 45170, Start Num: 67

Candidate Starts for RedRock\_74:

(63, 45772), (Start: 67 @45760 has 32 MA's), (Start: 72 @45748 has 173 MA's), (91, 45709), (Start: 104 @45631 has 1 MA's), (105, 45622), (111, 45574), (118, 45547), (129, 45472), (132, 45463), (142, 45403), (145, 45385), (150, 45346), (161, 45271),

Gene: Refuge\_73 Start: 45856, Stop: 45341, Start Num: 72

Candidate Starts for Refuge\_73:

(54, 45901), (Start: 72 @45856 has 173 MA's), (Start: 104 @45766 has 1 MA's), (105, 45757), (111, 45709), (129, 45607), (135, 45583), (139, 45559), (145, 45520), (150, 45481), (160, 45418), (166, 45382), (176, 45349),

Gene: Relief\_69 Start: 44168, Stop: 43656, Start Num: 79

Candidate Starts for Relief\_69:

(Start: 79 @44168 has 132 MA's), (Start: 97 @44120 has 5 MA's), (Start: 104 @44069 has 1 MA's), (115, 43994), (119, 43970), (121, 43964), (123, 43958), (129, 43907), (135, 43886), (145, 43829), (150, 43790), (166, 43688),

Gene: Remus\_84 Start: 45610, Stop: 45089, Start Num: 72

Candidate Starts for Remus\_84:

(Start: 72 @45610 has 173 MA's), (Start: 97 @45565 has 5 MA's), (Start: 104 @45514 has 1 MA's), (105, 45505), (111, 45457), (129, 45355), (135, 45334), (153, 45196), (157, 45178), (160, 45166), (166, 45130),

Gene: ResDef\_71 Start: 44650, Stop: 44138, Start Num: 79

Candidate Starts for ResDef\_71:

(Start: 79 @44650 has 132 MA's), (100, 44593), (Start: 104 @44554 has 1 MA's), (105, 44545), (114, 44482), (115, 44479), (121, 44449), (124, 44428), (129, 44389), (135, 44368), (150, 44272), (158, 44215), (166, 44170),

Gene: Retro23\_76 Start: 45449, Stop: 44871, Start Num: 72

Candidate Starts for Retro23\_76:

(Start: 53 @45491 has 4 MA's), (61, 45479), (Start: 67 @45461 has 32 MA's), (Start: 72 @45449 has 173 MA's), (Start: 104 @45332 has 1 MA's), (105, 45323), (111, 45275), (129, 45173), (142, 45104), (145, 45086), (149, 45056), (150, 45047), (160, 44984),

Gene: RexFury\_57 Start: 40154, Stop: 39630, Start Num: 77

Candidate Starts for RexFury\_57:

(Start: 77 @40154 has 23 MA's), (96, 40109), (100, 40091), (115, 39977), (123, 39941), (128, 39914), (129, 39893), (135, 39872), (136, 39857), (142, 39827), (143, 39824), (158, 39713), (160, 39704), (173, 39647),

Gene: Rhodalysa\_58 Start: 40126, Stop: 39602, Start Num: 77

Candidate Starts for Rhodalysa\_58:

(Start: 77 @40126 has 23 MA's), (96, 40081), (100, 40063), (115, 39949), (123, 39913), (128, 39886), (129, 39865), (135, 39844), (136, 39829), (142, 39799), (143, 39796), (145, 39781), (158, 39685), (160, 39676), (173, 39619),

Gene: Rhynn\_71 Start: 46307, Stop: 45795, Start Num: 84

Candidate Starts for Rhynn\_71:

(27, 46466), (Start: 62 @46364 has 2 MA's), (Start: 84 @46307 has 195 MA's), (Start: 97 @46265 has 5 MA's), (Start: 104 @46214 has 1 MA's), (105, 46205), (111, 46157), (135, 46034), (141, 45992), (163, 45848), (173, 45806),

Gene: Rialto\_43 Start: 33485, Stop: 32973, Start Num: 84

Candidate Starts for Rialto\_43:

(Start: 58 @33539 has 9 MA's), (Start: 84 @33485 has 195 MA's), (Start: 97 @33443 has 5 MA's), (Start: 104 @33392 has 1 MA's), (105, 33383), (111, 33335), (119, 33293), (135, 33212), (141, 33170), (173, 32984),

Gene: Rifter\_78 Start: 43502, Stop: 42987, Start Num: 72

Candidate Starts for Rifter\_78:

(27, 43634), (Start: 58 @43538 has 9 MA's), (Start: 67 @43514 has 32 MA's), (Start: 72 @43502 has 173 MA's), (Start: 104 @43415 has 1 MA's), (111, 43358), (129, 43256), (135, 43235), (145, 43172), (150, 43133), (158, 43079), (160, 43070), (175, 43007),

Gene: Ringer\_75 Start: 47251, Stop: 46739, Start Num: 84

Candidate Starts for Ringer\_75:

(24, 47425), (34, 47392), (Start: 62 @47308 has 2 MA's), (Start: 84 @47251 has 195 MA's), (Start: 97 @47209 has 5 MA's), (Start: 104 @47158 has 1 MA's), (105, 47149), (111, 47101), (135, 46978), (141, 46936), (173, 46750),

Gene: Roary\_86 Start: 46114, Stop: 45572, Start Num: 65

Candidate Starts for Roary\_86:

(Start: 65 @46114 has 3 MA's), (Start: 88 @46075 has 77 MA's), (Start: 95 @46051 has 1 MA's), (100, 46027), (Start: 104 @45988 has 1 MA's), (114, 45916), (116, 45910), (119, 45889), (123, 45877), (135, 45808), (150, 45706), (163, 45622), (166, 45604), (172, 45592),

Gene: Rockstar\_72 Start: 44129, Stop: 43650, Start Num: 94

Candidate Starts for Rockstar\_72:

(Start: 94 @44129 has 1 MA's), (98, 44111), (Start: 104 @44063 has 1 MA's), (115, 43988), (121, 43958), (124, 43940), (129, 43901), (135, 43880), (150, 43784), (158, 43727), (166, 43682),

Gene: Rohr\_78 Start: 48502, Stop: 47990, Start Num: 84

Candidate Starts for Rohr\_78:

(24, 48676), (34, 48643), (Start: 62 @48559 has 2 MA's), (Start: 84 @48502 has 195 MA's), (Start: 97 @48460 has 5 MA's), (Start: 104 @48409 has 1 MA's), (105, 48400), (111, 48352), (129, 48250), (135, 48229), (141, 48187), (163, 48043), (173, 48001),

Gene: Roksolana\_78 Start: 44236, Stop: 43721, Start Num: 72

Candidate Starts for Roksolana\_78:

(Start: 58 @44272 has 9 MA's), (Start: 67 @44248 has 32 MA's), (Start: 72 @44236 has 173 MA's), (Start: 104 @44149 has 1 MA's), (111, 44092), (129, 43990), (135, 43969), (145, 43906), (150, 43867), (158, 43813), (160, 43804), (175, 43741),

Gene: Romney\_69 Start: 44168, Stop: 43656, Start Num: 79

Candidate Starts for Romney\_69:

(Start: 79 @44168 has 132 MA's), (Start: 97 @44120 has 5 MA's), (Start: 104 @44069 has 1 MA's), (115, 43994), (119, 43970), (121, 43964), (123, 43958), (129, 43907), (135, 43886), (145, 43829), (150, 43790), (166, 43688),

Gene: Ronan\_41 Start: 12698, Stop: 13210, Start Num: 84

Candidate Starts for Ronan\_41:

(21, 12509), (Start: 80 @12686 has 3 MA's), (Start: 84 @12698 has 195 MA's), (Start: 97 @12740 has 5 MA's), (Start: 104 @12791 has 1 MA's), (105, 12800), (111, 12848), (119, 12890), (135, 12971), (141, 13013), (173, 13199),

Gene: Roosevelt\_68 Start: 44173, Stop: 43661, Start Num: 79

Candidate Starts for Roosevelt\_68:

(Start: 79 @44173 has 132 MA's), (Start: 97 @44125 has 5 MA's), (Start: 104 @44074 has 1 MA's), (115, 43999), (119, 43975), (121, 43969), (123, 43963), (129, 43912), (135, 43891), (145, 43834), (150, 43795), (157, 43741), (166, 43693),

Gene: Rosalind\_82 Start: 45504, Stop: 44983, Start Num: 72

Candidate Starts for Rosalind\_82:

(Start: 72 @45504 has 173 MA's), (Start: 97 @45459 has 5 MA's), (Start: 104 @45408 has 1 MA's), (105, 45399), (111, 45351), (129, 45249), (135, 45228), (153, 45090), (157, 45072), (160, 45060), (166, 45024),

Gene: Rubeus\_76 Start: 45002, Stop: 44490, Start Num: 84

Candidate Starts for Rubeus\_76:

(24, 45176), (34, 45143), (Start: 62 @45059 has 2 MA's), (Start: 84 @45002 has 195 MA's), (Start: 97 @44960 has 5 MA's), (Start: 104 @44909 has 1 MA's), (105, 44900), (111, 44852), (135, 44729), (141, 44687), (173, 44501),

Gene: Rufus\_78 Start: 47691, Stop: 47179, Start Num: 84

Candidate Starts for Rufus\_78:

(24, 47865), (34, 47832), (Start: 62 @47748 has 2 MA's), (Start: 84 @47691 has 195 MA's), (Start: 97 @47649 has 5 MA's), (Start: 104 @47598 has 1 MA's), (105, 47589), (111, 47541), (135, 47418), (141, 47376), (173, 47190),

Gene: Ruin\_70 Start: 44164, Stop: 43652, Start Num: 79

Candidate Starts for Ruin\_70:

(Start: 79 @44164 has 132 MA's), (Start: 97 @44116 has 5 MA's), (Start: 104 @44065 has 1 MA's), (115, 43990), (119, 43966), (121, 43960), (123, 43954), (129, 43903), (135, 43882), (145, 43825), (150, 43786), (166, 43684),

Gene: Rummer\_78 Start: 45033, Stop: 44524, Start Num: 88

Candidate Starts for Rummer\_78:

(Start: 88 @45033 has 77 MA's), (Start: 97 @44997 has 5 MA's), (Start: 104 @44946 has 1 MA's), (105, 44937), (115, 44871), (123, 44835), (129, 44787), (135, 44766), (144, 44706), (145, 44703), (146, 44700), (150, 44664), (158, 44601), (166, 44556),

Gene: Ruotula\_79 Start: 48104, Stop: 47592, Start Num: 84

Candidate Starts for Ruotula\_79:

(24, 48278), (34, 48245), (Start: 62 @48161 has 2 MA's), (Start: 84 @48104 has 195 MA's), (Start: 97 @48062 has 5 MA's), (Start: 104 @48011 has 1 MA's), (105, 48002), (111, 47954), (135, 47831), (141, 47789), (173, 47603),

Gene: Rutherferd\_77 Start: 47271, Stop: 46759, Start Num: 84

Candidate Starts for Rutherferd\_77:

(24, 47445), (29, 47427), (34, 47412), (Start: 62 @47328 has 2 MA's), (Start: 84 @47271 has 195 MA's), (Start: 97 @47229 has 5 MA's), (Start: 104 @47178 has 1 MA's), (105, 47169), (111, 47121), (135, 46998), (141, 46956), (173, 46770),

Gene: STLscum\_81 Start: 47313, Stop: 46801, Start Num: 84

Candidate Starts for STLscum\_81:

(24, 47487), (34, 47454), (Start: 62 @47370 has 2 MA's), (Start: 84 @47313 has 195 MA's), (Start: 97 @47271 has 5 MA's), (Start: 104 @47220 has 1 MA's), (105, 47211), (111, 47163), (135, 47040), (141, 46998), (173, 46812),

Gene: Sabertooth\_70 Start: 44174, Stop: 43662, Start Num: 79

Candidate Starts for Sabertooth\_70:

(Start: 79 @44174 has 132 MA's), (Start: 97 @44126 has 5 MA's), (Start: 104 @44075 has 1 MA's), (115, 44000), (119, 43976), (121, 43970), (123, 43964), (129, 43913), (135, 43892), (145, 43835), (150, 43796), (166, 43694),

Gene: Sabia\_77 Start: 45049, Stop: 44504, Start Num: 69

Candidate Starts for Sabia\_77:

(Start: 69 @45049 has 3 MA's), (Start: 88 @45013 has 77 MA's), (Start: 97 @44977 has 5 MA's), (Start: 104 @44926 has 1 MA's), (105, 44917), (115, 44851), (123, 44815), (129, 44767), (135, 44746), (144, 44686), (145, 44683), (146, 44680), (150, 44644), (158, 44581), (166, 44536),

Gene: Sabinator\_77 Start: 45007, Stop: 44498, Start Num: 88

Candidate Starts for Sabinator\_77:

(Start: 88 @45007 has 77 MA's), (Start: 97 @44971 has 5 MA's), (Start: 104 @44920 has 1 MA's), (105, 44911), (115, 44845), (123, 44809), (129, 44761), (135, 44740), (144, 44680), (145, 44677), (146, 44674), (150, 44638), (158, 44575), (166, 44530),

Gene: Sagefire\_72 Start: 46361, Stop: 45849, Start Num: 84

Candidate Starts for Sagefire\_72:

(24, 46535), (34, 46502), (Start: 62 @46418 has 2 MA's), (Start: 84 @46361 has 195 MA's), (Start: 97 @46319 has 5 MA's), (Start: 104 @46268 has 1 MA's), (105, 46259), (111, 46211), (135, 46088), (141, 46046), (173, 45860),

Gene: Saintus\_80 Start: 42723, Stop: 42220, Start Num: 88

Candidate Starts for Saintus\_80:

(Start: 65 @42762 has 3 MA's), (Start: 88 @42723 has 77 MA's), (Start: 95 @42699 has 1 MA's), (100, 42675), (Start: 104 @42636 has 1 MA's), (114, 42564), (116, 42558), (119, 42537), (123, 42525), (135, 42456), (150, 42354), (163, 42270), (166, 42252), (172, 42240),

Gene: Salz\_73 Start: 43696, Stop: 43145, Start Num: 72

Candidate Starts for Salz\_73:

(Start: 56 @43738 has 1 MA's), (Start: 67 @43708 has 32 MA's), (Start: 72 @43696 has 173 MA's), (85, 43669), (Start: 104 @43579 has 1 MA's), (106, 43555), (111, 43522), (129, 43420), (135, 43396), (136, 43381), (141, 43354), (145, 43333), (150, 43294), (166, 43195), (176, 43162),

Gene: SamScheppers\_83 Start: 52699, Stop: 53205, Start Num: 73

Candidate Starts for SamScheppers\_83:

(Start: 73 @52699 has 1 MA's), (Start: 97 @52744 has 5 MA's), (105, 52804), (106, 52819), (115, 52870), (136, 52993), (139, 53002), (148, 53062), (150, 53080), (158, 53137),

Gene: Sandaddy\_73 Start: 46693, Stop: 46181, Start Num: 84

Candidate Starts for Sandaddy\_73:

(24, 46867), (34, 46834), (Start: 62 @46750 has 2 MA's), (Start: 84 @46693 has 195 MA's), (Start: 97 @46651 has 5 MA's), (Start: 104 @46600 has 1 MA's), (105, 46591), (111, 46543), (135, 46420), (141, 46378), (173, 46192),

Gene: Sanya\_70 Start: 46998, Stop: 46486, Start Num: 84

Candidate Starts for Sanya\_70:

(24, 47172), (34, 47139), (Start: 62 @47055 has 2 MA's), (Start: 84 @46998 has 195 MA's), (Start: 97 @46956 has 5 MA's), (Start: 104 @46905 has 1 MA's), (105, 46896), (111, 46848), (135, 46725), (141, 46683), (173, 46497),

Gene: SaturnRing\_73 Start: 44692, Stop: 44180, Start Num: 79

Candidate Starts for SaturnRing\_73:

(Start: 73 @44701 has 1 MA's), (Start: 79 @44692 has 132 MA's), (Start: 81 @44686 has 3 MA's), (Start: 104 @44593 has 1 MA's), (115, 44518), (119, 44494), (121, 44488), (124, 44470), (129, 44431), (133, 44416), (135, 44410), (150, 44314), (158, 44257), (166, 44212),

Gene: Scamp\_70 Start: 44173, Stop: 43661, Start Num: 79

Candidate Starts for Scamp\_70:

(Start: 79 @44173 has 132 MA's), (Start: 97 @44125 has 5 MA's), (Start: 104 @44074 has 1 MA's), (115, 43999), (119, 43975), (121, 43969), (123, 43963), (129, 43912), (135, 43891), (145, 43834), (150, 43795), (166, 43693),

Gene: Scherzo\_76 Start: 44948, Stop: 44400, Start Num: 67

Candidate Starts for Scherzo\_76:

(Start: 67 @44948 has 32 MA's), (Start: 72 @44936 has 173 MA's), (Start: 104 @44840 has 1 MA's), (106, 44816), (111, 44783), (135, 44660), (136, 44645), (137, 44642), (144, 44600), (145, 44597), (155, 44519),

Gene: Scorpia\_73 Start: 44213, Stop: 43683, Start Num: 74

Candidate Starts for Scorpia\_73:

(30, 44345), (38, 44312), (Start: 74 @44213 has 37 MA's), (89, 44183), (117, 44021), (127, 43961), (129, 43937), (135, 43916), (157, 43763), (159, 43757), (165, 43718),

Gene: Scout\_72 Start: 43869, Stop: 43357, Start Num: 79

Candidate Starts for Scout\_72:

(Start: 56 @43923 has 1 MA's), (Start: 79 @43869 has 132 MA's), (Start: 81 @43863 has 3 MA's), (Start: 104 @43770 has 1 MA's), (115, 43695), (116, 43692), (119, 43671), (124, 43647), (129, 43608), (133, 43593), (135, 43587), (150, 43491), (158, 43434), (166, 43389),

Gene: Scowl\_76 Start: 46658, Stop: 46146, Start Num: 84

Candidate Starts for Scowl\_76:

(24, 46832), (29, 46814), (34, 46799), (Start: 62 @46715 has 2 MA's), (Start: 84 @46658 has 195 MA's), (Start: 97 @46616 has 5 MA's), (Start: 104 @46565 has 1 MA's), (105, 46556), (111, 46508), (135, 46385), (141, 46343), (163, 46199), (173, 46157),

Gene: Seabiscuit\_75 Start: 45167, Stop: 44655, Start Num: 84

Candidate Starts for Seabiscuit\_75:

(1, 45692), (2, 45578), (4, 45509), (24, 45341), (34, 45308), (Start: 62 @45224 has 2 MA's), (Start: 84 @45167 has 195 MA's), (Start: 97 @45125 has 5 MA's), (Start: 104 @45074 has 1 MA's), (105, 45065), (111, 45017), (135, 44894), (141, 44852), (173, 44666),

Gene: Seanderson\_75 Start: 48062, Stop: 47550, Start Num: 84

Candidate Starts for Seanderson\_75:

(24, 48236), (34, 48203), (51, 48140), (Start: 62 @48119 has 2 MA's), (Start: 84 @48062 has 195 MA's), (Start: 97 @48020 has 5 MA's), (Start: 104 @47969 has 1 MA's), (105, 47960), (111, 47912), (135, 47789), (141, 47747), (173, 47561),

Gene: SemperFi\_76 Start: 45606, Stop: 45031, Start Num: 72

Candidate Starts for SemperFi\_76:

(Start: 53 @45648 has 4 MA's), (61, 45636), (Start: 67 @45618 has 32 MA's), (Start: 72 @45606 has 173 MA's), (Start: 104 @45489 has 1 MA's), (105, 45480), (111, 45432), (129, 45330), (145, 45243), (150, 45204), (160, 45141),

Gene: Serenity\_79 Start: 45017, Stop: 44466, Start Num: 72

Candidate Starts for Serenity\_79:

(18, 45218), (36, 45116), (43, 45095), (Start: 56 @45056 has 1 MA's), (Start: 67 @45029 has 32 MA's), (Start: 72 @45017 has 173 MA's), (85, 44990), (105, 44891), (106, 44876), (111, 44843), (129, 44741), (131, 44735), (135, 44717), (140, 44690), (141, 44675), (145, 44654), (150, 44615), (160, 44552),

Gene: Severus\_68 Start: 43143, Stop: 42637, Start Num: 76

Candidate Starts for Severus\_68:

(Start: 49 @43206 has 1 MA's), (57, 43191), (Start: 76 @43143 has 8 MA's), (Start: 78 @43140 has 10 MA's), (Start: 104 @43047 has 1 MA's), (111, 42990), (115, 42972), (119, 42948), (129, 42888), (135, 42867), (153, 42735), (166, 42669), (173, 42648),

Gene: Shaka\_68 Start: 44168, Stop: 43656, Start Num: 79

Candidate Starts for Shaka\_68:

(Start: 79 @44168 has 132 MA's), (Start: 97 @44120 has 5 MA's), (Start: 104 @44069 has 1 MA's), (115, 43994), (119, 43970), (123, 43958), (129, 43907), (135, 43886), (145, 43829), (166, 43688),

Gene: Sham4\_74 Start: 43779, Stop: 43276, Start Num: 72

Candidate Starts for Sham4\_74:

(Start: 56 @43821 has 1 MA's), (Start: 67 @43791 has 32 MA's), (Start: 72 @43779 has 173 MA's), (85, 43752), (Start: 104 @43662 has 1 MA's), (106, 43638), (111, 43605), (129, 43503), (135, 43479), (136, 43464), (141, 43437), (145, 43416), (150, 43377),



Gene: Shaqnato\_43 Start: 13851, Stop: 14363, Start Num: 84

Candidate Starts for Shaqnato\_43:

(21, 13662), (Start: 80 @13839 has 3 MA's), (Start: 84 @13851 has 195 MA's), (Start: 97 @13893 has 5 MA's), (Start: 104 @13944 has 1 MA's), (105, 13953), (111, 14001), (119, 14043), (135, 14124), (141, 14166), (173, 14352),

Gene: Shauna1\_36 Start: 30307, Stop: 29771, Start Num: 72

Candidate Starts for Shauna1\_36:

(Start: 72 @30307 has 173 MA's), (Start: 97 @30241 has 5 MA's), (Start: 104 @30190 has 1 MA's), (105, 30181), (111, 30133), (119, 30091), (135, 30010), (141, 29968), (173, 29782),

Gene: SheaKeira\_71 Start: 43755, Stop: 43222, Start Num: 72

Candidate Starts for SheaKeira\_71:

(Start: 72 @43755 has 173 MA's), (102, 43692), (Start: 104 @43659 has 1 MA's), (106, 43635), (111, 43602), (115, 43584), (135, 43479), (136, 43464), (137, 43461), (144, 43419), (145, 43416), (154, 43341), (156, 43335), (157, 43320), (158, 43317), (160, 43308),

Gene: Sheen\_74 Start: 48075, Stop: 47566, Start Num: 79

Candidate Starts for Sheen\_74:

(70, 48093), (Start: 79 @48075 has 132 MA's), (Start: 104 @47976 has 1 MA's), (111, 47919), (114, 47904), (115, 47901), (116, 47898), (119, 47877), (123, 47865), (135, 47796), (145, 47739), (158, 47643), (166, 47598),

Gene: SheldonCooper\_70 Start: 44608, Stop: 44096, Start Num: 79

Candidate Starts for SheldonCooper\_70:

(Start: 79 @44608 has 132 MA's), (Start: 97 @44560 has 5 MA's), (Start: 104 @44509 has 1 MA's), (115, 44434), (119, 44410), (123, 44398), (129, 44347), (135, 44326), (145, 44269), (166, 44128),

Gene: ShortQueendom\_68 Start: 44367, Stop: 43855, Start Num: 84

Candidate Starts for ShortQueendom\_68:

(24, 44541), (34, 44508), (Start: 62 @44424 has 2 MA's), (Start: 84 @44367 has 195 MA's), (Start: 97 @44325 has 5 MA's), (Start: 104 @44274 has 1 MA's), (105, 44265), (111, 44217), (135, 44094), (141, 44052), (173, 43866),

Gene: Shuman\_59 Start: 40077, Stop: 39553, Start Num: 77

Candidate Starts for Shuman\_59:

(Start: 77 @40077 has 23 MA's), (96, 40032), (100, 40014), (115, 39900), (123, 39864), (128, 39837), (129, 39816), (135, 39795), (136, 39780), (142, 39750), (143, 39747), (158, 39636), (160, 39627), (173, 39570),

Gene: Shygu2\_69 Start: 44403, Stop: 43903, Start Num: 86

Candidate Starts for Shygu2\_69:

(Start: 86 @44403 has 21 MA's), (Start: 104 @44316 has 1 MA's), (106, 44292), (121, 44211), (123, 44205), (124, 44193), (129, 44154), (133, 44139), (135, 44133), (150, 44037), (160, 43971), (166, 43935),

Gene: Sibs6\_75 Start: 44007, Stop: 43492, Start Num: 84

Candidate Starts for Sibs6\_75:

(24, 44181), (34, 44148), (Start: 62 @44064 has 2 MA's), (Start: 84 @44007 has 195 MA's), (Start: 97 @43965 has 5 MA's), (Start: 104 @43914 has 1 MA's), (105, 43905), (111, 43857), (129, 43755), (135, 43734), (141, 43692), (163, 43548), (173, 43506),

Gene: Skipitt\_69 Start: 44165, Stop: 43653, Start Num: 79

Candidate Starts for Skipitt\_69:

(Start: 79 @44165 has 132 MA's), (Start: 97 @44117 has 5 MA's), (Start: 104 @44066 has 1 MA's), (115, 43991), (119, 43967), (121, 43961), (123, 43955), (129, 43904), (135, 43883), (145, 43826), (150, 43787), (166, 43685),

Gene: Slagathor\_76 Start: 47519, Stop: 47007, Start Num: 84

Candidate Starts for Slagathor\_76:

(24, 47693), (34, 47660), (Start: 62 @47576 has 2 MA's), (Start: 84 @47519 has 195 MA's), (Start: 97 @47477 has 5 MA's), (Start: 104 @47426 has 1 MA's), (105, 47417), (111, 47369), (135, 47246), (141, 47204), (173, 47018),

Gene: Smeadley\_84 Start: 45939, Stop: 45436, Start Num: 88

Candidate Starts for Smeadley\_84:

(Start: 65 @45978 has 3 MA's), (Start: 88 @45939 has 77 MA's), (Start: 95 @45915 has 1 MA's), (100, 45891), (Start: 104 @45852 has 1 MA's), (114, 45780), (116, 45774), (119, 45753), (123, 45741), (135, 45672), (150, 45570), (163, 45486), (166, 45468), (172, 45456),

Gene: Smeagan\_78 Start: 45993, Stop: 45418, Start Num: 72

Candidate Starts for Smeagan\_78:

(Start: 53 @46035 has 4 MA's), (61, 46023), (Start: 67 @46005 has 32 MA's), (Start: 72 @45993 has 173 MA's), (Start: 104 @45876 has 1 MA's), (105, 45867), (111, 45819), (129, 45717), (145, 45630), (150, 45591), (160, 45528),

Gene: Smeagol\_78 Start: 48727, Stop: 48215, Start Num: 84

Candidate Starts for Smeagol\_78:

(24, 48901), (34, 48868), (Start: 62 @48784 has 2 MA's), (Start: 84 @48727 has 195 MA's), (Start: 97 @48685 has 5 MA's), (Start: 104 @48634 has 1 MA's), (105, 48625), (111, 48577), (135, 48454), (141, 48412), (173, 48226),

Gene: SmellyB\_78 Start: 44178, Stop: 43663, Start Num: 72

Candidate Starts for SmellyB\_78:

(Start: 67 @44190 has 32 MA's), (Start: 72 @44178 has 173 MA's), (Start: 104 @44091 has 1 MA's), (105, 44082), (111, 44034), (129, 43932), (135, 43911), (138, 43890), (145, 43848), (150, 43809),

Gene: SnapTap\_75 Start: 45417, Stop: 44842, Start Num: 72

Candidate Starts for SnapTap\_75:

(Start: 53 @45459 has 4 MA's), (61, 45447), (Start: 67 @45429 has 32 MA's), (Start: 72 @45417 has 173 MA's), (Start: 104 @45300 has 1 MA's), (105, 45291), (111, 45243), (129, 45141), (145, 45054), (150, 45015), (158, 44961), (160, 44952),

Gene: Snape\_78 Start: 44889, Stop: 44338, Start Num: 72

Candidate Starts for Snape\_78:

(Start: 56 @44931 has 1 MA's), (Start: 67 @44901 has 32 MA's), (Start: 72 @44889 has 173 MA's), (85, 44862), (Start: 104 @44772 has 1 MA's), (106, 44748), (111, 44715), (129, 44613), (135, 44589), (136, 44574), (141, 44547), (145, 44526), (150, 44487), (166, 44388), (176, 44355),

Gene: Snazzy\_76 Start: 47170, Stop: 46655, Start Num: 84

Candidate Starts for Snazzy\_76:

(24, 47344), (34, 47311), (Start: 62 @47227 has 2 MA's), (Start: 84 @47170 has 195 MA's), (Start: 97 @47128 has 5 MA's), (Start: 104 @47077 has 1 MA's), (105, 47068), (111, 47020), (129, 46918), (135, 46897), (141, 46855), (163, 46711), (173, 46669),

Gene: Snickers\_75 Start: 44978, Stop: 44469, Start Num: 88

Candidate Starts for Snickers\_75:

(Start: 88 @44978 has 77 MA's), (Start: 97 @44942 has 5 MA's), (Start: 104 @44891 has 1 MA's), (105, 44882), (115, 44816), (123, 44780), (129, 44732), (135, 44711), (144, 44651), (145, 44648), (146, 44645), (150, 44609), (158, 44546), (166, 44501),

Gene: SoYo\_76 Start: 44920, Stop: 44411, Start Num: 88

Candidate Starts for SoYo\_76:

(Start: 88 @44920 has 77 MA's), (Start: 97 @44884 has 5 MA's), (Start: 104 @44833 has 1 MA's), (105, 44824), (115, 44758), (123, 44722), (129, 44674), (135, 44653), (144, 44593), (145, 44590), (146, 44587), (150, 44551), (158, 44488), (166, 44443),

Gene: SoilDragon\_78 Start: 44449, Stop: 43940, Start Num: 88

Candidate Starts for SoilDragon\_78:

(Start: 88 @44449 has 77 MA's), (Start: 97 @44413 has 5 MA's), (Start: 104 @44362 has 1 MA's), (105, 44353), (115, 44287), (123, 44251), (129, 44203), (135, 44182), (144, 44122), (145, 44119), (150, 44080), (158, 44017), (166, 43972),

Gene: Solon\_71 Start: 44805, Stop: 44293, Start Num: 84

Candidate Starts for Solon\_71:

(24, 44979), (34, 44946), (Start: 62 @44862 has 2 MA's), (Start: 84 @44805 has 195 MA's), (Start: 97 @44763 has 5 MA's), (Start: 104 @44712 has 1 MA's), (105, 44703), (111, 44655), (119, 44613), (135, 44532), (141, 44490), (173, 44304),

Gene: SororFago\_77 Start: 45812, Stop: 45285, Start Num: 72

Candidate Starts for SororFago\_77:

(Start: 72 @45812 has 173 MA's), (Start: 104 @45710 has 1 MA's), (106, 45686), (107, 45677), (111, 45653), (129, 45551), (130, 45548), (135, 45530), (139, 45506), (144, 45470), (152, 45404), (154, 45392), (163, 45347), (166, 45329),

Gene: Sorpresa\_72 Start: 46699, Stop: 46187, Start Num: 84

Candidate Starts for Sorpresa\_72:

(24, 46873), (34, 46840), (Start: 62 @46756 has 2 MA's), (Start: 84 @46699 has 195 MA's), (Start: 97 @46657 has 5 MA's), (Start: 104 @46606 has 1 MA's), (105, 46597), (111, 46549), (135, 46426), (141, 46384), (173, 46198),

Gene: Soshari\_81 Start: 45029, Stop: 44520, Start Num: 88

Candidate Starts for Soshari\_81:

(Start: 88 @45029 has 77 MA's), (Start: 97 @44993 has 5 MA's), (Start: 104 @44942 has 1 MA's), (105, 44933), (115, 44867), (123, 44831), (129, 44783), (135, 44762), (144, 44702), (145, 44699), (146, 44696), (150, 44660), (158, 44597), (166, 44552),

Gene: Soul22\_44 Start: 31554, Stop: 31018, Start Num: 72

Candidate Starts for Soul22\_44:

(Start: 72 @31554 has 173 MA's), (Start: 97 @31488 has 5 MA's), (Start: 104 @31437 has 1 MA's), (105, 31428), (111, 31380), (119, 31338), (135, 31257), (141, 31215), (173, 31029),

Gene: Soups\_83 Start: 45399, Stop: 44878, Start Num: 72

Candidate Starts for Soups\_83:

(Start: 72 @45399 has 173 MA's), (Start: 97 @45354 has 5 MA's), (Start: 104 @45303 has 1 MA's), (105, 45294), (111, 45246), (129, 45144), (135, 45123), (153, 44985), (157, 44967), (160, 44955), (166, 44919),

Gene: Sparxx\_71 Start: 44167, Stop: 43655, Start Num: 79

Candidate Starts for Sparxx\_71:

(Start: 79 @44167 has 132 MA's), (Start: 97 @44119 has 5 MA's), (Start: 104 @44068 has 1 MA's), (115, 43993), (119, 43969), (121, 43963), (123, 43957), (129, 43906), (135, 43885), (145, 43828), (150, 43789), (166, 43687),

Gene: Spike509\_79 Start: 45030, Stop: 44521, Start Num: 88

Candidate Starts for Spike509\_79:

(Start: 88 @45030 has 77 MA's), (Start: 97 @44994 has 5 MA's), (Start: 104 @44943 has 1 MA's), (105, 44934), (115, 44868), (123, 44832), (129, 44784), (135, 44763), (144, 44703), (145, 44700), (146, 44697), (150, 44661), (158, 44598), (166, 44553),

Gene: SpikeBT\_72 Start: 45627, Stop: 45115, Start Num: 84

Candidate Starts for SpikeBT\_72:

(24, 45801), (34, 45768), (Start: 62 @45684 has 2 MA's), (Start: 84 @45627 has 195 MA's), (Start: 97 @45585 has 5 MA's), (Start: 104 @45534 has 1 MA's), (105, 45525), (111, 45477), (135, 45354), (141, 45312), (173, 45126),

Gene: Spino\_69 Start: 44171, Stop: 43659, Start Num: 79

Candidate Starts for Spino\_69:

(Start: 79 @44171 has 132 MA's), (Start: 97 @44123 has 5 MA's), (Start: 104 @44072 has 1 MA's), (115, 43997), (119, 43973), (121, 43967), (123, 43961), (129, 43910), (135, 43889), (145, 43832), (150, 43793), (166, 43691),

Gene: Spouty\_72 Start: 44440, Stop: 43904, Start Num: 72

Candidate Starts for Spouty\_72:

(Start: 67 @44452 has 32 MA's), (Start: 72 @44440 has 173 MA's), (Start: 104 @44344 has 1 MA's), (105, 44335), (106, 44320), (111, 44287), (135, 44164), (136, 44149), (137, 44146), (144, 44104), (145, 44101), (155, 44023), (160, 43993),

Gene: Squee\_76 Start: 46243, Stop: 45731, Start Num: 84

Candidate Starts for Squee\_76:

(24, 46417), (34, 46384), (Start: 62 @46300 has 2 MA's), (Start: 84 @46243 has 195 MA's), (Start: 97 @46201 has 5 MA's), (Start: 104 @46150 has 1 MA's), (105, 46141), (111, 46093), (135, 45970), (141, 45928), (173, 45742),

Gene: Squint\_188 Start: 94539, Stop: 94027, Start Num: 84

Candidate Starts for Squint\_188:

(7, 94830), (26, 94701), (45, 94644), (47, 94635), (Start: 74 @94563 has 37 MA's), (Start: 83 @94542 has 2 MA's), (Start: 84 @94539 has 195 MA's), (Start: 97 @94497 has 5 MA's), (Start: 104 @94446 has 1 MA's), (105, 94437), (111, 94389), (119, 94347), (135, 94266), (141, 94224), (173, 94038),

Gene: StAnnes\_38 Start: 31732, Stop: 31220, Start Num: 84

Candidate Starts for StAnnes\_38:

(Start: 84 @31732 has 195 MA's), (Start: 97 @31690 has 5 MA's), (Start: 104 @31639 has 1 MA's), (105, 31630), (111, 31582), (119, 31540), (135, 31459), (141, 31417), (173, 31231),

Gene: StCroix\_57 Start: 40148, Stop: 39624, Start Num: 77

Candidate Starts for StCroix\_57:

(Start: 77 @40148 has 23 MA's), (96, 40103), (100, 40085), (115, 39971), (123, 39935), (128, 39908), (129, 39887), (135, 39866), (136, 39851), (142, 39821), (143, 39818), (145, 39803), (158, 39707), (160, 39698), (173, 39641),

Gene: Stagni\_76 Start: 45008, Stop: 44499, Start Num: 88

Candidate Starts for Stagni\_76:

(Start: 69 @45044 has 3 MA's), (Start: 88 @45008 has 77 MA's), (Start: 97 @44972 has 5 MA's), (Start: 104 @44921 has 1 MA's), (105, 44912), (115, 44846), (123, 44810), (129, 44762), (135, 44741), (144, 44681), (145, 44678), (146, 44675), (150, 44639), (158, 44576), (166, 44531),

Gene: StarStuff\_78 Start: 45880, Stop: 45335, Start Num: 72

Candidate Starts for StarStuff\_78:

(Start: 67 @45892 has 32 MA's), (Start: 72 @45880 has 173 MA's), (Start: 104 @45763 has 1 MA's), (105, 45754), (106, 45739), (111, 45706), (129, 45604), (131, 45598), (135, 45580), (140, 45553), (141, 45538), (144, 45520), (150, 45478), (158, 45424), (163, 45397), (166, 45379),

Gene: Stasia\_69 Start: 44365, Stop: 43862, Start Num: 86

Candidate Starts for Stasia\_69:

(64, 44416), (68, 44407), (Start: 86 @44365 has 21 MA's), (Start: 104 @44275 has 1 MA's), (106, 44251), (119, 44176), (124, 44152), (129, 44113), (135, 44092), (150, 43996), (153, 43960), (160, 43930), (166, 43894),

Gene: Steamy\_70 Start: 44186, Stop: 43647, Start Num: 72

Candidate Starts for Steamy\_70:

(Start: 72 @44186 has 173 MA's), (106, 44054), (109, 44039), (111, 44021), (115, 44003), (129, 43919), (135, 43895), (146, 43829), (150, 43793), (166, 43694),

Gene: StepMih\_78 Start: 44999, Stop: 44490, Start Num: 88

Candidate Starts for StepMih\_78:

(Start: 69 @45035 has 3 MA's), (Start: 88 @44999 has 77 MA's), (Start: 97 @44963 has 5 MA's), (Start: 104 @44912 has 1 MA's), (105, 44903), (115, 44837), (123, 44801), (129, 44753), (135, 44732), (144, 44672), (145, 44669), (146, 44666), (150, 44630), (158, 44567), (166, 44522),

Gene: Stephig9\_83 Start: 45878, Stop: 45375, Start Num: 88

Candidate Starts for Stephig9\_83:

(Start: 65 @45917 has 3 MA's), (Start: 88 @45878 has 77 MA's), (Start: 95 @45854 has 1 MA's), (100, 45830), (Start: 104 @45791 has 1 MA's), (114, 45719), (116, 45713), (119, 45692), (123, 45680), (135, 45611), (150, 45509), (163, 45425), (166, 45407), (172, 45395),

Gene: Stink\_69 Start: 44187, Stop: 43687, Start Num: 86

Candidate Starts for Stink\_69:

(Start: 86 @44187 has 21 MA's), (Start: 104 @44100 has 1 MA's), (106, 44076), (111, 44043), (121, 43995), (123, 43989), (124, 43977), (129, 43938), (135, 43917), (150, 43821), (166, 43719),

Gene: StrongArm\_71 Start: 46175, Stop: 45663, Start Num: 84

Candidate Starts for StrongArm\_71:

(24, 46349), (34, 46316), (Start: 62 @46232 has 2 MA's), (Start: 84 @46175 has 195 MA's), (Start: 97 @46133 has 5 MA's), (Start: 104 @46082 has 1 MA's), (105, 46073), (111, 46025), (135, 45902), (141, 45860), (173, 45674),

Gene: Strosahl\_84 Start: 45610, Stop: 45089, Start Num: 72

Candidate Starts for Strosahl\_84:

(Start: 72 @45610 has 173 MA's), (Start: 97 @45565 has 5 MA's), (Start: 104 @45514 has 1 MA's), (105, 45505), (111, 45457), (129, 45355), (135, 45334), (153, 45196), (157, 45178), (160, 45166), (166, 45130),

Gene: Stubby\_43 Start: 14678, Stop: 15190, Start Num: 84

Candidate Starts for Stubby\_43:

(21, 14489), (Start: 80 @14666 has 3 MA's), (Start: 84 @14678 has 195 MA's), (Start: 97 @14720 has 5 MA's), (Start: 104 @14771 has 1 MA's), (105, 14780), (111, 14828), (135, 14951), (141, 14993), (173, 15179),

Gene: Sumter\_72 Start: 47168, Stop: 46656, Start Num: 84

Candidate Starts for Sumter\_72:

(24, 47342), (34, 47309), (Start: 62 @47225 has 2 MA's), (Start: 84 @47168 has 195 MA's), (Start: 97 @47126 has 5 MA's), (Start: 104 @47075 has 1 MA's), (105, 47066), (111, 47018), (135, 46895), (141, 46853), (163, 46709), (173, 46667),

Gene: Sunshine924\_76 Start: 45690, Stop: 45178, Start Num: 84

Candidate Starts for Sunshine924\_76:

(24, 45864), (34, 45831), (Start: 62 @45747 has 2 MA's), (Start: 84 @45690 has 195 MA's), (Start: 97 @45648 has 5 MA's), (Start: 104 @45597 has 1 MA's), (105, 45588), (111, 45540), (135, 45417), (141, 45375), (173, 45189),

Gene: SuperAwesome\_78 Start: 44868, Stop: 44341, Start Num: 67

Candidate Starts for SuperAwesome\_78:

(Start: 67 @44868 has 32 MA's), (Start: 72 @44856 has 173 MA's), (Start: 104 @44769 has 1 MA's), (105, 44760), (111, 44712), (129, 44610), (135, 44589), (138, 44568), (145, 44526), (150, 44487),

Gene: SuperCallie99\_75 Start: 44700, Stop: 44185, Start Num: 72

Candidate Starts for SuperCallie99\_75:

(Start: 67 @44712 has 32 MA's), (Start: 72 @44700 has 173 MA's), (Start: 104 @44613 has 1 MA's), (105, 44604), (111, 44556), (129, 44454), (135, 44433), (138, 44412), (145, 44370), (150, 44331),

Gene: Superchunk\_78 Start: 45042, Stop: 44494, Start Num: 72

Candidate Starts for Superchunk\_78:

(Start: 67 @45054 has 32 MA's), (Start: 72 @45042 has 173 MA's), (Start: 79 @45030 has 132 MA's), (Start: 104 @44925 has 1 MA's), (105, 44916), (111, 44868), (115, 44850), (129, 44766), (135, 44742), (141, 44700), (145, 44679), (150, 44640), (166, 44538),

Gene: Superphikiman\_191 Start: 94406, Stop: 93894, Start Num: 84

Candidate Starts for Superphikiman\_191:

(7, 94697), (26, 94568), (45, 94511), (47, 94502), (Start: 74 @94430 has 37 MA's), (Start: 83 @94409 has 2 MA's), (Start: 84 @94406 has 195 MA's), (Start: 97 @94364 has 5 MA's), (Start: 104 @94313 has 1 MA's), (105, 94304), (111, 94256), (119, 94214), (135, 94133), (141, 94091), (173, 93905),

Gene: SweetiePie\_75 Start: 45549, Stop: 44974, Start Num: 72

Candidate Starts for SweetiePie\_75:

(Start: 53 @45591 has 4 MA's), (61, 45579), (Start: 67 @45561 has 32 MA's), (Start: 72 @45549 has 173 MA's), (Start: 104 @45432 has 1 MA's), (105, 45423), (111, 45375), (129, 45273), (145, 45186), (150, 45147), (160, 45084),

Gene: SwirlSquare\_82 Start: 44722, Stop: 44291, Start Num: 104

Candidate Starts for SwirlSquare\_82:

(Start: 104 @44722 has 1 MA's), (105, 44713), (111, 44665), (115, 44647), (121, 44617), (129, 44563), (131, 44557), (135, 44539), (141, 44497), (145, 44476), (150, 44437), (158, 44380), (166, 44335),

Gene: Swirley\_69 Start: 43601, Stop: 43071, Start Num: 74

Candidate Starts for Swirley\_69:

(71, 43607), (Start: 74 @43601 has 37 MA's), (127, 43349), (128, 43346), (129, 43325), (135, 43304), (159, 43145), (165, 43106),

Gene: SwissCheese\_79 Start: 46690, Stop: 46178, Start Num: 84

Candidate Starts for SwissCheese\_79:

(24, 46864), (29, 46846), (34, 46831), (Start: 62 @46747 has 2 MA's), (Start: 84 @46690 has 195 MA's), (Start: 97 @46648 has 5 MA's), (Start: 104 @46597 has 1 MA's), (105, 46588), (111, 46540), (135, 46417), (141, 46375), (173, 46189),

Gene: Swole\_73 Start: 46449, Stop: 45937, Start Num: 84

Candidate Starts for Swole\_73:

(24, 46623), (34, 46590), (Start: 62 @46506 has 2 MA's), (Start: 84 @46449 has 195 MA's), (Start: 97 @46407 has 5 MA's), (Start: 104 @46356 has 1 MA's), (105, 46347), (111, 46299), (129, 46197), (135, 46176), (141, 46134), (163, 45990), (173, 45948),

Gene: SydNat\_69 Start: 43800, Stop: 43270, Start Num: 74

Candidate Starts for SydNat\_69:

(Start: 74 @43800 has 37 MA's), (120, 43584), (127, 43548), (128, 43545), (129, 43524), (130, 43521), (135, 43503), (157, 43350), (165, 43305),

Gene: TNguyen7\_74 Start: 44652, Stop: 44140, Start Num: 79

Candidate Starts for TNguyen7\_74:

(Start: 56 @44703 has 1 MA's), (Start: 73 @44661 has 1 MA's), (Start: 79 @44652 has 132 MA's), (Start: 81 @44646 has 3 MA's), (Start: 104 @44553 has 1 MA's), (115, 44478), (116, 44475), (119, 44454), (121, 44448), (124, 44430), (129, 44391), (133, 44376), (135, 44370), (150, 44274), (158, 44217), (166, 44172),

Gene: TWAMP\_58 Start: 40126, Stop: 39602, Start Num: 77

Candidate Starts for TWAMP\_58:

(Start: 77 @40126 has 23 MA's), (96, 40081), (100, 40063), (115, 39949), (123, 39913), (128, 39886), (129, 39865), (135, 39844), (136, 39829), (142, 39799), (143, 39796), (145, 39781), (158, 39685), (160, 39676), (173, 39619),

Gene: Taquarus\_69 Start: 44174, Stop: 43662, Start Num: 79

Candidate Starts for Taquarus\_69:

(Start: 79 @44174 has 132 MA's), (Start: 97 @44126 has 5 MA's), (Start: 104 @44075 has 1 MA's), (115, 44000), (119, 43976), (121, 43970), (123, 43964), (129, 43913), (135, 43892), (145, 43835), (150, 43796), (166, 43694),

Gene: Taquito\_84 Start: 52547, Stop: 53173, Start Num: 33

Candidate Starts for Taquito\_84:

(Start: 33 @52547 has 1 MA's), (42, 52583), (Start: 73 @52667 has 1 MA's), (Start: 97 @52712 has 5 MA's), (105, 52772), (106, 52787), (115, 52838), (136, 52961), (139, 52970), (148, 53030), (150, 53048), (158, 53105),

Gene: Target\_75 Start: 45267, Stop: 44755, Start Num: 84

Candidate Starts for Target\_75:

(24, 45441), (34, 45408), (Start: 62 @45324 has 2 MA's), (Start: 84 @45267 has 195 MA's), (Start: 97 @45225 has 5 MA's), (Start: 104 @45174 has 1 MA's), (105, 45165), (111, 45117), (135, 44994), (141, 44952), (173, 44766),

Gene: TarsusIV\_73 Start: 45469, Stop: 44888, Start Num: 67

Candidate Starts for TarsusIV\_73:

(Start: 67 @45469 has 32 MA's), (Start: 72 @45457 has 173 MA's), (85, 45430), (87, 45427), (Start: 104 @45340 has 1 MA's), (105, 45331), (111, 45283), (129, 45181), (150, 45055), (178, 44893),

Gene: Tarynearal\_68 Start: 43437, Stop: 42907, Start Num: 74

Candidate Starts for Tarynearal\_68:

(71, 43443), (Start: 74 @43437 has 37 MA's), (127, 43185), (128, 43182), (129, 43161), (135, 43140), (159, 42981), (165, 42942),

Gene: Tasp14\_74 Start: 46737, Stop: 46225, Start Num: 84

Candidate Starts for Tasp14\_74:

(24, 46911), (34, 46878), (Start: 62 @46794 has 2 MA's), (Start: 84 @46737 has 195 MA's), (Start: 97 @46695 has 5 MA's), (Start: 104 @46644 has 1 MA's), (105, 46635), (111, 46587), (135, 46464), (141, 46422), (173, 46236),

Gene: Taurus\_80 Start: 45008, Stop: 44499, Start Num: 88

Candidate Starts for Taurus\_80:

(Start: 88 @45008 has 77 MA's), (Start: 97 @44972 has 5 MA's), (Start: 104 @44921 has 1 MA's), (105, 44912), (115, 44846), (123, 44810), (129, 44762), (135, 44741), (144, 44681), (145, 44678), (146, 44675), (150, 44639), (158, 44576), (166, 44531),

Gene: Teodoridan\_72 Start: 44574, Stop: 44062, Start Num: 84

Candidate Starts for Teodoridan\_72:

(24, 44748), (34, 44715), (51, 44652), (Start: 62 @44631 has 2 MA's), (Start: 84 @44574 has 195 MA's), (Start: 97 @44532 has 5 MA's), (Start: 104 @44481 has 1 MA's), (105, 44472), (111, 44424), (135, 44301), (141, 44259), (173, 44073),

Gene: Texage\_71 Start: 44648, Stop: 44139, Start Num: 79

Candidate Starts for Texage\_71:

(Start: 79 @44648 has 132 MA's), (100, 44591), (Start: 104 @44552 has 1 MA's), (105, 44543), (114, 44480), (115, 44477), (121, 44447), (124, 44429), (129, 44390), (135, 44369), (150, 44273), (158, 44216), (166, 44171),

Gene: Thanksgivukkah\_69 Start: 44169, Stop: 43657, Start Num: 79

Candidate Starts for Thanksgivukkah\_69:

(Start: 79 @44169 has 132 MA's), (Start: 97 @44121 has 5 MA's), (Start: 104 @44070 has 1 MA's), (115, 43995), (119, 43971), (121, 43965), (123, 43959), (129, 43908), (135, 43887), (145, 43830), (150, 43791), (166, 43689),

Gene: Theia\_68 Start: 43926, Stop: 43396, Start Num: 74

Candidate Starts for Theia\_68:

(Start: 74 @43926 has 37 MA's), (127, 43674), (128, 43671), (129, 43650), (135, 43629), (159, 43470), (165, 43431),

Gene: TheloniousMonk\_77 Start: 47959, Stop: 47447, Start Num: 84

Candidate Starts for TheloniousMonk\_77:

(24, 48133), (34, 48100), (Start: 62 @48016 has 2 MA's), (Start: 84 @47959 has 195 MA's), (Start: 97 @47917 has 5 MA's), (Start: 104 @47866 has 1 MA's), (105, 47857), (111, 47809), (135, 47686), (141, 47644), (173, 47458),

Gene: Tiffany\_78 Start: 44893, Stop: 44384, Start Num: 88

Candidate Starts for Tiffany\_78:

(Start: 88 @44893 has 77 MA's), (Start: 97 @44857 has 5 MA's), (Start: 104 @44806 has 1 MA's), (105, 44797), (115, 44731), (123, 44695), (129, 44647), (135, 44626), (144, 44566), (145, 44563),



(146, 44560), (150, 44524), (158, 44461), (166, 44416),

Gene: Tiger\_69 Start: 43372, Stop: 42842, Start Num: 74

Candidate Starts for Tiger\_69:

(71, 43378), (Start: 74 @43372 has 37 MA's), (127, 43120), (128, 43117), (129, 43096), (135, 43075), (157, 42922), (159, 42916), (165, 42877),

Gene: Timothy\_78 Start: 44866, Stop: 44315, Start Num: 72

Candidate Starts for Timothy\_78:

(Start: 56 @44908 has 1 MA's), (Start: 67 @44878 has 32 MA's), (Start: 72 @44866 has 173 MA's), (85, 44839), (Start: 104 @44749 has 1 MA's), (106, 44725), (111, 44692), (129, 44590), (135, 44566), (136, 44551), (141, 44524), (145, 44503), (150, 44464), (166, 44365), (176, 44332),

Gene: Timshel\_71 Start: 47187, Stop: 46681, Start Num: 78

Candidate Starts for Timshel\_71:

(46, 47265), (48, 47256), (Start: 49 @47250 has 1 MA's), (Start: 78 @47187 has 10 MA's), (99, 47139), (116, 47013), (119, 46992), (123, 46980), (129, 46932), (135, 46911), (139, 46887), (145, 46854), (150, 46815), (158, 46758), (160, 46749), (163, 46731), (166, 46713),

Gene: TinaFeyge\_68 Start: 44166, Stop: 43654, Start Num: 79

Candidate Starts for TinaFeyge\_68:

(Start: 79 @44166 has 132 MA's), (Start: 97 @44118 has 5 MA's), (Start: 104 @44067 has 1 MA's), (115, 43992), (119, 43968), (121, 43962), (123, 43956), (129, 43905), (135, 43884), (145, 43827), (150, 43788), (157, 43734), (166, 43686),

Gene: Tinybot\_69 Start: 44198, Stop: 43686, Start Num: 79

Candidate Starts for Tinybot\_69:

(Start: 79 @44198 has 132 MA's), (Start: 97 @44150 has 5 MA's), (Start: 104 @44099 has 1 MA's), (115, 44024), (119, 44000), (121, 43994), (123, 43988), (129, 43937), (135, 43916), (145, 43859), (150, 43820), (166, 43718),

Gene: TipsytheTRex\_75 Start: 45020, Stop: 44469, Start Num: 72

Candidate Starts for TipsytheTRex\_75:

(Start: 67 @45032 has 32 MA's), (Start: 72 @45020 has 173 MA's), (85, 44993), (105, 44894), (106, 44879), (111, 44846), (129, 44744), (131, 44738), (135, 44720), (140, 44693), (141, 44678), (145, 44657), (150, 44618), (160, 44555),

Gene: TiroTheta9\_69 Start: 44165, Stop: 43653, Start Num: 79

Candidate Starts for TiroTheta9\_69:

(Start: 79 @44165 has 132 MA's), (Start: 97 @44117 has 5 MA's), (Start: 104 @44066 has 1 MA's), (115, 43991), (119, 43967), (121, 43961), (123, 43955), (129, 43904), (135, 43883), (145, 43826), (150, 43787), (157, 43733), (166, 43685),

Gene: Toaka\_77 Start: 44975, Stop: 44433, Start Num: 72

Candidate Starts for Toaka\_77:

(Start: 67 @44987 has 32 MA's), (Start: 72 @44975 has 173 MA's), (Start: 95 @44936 has 1 MA's), (Start: 104 @44873 has 1 MA's), (106, 44849), (111, 44816), (135, 44693), (144, 44633), (145, 44630), (150, 44591), (160, 44522),

Gene: Todacoro\_73 Start: 44647, Stop: 44138, Start Num: 79

Candidate Starts for Todacoro\_73:

(Start: 79 @44647 has 132 MA's), (100, 44590), (Start: 104 @44551 has 1 MA's), (105, 44542), (114, 44479), (115, 44476), (121, 44446), (124, 44428), (129, 44389), (135, 44368), (150, 44272), (158,

44215), (166, 44170),

Gene: Tomathan\_78 Start: 45990, Stop: 45445, Start Num: 72

Candidate Starts for Tomathan\_78:

(Start: 67 @46002 has 32 MA's), (Start: 72 @45990 has 173 MA's), (Start: 104 @45873 has 1 MA's), (105, 45864), (106, 45849), (111, 45816), (129, 45714), (131, 45708), (135, 45690), (140, 45663), (141, 45648), (142, 45645), (144, 45630), (150, 45588), (158, 45534), (163, 45507), (166, 45489),

Gene: ToneTone\_75 Start: 43901, Stop: 43386, Start Num: 72

Candidate Starts for ToneTone\_75:

(Start: 58 @43937 has 9 MA's), (Start: 67 @43913 has 32 MA's), (Start: 72 @43901 has 173 MA's), (Start: 95 @43877 has 1 MA's), (Start: 104 @43814 has 1 MA's), (111, 43757), (129, 43655), (135, 43634), (145, 43571), (150, 43532), (158, 43478), (160, 43469), (175, 43406),

Gene: Topgun\_71 Start: 44911, Stop: 44399, Start Num: 84

Candidate Starts for Topgun\_71:

(24, 45085), (34, 45052), (Start: 62 @44968 has 2 MA's), (Start: 84 @44911 has 195 MA's), (Start: 97 @44869 has 5 MA's), (Start: 104 @44818 has 1 MA's), (105, 44809), (111, 44761), (119, 44719), (135, 44638), (141, 44596), (173, 44410),

Gene: Tote\_71 Start: 43674, Stop: 43204, Start Num: 97

Candidate Starts for Tote\_71:

(Start: 97 @43674 has 5 MA's), (Start: 104 @43623 has 1 MA's), (105, 43614), (111, 43566), (129, 43464), (135, 43443), (141, 43401), (163, 43257), (173, 43215),

Gene: Traft412\_75 Start: 46992, Stop: 46480, Start Num: 84

Candidate Starts for Traft412\_75:

(24, 47166), (34, 47133), (Start: 62 @47049 has 2 MA's), (Start: 84 @46992 has 195 MA's), (Start: 97 @46950 has 5 MA's), (Start: 104 @46899 has 1 MA's), (105, 46890), (111, 46842), (119, 46800), (135, 46719), (141, 46677), (173, 46491),

Gene: Treddle\_77 Start: 47722, Stop: 47210, Start Num: 84

Candidate Starts for Treddle\_77:

(24, 47896), (34, 47863), (Start: 62 @47779 has 2 MA's), (Start: 84 @47722 has 195 MA's), (Start: 97 @47680 has 5 MA's), (Start: 104 @47629 has 1 MA's), (105, 47620), (111, 47572), (129, 47470), (135, 47449), (141, 47407), (163, 47263), (173, 47221),

Gene: Tripl3t\_78 Start: 49274, Stop: 48762, Start Num: 84

Candidate Starts for Tripl3t\_78:

(24, 49448), (34, 49415), (Start: 62 @49331 has 2 MA's), (Start: 84 @49274 has 195 MA's), (Start: 97 @49232 has 5 MA's), (Start: 104 @49181 has 1 MA's), (105, 49172), (111, 49124), (135, 49001), (141, 48959), (173, 48773),

Gene: Trixie\_75 Start: 46174, Stop: 45596, Start Num: 72

Candidate Starts for Trixie\_75:

(11, 46402), (12, 46396), (28, 46303), (Start: 53 @46216 has 4 MA's), (Start: 67 @46186 has 32 MA's), (Start: 72 @46174 has 173 MA's), (Start: 104 @46057 has 1 MA's), (108, 46021), (111, 46000), (129, 45898), (132, 45889), (142, 45829), (144, 45814), (145, 45811), (150, 45772),

Gene: Trooper\_75 Start: 45436, Stop: 44858, Start Num: 72

Candidate Starts for Trooper\_75:

(Start: 67 @45448 has 32 MA's), (Start: 72 @45436 has 173 MA's), (85, 45409), (Start: 104 @45319 has 1 MA's), (105, 45310), (111, 45262), (115, 45244), (129, 45160), (142, 45091), (145, 45073), (150,

45034), (160, 44971), (166, 44908),

Gene: TroyPia\_71 Start: 44205, Stop: 43693, Start Num: 79

Candidate Starts for TroyPia\_71:

(Start: 79 @44205 has 132 MA's), (Start: 97 @44157 has 5 MA's), (Start: 104 @44106 has 1 MA's), (115, 44031), (119, 44007), (123, 43995), (129, 43944), (135, 43923), (145, 43866), (157, 43773), (166, 43725),

Gene: Tubs\_77 Start: 44644, Stop: 44108, Start Num: 72

Candidate Starts for Tubs\_77:

(Start: 67 @44656 has 32 MA's), (Start: 72 @44644 has 173 MA's), (Start: 104 @44548 has 1 MA's), (105, 44539), (106, 44524), (111, 44491), (135, 44368), (136, 44353), (137, 44350), (144, 44308), (145, 44305), (155, 44227), (166, 44158),

Gene: Tucker\_78 Start: 44104, Stop: 43589, Start Num: 72

Candidate Starts for Tucker\_78:

(Start: 58 @44140 has 9 MA's), (Start: 67 @44116 has 32 MA's), (Start: 72 @44104 has 173 MA's), (Start: 95 @44080 has 1 MA's), (Start: 104 @44017 has 1 MA's), (111, 43960), (129, 43858), (135, 43837), (145, 43774), (150, 43735), (158, 43681), (160, 43672), (175, 43609),

Gene: Turbido\_76 Start: 45726, Stop: 45139, Start Num: 67

Candidate Starts for Turbido\_76:

(6, 45978), (13, 45930), (16, 45918), (Start: 53 @45756 has 4 MA's), (61, 45744), (Start: 67 @45726 has 32 MA's), (Start: 72 @45714 has 173 MA's), (Start: 104 @45597 has 1 MA's), (105, 45588), (111, 45540), (129, 45438), (145, 45351), (150, 45312), (160, 45249),

Gene: Twister\_69 Start: 43997, Stop: 43491, Start Num: 76

Candidate Starts for Twister\_69:

(Start: 49 @44060 has 1 MA's), (57, 44045), (Start: 76 @43997 has 8 MA's), (Start: 78 @43994 has 10 MA's), (Start: 104 @43901 has 1 MA's), (106, 43877), (111, 43844), (115, 43826), (119, 43802), (129, 43742), (135, 43721), (145, 43664), (150, 43625), (153, 43589), (166, 43523), (173, 43502),

Gene: TwoPeat\_75 Start: 46254, Stop: 45739, Start Num: 84

Candidate Starts for TwoPeat\_75:

(24, 46428), (34, 46395), (Start: 62 @46311 has 2 MA's), (Start: 84 @46254 has 195 MA's), (Start: 97 @46212 has 5 MA's), (Start: 104 @46161 has 1 MA's), (105, 46152), (111, 46104), (129, 46002), (135, 45981), (141, 45939), (163, 45795), (173, 45753),

Gene: TygerBlood\_70 Start: 44171, Stop: 43659, Start Num: 79

Candidate Starts for TygerBlood\_70:

(Start: 79 @44171 has 132 MA's), (Start: 97 @44123 has 5 MA's), (Start: 104 @44072 has 1 MA's), (115, 43997), (119, 43973), (121, 43967), (123, 43961), (129, 43910), (135, 43889), (145, 43832), (150, 43793), (157, 43739), (166, 43691),

Gene: U2\_69 Start: 46491, Stop: 45979, Start Num: 84

Candidate Starts for U2\_69:

(24, 46665), (34, 46632), (Start: 62 @46548 has 2 MA's), (Start: 84 @46491 has 195 MA's), (Start: 97 @46449 has 5 MA's), (Start: 104 @46398 has 1 MA's), (105, 46389), (111, 46341), (135, 46218), (141, 46176), (173, 45990),

Gene: Ulysses\_69 Start: 43854, Stop: 43342, Start Num: 79

Candidate Starts for Ulysses\_69:

(Start: 79 @43854 has 132 MA's), (Start: 97 @43806 has 5 MA's), (Start: 104 @43755 has 1 MA's), (115, 43680), (119, 43656), (121, 43650), (123, 43644), (129, 43593), (135, 43572), (145, 43515), (150, 43476), (166, 43374),

Gene: UnionJack\_73 Start: 43877, Stop: 43347, Start Num: 74

Candidate Starts for UnionJack\_73:

(Start: 74 @43877 has 37 MA's), (117, 43685), (120, 43661), (127, 43625), (128, 43622), (129, 43601), (135, 43580), (157, 43427), (159, 43421), (165, 43382),

Gene: Updawg\_76 Start: 45271, Stop: 44696, Start Num: 72

Candidate Starts for Updawg\_76:

(9, 45496), (15, 45475), (25, 45406), (Start: 53 @45313 has 4 MA's), (61, 45301), (Start: 67 @45283 has 32 MA's), (Start: 72 @45271 has 173 MA's), (Start: 104 @45154 has 1 MA's), (105, 45145), (108, 45118), (111, 45097), (129, 44995), (141, 44929), (145, 44908), (150, 44869), (160, 44806),

Gene: VA6\_75 Start: 45463, Stop: 44891, Start Num: 72

Candidate Starts for VA6\_75:

(Start: 72 @45463 has 173 MA's), (Start: 95 @45409 has 1 MA's), (Start: 104 @45346 has 1 MA's), (105, 45337), (111, 45289), (115, 45271), (118, 45262), (129, 45187), (132, 45178), (145, 45100), (150, 45061), (167, 44932), (171, 44923),

Gene: Vanisoa\_74 Start: 45312, Stop: 44782, Start Num: 72

Candidate Starts for Vanisoa\_74:

(Start: 72 @45312 has 173 MA's), (Start: 104 @45216 has 1 MA's), (106, 45192), (111, 45159), (135, 45036), (137, 45018), (144, 44976), (145, 44973), (156, 44892), (157, 44877), (158, 44874), (160, 44865),

Gene: Violet\_70 Start: 46886, Stop: 46374, Start Num: 84

Candidate Starts for Violet\_70:

(24, 47060), (34, 47027), (Start: 62 @46943 has 2 MA's), (Start: 84 @46886 has 195 MA's), (Start: 97 @46844 has 5 MA's), (Start: 104 @46793 has 1 MA's), (105, 46784), (111, 46736), (135, 46613), (141, 46571), (173, 46385),

Gene: Vix\_75 Start: 45088, Stop: 44579, Start Num: 88

Candidate Starts for Vix\_75:

(Start: 88 @45088 has 77 MA's), (Start: 97 @45052 has 5 MA's), (Start: 104 @45001 has 1 MA's), (105, 44992), (115, 44926), (123, 44890), (129, 44842), (135, 44821), (144, 44761), (145, 44758), (146, 44755), (150, 44719), (158, 44656), (166, 44611),

Gene: VohminGhazi\_78 Start: 44179, Stop: 43664, Start Num: 72

Candidate Starts for VohminGhazi\_78:

(Start: 67 @44191 has 32 MA's), (Start: 72 @44179 has 173 MA's), (Start: 104 @44092 has 1 MA's), (105, 44083), (111, 44035), (129, 43933), (135, 43912), (138, 43891), (145, 43849), (150, 43810),

Gene: Waits\_83 Start: 45510, Stop: 44989, Start Num: 72

Candidate Starts for Waits\_83:

(Start: 72 @45510 has 173 MA's), (Start: 97 @45465 has 5 MA's), (Start: 104 @45414 has 1 MA's), (105, 45405), (111, 45357), (129, 45255), (135, 45234), (153, 45096), (157, 45078), (160, 45066), (166, 45030),

Gene: WalterMcMickey\_69 Start: 43994, Stop: 43491, Start Num: 78

Candidate Starts for WalterMcMickey\_69:

(Start: 49 @44060 has 1 MA's), (57, 44045), (Start: 76 @43997 has 8 MA's), (Start: 78 @43994 has 10 MA's), (Start: 104 @43901 has 1 MA's), (106, 43877), (111, 43844), (115, 43826), (119, 43802), (129, 43742), (135, 43721), (145, 43664), (150, 43625), (153, 43589), (166, 43523), (173, 43502),

Gene: Wander\_70 Start: 44165, Stop: 43653, Start Num: 79

Candidate Starts for Wander\_70:

(Start: 79 @44165 has 132 MA's), (Start: 97 @44117 has 5 MA's), (Start: 104 @44066 has 1 MA's), (115, 43991), (119, 43967), (121, 43961), (123, 43955), (129, 43904), (135, 43883), (145, 43826), (150, 43787), (166, 43685),

Gene: Watermelon\_78 Start: 47796, Stop: 47284, Start Num: 84

Candidate Starts for Watermelon\_78:

(24, 47970), (34, 47937), (Start: 62 @47853 has 2 MA's), (Start: 84 @47796 has 195 MA's), (Start: 97 @47754 has 5 MA's), (Start: 104 @47703 has 1 MA's), (105, 47694), (111, 47646), (135, 47523), (141, 47481), (173, 47295),

Gene: Watson\_78 Start: 44997, Stop: 44488, Start Num: 88

Candidate Starts for Watson\_78:

(Start: 69 @45033 has 3 MA's), (Start: 88 @44997 has 77 MA's), (Start: 97 @44961 has 5 MA's), (Start: 104 @44910 has 1 MA's), (105, 44901), (115, 44835), (123, 44799), (129, 44751), (135, 44730), (144, 44670), (145, 44667), (146, 44664), (150, 44628), (158, 44565), (166, 44520),

Gene: WeiHuaDA\_76 Start: 46220, Stop: 45651, Start Num: 72

Candidate Starts for WeiHuaDA\_76:

(Start: 67 @46232 has 32 MA's), (Start: 72 @46220 has 173 MA's), (Start: 95 @46166 has 1 MA's), (Start: 104 @46103 has 1 MA's), (106, 46079), (111, 46046), (115, 46028), (129, 45944), (132, 45935), (145, 45857), (150, 45818), (164, 45713),

Gene: Whabigail7\_76 Start: 45712, Stop: 45137, Start Num: 72

Candidate Starts for Whabigail7\_76:

(Start: 53 @45754 has 4 MA's), (61, 45742), (Start: 67 @45724 has 32 MA's), (Start: 72 @45712 has 173 MA's), (Start: 104 @45595 has 1 MA's), (105, 45586), (111, 45538), (129, 45436), (145, 45349), (150, 45310), (160, 45247),

Gene: Wheeler\_79 Start: 47915, Stop: 47403, Start Num: 84

Candidate Starts for Wheeler\_79:

(8, 48194), (24, 48089), (34, 48056), (Start: 62 @47972 has 2 MA's), (Start: 84 @47915 has 195 MA's), (Start: 97 @47873 has 5 MA's), (Start: 104 @47822 has 1 MA's), (105, 47813), (111, 47765), (135, 47642), (141, 47600), (173, 47414),

Gene: WideWale\_76 Start: 45271, Stop: 44696, Start Num: 72

Candidate Starts for WideWale\_76:

(9, 45496), (15, 45475), (25, 45406), (Start: 53 @45313 has 4 MA's), (61, 45301), (Start: 67 @45283 has 32 MA's), (Start: 72 @45271 has 173 MA's), (Start: 104 @45154 has 1 MA's), (105, 45145), (108, 45118), (111, 45097), (129, 44995), (141, 44929), (145, 44908), (150, 44869), (160, 44806),

Gene: Wiks\_77 Start: 43972, Stop: 43457, Start Num: 72

Candidate Starts for Wiks\_77:

(Start: 58 @44008 has 9 MA's), (Start: 67 @43984 has 32 MA's), (Start: 72 @43972 has 173 MA's), (Start: 95 @43948 has 1 MA's), (Start: 104 @43885 has 1 MA's), (111, 43828), (129, 43726), (135, 43705), (145, 43642), (150, 43603), (158, 43549), (160, 43540), (175, 43477),

Gene: Wilbur\_70 Start: 44168, Stop: 43656, Start Num: 79

Candidate Starts for Wilbur\_70:

(Start: 79 @44168 has 132 MA's), (Start: 97 @44120 has 5 MA's), (Start: 104 @44069 has 1 MA's), (115, 43994), (119, 43970), (121, 43964), (123, 43958), (129, 43907), (135, 43886), (145, 43829), (150, 43790), (166, 43688),

Gene: Wile\_68 Start: 44382, Stop: 43882, Start Num: 86

Candidate Starts for Wile\_68:

(Start: 86 @44382 has 21 MA's), (Start: 104 @44295 has 1 MA's), (106, 44271), (121, 44190), (123, 44184), (124, 44172), (129, 44133), (133, 44118), (135, 44112), (150, 44016), (160, 43950), (166, 43914),

Gene: Wilkins\_72 Start: 44841, Stop: 44329, Start Num: 84

Candidate Starts for Wilkins\_72:

(24, 45015), (34, 44982), (Start: 62 @44898 has 2 MA's), (Start: 84 @44841 has 195 MA's), (Start: 97 @44799 has 5 MA's), (Start: 104 @44748 has 1 MA's), (105, 44739), (111, 44691), (119, 44649), (135, 44568), (141, 44526), (173, 44340),

Gene: Wizard007\_69 Start: 44108, Stop: 43608, Start Num: 86

Candidate Starts for Wizard007\_69:

(Start: 86 @44108 has 21 MA's), (Start: 104 @44021 has 1 MA's), (106, 43997), (121, 43916), (123, 43910), (124, 43898), (129, 43859), (133, 43844), (135, 43838), (150, 43742), (160, 43676), (166, 43640),

Gene: Wooldri\_81 Start: 44914, Stop: 44405, Start Num: 88

Candidate Starts for Wooldri\_81:

(Start: 88 @44914 has 77 MA's), (Start: 97 @44878 has 5 MA's), (Start: 104 @44827 has 1 MA's), (105, 44818), (115, 44752), (123, 44716), (129, 44668), (135, 44647), (144, 44587), (145, 44584), (146, 44581), (150, 44545), (158, 44482), (166, 44437),

Gene: XFactor\_38 Start: 31358, Stop: 30822, Start Num: 72

Candidate Starts for XFactor\_38:

(Start: 72 @31358 has 173 MA's), (Start: 97 @31292 has 5 MA's), (Start: 104 @31241 has 1 MA's), (105, 31232), (111, 31184), (119, 31142), (135, 31061), (141, 31019), (173, 30833),

Gene: Xena\_68 Start: 44349, Stop: 43849, Start Num: 86

Candidate Starts for Xena\_68:

(Start: 86 @44349 has 21 MA's), (Start: 104 @44262 has 1 MA's), (106, 44238), (121, 44157), (123, 44151), (124, 44139), (129, 44100), (133, 44085), (135, 44079), (150, 43983), (160, 43917), (166, 43881),

Gene: XianYue\_71 Start: 45222, Stop: 44638, Start Num: 67

Candidate Starts for XianYue\_71:

(Start: 67 @45222 has 32 MA's), (Start: 72 @45210 has 173 MA's), (Start: 104 @45093 has 1 MA's), (105, 45084), (111, 45036), (118, 45009), (129, 44934), (141, 44868), (145, 44847), (150, 44808), (160, 44745), (164, 44703),

Gene: Yassified\_45 Start: 14688, Stop: 15200, Start Num: 84

Candidate Starts for Yassified\_45:

(21, 14499), (Start: 80 @14676 has 3 MA's), (Start: 84 @14688 has 195 MA's), (Start: 97 @14730 has 5 MA's), (Start: 104 @14781 has 1 MA's), (105, 14790), (111, 14838), (119, 14880), (135, 14961), (141, 15003), (173, 15189),

Gene: Yecey3\_79 Start: 44745, Stop: 44215, Start Num: 72

Candidate Starts for Yecey3\_79:

(Start: 67 @44757 has 32 MA's), (Start: 72 @44745 has 173 MA's), (Start: 97 @44700 has 5 MA's), (Start: 104 @44649 has 1 MA's), (105, 44640), (111, 44592), (129, 44490), (135, 44466), (144, 44406), (145, 44403), (150, 44364), (153, 44331), (154, 44328), (160, 44301), (164, 44277),

Gene: YoSam321\_70 Start: 44166, Stop: 43654, Start Num: 79

Candidate Starts for YoSam321\_70:

(Start: 79 @44166 has 132 MA's), (Start: 97 @44118 has 5 MA's), (Start: 104 @44067 has 1 MA's), (115, 43992), (119, 43968), (121, 43962), (123, 43956), (129, 43905), (135, 43884), (145, 43827), (150, 43788), (166, 43686),

Gene: Yokurt\_77 Start: 43972, Stop: 43457, Start Num: 72

Candidate Starts for Yokurt\_77:

(Start: 58 @44008 has 9 MA's), (Start: 67 @43984 has 32 MA's), (Start: 72 @43972 has 173 MA's), (Start: 95 @43948 has 1 MA's), (Start: 104 @43885 has 1 MA's), (111, 43828), (129, 43726), (135, 43705), (145, 43642), (150, 43603), (158, 43549), (160, 43540), (175, 43477),

Gene: Yoncess\_57 Start: 39880, Stop: 39356, Start Num: 77

Candidate Starts for Yoncess\_57:

(Start: 77 @39880 has 23 MA's), (96, 39835), (100, 39817), (115, 39703), (116, 39700), (123, 39667), (128, 39640), (129, 39619), (135, 39598), (143, 39550), (158, 39439), (160, 39430), (173, 39373),

Gene: Zaka\_78 Start: 44008, Stop: 43457, Start Num: 58

Candidate Starts for Zaka\_78:

(Start: 58 @44008 has 9 MA's), (Start: 67 @43984 has 32 MA's), (Start: 72 @43972 has 173 MA's), (Start: 95 @43948 has 1 MA's), (Start: 104 @43885 has 1 MA's), (111, 43828), (129, 43726), (135, 43705), (145, 43642), (150, 43603), (158, 43549), (160, 43540), (175, 43477),

Gene: Zeeculate\_71 Start: 46614, Stop: 46102, Start Num: 84

Candidate Starts for Zeeculate\_71:

(24, 46788), (34, 46755), (Start: 62 @46671 has 2 MA's), (Start: 84 @46614 has 195 MA's), (Start: 97 @46572 has 5 MA's), (Start: 104 @46521 has 1 MA's), (105, 46512), (111, 46464), (128, 46383), (135, 46341), (141, 46299), (173, 46113),

Gene: Zephyr\_77 Start: 46886, Stop: 46374, Start Num: 84

Candidate Starts for Zephyr\_77:

(24, 47060), (34, 47027), (51, 46964), (Start: 62 @46943 has 2 MA's), (Start: 84 @46886 has 195 MA's), (Start: 97 @46844 has 5 MA's), (Start: 104 @46793 has 1 MA's), (105, 46784), (111, 46736), (135, 46613), (141, 46571), (173, 46385),

Gene: Zeuska\_77 Start: 47851, Stop: 47339, Start Num: 84

Candidate Starts for Zeuska\_77:

(24, 48025), (34, 47992), (Start: 62 @47908 has 2 MA's), (Start: 84 @47851 has 195 MA's), (Start: 97 @47809 has 5 MA's), (Start: 104 @47758 has 1 MA's), (105, 47749), (111, 47701), (135, 47578), (141, 47536), (173, 47350),

Gene: Zimmer\_74 Start: 45769, Stop: 45221, Start Num: 66

Candidate Starts for Zimmer\_74:

(Start: 66 @45769 has 1 MA's), (Start: 104 @45652 has 1 MA's), (105, 45643), (111, 45595), (115, 45577), (129, 45493), (135, 45469), (145, 45406), (160, 45304), (166, 45268),

Gene: Zolita\_68 Start: 43804, Stop: 43274, Start Num: 74

Candidate Starts for Zolita\_68:

(Start: 74 @43804 has 37 MA's), (120, 43588), (127, 43552), (128, 43549), (129, 43528), (130, 43525), (135, 43507), (157, 43354), (165, 43309),

Gene: Zulu\_79 Start: 44386, Stop: 43835, Start Num: 58

Candidate Starts for Zulu\_79:

(Start: 58 @44386 has 9 MA's), (Start: 67 @44362 has 32 MA's), (Start: 72 @44350 has 173 MA's), (Start: 95 @44326 has 1 MA's), (Start: 104 @44263 has 1 MA's), (111, 44206), (129, 44104), (135, 44083), (145, 44020), (150, 43981), (158, 43927), (160, 43918), (175, 43855),