

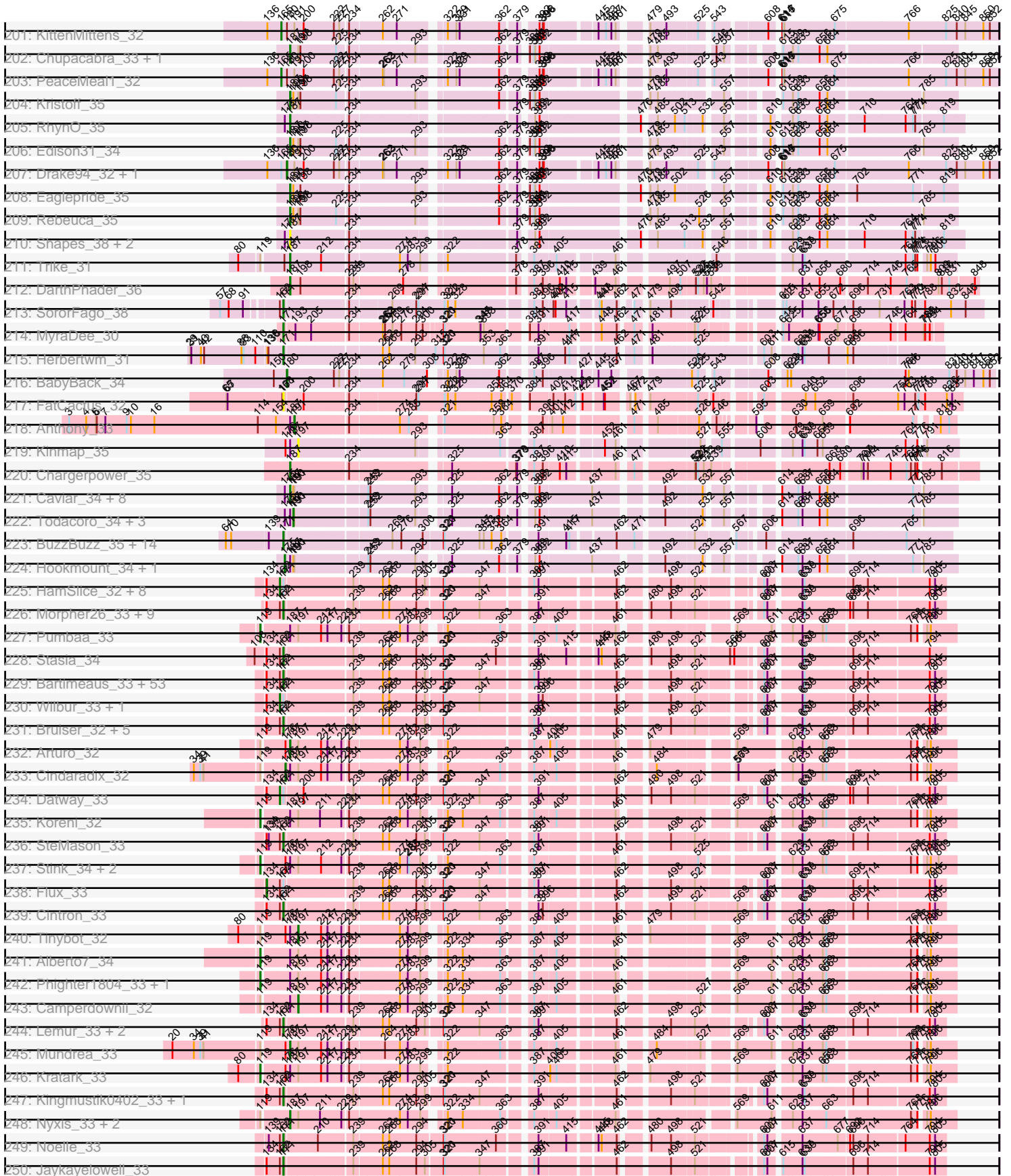






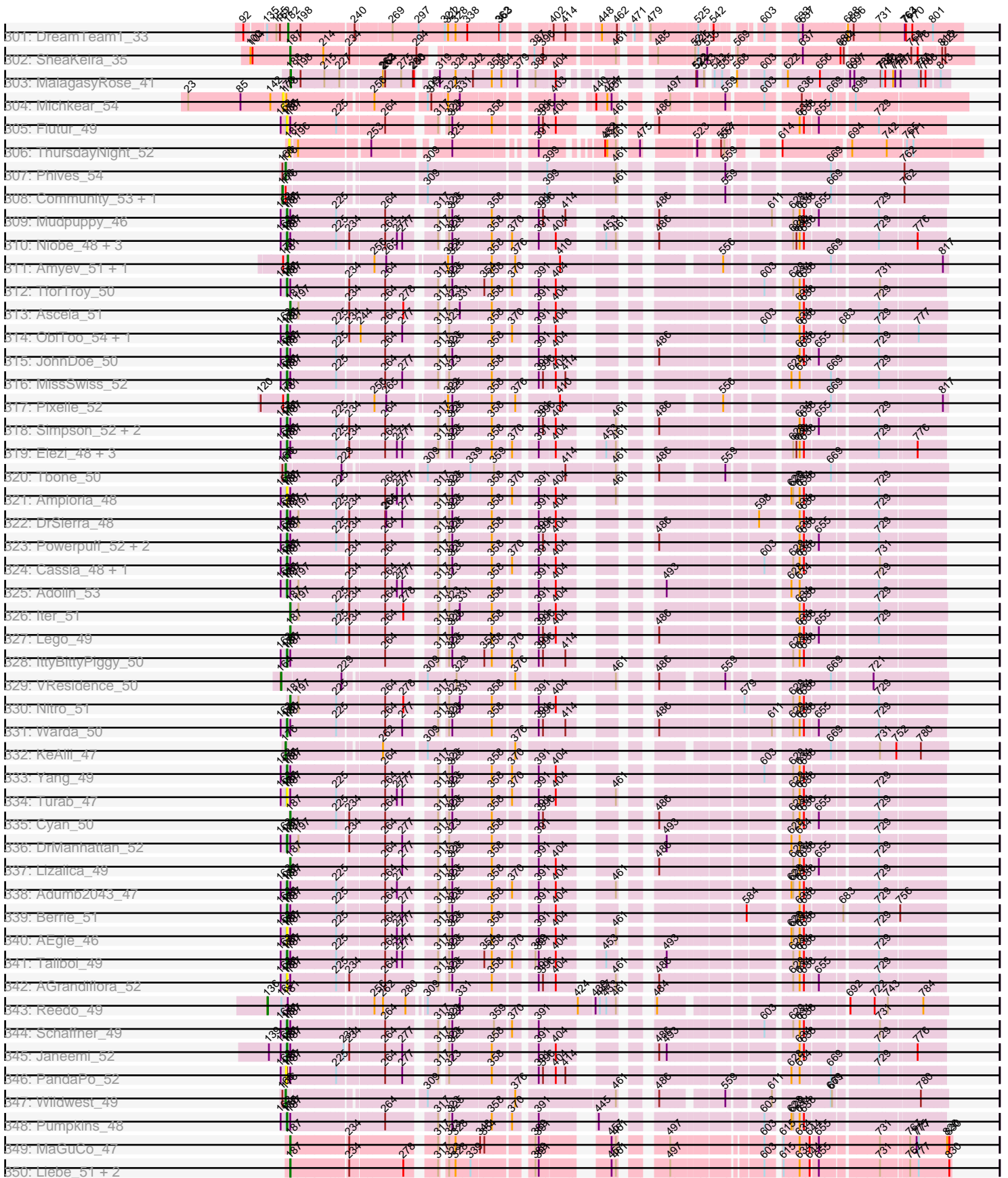


Pham 311019

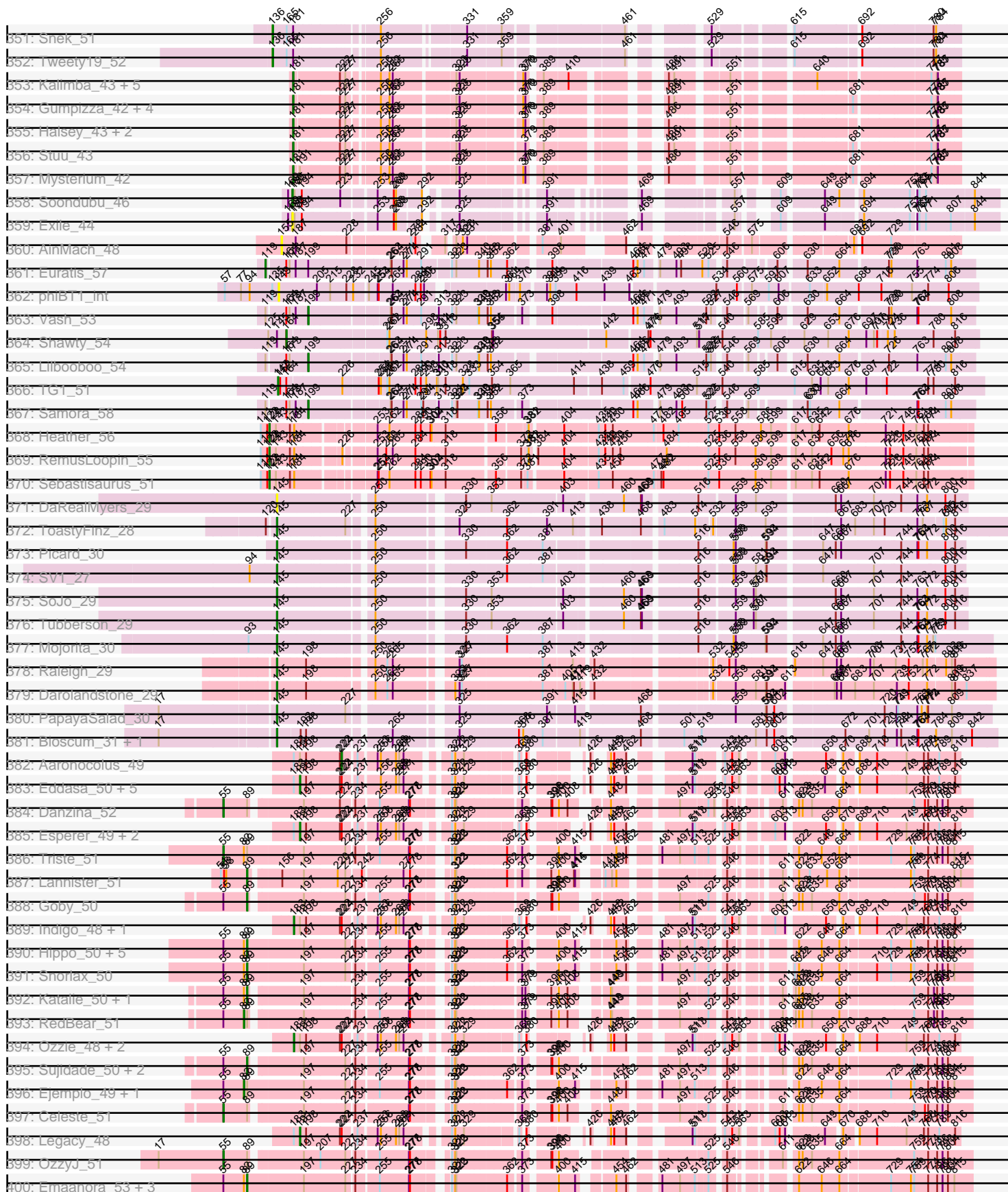




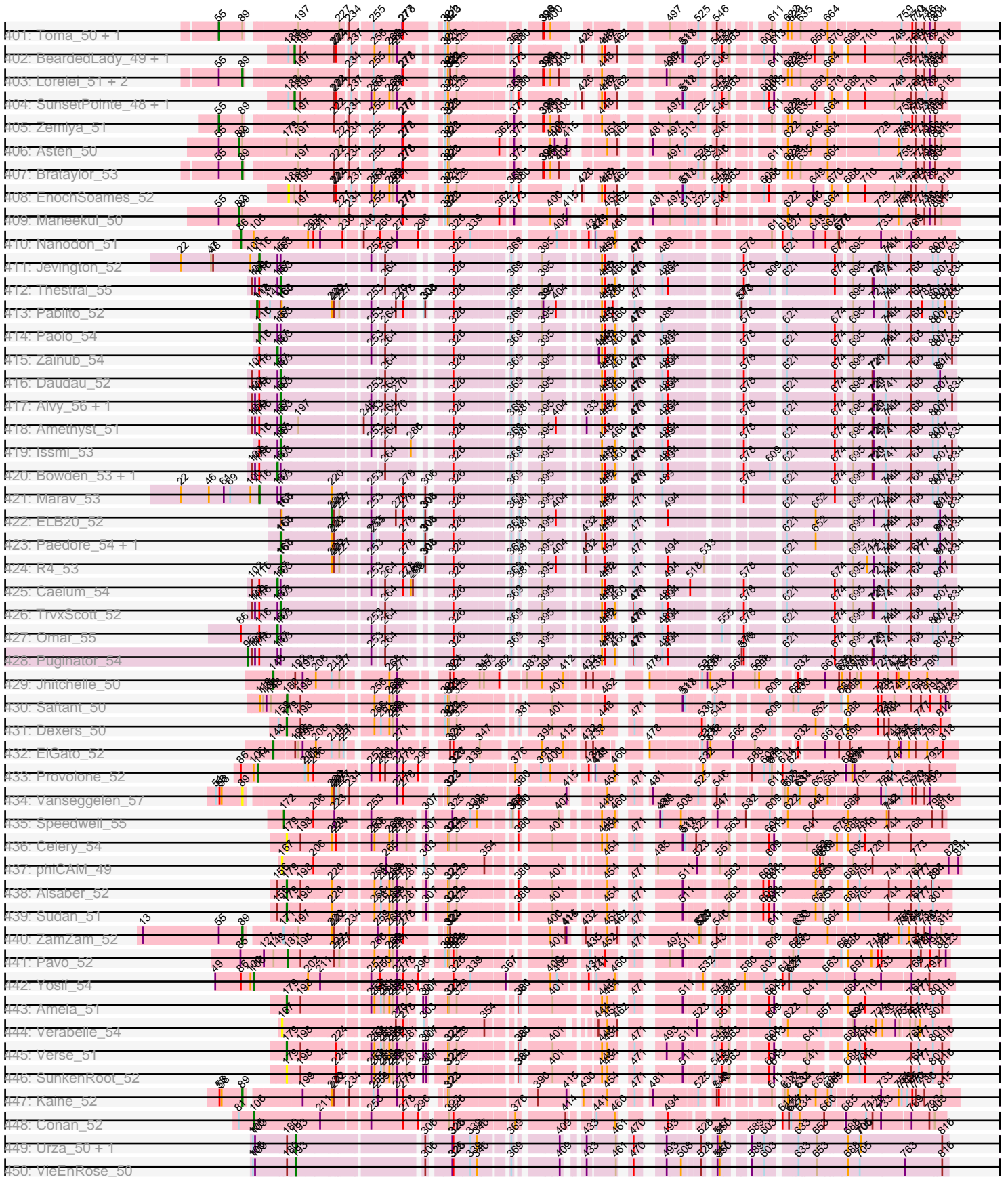
Pham 311019



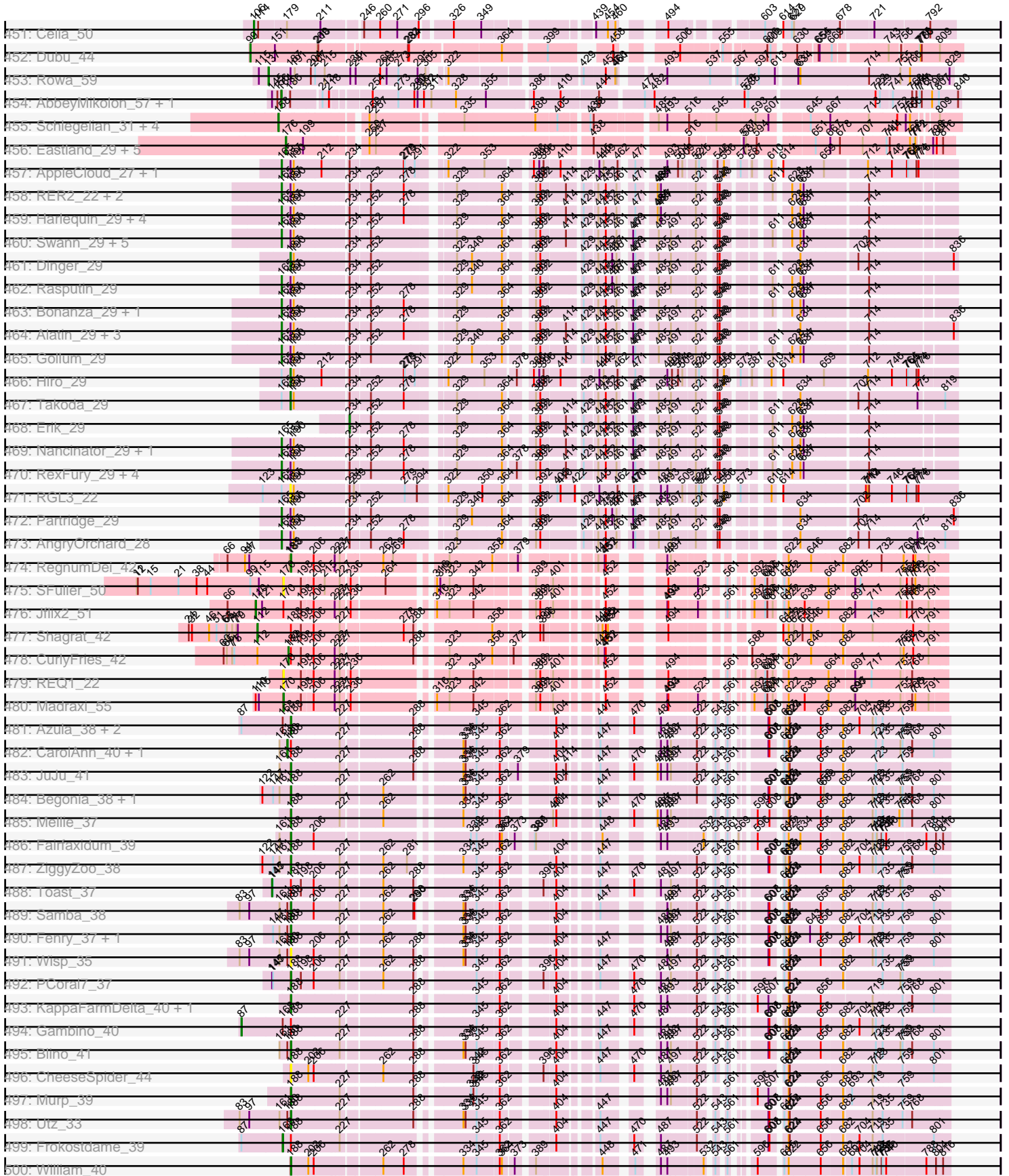
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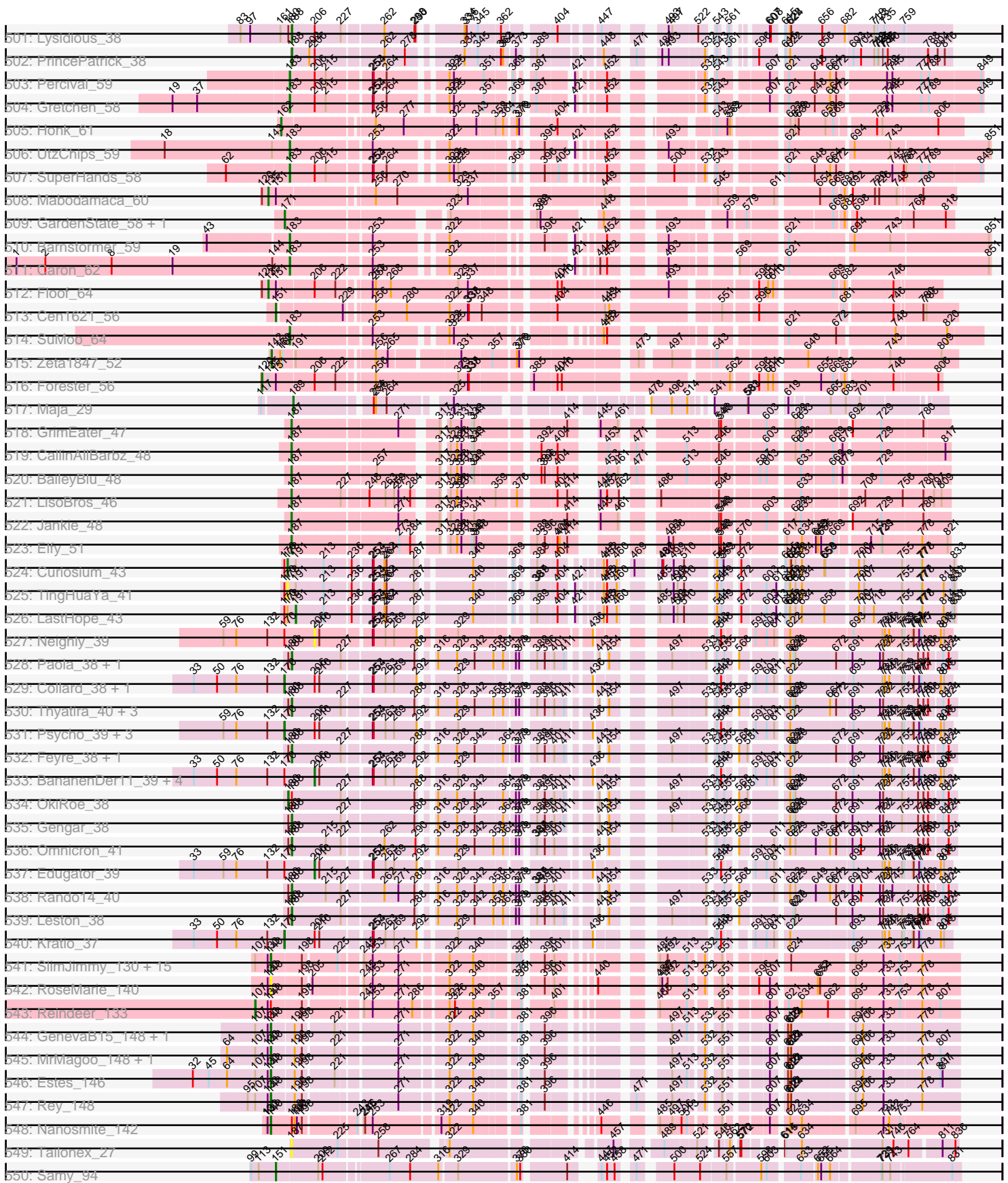
Pham 311019



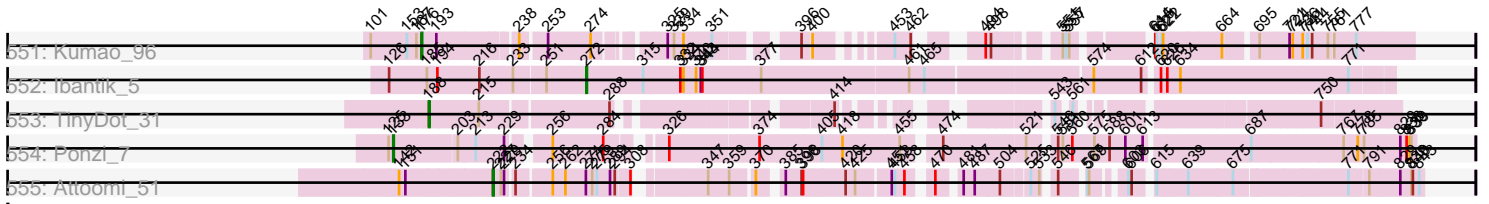
Pham 311019



Pham 311019



Pham 311019



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 311019 Report

This analysis was run 06/27/26 on database version 652.

WARNING: Pham size does not match number of genes in report. Either unphamerated genes have been added (by you) or starterator has removed genes due to invalid start codon.

Pham number 311019 has 851 members, 73 are drafts.

Phages represented in each track:

- Track 1 : Crispicious1\_36, DrFeelGood\_36
- Track 2 : Rajelicia\_37
- Track 3 : PowerRanger\_38
- Track 4 : Zeuska\_38, Abrogate\_380
- Track 5 : PhrostyMug\_38
- Track 6 : LilBib\_37
- Track 7 : Bethlehem\_37
- Track 8 : Gandalf20\_38, HermioneGrange\_37
- Track 9 : GageAP\_39
- Track 10 : Marchy\_32
- Track 11 : Kugel\_38
- Track 12 : Chanagan\_36
- Track 13 : Tasp14\_38
- Track 14 : PascalRango\_38
- Track 15 : Cueylyss\_37
- Track 16 : Kykar\_36
- Track 17 : Scowl\_37
- Track 18 : Arcanine\_37
- Track 19 : Seabiscuit\_39
- Track 20 : Violet\_36
- Track 21 : HanShotFirst\_36
- Track 22 : DirtDevil\_39, Aldrich\_39, CatBus\_39
- Track 23 : KikiBouba\_40, Noxious\_40, Hermia\_40
- Track 24 : Paphu\_36
- Track 25 : KBG\_38
- Track 26 : DD5\_38, Lockley\_38
- Track 27 : Rhynn\_37
- Track 28 : RidgeCB\_37
- Track 29 : Rufus\_39
- Track 30 : Rutherford\_39
- Track 31 : Doom\_37
- Track 32 : Traft412\_39
- Track 33 : Dreamboat\_38, Jasper\_38

- Track 34 : Ciao\_37
- Track 35 : JackSparrow\_38
- Track 36 : HarryOW\_37
- Track 37 : Pari\_38
- Track 38 : BK1\_34, A6\_34
- Track 39 : JC27\_38
- Track 40 : Maroc7\_37
- Track 41 : Ichabod\_38
- Track 42 : Ashballer\_39
- Track 43 : Ringer\_38
- Track 44 : McGuire\_38
- Track 45 : Arlo\_36
- Track 46 : Trip13t\_38
- Track 47 : BillKnuckles\_38
- Track 48 : Sagefire\_39
- Track 49 : Bruns\_36
- Track 50 : Ajay\_38
- Track 51 : KyMonks1A\_40
- Track 52 : Swole\_39, JuliaChild\_39
- Track 53 : Perseus\_39
- Track 54 : Museum\_39
- Track 55 : GrecoEtereo\_39
- Track 56 : Fajezeel\_39, Greg\_39, Pippin\_39
- Track 57 : Kanely\_38
- Track 58 : PinkPlastic\_36
- Track 59 : BigMau\_39
- Track 60 : Raid\_37
- Track 61 : Killigrew\_35
- Track 62 : STLscum\_38
- Track 63 : Sunshine924\_39
- Track 64 : Zeeculate\_37
- Track 65 : Big3\_37
- Track 66 : Eyeball\_37, LunarLander\_38
- Track 67 : Bexan\_35, StrongArm\_36
- Track 68 : QTRlifeCrisis\_38, CartmannCramer\_37
- Track 69 : Blesser\_37
- Track 70 : Nhonho\_37
- Track 71 : SkiPole\_40
- Track 72 : PherrisBueller\_38
- Track 73 : Jerm2\_38
- Track 74 : GroundGoblin\_39
- Track 75 : Forsytheast\_37, Corvo\_38
- Track 76 : SarFire\_37
- Track 77 : PhineBark\_36
- Track 78 : Conceptll\_39
- Track 79 : Bob3\_36
- Track 80 : Petruccio\_38
- Track 81 : Espresso\_37
- Track 82 : Oogway\_36, Adahisdi\_38
- Track 83 : Lopton\_38
- Track 84 : Lamina13\_37
- Track 85 : Blackflame\_37
- Track 86 : Inyanga\_35, Iqorha\_35

- Track 87 : Phlippers\_35
- Track 88 : Ohno789\_37
- Track 89 : Bxb1\_35
- Track 90 : Dexes\_37
- Track 91 : Atkinbua\_39
- Track 92 : Fenn\_38, Squee\_38, Naira\_38
- Track 93 : TwoPeat\_38
- Track 94 : Mkhusele\_38
- Track 95 : Turj99\_36, Magnito\_36
- Track 96 : Licorice\_39
- Track 97 : Anglerfish\_39
- Track 98 : MrGordo\_37
- Track 99 : Altman\_39
- Track 100 : Smairt\_38
- Track 101 : TheloniousMonk\_39
- Track 102 : Petp2012\_39, Molly\_39
- Track 103 : Fascinus\_36, Bigfoot\_35
- Track 104 : Jorgensen\_37
- Track 105 : Papez\_39
- Track 106 : Wheeler\_38
- Track 107 : Manatee\_38
- Track 108 : Sibs6\_38
- Track 109 : Euphoria\_37
- Track 110 : BarrowTuph\_36
- Track 111 : Marcell\_37
- Track 112 : Michley\_37
- Track 113 : CactusRose\_35
- Track 114 : Sorpresa\_37
- Track 115 : Sanya\_36
- Track 116 : Sandaddy\_37
- Track 117 : SpikeBT\_39
- Track 118 : MetalQZJ\_37, MaryBeth\_37
- Track 119 : Thor\_37
- Track 120 : Briton15\_39
- Track 121 : Pita2\_39, PSullivan\_36
- Track 122 : Mryolo\_35
- Track 123 : Ruotula\_37
- Track 124 : Paraselene\_36
- Track 125 : Nerujay\_38
- Track 126 : Parliament\_36
- Track 127 : Bircsak\_37
- Track 128 : Peterson\_40
- Track 129 : Gwendoluna\_40
- Track 130 : Kenmech\_40
- Track 131 : Rohr\_38
- Track 132 : ILeeKay\_39
- Track 133 : Marco3\_37
- Track 134 : GMonster\_36
- Track 135 : BeesKnees\_38
- Track 136 : PattyP\_39
- Track 137 : Topgun\_36
- Track 138 : Alvin\_38
- Track 139 : Seanderson\_38

- Track 140 : Bigchungji\_37
- Track 141 : Niza\_40
- Track 142 : Acme\_40
- Track 143 : Payneful\_37
- Track 144 : Burton\_38
- Track 145 : Smeagol\_39
- Track 146 : Teodoridan\_35
- Track 147 : Abbyshoes\_39
- Track 148 : Slagathor\_38
- Track 149 : Dussy\_38
- Track 150 : Gompeii16\_37
- Track 151 : Francis47\_37
- Track 152 : Bones\_37
- Track 153 : Solon\_37
- Track 154 : Blue\_37
- Track 155 : Trouble\_38
- Track 156 : Edtherson\_38
- Track 157 : Marsha\_37
- Track 158 : Snazzy\_36
- Track 159 : Graduation\_39
- Track 160 : Switzer\_38
- Track 161 : Lesedi\_36
- Track 162 : PacerPaul\_38
- Track 163 : AFIS\_37
- Track 164 : MPlant7149\_37
- Track 165 : Watermelon\_39
- Track 166 : Marge\_38
- Track 167 : ProMouse\_35
- Track 168 : Makemake\_38
- Track 169 : DreamCatcher\_40
- Track 170 : BaconJack\_40
- Track 171 : Monet\_39
- Track 172 : Froghopper\_37
- Track 173 : Wilkins\_36
- Track 174 : IgnatiusPatJac\_36
- Track 175 : Alsfro\_41
- Track 176 : Aeneas\_40
- Track 177 : Barriga\_37
- Track 178 : U2\_37
- Track 179 : Levia\_34
- Track 180 : BPBiebs31\_38
- Track 181 : Zephyr\_38
- Track 182 : MilleFeuille\_36
- Track 183 : Puppet\_37
- Track 184 : Dynamix\_38
- Track 185 : Pelly\_37
- Track 186 : Hope4ever\_37
- Track 187 : SwissCheese\_39, Moose\_37
- Track 188 : NEHalo\_37
- Track 189 : Norz\_39
- Track 190 : Pinto\_39
- Track 191 : Sumter\_36
- Track 192 : Magnar\_37

- Track 193 : Gachnar\_39
- Track 194 : KSSJEB\_37
- Track 195 : McSinger\_38
- Track 196 : Treddle\_39
- Track 197 : Beatrix\_37
- Track 198 : WalterMcMickey\_34, Twister\_34, Topanga\_34
- Track 199 : DontArgue\_32
- Track 200 : Poompha\_32
- Track 201 : KittenMittens\_32
- Track 202 : Chupacabra\_33, OKCentral2016\_33
- Track 203 : PeaceMeal1\_32
- Track 204 : Kristoff\_35
- Track 205 : RhynO\_35
- Track 206 : Edison31\_34
- Track 207 : Drake94\_32, Severus\_32
- Track 208 : Eaglepride\_35
- Track 209 : Rebeuca\_35
- Track 210 : Shapes\_38, Rowdy\_38, DustyMartin\_38
- Track 211 : Trike\_31
- Track 212 : DARTHPhader\_36
- Track 213 : SororFago\_38
- Track 214 : MyraDee\_30
- Track 215 : Herbertwm\_31
- Track 216 : BabyBack\_34
- Track 217 : FatCactus\_32
- Track 218 : Anthony\_33
- Track 219 : Kinmap\_35
- Track 220 : Chargerpower\_35
- Track 221 : Caviar\_34, Margo\_34, QuinnKiro\_33, Noella\_34, ResDef\_34, Norbert\_33, Popcicle\_34, Panamaxus\_33, Pocahontas\_34
- Track 222 : Todacoro\_34, EtoileNova\_34, Texage\_33, Veracruz\_33
- Track 223 : BuzzBuzz\_35, Daishi\_35, Soshari\_38, Phoxy\_36, Bx2\_34, LarryKay\_36, Rummer\_36, Spike509\_36, Methuselah\_35, HashRod\_37, Louie6\_36, TinyPebbles\_36, Misomonster\_38, KADY\_37, AgronaGT15\_36
- Track 224 : Hookmount\_34, Lambert1\_34
- Track 225 : HamSlice\_32, Maverick\_33, Peaches\_33, Bombshell\_33, Caelakin\_33, Holli\_33, Pipcraft\_33, Eros\_33, Burger\_32
- Track 226 : Morpher26\_33, Katalie136\_33, Wile\_33, Bumblebee11\_33, AbbysRanger\_33, Achebe\_32, PetiteSangsue\_33, Badger\_33, Xena\_33, Cici\_33
- Track 227 : Pumbaa\_33
- Track 228 : Stasia\_34
- Track 229 : Bartimeaus\_33, Ruin\_33, Albee\_33, RockieBear\_32, Eris\_32, Annyong\_33, Sabertooth\_33, JoongJeon\_33, OKaNui\_34, Druantia\_33, Millski\_32, Broseidon\_33, Lorenzo\_33, Eapen\_33, CentreCat\_33, Nemo27\_33, LappelDuVide\_33, Florean\_33, Skipitt\_33, TygerBlood\_33, Blackmoor\_33, BubbleTrouble\_33, Huxley\_33, Spino\_33, Roosevelt\_33, Cocoaberry\_33, Taquarus\_33, Kyee\_33, Baby16\_33, Chaph\_33, Phacado\_33, NorthStar\_33, Koan\_33, Gadost\_33, Mayonnaise\_33, Connomayer\_33, Relief\_33, JetBlade\_33, Dhanush\_33, TiroTheta9\_33, Citius\_33, Funston\_33, Wizard007\_33, NotAPhaseMom\_33, Thanksgivukkah\_33, MeeZee\_33, Houdini22\_33, SenorClean\_33, Happiness\_33, Deano\_33, Clarenza\_33, YoSam321\_33, Palestino\_32, KekoraPapaka\_32
- Track 230 : Wilbur\_33, Romney\_33

- Track 231 : Bruiser\_32, PeterPeter\_33, Avle17\_33, Wander\_33, Mazhar510\_33, Lunsford\_34
- Track 232 : Arturo\_32
- Track 233 : Cindaradix\_32
- Track 234 : Datway\_33
- Track 235 : Koreni\_32
- Track 236 : SteMason\_33
- Track 237 : Stink\_34, AvatarAhPeg\_34, Miramae\_33
- Track 238 : Flux\_33
- Track 239 : Cintron\_33
- Track 240 : Tinybot\_32
- Track 241 : Alberto7\_34
- Track 242 : Phighter1804\_33, DirtyDunning\_33
- Track 243 : Camperdownii\_32
- Track 244 : Lemur\_33, LittleB\_33, KFPoly\_33
- Track 245 : Mundrea\_33
- Track 246 : Kratark\_33
- Track 247 : Kingmustik0402\_33, Iceman\_34
- Track 248 : Nyxis\_33, LittleGuy\_33, Phontbonne\_33
- Track 249 : Noelle\_33
- Track 250 : Jaykayelowell\_33
- Track 251 : Perplexer\_33
- Track 252 : Scamp\_33
- Track 253 : Ulysses\_32
- Track 254 : Backyardigan\_33
- Track 255 : Kremtemulon\_33
- Track 256 : Shygu2\_33
- Track 257 : Shaka\_33
- Track 258 : ICleared\_33
- Track 259 : Rosa24\_32
- Track 260 : LochMonster\_33
- Track 261 : Sultana\_33
- Track 262 : Iracema64\_34
- Track 263 : Micasa\_30
- Track 264 : Florence4\_31, Prinashe11\_31, Florence1\_30, HuhtaEnerson15\_30
- Track 265 : AgentM\_30, ForGetIt\_30, Lev2\_30, Phlorence\_30, Jovo\_30, Conspiracy\_30, Tiger\_30, Aragog\_30, Discoknowium\_30
- Track 266 : Milcery\_30, Tarynearal\_29, Theia\_28, Swirley\_30, George\_29, LittleCherry\_30, Bonamassa\_30, Twigg\_30, Cuco\_30
- Track 267 : Naca\_31
- Track 268 : Airmid\_31
- Track 269 : EITiger69\_31, Jabiru\_31
- Track 270 : Scorpia\_32
- Track 271 : Bluefalcon\_29
- Track 272 : PickleBack\_30
- Track 273 : Ghoulboy\_30
- Track 274 : Coog\_30
- Track 275 : Dublin\_29, Midas2\_30
- Track 276 : PetterN\_32
- Track 277 : Chadwick\_32
- Track 278 : Zolita\_29, SydNat\_30
- Track 279 : Archetta\_30
- Track 280 : UnionJack\_31

- Track 281 : MarysWell\_29
- Track 282 : Benedict\_31
- Track 283 : HINdeR\_33
- Track 284 : Sheen\_34, Toro\_35, FlyCatcher\_36
- Track 285 : Timshel\_34
- Track 286 : DroogsArmy\_34
- Track 287 : PP\_41
- Track 288 : Danforth\_29
- Track 289 : Expelliarmus\_29
- Track 290 : Dixon\_30
- Track 291 : Phillis\_30
- Track 292 : Smeadley\_30, Caitlin\_30
- Track 293 : Stephig9\_30
- Track 294 : Roary\_30
- Track 295 : Astro\_30
- Track 296 : Groundhog\_29
- Track 297 : NearlyHeadless\_30
- Track 298 : Klodlith\_34
- Track 299 : MegTheThird\_33, Celestiallunch\_33
- Track 300 : Charm\_33
- Track 301 : DreamTeam1\_33
- Track 302 : SheaKeira\_35
- Track 303 : MalagasyRose\_41
- Track 304 : Michkear\_54
- Track 305 : Flutur\_49
- Track 306 : ThursdayNight\_52
- Track 307 : Phives\_54
- Track 308 : Community\_53, Tuck\_53
- Track 309 : Mudpuppy\_46
- Track 310 : Niobe\_48, Jstan\_50, Skelbel\_49, Asa16\_48
- Track 311 : Amyev\_51, Tian\_50
- Track 312 : TforTroy\_50
- Track 313 : Ascela\_51
- Track 314 : ObiToo\_54, Crewmate\_55
- Track 315 : JohnDoe\_50
- Track 316 : MissSwiss\_52
- Track 317 : Pixelle\_52
- Track 318 : Simpson\_52, Joemato\_50, Kaylissa\_51
- Track 319 : Elezi\_48, Eraser\_48, London\_48, Subaru\_49
- Track 320 : Tbone\_50
- Track 321 : Amploria\_48
- Track 322 : DrSierra\_48
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- Track 324 : Cassia\_48, JuneStar\_51
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- Track 334 : Turab\_47
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- Track 336 : DrManhattan\_52
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- Track 351 : Snek\_51
- Track 352 : Tweety19\_52
- Track 353 : Kalimba\_43, Gambol\_44, Sabourin\_43, Donkey\_43, Cappuccino\_43, Sooty\_43
- Track 354 : Gumpizza\_42, RockScotty\_42, Giorgio\_42, Ashes\_43, Beaupre\_42
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- Track 368 : Heather\_56
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- Track 371 : DaRealMyers\_29
- Track 372 : ToastyFinz\_28
- Track 373 : Picard\_30
- Track 374 : SV1\_27
- Track 375 : SoJo\_29
- Track 376 : Tubberson\_29
- Track 377 : Mojorita\_30
- Track 378 : Raleigh\_29
- Track 379 : Darolandstone\_29
- Track 380 : PapayaSalad\_30
- Track 381 : Bioscum\_31, Ididsumtinwong\_31
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- Track 383 : Eddasa\_50, BryanRecycles\_50, Rusticus\_50, Jash\_50, Izzy\_50, Oliyinyk\_50
- Track 384 : Danzina\_52

- Track 385 : Esperer\_49, Unstoppable\_49, Nerdos\_48
- Track 386 : Triste\_51
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- Track 392 : Katalie\_50, South40\_50
- Track 393 : RedBear\_51
- Track 394 : Ozzie\_48, Bovely\_49, Hydra\_50
- Track 395 : Sujidade\_50, Lika\_49, Godpower\_51
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- Track 397 : Celeste\_51
- Track 398 : Legacy\_48
- Track 399 : OzzyJ\_51
- Track 400 : Emaanora\_53, SarahRose\_50, Yasdnil\_50, TagePhighter\_52
- Track 401 : Toma\_50, Dattran\_52
- Track 402 : BeardedLady\_49, Caliburn\_48
- Track 403 : Lorelei\_51, Nabi\_51, Rana\_51
- Track 404 : SunsetPointe\_48, Phettuccine\_49
- Track 405 : Zemlya\_51
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- Track 407 : Brataylor\_53
- Track 408 : EnochSoames\_52
- Track 409 : Maneekul\_50
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- Track 411 : Jevington\_52
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- Track 418 : Amethyst\_51
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- Track 423 : Paedore\_54, Loofah\_55
- Track 424 : R4\_53
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- Track 426 : TrvxScott\_52
- Track 427 : Omar\_55
- Track 428 : Puginator\_54
- Track 429 : Jhitchelle\_50
- Track 430 : Saftant\_50
- Track 431 : Dexers\_50
- Track 432 : ElGato\_52
- Track 433 : Provolone\_52
- Track 434 : Vanseggelen\_57
- Track 435 : Speedwell\_55
- Track 436 : Celery\_54

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- Track 438 : Alsaber\_52
- Track 439 : Sudan\_51
- Track 440 : ZamZam\_52
- Track 441 : Pavo\_52
- Track 442 : Yosif\_54
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- Track 444 : Verabelle\_54
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- Track 454 : AbbeyMikolon\_57, Nesbitt\_55
- Track 455 : Schlegelian\_31, Vondra\_28, Cumberbatch\_30, HFrancette\_30, ArizonaGT\_30
- Track 456 : Eastland\_29, AxeJC\_29, Eklok\_30, FrumpyGal\_30, Ignacio\_30, Piccadilly\_29
- Track 457 : AppleCloud\_27, Krishelle\_29
- Track 458 : RER2\_22, PhailMary\_28, Alpacados\_28
- Track 459 : Harlequin\_29, BobbyDazzler\_29, Yoncess\_29, Bryce\_29, Jester\_29
- Track 460 : Swann\_29, CosmicSans\_29, Phrankenstein\_29, Lillie\_29, Rhodalysa\_29, TWAMP\_29
- Track 461 : Dinger\_29
- Track 462 : Rasputin\_29
- Track 463 : Bonanza\_29, Yogi\_29
- Track 464 : Alatin\_29, StCroix\_29, Naiad\_29, Shuman\_29
- Track 465 : Gollum\_29
- Track 466 : Hiro\_29
- Track 467 : Takoda\_29
- Track 468 : Erik\_29
- Track 469 : Nancinator\_29, Bradshaw\_29
- Track 470 : RexFury\_29, UhSalsa\_29, Espica\_29, Belenaria\_29, Natosaleda\_29
- Track 471 : RGL3\_22
- Track 472 : Partridge\_29
- Track 473 : AngryOrchard\_28
- Track 474 : RegnumDei\_42
- Track 475 : SFuller\_50
- Track 476 : Jflix2\_51
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- Track 478 : CurlyFries\_42
- Track 479 : REQ1\_22
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- Track 487 : ZiggyZoo\_38
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- Track 491 : Wisp\_35
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- Track 509 : GardenState\_58, IAmGroot\_57
- Track 510 : Barnstormer\_59
- Track 511 : Caron\_62
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- Track 514 : SuMoo\_64
- Track 515 : Zeta1847\_52
- Track 516 : Forester\_56
- Track 517 : Maja\_29
- Track 518 : GrimEater\_47
- Track 519 : CallinAllBarbz\_48
- Track 520 : BaileyBlu\_48
- Track 521 : LisoBros\_46
- Track 522 : Jankie\_48
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- Track 524 : Curiosium\_43
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- Track 527 : Neighly\_39
- Track 528 : Paola\_38, Guillsminger\_39
- Track 529 : Collard\_38, Agent47\_39
- Track 530 : Thyatira\_40, Waterfoul\_39, SoSeph\_38, Heftyboy\_38
- Track 531 : Psycho\_39, Dadosky\_39, AlleyCat\_39, Larva\_39
- Track 532 : Feyre\_38, Miryou\_40
- Track 533 : BananenDer11\_39, DoubleChamp\_38, LilDirt\_38, InvictusManeo\_38, ViviJ\_38
- Track 534 : OkiRoe\_38
- Track 535 : Gengar\_38
- Track 536 : Omnicron\_41
- Track 537 : Edugator\_39
- Track 538 : Rando14\_40

- Track 539 : Leston\_38
- Track 540 : Kratio\_37
- Track 541 : SlimJimmy\_130, Diminimus\_131, Izel\_131, Bongo\_130, FreakyGoo\_131, Dulcita\_131, Bricole\_133, TyDawg\_126, Skinny\_137, Auspice\_131, Glaske16\_133, KleverKiS\_134, PegLeg\_134, IPhane7\_129, LilhomieP\_131, TpudiCK\_132
- Track 542 : RoseMarie\_140
- Track 543 : Reindeer\_133
- Track 544 : GenevaB15\_148, Aziz\_145
- Track 545 : MrMagoo\_148, GardenSalsa\_146
- Track 546 : Estes\_146
- Track 547 : Rey\_148
- Track 548 : Nanosmite\_142
- Track 549 : Tailonex\_27
- Track 550 : Samy\_94
- Track 551 : Kumao\_96
- Track 552 : Ibantik\_5
- Track 553 : TinyDot\_31
- Track 554 : Ponzi\_7
- Track 555 : Attoomi\_51

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

The start number called the most often in the published annotations is 187, it was called in 221 of the 778 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Abrogate\_380, Acme\_40, Adahisdi\_38, Aeneas\_40, AgentM\_30, Airmid\_31, Ajay\_38, Alsfro\_41, Altman\_39, Alvin\_38, Aragog\_30, Archetta\_30, Arlo\_36, Arturo\_32, Ascela\_51, BPBiEbs31\_38, BaileyBlu\_48, Beatrix\_37, BeesKnees\_38, Benedict\_31, Bethlehem\_37, Bexan\_35, Big3\_37, BigMau\_39, Bigfoot\_35, BillKnuckles\_38, Blackflame\_37, Blessier\_37, Bonamassa\_30, Bones\_37, Burton\_38, Bxb1\_35, CactusRose\_35, CallinAllBarbz\_48, Caviar\_34, Chadwick\_32, Chanagan\_36, Chargerpower\_35, Chupacabra\_33, ConceptII\_39, Conspiracy\_30, Crispicous1\_36, Cuco\_30, Cueyllyss\_37, Cyan\_50, DD5\_38, DarthPhader\_36, Dexes\_37, Dinger\_29, Discoknowium\_30, DontArgue\_32, Doom\_37, DrFeelGood\_36, Dreamboat\_38, DroogsArmy\_34, Dublin\_29, Dussy\_38, DustyMartin\_38, Eaglepride\_35, Edison31\_34, Edtherson\_38, ElTiger69\_31, Elfy\_51, Espresso\_37, Euphoria\_37, Eyeball\_37, Fajezeel\_39, Fascinus\_36, Fenn\_38, FlyCatcher\_36, ForGetIt\_30, GMonster\_36, Gachnar\_39, GageAP\_39, Gandalf20\_38, George\_29, Gompeii16\_37, GrecoEtereo\_39, Greg\_39, GrimEater\_47, GroundGoblin\_39, HINdeR\_33, HanShotFirst\_36, HarryOW\_37, Hermia\_40, HermioneGrange\_37, Hiro\_29, ICleared\_33, IUFootball\_51, IgnatiusPatJac\_36, Iter\_51, JC27\_38, Jabiru\_31, Jankie\_48, Jasper\_38, Jerm2\_38, Jorgensen\_37, Jovo\_30, JuliaChild\_39, KBG\_38, KSSJEB\_37, KikiBouba\_40, Kristoff\_35, Kugel\_38, KyMonks1A\_40, Lamina13\_37, Lego\_49, Lesedi\_36, Lev2\_30, Licorice\_39, Liebe\_51, LilBib\_37, LisoBros\_46, LittleCherry\_30, LittleGuy\_33, Lizalica\_49, LochMonster\_33, Lockley\_38, Lopton\_38, LunarLander\_38, MaGuCo\_47, Magnar\_37, Makemake\_38, Marcell\_37, Marchy\_32, Margo\_34, Maroc7\_37, Marsha\_37, MaryBeth\_37, Maureen\_51, MetalQZJ\_37, Micasa\_30,

Midas2\_30, Milcery\_30, MilleFeuille\_36, Monet\_39, Moose\_37, MrGordo\_37, Mryolo\_35, Mundrea\_33, Naira\_38, Nhonho\_37, Nitro\_51, Niza\_40, Noella\_34, Norbert\_33, Norz\_39, Noxious\_40, Nyxis\_33, OKCentral2016\_33, Ohno789\_37, Oogway\_36, PSullivan\_36, PacerPaul\_38, Panamaxus\_33, Papez\_39, Paraselene\_36, Pari\_38, Parliament\_36, PascalRango\_38, PattyP\_39, Pelly\_37, Perseus\_39, Peterson\_40, PetterN\_32, PherrisBueller\_38, Phlippers\_35, Phlorence\_30, Phontbonne\_33, PinkPlastic\_36, Pinto\_39, Pippin\_39, Pita2\_39, Pocahontas\_34, Popcicle\_34, PowerRanger\_38, QuinnKiro\_33, RGL3\_22, Rajelicia\_37, Rebeuca\_35, ResDef\_34, RhynO\_35, Rhynn\_37, RidgeCB\_37, Ringer\_38, Rowdy\_38, Rufus\_39, Rutherford\_39, Sagefire\_39, Scorpia\_32, Seabiscuit\_39, Seanderson\_38, Shapes\_38, SheaKeira\_35, Sheen\_34, Sibs6\_38, SkiPole\_40, Slagathor\_38, Smairt\_38, Smeagol\_39, Snazzy\_36, Solon\_37, Squee\_38, StrongArm\_36, Sumter\_36, Sunshine924\_39, Swirley\_30, SwissCheese\_39, Switzer\_38, Swole\_39, SydNat\_30, Tailonex\_27, Takoda\_29, Tarynearal\_29, Theia\_28, TheloniousMonk\_39, Tiger\_30, Timshel\_34, Topgun\_36, Toro\_35, Trafft412\_39, Treddle\_39, Trike\_31, Tripl3t\_38, Trouble\_38, Twigg\_30, U2\_37, Ulysses\_32, Violet\_36, Wheeler\_38, Wilkins\_36, Zephyr\_38, Zeuska\_38, Zolita\_29,

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

- A6\_34, AEgle\_46, AFIS\_37, AGrandiflora\_52, Abbysshoes\_39, Adolin\_53, Adumb2043\_47, AinMach\_48, Alatin\_29, Alberto7\_34, Aldrich\_39, Alpacados\_28, Amploria\_48, Anglerfish\_39, AngryOrchard\_28, Anthony\_33, AppleCloud\_27, Arcanine\_37, Asa16\_48, Ashballer\_39, Atkinbua\_39, AvatarAhPeg\_34, BK1\_34, BaconJack\_40, Barriga\_37, BarrowTuph\_36, Belenaria\_29, Berrie\_51, Bigchungji\_37, Bircsak\_37, Blue\_37, Bluefalcon\_29, Bob3\_36, BobbyDazzler\_29, Bonanza\_29, Bradshaw\_29, Briton15\_39, Bruns\_36, Bryce\_29, Camperdownii\_32, CartmannCramer\_37, Cassia\_48, CatBus\_39, Ciao\_37, Cindaradix\_32, Coog\_30, Corvo\_38, CosmicSans\_29, Crewmate\_55, DirtDevil\_39, DirtyDunning\_33, DrManhattan\_52, DrSierra\_48, DreamCatcher\_40, Dynamix\_38, Elezi\_48, Eraser\_48, Espica\_29, EtoileNova\_34, Euratis\_57, Florence1\_30, Florence4\_31, Flutur\_49, Forsytheast\_37, Francis47\_37, Froghopper\_37, Ghoulyboy\_30, Gollum\_29, Graduation\_39, Gwendoluna\_40, Harlequin\_29, Hookmount\_34, Hope4ever\_37, HuhtaEnerson15\_30, ILeeKay\_39, Ichabod\_38, Inyanga\_35, Iqorha\_35, Iracema64\_34, IttyBittyPiggy\_50, JackSparrow\_38, Janeemi\_52, Jester\_29, Joemato\_50, JohnDoe\_50, Jstan\_50, JuneStar\_51, Kanely\_38, Kaylissa\_51, Kenmech\_40, Killigrew\_35, Kinmap\_35, Koreni\_32, Kratark\_33, Kremtemulon\_33, Krishelle\_29, Kykar\_36, Lambert1\_34, Levia\_34, Lillie\_29, London\_48, MPlant7149\_37, Magnito\_36, Manatee\_38, Marco3\_37, Marge\_38, MarysWell\_29, McGuire\_38, McSinger\_38, Michley\_37, Miramae\_33, MissSwiss\_52, Mkhuseleli\_38, Molly\_39, Mudpuppy\_46, Museum\_39, NEHalo\_37, Naca\_31, Naiad\_29, Nancinator\_29, Natosaleda\_29, Nerujay\_38, Niobe\_48, ObiToo\_54, PP\_41, PandaPo\_52, Paphu\_36, Partridge\_29, Payneful\_37, Petp2012\_39, Petruchio\_38, PhailMary\_28, Phighter1804\_33, PhineBark\_36, Phrankenstein\_29, PhrostyMug\_38, PickleBack\_30, Powerpuff\_52, Prinasse11\_31, ProMouse\_35, Pumbaa\_33, Pumpkins\_48, Puppet\_37, QTRLifeCrisis\_38, RER2\_22, Raid\_37, Rasputin\_29, RexFury\_29, Rhodalysa\_29, Rohr\_38, Rosa24\_32, Rowa\_59, Ruotula\_37, STLscum\_38, Samora\_58, Sandaddy\_37, Sanya\_36, SarFire\_37, Schaffner\_49, Scowl\_37, Shuman\_29, Simpson\_52, Skelbel\_49, Sorpresa\_37, SpikeBT\_39, StCroix\_29, Stink\_34, Subaru\_49, Swann\_29, TWAMP\_29, Tallboi\_49, Tasp14\_38, Teodoridan\_35, Texage\_33, TforTroy\_50, Thor\_37, Tinybot\_32, Todacoro\_34, Turab\_47, Turj99\_36, Tutumahutu\_51, TwoPeat\_38, UhSalsa\_29, UnionJack\_31, Vash\_53, Veracruz\_33, Warda\_50, Watermelon\_39, Yang\_49, YesChef\_50,

Yogi\_29, Yoncess\_29, Zeeculate\_37,

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

- Aaronocolus\_49, AbbeyMikolon\_57, AbbysRanger\_33, Achebe\_32, Agent47\_39, AgronaGT15\_36, Albee\_33, AlleyCat\_39, Alsaber\_52, Alvy\_56, Amela\_51, Amethyst\_51, Amyev\_51, Annyong\_33, ArizonaGT\_30, Ashes\_43, Asten\_50, Astro\_30, Attoomi\_51, Auspice\_131, Avle17\_33, AxeJC\_29, Aziz\_145, Azula\_38, Baby16\_33, BabyBack\_34, Backyardigan\_33, Badger\_33, BananenDer11\_39, Barnstormer\_59, BarryBee\_53, BartholomewSD\_56, Bartimeaus\_33, BeardedLady\_49, Beaupre\_42, Begonia\_38, Bioscum\_31, Blackmoor\_33, Blino\_41, Blueberry\_37, Bombshell\_33, Bongo\_130, Bovely\_49, Bowden\_53, Brataylor\_53, Bricole\_133, Broseidon\_33, Bruiser\_32, BryanRecycles\_50, BubbleTrouble\_33, Bumblebee11\_33, Burger\_32, BuzzBuzz\_35, Bxz2\_34, Caelakin\_33, Caelum\_54, Caitlin\_30, Caliburn\_48, Cappuccino\_43, CarolAnn\_40, Caron\_62, Celery\_54, Celeste\_51, Celestialunch\_33, Celia\_50, Cen1621\_56, CentreCat\_33, Chaph\_33, Charm\_33, CheeseSpider\_44, Chucky\_50, Cici\_33, Cintron\_33, Citius\_33, Clarenza\_33, Cocoaberry\_33, Collard\_38, Community\_53, Conan\_52, Connomayer\_33, Cumberbatch\_30, Curiosium\_43, CurlyFries\_42, DaRealMyers\_29, Dadosky\_39, Daishi\_35, Danforth\_29, Danzina\_52, Darolandstone\_29, Dattran\_52, Datway\_33, Daudau\_52, Deano\_33, Dexters\_50, Dhanush\_33, Diminimus\_131, Dixon\_30, Donkey\_43, DoubleChamp\_38, Drake94\_32, DreamTeam1\_33, Druantia\_33, Dubu\_44, Dulcita\_131, Dwayne\_50, ELB20\_52, Eapen\_33, Eastland\_29, Eddasa\_50, Edugator\_39, Ejemplo\_49, Eklok\_30, ElGato\_52, Emaanora\_53, EnochSoames\_52, Erik\_29, Eris\_32, Eros\_33, Esperer\_49, Estes\_146, Exile\_44, Expelliarmus\_29, Fairfaxidum\_39, FatCactus\_32, Fenry\_37, Feyre\_38, Floof\_64, Florean\_33, Flux\_33, Forester\_56, FreakyGoo\_131, Frokostdame\_39, FrumpyGal\_30, Funston\_33, Gadost\_33, Gambino\_40, Gambol\_44, GardenSalsa\_146, GardenState\_58, GenevaB15\_148, Gengar\_38, Giorgio\_42, Glaske16\_133, Goby\_50, Godpower\_51, Gretchen\_58, Groundhog\_29, Guillsminger\_39, Gumpizza\_42, HFrancette\_30, Halsey\_43, HamSlice\_32, Happiness\_33, HashRod\_37, Heather\_56, Heftyboy\_38, Herbertwm\_31, Hippo\_50, Holli\_33, Honk\_61, Houdini22\_33, Huxley\_33, Hydra\_50, IAmGroot\_57, IPhane7\_129, Ibantik\_5, Iceman\_34, Ididsumtinwong\_31, Ignacio\_30, Indigo\_48, InvictusManeo\_38, Issmi\_53, Itza\_50, Izel\_131, Izzy\_50, Jalammah\_42, Jash\_50, Jaykayelowell\_33, JetBlade\_33, Jevington\_52, Jflix2\_51, Jhitchelle\_50, JoongJeon\_33, JuJu\_41, KADY\_37, KFPoly\_33, Kaine\_52, Kalimba\_43, KappaFarmDelta\_40, Katalie136\_33, Katalie\_50, KeAlii\_47, KekoraPapaka\_32, Kingmustik0402\_33, KittenMittens\_32, KleverKiS\_134, Klodlith\_34, Koan\_33, Kratio\_37, Kumao\_96, Kyee\_33, Lannister\_51, LappelDuVide\_33, LarryKay\_36, Larva\_39, LastHope\_43, Legacy\_48, Lemur\_33, Leston\_38, Leviticus\_49, Lika\_49, LilDirt\_38, Lilbooboo\_54, LilhomieP\_131, LittleB\_33, Loofah\_55, Lorelei\_51, Lorenzo\_33, Louie6\_36, Lunsford\_34, Lysidious\_38, Mabodamaca\_60, Madraxi\_55, Maja\_29, Malachai\_38, MalagasyRose\_41, Maneekul\_50, Marav\_53, Maverick\_33, Mayonnaise\_33, Mazhar510\_33, MeeZee\_33, MegTheThird\_33, Mellie\_37, Methuselah\_35, Michkear\_54, Millski\_32, Miryou\_40, Misomonster\_38, MissRona\_38, Mojorita\_30, Morpher26\_33, Moss\_43, MrMagoo\_148, Murp\_39, MyraDee\_30, Mysterium\_42, Nabi\_51, Nanodon\_51, Nanosmite\_142, NearlyHeadless\_30, Neighly\_39, Nemo27\_33, Nerdos\_48, Nesbitt\_55, Noelle\_33, NorthStar\_33, NotAPhaseMom\_33, OKaNui\_34, OkiRoe\_38, Oliynyk\_50, Omar\_55, Omnicron\_41, Ozzie\_48, OzzyJ\_51, PCoral7\_37, Pablito\_52, Paedore\_54, Palestino\_32, Paola\_38, Paolo\_54, PapayaSalad\_30, Pavo\_52, PeaceMeal1\_32, Peaches\_33, PegLeg\_134, Percival\_59, Perplexer\_33, PeterPeter\_33, PetiteSangsue\_33, Phacado\_33, Phettuccine\_49, Phillis\_30, Phives\_54, Phoxy\_36,

Picard\_30, Piccadilly\_29, Pipcraft\_33, Pixelle\_52, Ponzi\_7, Poompha\_32, PrincePatrick\_38, Provolone\_52, Psycho\_39, Puginator\_54, R4\_53, REQ1\_22, Raleigh\_29, Rana\_51, Rando14\_40, RedBear\_51, Reedo\_49, RegnumDei\_42, Reindeer\_133, Relief\_33, RemusLoopin\_55, Rey\_148, Roary\_30, RockScotty\_42, RockieBear\_32, Romney\_33, Roosevelt\_33, RoseMarie\_140, Ruin\_33, Rummer\_36, Rusticus\_50, SFuller\_50, SV1\_27, Sabertooth\_33, Sabourin\_43, Saftant\_50, Samba\_38, Samy\_94, SarahRose\_50, Scamp\_33, Schlegelian\_31, Sebastisaurus\_51, SenorClean\_33, Severus\_32, Shagrat\_42, Shaka\_33, Shawty\_54, Shygu2\_33, Skinny\_137, Skipitt\_33, SlimJimmy\_130, Smeadley\_30, Snek\_51, Snorlax\_50, SoJo\_29, SoSeph\_38, Soilmate\_42, Soondubu\_46, Sooty\_43, SororFago\_38, Soshari\_38, South40\_50, SpecialK\_43, Speedwell\_55, Spike509\_36, Spino\_33, Stasia\_34, SteMason\_33, Stephig9\_30, Stuu\_43, SuMoo\_64, Sudan\_51, Sujidade\_50, Sultana\_33, SunkenRoot\_52, SunsetPointe\_48, SuperHands\_58, TG1\_51, TagePhighter\_52, Taquarus\_33, Tbone\_50, Thanksgivukkah\_33, Thestral\_55, ThursdayNight\_52, Thyatira\_40, Tian\_50, TinaBelcher\_53, TingHuaYa\_41, TinyDot\_31, TinyPebbles\_36, TiroTheta9\_33, Toast\_37, ToastyFinz\_28, Toma\_50, Topanga\_34, TpudiCK\_132, Triste\_51, TrvxScott\_52, TuanPN\_49, Tubberson\_29, Tuck\_53, Tweety19\_52, Twister\_34, TyDawg\_126, TygerBlood\_33, Unstoppable\_49, Urza\_50, UtzChips\_59, Utz\_33, VResidence\_50, Vanseggelen\_57, Verabelle\_54, Verse\_51, VieEnRose\_50, ViviJ\_38, Vondra\_28, WalterMcMickey\_34, Wander\_33, Waterfoul\_39, Werner\_50, Whatever\_50, Wilbur\_33, Wildwest\_49, Wile\_33, William\_40, Wisp\_35, Wizard007\_33, Wocket\_39, Xena\_33, YasdniI\_50, YoSam321\_33, Yosif\_54, Zainub\_54, ZamZam\_52, Zemlya\_51, Zeta1847\_52, ZiggyZoo\_38, phiBT1\_int, phiCAM\_49,

### Summary by start number:

#### Start 55:

- Found in 34 of 851 ( 4.0% ) of genes in pham
- Manual Annotations of this start: 7 of 778
- Called 20.6% of time when present
- Phage (with cluster) where this start called: Celeste\_51 (BD1), Danzina\_52 (BD1), Dattran\_52 (BD1), OzzyJ\_51 (BD1), Toma\_50 (BD1), Triste\_51 (BD1), Zemlya\_51 (BD1),

#### Start 82:

- Found in 19 of 851 ( 2.2% ) of genes in pham
- Manual Annotations of this start: 5 of 778
- Called 26.3% of time when present
- Phage (with cluster) where this start called: Asten\_50 (BD1), Ejemplo\_49 (BD1), Maneekul\_50 (BD1), RedBear\_51 (BD1), TuanPN\_49 (BD1),

#### Start 86:

- Found in 4 of 851 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Nanodon\_51 (BD1),

#### Start 87:

- Found in 5 of 851 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Gambino\_40 (CV),

Start 89:

- Found in 47 of 851 ( 5.5% ) of genes in pham
- Manual Annotations of this start: 25 of 778
- Called 55.3% of time when present
- Phage (with cluster) where this start called: BarryBee\_53 (BD1), Brataylor\_53 (BD1), Chucky\_50 (BD1), Dwayne\_50 (BD1), Emaanora\_53 (BD1), Goby\_50 (BD1), Godpower\_51 (BD1), Hippo\_50 (BD1), Kaine\_52 (BD3), Katalie\_50 (BD1), Lannister\_51 (BD1), Lika\_49 (BD1), Lorelei\_51 (BD1), McGuire\_38 (A1), Nabi\_51 (BD1), Rana\_51 (BD1), SarahRose\_50 (BD1), Snorlax\_50 (BD1), South40\_50 (BD1), Sujidade\_50 (BD1), TagePhighter\_52 (BD1), Vanseggelen\_57 (BD3), Werner\_50 (BD1), Whatever\_50 (BD1), Yasdnil\_50 (BD1), ZamZam\_52 (BD3),

Start 91:

- Found in 7 of 851 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 14.3% of time when present
- Phage (with cluster) where this start called: PhrostyMug\_38 (A1),

Start 96:

- Found in 1 of 851 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Puginator\_54 (BD2),

Start 98:

- Found in 199 of 851 ( 23.4% ) of genes in pham
- Manual Annotations of this start: 29 of 778
- Called 15.1% of time when present
- Phage (with cluster) where this start called: Anglerfish\_39 (A1), Arcanine\_37 (A1), Ashballer\_39 (A1), BarrowTuph\_36 (A1), Blue\_37 (A1), Corvo\_38 (A1), DreamCatcher\_40 (A1), Dynamix\_38 (A1), Forsytheast\_37 (A1), FrogHopper\_37 (A1), Kenmech\_40 (A1), Kykar\_36 (A1), MPlant7149\_37 (A1), Magnito\_36 (A1), Marco3\_37 (A1), Michley\_37 (A1), Molly\_39 (A1), Nerujay\_38 (A1), Paphu\_36 (A1), Petp2012\_39 (A1), Petruccio\_38 (A1), ProMouse\_35 (A1), Raid\_37 (A1), Rohr\_38 (A1), Ruotula\_37 (A1), Sorpresa\_37 (A1), Thor\_37 (A1), Turj99\_36 (A1), TwoPeat\_38 (A1), Watermelon\_39 (A1),

Start 99:

- Found in 3 of 851 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Dubu\_44 (BJ),

Start 102:

- Found in 210 of 851 ( 24.7% ) of genes in pham
- Manual Annotations of this start: 3 of 778
- Called 1.4% of time when present
- Phage (with cluster) where this start called: Bob3\_36 (A1), Briton15\_39 (A1), McSinger\_38 (A1),

Start 106:

- Found in 5 of 851 ( 0.6% ) of genes in pham

- Manual Annotations of this start: 3 of 778
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Celia\_50 (BD6), Conan\_52 (BD3), Yosif\_54 (BD3),

#### Start 107:

- Found in 222 of 851 ( 26.1% ) of genes in pham
- Manual Annotations of this start: 10 of 778
- Called 4.5% of time when present
- Phage (with cluster) where this start called: Abbyshoes\_39 (A1), BaconJack\_40 (A1), Bircsak\_37 (A1), Hope4ever\_37 (A1), JackSparrow\_38 (A1), Marge\_38 (A1), NEHalo\_37 (A1), Reindeer\_133 (M1), Scowl\_37 (A1), Tasp14\_38 (A1),

#### Start 109:

- Found in 221 of 851 ( 26.0% ) of genes in pham
- Manual Annotations of this start: 10 of 778
- Called 6.8% of time when present
- Phage (with cluster) where this start called: A6\_34 (A1), Atkinbua\_39 (A1), BK1\_34 (A1), Gwendoluna\_40 (A1), ILeeKay\_39 (A1), Ichabod\_38 (A1), Levia\_34 (A1), Manatee\_38 (A1), Mkhuseleli\_38 (A1), Payneful\_37 (A1), Puppet\_37 (A1), STLscum\_38 (A1), Sandaddy\_37 (A1), Sanya\_36 (A1), Teodoridan\_35 (A1),

#### Start 110:

- Found in 3 of 851 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 33.3% of time when present
- Phage (with cluster) where this start called: JfliX2\_51 (CF),

#### Start 112:

- Found in 3 of 851 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 2 of 778
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Pablito\_52 (BD2), Shagrath\_42 (CF),

#### Start 114:

- Found in 3 of 851 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Provolone\_52 (BD3),

#### Start 116:

- Found in 17 of 851 ( 2.0% ) of genes in pham
- Manual Annotations of this start: 3 of 778
- Called 17.6% of time when present
- Phage (with cluster) where this start called: Jevington\_52 (BD2), Marav\_53 (BD2), Paolo\_54 (BD2),

#### Start 119:

- Found in 227 of 851 ( 26.7% ) of genes in pham
- Manual Annotations of this start: 12 of 778
- Called 5.3% of time when present
- Phage (with cluster) where this start called: Alberto7\_34 (A4), AvatarAhPeg\_34 (A4), DirtyDunning\_33 (A4), Euratis\_57 (BB1), Koreni\_32 (A4), Kratark\_33 (A4),

Kremtemulon\_33 (A4), Miramae\_33 (A4), Phighter1804\_33 (A4), Pumbaa\_33 (A4), SarFire\_37 (A1), Stink\_34 (A4),

Start 120:

- Found in 5 of 851 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Forester\_56 (EH),

Start 128:

- Found in 3 of 851 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 3 of 778
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Heather\_56 (BB2), RemusLoopin\_55 (BB2), Sebastisaurus\_51 (BB2),

Start 130:

- Found in 21 of 851 ( 2.5% ) of genes in pham
- Manual Annotations of this start: 3 of 778
- Called 14.3% of time when present
- Phage (with cluster) where this start called: AFIS\_37 (A1), Graduation\_39 (A1), SpikeBT\_39 (A1),

Start 133:

- Found in 27 of 851 ( 3.2% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 3.7% of time when present
- Phage (with cluster) where this start called: Ponzi\_7 (singleton),

Start 134:

- Found in 109 of 851 ( 12.8% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 0.9% of time when present
- Phage (with cluster) where this start called: Flux\_33 (A4),

Start 135:

- Found in 6 of 851 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 2 of 778
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Floop\_64 (EH), Mabodamaca\_60 (EH),

Start 136:

- Found in 9 of 851 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 3 of 778
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Reedo\_49 (AZ1), Snek\_51 (AZ3), Tweety19\_52 (AZ3),

Start 137:

- Found in 1 of 851 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rowa\_59 (BL),

Start 140:

- Found in 25 of 851 ( 2.9% ) of genes in pham
- Manual Annotations of this start: 21 of 778
- Called 96.0% of time when present
- Phage (with cluster) where this start called: Auspice\_131 (M1), Aziz\_145 (M2), Bongo\_130 (M1), Bricole\_133 (M1), Diminimus\_131 (M1), Dulcita\_131 (M1), Estes\_146 (M2), FreakyGoo\_131 (M1), GardenSalsa\_146 (M2), GenevaB15\_148 (M2), Glaske16\_133 (M1), IPHane7\_129 (M1), Izel\_131 (M1), KleverKiS\_134 (M1), LilhomieP\_131 (M1), MrMagoo\_148 (M2), Nanosmite\_142 (M3), PegLeg\_134 (M1), Rey\_148 (M2), RoseMarie\_140 (M1), Skinny\_137 (M1), SlimJimmy\_130 (M1), TpuDiCK\_132 (M1), TyDawg\_126 (M1),

Start 142:

- Found in 3 of 851 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Zeta1847\_52 (EH),

Start 145:

- Found in 17 of 851 ( 2.0% ) of genes in pham
- Manual Annotations of this start: 12 of 778
- Called 76.5% of time when present
- Phage (with cluster) where this start called: Bioscum\_31 (BC3), DaRealMyers\_29 (BC1), Darolandstone\_29 (BC2), Ididsumtinwong\_31 (BC3), Mojorita\_30 (BC1), PapayaSalad\_30 (BC3), Picard\_30 (BC1), Raleigh\_29 (BC2), SV1\_27 (BC1), SoJo\_29 (BC1), Toast\_37 (CV), ToastyFinz\_28 (BC1), Tubberson\_29 (BC1),

Start 147:

- Found in 8 of 851 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 12.5% of time when present
- Phage (with cluster) where this start called: TG1\_51 (BB1),

Start 148:

- Found in 2 of 851 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 2 of 778
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ElGato\_52 (BD3), Jhitchelle\_50 (BD3),

Start 149:

- Found in 2 of 851 ( 0.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: phiBT1\_int (BB1),

Start 151:

- Found in 8 of 851 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 2 of 778
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Cen1621\_56 (EH), Samy\_94 (singleton),

Start 155:

- Found in 14 of 851 ( 1.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 7.1% of time when present
- Phage (with cluster) where this start called: AinMach\_48 (AZ7),

#### Start 157:

- Found in 16 of 851 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 5 of 778
- Called 31.2% of time when present
- Phage (with cluster) where this start called: Bowden\_53 (BD2), Caelum\_54 (BD2), Omar\_55 (BD2), TinaBelcher\_53 (BD2), Zainub\_54 (BD2),

#### Start 158:

- Found in 5 of 851 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 5 of 778
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArizonaGT\_30 (BP), Cumberbatch\_30 (BP), HFrancette\_30 (BP), Schlegelian\_31 (BP), Vondra\_28 (BP),

#### Start 162:

- Found in 104 of 851 ( 12.2% ) of genes in pham
- Manual Annotations of this start: 16 of 778
- Called 15.4% of time when present
- Phage (with cluster) where this start called: Backyardigan\_33 (A4), Bombshell\_33 (A4), Burger\_32 (A4), Caelakin\_33 (A4), Datway\_33 (A4), Eros\_33 (A4), HamSlice\_32 (A4), Holli\_33 (A4), Honk\_61 (EH), Maverick\_33 (A4), Peaches\_33 (A4), Perplexer\_33 (A4), Pipcraft\_33 (A4), Romney\_33 (A4), Shaka\_33 (A4), Wilbur\_33 (A4),

#### Start 163:

- Found in 61 of 851 ( 7.2% ) of genes in pham
- Manual Annotations of this start: 10 of 778
- Called 16.4% of time when present
- Phage (with cluster) where this start called: Alvy\_56 (BD2), Amethyst\_51 (BD2), BartholomewSD\_56 (BD2), Daudau\_52 (BD2), Issmi\_53 (BD2), Loofah\_55 (BD2), Paedore\_54 (BD2), R4\_53 (BD2), Thestral\_55 (BD2), TrvxScott\_52 (BD2),

#### Start 164:

- Found in 9 of 851 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 4 of 778
- Called 44.4% of time when present
- Phage (with cluster) where this start called: AbbeyMikolon\_57 (BL), Nesbitt\_55 (BL), Shawty\_54 (BB1), VResidence\_50 (AZ1),

#### Start 165:

- Found in 45 of 851 ( 5.3% ) of genes in pham
- Manual Annotations of this start: 35 of 778
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Alatin\_29 (CA), Alpacados\_28 (CA), AngryOrchard\_28 (CA), AppleCloud\_27 (CA), Belenaria\_29 (CA), BobbyDazzler\_29 (CA), Bonanza\_29 (CA), Bradshaw\_29 (CA), Bryce\_29 (CA), CosmicSans\_29 (CA), Espica\_29 (CA), Gollum\_29 (CA), Harlequin\_29 (CA), Jester\_29 (CA), KittenMittens\_32 (A10), Krishelle\_29 (CA), Lillie\_29 (CA), Naiad\_29 (CA),

Nancinator\_29 (CA), Natosaleda\_29 (CA), Partridge\_29 (CA), PeaceMeal1\_32 (A10), PhailMary\_28 (CA), Phrankenstien\_29 (CA), Poompha\_32 (A10), RER2\_22 (CA), Rasputin\_29 (CA), RexFury\_29 (CA), Rhodalysa\_29 (CA), Shuman\_29 (CA), StCroix\_29 (CA), Swann\_29 (CA), TWAMP\_29 (CA), UhSalsa\_29 (CA), Yogi\_29 (CA), Yoncess\_29 (CA),

Start 167:

- Found in 3 of 851 ( 0.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Verabelle\_54 (BD3), phiCAM\_49 (BD3),

Start 168:

- Found in 13 of 851 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 2 of 778
- Called 38.5% of time when present
- Phage (with cluster) where this start called: Celestiallunch\_33 (A9), Community\_53 (AZ1), Frokostdame\_39 (CV), MegTheThird\_33 (A9), Tuck\_53 (AZ1),

Start 170:

- Found in 25 of 851 ( 2.9% ) of genes in pham
- Manual Annotations of this start: 8 of 778
- Called 44.0% of time when present
- Phage (with cluster) where this start called: Agent47\_39 (K5), AlleyCat\_39 (K5), Collard\_38 (K5), Dadosky\_39 (K5), Kratio\_37 (K5), Larva\_39 (K5), Madraxi\_55 (CF), Michkear\_54 (AZ), Psycho\_39 (K5), REQ1\_22 (CF), SFuller\_50 (CF),

Start 171:

- Found in 132 of 851 ( 15.5% ) of genes in pham
- Manual Annotations of this start: 112 of 778
- Called 87.1% of time when present
- Phage (with cluster) where this start called: AbbysRanger\_33 (A4), Achebe\_32 (A4), AgronaGT15\_36 (A3), Albee\_33 (A4), Annyong\_33 (A4), Astro\_30 (A8), Avle17\_33 (A4), Baby16\_33 (A4), Badger\_33 (A4), Bartimeaus\_33 (A4), Blackmoor\_33 (A4), Broseidon\_33 (A4), Bruiser\_32 (A4), BubbleTrouble\_33 (A4), Bumblebee11\_33 (A4), BuzzBuzz\_35 (A3), Bxz2\_34 (A3), Caitlin\_30 (A8), CentreCat\_33 (A4), Chaph\_33 (A4), Cici\_33 (A4), Cintron\_33 (A4), Citius\_33 (A4), Clarenza\_33 (A4), Cocoaberry\_33 (A4), Connomayer\_33 (A4), Daishi\_35 (A3), Danforth\_29 (A8), Deano\_33 (A4), Dhanush\_33 (A4), Dixon\_30 (A8), Druantia\_33 (A4), Eapen\_33 (A4), Eris\_32 (A4), Expelliarmus\_29 (A8), FatCactus\_32 (A20), Florean\_33 (A4), Funston\_33 (A4), Gadost\_33 (A4), GardenState\_58 (EH), Groundhog\_29 (A8), Happiness\_33 (A4), HashRod\_37 (A3), Herbertwm\_31 (A2), Houdini22\_33 (A4), Huxley\_33 (A4), IAmGroot\_57 (EH), Iceman\_34 (A4), Jaykayelowell\_33 (A4), JetBlade\_33 (A4), JoongJeon\_33 (A4), KADY\_37 (A3), KFPoly\_33 (A4), Katalie136\_33 (A4), KekoraPapaka\_32 (A4), Kingmustik0402\_33 (A4), Koan\_33 (A4), Kyee\_33 (A4), LappelDuVide\_33 (A4), LarryKay\_36 (A3), Lemur\_33 (A4), LittleB\_33 (A4), Lorenzo\_33 (A4), Louie6\_36 (A3), Lunsford\_34 (A4), Mayonnaise\_33 (A4), Mazhar510\_33 (A4), MeeZee\_33 (A4), Methuselah\_35 (A3), Millski\_32 (A4), Misomonster\_38 (A3), Morpher26\_33 (A4), MyraDee\_30 (A18), NearlyHeadless\_30 (A8), Nemo27\_33 (A4), Noelle\_33 (A4), NorthStar\_33 (A4), NotAPhaseMom\_33 (A4), OKaNui\_34 (A4), Palestino\_32 (A4), PeterPeter\_33 (A4), PetiteSangsue\_33 (A4), Phacado\_33 (A4), Phillis\_30 (A8), Phoxy\_36 (A3), Relief\_33 (A4), Roary\_30 (A8), RockieBear\_32 (A4), Roosevelt\_33 (A4), Ruin\_33 (A4), Rummer\_36 (A3),

Sabertooth\_33 (A4), Scamp\_33 (A4), SenorClean\_33 (A4), Shygu2\_33 (A4), Skipitt\_33 (A4), Smeadley\_30 (A8), SororFago\_38 (A14), Soshari\_38 (A3), Spike509\_36 (A3), Spino\_33 (A4), Stasia\_34 (A4), SteMason\_33 (A4), Stephig9\_30 (A8), Sultana\_33 (A4), Taquarus\_33 (A4), Thanksgivukkah\_33 (A4), TinyPebbles\_36 (A3), TiroTheta9\_33 (A4), TygerBlood\_33 (A4), Wander\_33 (A4), Wile\_33 (A4), Wizard007\_33 (A4), Xena\_33 (A4), YoSam321\_33 (A4),

Start 172:

- Found in 1 of 851 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Speedwell\_55 (BD3),

Start 175:

- Found in 23 of 851 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 3 of 778
- Called 13.0% of time when present
- Phage (with cluster) where this start called: Hookmount\_34 (A3), Lambert1\_34 (A3), PP\_41 (A7),

Start 176:

- Found in 27 of 851 ( 3.2% ) of genes in pham
- Manual Annotations of this start: 15 of 778
- Called 55.6% of time when present
- Phage (with cluster) where this start called: AxeJC\_29 (BP), Cindaradix\_32 (A4), Eastland\_29 (BP), Eklok\_30 (BP), FrumpyGal\_30 (BP), Ignacio\_30 (BP), KeAlii\_47 (AZ1), Kumao\_96 (singleton), Phives\_54 (AZ1), Piccadilly\_29 (BP), Tbone\_50 (AZ1), Topanga\_34 (A10), Twister\_34 (A10), WalterMcMickey\_34 (A10), Wildwest\_49 (AZ1),

Start 177:

- Found in 40 of 851 ( 4.7% ) of genes in pham
- No Manual Annotations of this start.
- Called 2.5% of time when present
- Phage (with cluster) where this start called: PandaPo\_52 (AZ1),

Start 178:

- Found in 4 of 851 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Curiosium\_43 (K1), TingHuaYa\_41 (K1),

Start 179:

- Found in 9 of 851 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 5 of 778
- Called 77.8% of time when present
- Phage (with cluster) where this start called: Alsaber\_52 (BD3), Amela\_51 (BD3), Celery\_54 (BD3), Dexers\_50 (BD3), Sudan\_51 (BD3), SunkenRoot\_52 (BD3), Verse\_51 (BD3),

Start 180:

- Found in 74 of 851 ( 8.7% ) of genes in pham
- Manual Annotations of this start: 37 of 778
- Called 64.9% of time when present

- Phage (with cluster) where this start called: AEgle\_46 (AZ1), AGrandiflora\_52 (AZ1), Adolin\_53 (AZ1), Adumb2043\_47 (AZ1), Amploria\_48 (AZ1), Asa16\_48 (AZ1), BabyBack\_34 (A2), Berrie\_51 (AZ1), CarolAnn\_40 (CV), Cassia\_48 (AZ1), Crewmate\_55 (AZ1), DrManhattan\_52 (AZ1), DrSierra\_48 (AZ1), Drake94\_32 (A10), Elezi\_48 (AZ1), Eraser\_48 (AZ1), Exile\_44 (AZ6), Flutur\_49 (AZ), IttyBittyPiggy\_50 (AZ1), Janeemi\_52 (AZ1), Joemato\_50 (AZ1), JohnDoe\_50 (AZ1), Jstan\_50 (AZ1), JuneStar\_51 (AZ1), Kaylissa\_51 (AZ1), London\_48 (AZ1), MissSwiss\_52 (AZ1), Mudpuppy\_46 (AZ1), Niobe\_48 (AZ1), ObiToo\_54 (AZ1), OkiRoe\_38 (K5), Powerpuff\_52 (AZ1), Pumpkins\_48 (AZ1), Saftant\_50 (BD3), Schaffner\_49 (AZ1), Severus\_32 (A10), Simpson\_52 (AZ1), Skelbel\_49 (AZ1), Soilmate\_42 (CV), Soondubu\_46 (AZ6), Subaru\_49 (AZ1), Tallboi\_49 (AZ1), TforTroy\_50 (AZ1), Turab\_47 (AZ1), Tutumahutu\_51 (AZ1), Warda\_50 (AZ1), Yang\_49 (AZ1), YesChef\_50 (AZ1),

Start 181:

- Found in 23 of 851 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 19 of 778
- Called 87.0% of time when present
- Phage (with cluster) where this start called: Amyev\_51 (AZ1), Ashes\_43 (AZ5), Beaupre\_42 (AZ5), Cappuccino\_43 (AZ5), Donkey\_43 (AZ5), Gambol\_44 (AZ5), Giorgio\_42 (AZ5), Gumpizza\_42 (AZ5), Halsey\_43 (AZ5), Kalimba\_43 (AZ5), Moss\_43 (AZ5), Mysterium\_42 (AZ5), Pavo\_52 (BD3), Pixelle\_52 (AZ1), RockScotty\_42 (AZ5), Sabourin\_43 (AZ5), Sooty\_43 (AZ5), SpecialK\_43 (AZ5), Stuu\_43 (AZ5), Tian\_50 (AZ1),

Start 182:

- Found in 3 of 851 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 3 of 778
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Charm\_33 (A9), CurlyFries\_42 (CF), DreamTeam1\_33 (A9),

Start 183:

- Found in 28 of 851 ( 3.3% ) of genes in pham
- Manual Annotations of this start: 12 of 778
- Called 46.4% of time when present
- Phage (with cluster) where this start called: Barnstormer\_59 (EH), Bovely\_49 (BD1), Caron\_62 (EH), EnochSoames\_52 (BD1), Gretchen\_58 (EH), Hydra\_50 (BD1), Indigo\_48 (BD1), Leviticus\_49 (BD1), Ozzie\_48 (BD1), Percival\_59 (EH), SuMoo\_64 (EH), SuperHands\_58 (EH), UtzChips\_59 (EH),

Start 185:

- Found in 7 of 851 ( 0.8% ) of genes in pham
- No Manual Annotations of this start.
- Called 14.3% of time when present
- Phage (with cluster) where this start called: ThursdayNight\_52 (AZ),

Start 187:

- Found in 427 of 851 ( 50.2% ) of genes in pham
- Manual Annotations of this start: 221 of 778
- Called 54.8% of time when present
- Phage (with cluster) where this start called: Abrogate\_380 (A1), Acme\_40 (A1), Adahisdi\_38 (A1), Aeneas\_40 (A1), AgentM\_30 (A5), Airmid\_31 (A5), Ajay\_38 (A1),

Alsfro\_41 (A1), Altman\_39 (A1), Alvin\_38 (A1), Aragog\_30 (A5), Archetta\_30 (A5), Arlo\_36 (A1), Arturo\_32 (A4), Ascela\_51 (AZ1), BPBiebs31\_38 (A1), BaileyBlu\_48 (FP), Beatrix\_37 (A1), BeesKnees\_38 (A1), Benedict\_31 (A5), Bethlehem\_37 (A1), Bexan\_35 (A1), Big3\_37 (A1), BigMau\_39 (A1), Bigfoot\_35 (A1), BillKnuckles\_38 (A1), Blackflame\_37 (A1), Blessor\_37 (A1), Bonamassa\_30 (A5), Bones\_37 (A1), Burton\_38 (A1), Bxb1\_35 (A1), CactusRose\_35 (A1), CallinAllBarbz\_48 (FP), Caviar\_34 (A3), Chadwick\_32 (A5), Chanagan\_36 (A1), Chargerpower\_35 (A22), Chupacabra\_33 (A10), ConceptII\_39 (A1), Conspiracy\_30 (A5), Crispicous1\_36 (A1), Cuco\_30 (A5), Cueyliss\_37 (A1), Cyan\_50 (AZ1), DD5\_38 (A1), DarthPhader\_36 (A12), Dexes\_37 (A1), Dinger\_29 (CA), Discoknowium\_30 (A5), DontArgue\_32 (A10), Doom\_37 (A1), DrFeelGood\_36 (A1), Dreamboat\_38 (A1), DroogsArmy\_34 (A7), Dublin\_29 (A5), Dussy\_38 (A1), DustyMartin\_38 (A10), Eaglepride\_35 (A10), Edison31\_34 (A10), Edtherson\_38 (A1), EITiger69\_31 (A5), Elfy\_51 (FP), Espresso\_37 (A1), Euphoria\_37 (A1), Eyeball\_37 (A1), Fajezeel\_39 (A1), Fascinus\_36 (A1), Fenn\_38 (A1), FlyCatcher\_36 (A7), ForGetIt\_30 (A5), GMonster\_36 (A1), Gachnar\_39 (A1), GageAP\_39 (A1), Gandalf20\_38 (A1), George\_29 (A5), Gompeii16\_37 (A1), GrecoEtereo\_39 (A1), Greg\_39 (A1), GrimEater\_47 (FP), GroundGoblin\_39 (A1), HINdeR\_33 (A7), HanShotFirst\_36 (A1), HarryOW\_37 (A1), Hermia\_40 (A1), HermioneGrange\_37 (A1), Hiro\_29 (CA), ICleared\_33 (A4), IUFootball\_51 (AZ2), IgnatiusPatJac\_36 (A1), Iter\_51 (AZ1), JC27\_38 (A1), Jabiru\_31 (A5), Jankie\_48 (FP), Jasper\_38 (A1), Jerm2\_38 (A1), Jorgensen\_37 (A1), Jovo\_30 (A5), JuliaChild\_39 (A1), KBG\_38 (A1), KSSJEB\_37 (A1), KikiBouba\_40 (A1), Kristoff\_35 (A10), Kugel\_38 (A1), KyMonks1A\_40 (A1), Lamina13\_37 (A1), Lego\_49 (AZ1), Lesedi\_36 (A1), Lev2\_30 (A5), Licorice\_39 (A1), Liebe\_51 (AZ2), LilBib\_37 (A1), LisoBros\_46 (FP), LittleCherry\_30 (A5), LittleGuy\_33 (A4), Lizalica\_49 (AZ1), LochMonster\_33 (A4), Lockley\_38 (A1), Lopton\_38 (A1), LunarLander\_38 (A1), MaGuCo\_47 (AZ2), Magnar\_37 (A1), Makemake\_38 (A1), Marcell\_37 (A1), Marchy\_32 (A1), Margo\_34 (A3), Maroc7\_37 (A1), Marsha\_37 (A1), MaryBeth\_37 (A1), Maureen\_51 (AZ2), MetalQZJ\_37 (A1), Micasa\_30 (A5), Midas2\_30 (A5), Milcery\_30 (A5), MilleFeuille\_36 (A1), Monet\_39 (A1), Moose\_37 (A1), MrGordo\_37 (A1), Mryolo\_35 (A1), Mundrea\_33 (A4), Naira\_38 (A1), Nhonho\_37 (A1), Nitro\_51 (AZ1), Niza\_40 (A1), Noella\_34 (A3), Norbert\_33 (A3), Norz\_39 (A1), Noxious\_40 (A1), Nyxis\_33 (A4), OKCentral2016\_33 (A10), Ohno789\_37 (A1), Oogway\_36 (A1), PSullivan\_36 (A1), PacerPaul\_38 (A1), Panamaxus\_33 (A3), Papez\_39 (A1), Paraselene\_36 (A1), Pari\_38 (A1), Parliament\_36 (A1), PascalRango\_38 (A1), PattyP\_39 (A1), Pelly\_37 (A1), Perseus\_39 (A1), Peterson\_40 (A1), PetterN\_32 (A5), PherrisBueller\_38 (A1), Phlippers\_35 (A1), Phlorence\_30 (A5), Phontbonne\_33 (A4), PinkPlastic\_36 (A1), Pinto\_39 (A1), Pippin\_39 (A1), Pita2\_39 (A1), Pocahontas\_34 (A3), Popcicle\_34 (A3), PowerRanger\_38 (A1), QuinnKiro\_33 (A3), RGL3\_22 (CA), Rajelicia\_37 (A1), Rebeuca\_35 (A10), ResDef\_34 (A3), RhynO\_35 (A10), Rhynn\_37 (A1), RidgeCB\_37 (A1), Ringer\_38 (A1), Rowdy\_38 (A10), Rufus\_39 (A1), Rutherford\_39 (A1), Sagefire\_39 (A1), Scorpia\_32 (A5), Seabiscuit\_39 (A1), Seanderson\_38 (A1), Shapes\_38 (A10), SheaKeira\_35 (A9), Sheen\_34 (A7), Sibs6\_38 (A1), SkiPole\_40 (A1), Slagathor\_38 (A1), Smairt\_38 (A1), Smeagol\_39 (A1), Snazzy\_36 (A1), Solon\_37 (A1), Squee\_38 (A1), StrongArm\_36 (A1), Sumter\_36 (A1), Sunshine924\_39 (A1), Swirley\_30 (A5), SwissCheese\_39 (A1), Switzer\_38 (A1), Swole\_39 (A1), SydNat\_30 (A5), Tailonex\_27 (singleton), Takoda\_29 (CA), Tarynearal\_29 (A5), Theia\_28 (A5), TheloniousMonk\_39 (A1), Tiger\_30 (A5), Timshel\_34 (A7), Topgun\_36 (A1), Toro\_35 (A7), Traft412\_39 (A1), Treddle\_39 (A1), Trike\_31 (A10), TripI3t\_38 (A1), Trouble\_38 (A1), Twigg\_30 (A5), U2\_37 (A1), Ulysses\_32 (A4), Violet\_36 (A1), Wheeler\_38 (A1), Wilkins\_36 (A1), Zephyr\_38 (A1), Zeuska\_38 (A1), Zolita\_29 (A5),

Start 188:

- Found in 47 of 851 ( 5.5% ) of genes in pham
- Manual Annotations of this start: 36 of 778
- Called 80.9% of time when present
- Phage (with cluster) where this start called: Azula\_38 (CV), Begonia\_38 (CV), Blino\_41 (CV), Blueberry\_37 (CV), CheeseSpider\_44 (CV), Fairfaxidum\_39 (CV), Ferry\_37 (CV), Feyre\_38 (K5), Gengar\_38 (K5), Guillsminger\_39 (K5), Heftyboy\_38 (K5), Jalammah\_42 (CV), JuJu\_41 (CV), KappaFarmDelta\_40 (CV), Leston\_38 (K5), Lysidious\_38 (CV), Malachai\_38 (CV), MalagasyRose\_41 (AG), Mellie\_37 (CV), Miryou\_40 (K5), MissRona\_38 (CV), Murp\_39 (CV), Omnicron\_41 (K5), PCoral7\_37 (CV), Paola\_38 (K5), PrincePatrick\_38 (CV), Rando14\_40 (K5), RegnumDei\_42 (CF), Samba\_38 (CV), SoSeph\_38 (K5), Thyatira\_40 (K5), TinyDot\_31 (singleton), Utz\_33 (CV), Waterfoul\_39 (K5), William\_40 (CV), Wisp\_35 (CV), Wocket\_39 (CV), ZiggyZoo\_38 (CV),

Start 189:

- Found in 1 of 851 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Maja\_29 (FO),

Start 190:

- Found in 65 of 851 ( 7.6% ) of genes in pham
- Manual Annotations of this start: 3 of 778
- Called 6.2% of time when present
- Phage (with cluster) where this start called: EtoileNova\_34 (A3), Texage\_33 (A3), Todacoro\_34 (A3), Veracruz\_33 (A3),

Start 191:

- Found in 67 of 851 ( 7.9% ) of genes in pham
- Manual Annotations of this start: 17 of 778
- Called 25.4% of time when present
- Phage (with cluster) where this start called: Anthony\_33 (A20), BeardedLady\_49 (BD1), BryanRecycles\_50 (BD1), Caliburn\_48 (BD1), Eddasa\_50 (BD1), Esperer\_49 (BD1), Izzy\_50 (BD1), Jash\_50 (BD1), LastHope\_43 (K1), Legacy\_48 (BD1), Museum\_39 (A1), Nerdos\_48 (BD1), Oliynyk\_50 (BD1), Phettuccine\_49 (BD1), Rusticus\_50 (BD1), SunsetPointe\_48 (BD1), Unstoppable\_49 (BD1),

Start 193:

- Found in 16 of 851 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 3 of 778
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Itza\_50 (BD6), Klodlith\_34 (A9), Urza\_50 (BD6), VieEnRose\_50 (BD6),

Start 195:

- Found in 128 of 851 ( 15.0% ) of genes in pham
- Manual Annotations of this start: 10 of 778
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Aldrich\_39 (A1), Barriga\_37 (A1), Bigchungji\_37 (A1), Bruns\_36 (A1), CartmannCramer\_37 (A1), CatBus\_39 (A1), Ciao\_37 (A1), DirtDevil\_39 (A1), Francis47\_37 (A1), Inyanga\_35 (A1), Iqorha\_35

(A1), Kanely\_38 (A1), Killigrew\_35 (A1), PhineBark\_36 (A1), QTRlifeCrisis\_38 (A1), Zeeculate\_37 (A1),

Start 197:

- Found in 75 of 851 ( 8.8% ) of genes in pham
- Manual Annotations of this start: 3 of 778
- Called 5.3% of time when present
- Phage (with cluster) where this start called: Camperdownii\_32 (A4), Iracema64\_34 (A4), Kinmap\_35 (A21), Tinybot\_32 (A4),

Start 199:

- Found in 13 of 851 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 3 of 778
- Called 23.1% of time when present
- Phage (with cluster) where this start called: Lilbooboo\_54 (BB1), Samora\_58 (BB1), Vash\_53 (BB1),

Start 200:

- Found in 48 of 851 ( 5.6% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 2.1% of time when present
- Phage (with cluster) where this start called: Bluefalcon\_29 (A5),

Start 201:

- Found in 43 of 851 ( 5.1% ) of genes in pham
- Manual Annotations of this start: 3 of 778
- Called 7.0% of time when present
- Phage (with cluster) where this start called: Coog\_30 (A5), Naca\_31 (A5), UnionJack\_31 (A5),

Start 206:

- Found in 71 of 851 ( 8.3% ) of genes in pham
- Manual Annotations of this start: 9 of 778
- Called 19.7% of time when present
- Phage (with cluster) where this start called: BananenDer11\_39 (K5), DoubleChamp\_38 (K5), Edugator\_39 (K5), Florence1\_30 (A5), Florence4\_31 (A5), Ghoulboy\_30 (A5), HuhtaEnerson15\_30 (A5), InvictusManeo\_38 (K5), LilDirt\_38 (K5), MarysWell\_29 (A5), Neighly\_39 (K3), PickleBack\_30 (A5), Prinashe11\_31 (A5), ViviJ\_38 (K5),

Start 212:

- Found in 23 of 851 ( 2.7% ) of genes in pham
- No Manual Annotations of this start.
- Called 4.3% of time when present
- Phage (with cluster) where this start called: Rosa24\_32 (A4),

Start 220:

- Found in 13 of 851 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 7.7% of time when present
- Phage (with cluster) where this start called: ELB20\_52 (BD2),

Start 222:

- Found in 83 of 851 ( 9.8% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 1.2% of time when present
- Phage (with cluster) where this start called: Attoomi\_51 (singleton),

Start 224:

- Found in 24 of 851 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 4.2% of time when present
- Phage (with cluster) where this start called: Aaronocolus\_49 (BD1),

Start 234:

- Found in 225 of 851 ( 26.4% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 0.4% of time when present
- Phage (with cluster) where this start called: Erik\_29 (CA),

Start 272:

- Found in 1 of 851 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 778
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ibantik\_5 (singleton),

### Summary by clusters:

There are 48 clusters represented in this pham: FP, singleton, M3, BL, BC2, BJ, K3, K1, BC3, M1, K5, M2, FO, A14, A10, A12, A18, A1, A3, A2, BD1, A4, BD3, BD2, A9, A5, BB2, BB1, EH, AG, CA, CF, BP, A8, AZ, CV, A7, A20, A21, A22, BC1, BD6, AZ1, AZ2, AZ3, AZ5, AZ6, AZ7,

Info for manual annotations of cluster A1:

- Start number 89 was manually annotated 1 time for cluster A1.
- Start number 91 was manually annotated 1 time for cluster A1.
- Start number 98 was manually annotated 29 times for cluster A1.
- Start number 102 was manually annotated 3 times for cluster A1.
- Start number 107 was manually annotated 9 times for cluster A1.
- Start number 109 was manually annotated 10 times for cluster A1.
- Start number 119 was manually annotated 1 time for cluster A1.
- Start number 130 was manually annotated 3 times for cluster A1.
- Start number 187 was manually annotated 140 times for cluster A1.
- Start number 191 was manually annotated 1 time for cluster A1.
- Start number 195 was manually annotated 10 times for cluster A1.

Info for manual annotations of cluster A10:

- Start number 165 was manually annotated 3 times for cluster A10.
- Start number 176 was manually annotated 3 times for cluster A10.
- Start number 180 was manually annotated 2 times for cluster A10.
- Start number 187 was manually annotated 8 times for cluster A10.

Info for manual annotations of cluster A12:

- Start number 187 was manually annotated 1 time for cluster A12.

Info for manual annotations of cluster A14:

- Start number 171 was manually annotated 1 time for cluster A14.

Info for manual annotations of cluster A18:

- Start number 171 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A2:

- Start number 171 was manually annotated 1 time for cluster A2.
- Start number 180 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A20:

- Start number 191 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A22:

- Start number 187 was manually annotated 1 time for cluster A22.

Info for manual annotations of cluster A3:

- Start number 171 was manually annotated 15 times for cluster A3.
- Start number 175 was manually annotated 2 times for cluster A3.
- Start number 187 was manually annotated 9 times for cluster A3.
- Start number 190 was manually annotated 3 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 119 was manually annotated 10 times for cluster A4.
- Start number 134 was manually annotated 1 time for cluster A4.
- Start number 162 was manually annotated 15 times for cluster A4.
- Start number 171 was manually annotated 81 times for cluster A4.
- Start number 176 was manually annotated 1 time for cluster A4.
- Start number 187 was manually annotated 8 times for cluster A4.
- Start number 197 was manually annotated 3 times for cluster A4.

Info for manual annotations of cluster A5:

- Start number 187 was manually annotated 31 times for cluster A5.
- Start number 200 was manually annotated 1 time for cluster A5.
- Start number 201 was manually annotated 3 times for cluster A5.
- Start number 206 was manually annotated 4 times for cluster A5.

Info for manual annotations of cluster A7:

- Start number 175 was manually annotated 1 time for cluster A7.
- Start number 187 was manually annotated 4 times for cluster A7.

Info for manual annotations of cluster A8:

- Start number 171 was manually annotated 11 times for cluster A8.

Info for manual annotations of cluster A9:

- Start number 182 was manually annotated 2 times for cluster A9.
- Start number 187 was manually annotated 1 time for cluster A9.

Info for manual annotations of cluster AG:

- Start number 188 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster AZ1:

- Start number 136 was manually annotated 1 time for cluster AZ1.
- Start number 164 was manually annotated 1 time for cluster AZ1.
- Start number 168 was manually annotated 1 time for cluster AZ1.
- Start number 176 was manually annotated 4 times for cluster AZ1.
- Start number 180 was manually annotated 30 times for cluster AZ1.
- Start number 181 was manually annotated 2 times for cluster AZ1.
- Start number 187 was manually annotated 6 times for cluster AZ1.

Info for manual annotations of cluster AZ2:

- Start number 187 was manually annotated 3 times for cluster AZ2.

Info for manual annotations of cluster AZ3:

- Start number 136 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster AZ5:

- Start number 181 was manually annotated 16 times for cluster AZ5.

Info for manual annotations of cluster AZ6:

- Start number 180 was manually annotated 1 time for cluster AZ6.

Info for manual annotations of cluster BB1:

- Start number 119 was manually annotated 1 time for cluster BB1.
- Start number 147 was manually annotated 1 time for cluster BB1.
- Start number 164 was manually annotated 1 time for cluster BB1.
- Start number 199 was manually annotated 3 times for cluster BB1.

Info for manual annotations of cluster BB2:

- Start number 128 was manually annotated 3 times for cluster BB2.

Info for manual annotations of cluster BC1:

- Start number 145 was manually annotated 6 times for cluster BC1.

Info for manual annotations of cluster BC2:

- Start number 145 was manually annotated 2 times for cluster BC2.

Info for manual annotations of cluster BC3:

- Start number 145 was manually annotated 3 times for cluster BC3.

Info for manual annotations of cluster BD1:

- Start number 55 was manually annotated 7 times for cluster BD1.
- Start number 82 was manually annotated 5 times for cluster BD1.
- Start number 86 was manually annotated 1 time for cluster BD1.
- Start number 89 was manually annotated 22 times for cluster BD1.
- Start number 183 was manually annotated 5 times for cluster BD1.
- Start number 191 was manually annotated 14 times for cluster BD1.
- Start number 224 was manually annotated 1 time for cluster BD1.

Info for manual annotations of cluster BD2:

- Start number 96 was manually annotated 1 time for cluster BD2.
- Start number 112 was manually annotated 1 time for cluster BD2.
- Start number 116 was manually annotated 3 times for cluster BD2.
- Start number 157 was manually annotated 5 times for cluster BD2.

- Start number 163 was manually annotated 10 times for cluster BD2.
- Start number 220 was manually annotated 1 time for cluster BD2.

Info for manual annotations of cluster BD3:

- Start number 89 was manually annotated 2 times for cluster BD3.
- Start number 106 was manually annotated 2 times for cluster BD3.
- Start number 114 was manually annotated 1 time for cluster BD3.
- Start number 148 was manually annotated 2 times for cluster BD3.
- Start number 172 was manually annotated 1 time for cluster BD3.
- Start number 179 was manually annotated 5 times for cluster BD3.
- Start number 180 was manually annotated 1 time for cluster BD3.
- Start number 181 was manually annotated 1 time for cluster BD3.

Info for manual annotations of cluster BD6:

- Start number 106 was manually annotated 1 time for cluster BD6.
- Start number 193 was manually annotated 3 times for cluster BD6.

Info for manual annotations of cluster BJ:

- Start number 99 was manually annotated 1 time for cluster BJ.

Info for manual annotations of cluster BL:

- Start number 137 was manually annotated 1 time for cluster BL.
- Start number 164 was manually annotated 2 times for cluster BL.

Info for manual annotations of cluster BP:

- Start number 158 was manually annotated 5 times for cluster BP.
- Start number 176 was manually annotated 6 times for cluster BP.

Info for manual annotations of cluster CA:

- Start number 165 was manually annotated 32 times for cluster CA.
- Start number 187 was manually annotated 3 times for cluster CA.
- Start number 234 was manually annotated 1 time for cluster CA.

Info for manual annotations of cluster CF:

- Start number 110 was manually annotated 1 time for cluster CF.
- Start number 112 was manually annotated 1 time for cluster CF.
- Start number 170 was manually annotated 1 time for cluster CF.
- Start number 182 was manually annotated 1 time for cluster CF.
- Start number 188 was manually annotated 1 time for cluster CF.

Info for manual annotations of cluster CV:

- Start number 87 was manually annotated 1 time for cluster CV.
- Start number 145 was manually annotated 1 time for cluster CV.
- Start number 168 was manually annotated 1 time for cluster CV.
- Start number 180 was manually annotated 1 time for cluster CV.
- Start number 188 was manually annotated 21 times for cluster CV.

Info for manual annotations of cluster EH:

- Start number 120 was manually annotated 1 time for cluster EH.
- Start number 135 was manually annotated 2 times for cluster EH.
- Start number 142 was manually annotated 1 time for cluster EH.
- Start number 151 was manually annotated 1 time for cluster EH.
- Start number 162 was manually annotated 1 time for cluster EH.

- Start number 171 was manually annotated 2 times for cluster EH.
- Start number 183 was manually annotated 7 times for cluster EH.

Info for manual annotations of cluster FO:

- Start number 189 was manually annotated 1 time for cluster FO.

Info for manual annotations of cluster FP:

- Start number 187 was manually annotated 6 times for cluster FP.

Info for manual annotations of cluster K1:

- Start number 178 was manually annotated 1 time for cluster K1.
- Start number 191 was manually annotated 1 time for cluster K1.

Info for manual annotations of cluster K5:

- Start number 170 was manually annotated 7 times for cluster K5.
- Start number 180 was manually annotated 1 time for cluster K5.
- Start number 188 was manually annotated 12 times for cluster K5.
- Start number 206 was manually annotated 5 times for cluster K5.

Info for manual annotations of cluster M1:

- Start number 107 was manually annotated 1 time for cluster M1.
- Start number 140 was manually annotated 14 times for cluster M1.

Info for manual annotations of cluster M2:

- Start number 140 was manually annotated 6 times for cluster M2.

Info for manual annotations of cluster M3:

- Start number 140 was manually annotated 1 time for cluster M3.

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

Gene: A6\_34 Start: 28460, Stop: 30028, Start Num: 109

Candidate Starts for A6\_34:

(Start: 98 @28445 has 29 MA's), (Start: 102 @28451 has 3 MA's), (Start: 107 @28457 has 10 MA's), (Start: 109 @28460 has 10 MA's), (Start: 119 @28475 has 12 MA's), (Start: 187 @28526 has 221 MA's), (Start: 191 @28535 has 17 MA's), (262, 28745), (264, 28751), (269, 28772), (326, 28901), (329, 28910), (331, 28919), (366, 29027), (379, 29048), (384, 29060), (391, 29084), (404, 29126), (457, 29255), (480, 29315), (500, 29372), (512, 29399), (525, 29426), (526, 29429), (533, 29441), (580, 29510), (606, 29543), (608, 29549), (622, 29582), (655, 29663), (660, 29678), (710, 29783), (766, 29897), (828, 29996), (840, 30020),

Gene: AEgle\_46 Start: 34374, Stop: 35792, Start Num: 180

Candidate Starts for AEgle\_46:

(Start: 163 @34356 has 10 MA's), (177, 34371), (Start: 180 @34374 has 37 MA's), (Start: 187 @34383 has 221 MA's), (225, 34497), (264, 34605), (271, 34638), (277, 34653), (317, 34716), (323, 34728), (325, 34737), (358, 34836), (391, 34929), (404, 34968), (461, 35073), (628, 35427), (629, 35430), (634, 35448), (638, 35460), (729, 35631),

Gene: AFIS\_37 Start: 29661, Stop: 31205, Start Num: 130

Candidate Starts for AFIS\_37:

(78, 29604), (Start: 89 @29616 has 25 MA's), (Start: 130 @29661 has 3 MA's), (Start: 187 @29706 has 221 MA's), (Start: 200 @29739 has 1 MA's), (262, 29925), (264, 29931), (269, 29952), (326, 30081), (329, 30090), (331, 30099), (366, 30207), (379, 30228), (384, 30240), (457, 30435), (480, 30495), (500, 30552), (525, 30606), (533, 30621), (606, 30720), (622, 30759), (655, 30840), (660, 30855), (766, 31074), (828, 31173), (840, 31197),

Gene: AGrandiflora\_52 Start: 35693, Stop: 37111, Start Num: 180

Candidate Starts for AGrandiflora\_52:

(Start: 163 @35675 has 10 MA's), (177, 35690), (Start: 180 @35693 has 37 MA's), (Start: 187 @35702 has 221 MA's), (225, 35816), (Start: 234 @35840 has 1 MA's), (264, 35924), (317, 36035), (323, 36047), (325, 36056), (358, 36155), (391, 36248), (396, 36260), (404, 36287), (461, 36392), (486, 36446), (629, 36749), (634, 36767), (638, 36779), (655, 36812), (729, 36950),

Gene: Aaronocolus\_49 Start: 34181, Stop: 35398, Start Num: 224

Candidate Starts for Aaronocolus\_49:

(Start: 183 @34064 has 12 MA's), (Start: 191 @34076 has 17 MA's), (198, 34091), (Start: 222 @34178 has 1 MA's), (Start: 224 @34181 has 1 MA's), (237, 34205), (253, 34247), (256, 34256), (268, 34298), (269, 34307), (271, 34319), (321, 34409), (322, 34418), (329, 34442), (369, 34562), (380, 34568), (426, 34658), (448, 34673), (452, 34682), (462, 34715), (511, 34826), (513, 34832), (543, 34880), (554, 34895), (563, 34910), (603, 34970), (613, 34994), (650, 35075), (670, 35105), (688, 35135), (710, 35183), (749, 35261), (768, 35309), (774, 35318), (789, 35345), (816, 35384),

Gene: AbbeyMikolon\_57 Start: 38291, Stop: 40006, Start Num: 164

Candidate Starts for AbbeyMikolon\_57:

(Start: 145 @38267 has 12 MA's), (156, 38282), (Start: 164 @38291 has 4 MA's), (186, 38309), (213, 38381), (218, 38399), (254, 38483), (273, 38555), (290, 38600), (295, 38609), (302, 38627), (311, 38648), (328, 38717), (355, 38801), (386, 38918), (410, 38987), (444, 39080), (477, 39185), (482, 39209), (578, 39443), (585, 39452), (722, 39788), (729, 39800), (747, 39827), (768, 39881), (774, 39893), (777, 39902), (780, 39908), (796, 39932), (807, 39944), (840, 39998),

Gene: AbbysRanger\_33 Start: 26661, Stop: 25147, Start Num: 171

Candidate Starts for AbbysRanger\_33:

(Start: 134 @26703 has 1 MA's), (Start: 162 @26670 has 16 MA's), (Start: 171 @26661 has 112 MA's), (239, 26499), (262, 26433), (268, 26415), (294, 26340), (320, 26277), (321, 26274), (347, 26187), (391, 26061), (462, 25878), (480, 25821), (498, 25767), (521, 25716), (603, 25587), (607, 25578), (637, 25503), (639, 25497), (692, 25383), (696, 25374), (714, 25335), (794, 25185), (805, 25170),

Gene: Abbysshoes\_39 Start: 29526, Stop: 31109, Start Num: 107

Candidate Starts for Abbysshoes\_39:

(Start: 98 @29514 has 29 MA's), (Start: 102 @29520 has 3 MA's), (Start: 107 @29526 has 10 MA's), (Start: 109 @29529 has 10 MA's), (Start: 119 @29544 has 12 MA's), (Start: 187 @29595 has 221 MA's), (Start: 193 @29607 has 3 MA's), (264, 29820), (268, 29832), (269, 29841), (279, 29874), (326, 29970), (329, 29979), (331, 29988), (366, 30096), (379, 30117), (384, 30129), (391, 30153), (404, 30195), (457, 30324), (480, 30384), (500, 30441), (512, 30468), (525, 30495), (526, 30498), (533, 30510), (580, 30579), (608, 30618), (622, 30651), (655, 30732), (660, 30747), (766, 30966),

Gene: Abrogate\_380 Start: 30330, Stop: 31832, Start Num: 187

Candidate Starts for Abrogate\_380:

(Start: 91 @30240 has 1 MA's), (Start: 98 @30249 has 29 MA's), (Start: 102 @30255 has 3 MA's), (Start: 107 @30261 has 10 MA's), (Start: 109 @30264 has 10 MA's), (Start: 119 @30279 has 12 MA's), (Start: 187 @30330 has 221 MA's), (Start: 195 @30345 has 10 MA's), (262, 30549), (264, 30555), (326, 30705), (329, 30714), (331, 30723), (366, 30831), (379, 30852), (384, 30864), (391,

30888), (404, 30930), (457, 31059), (480, 31119), (500, 31176), (512, 31203), (520, 31218), (521, 31221), (525, 31230), (526, 31233), (533, 31245), (608, 31353), (622, 31386), (655, 31467), (660, 31482), (766, 31701), (828, 31800), (840, 31824),

Gene: Achebe\_32 Start: 26644, Stop: 25130, Start Num: 171

Candidate Starts for Achebe\_32:

(Start: 134 @26686 has 1 MA's), (Start: 162 @26653 has 16 MA's), (Start: 171 @26644 has 112 MA's), (239, 26482), (262, 26416), (268, 26398), (294, 26323), (320, 26260), (321, 26257), (347, 26170), (391, 26044), (462, 25861), (480, 25804), (498, 25750), (521, 25699), (603, 25570), (607, 25561), (637, 25486), (639, 25480), (692, 25366), (696, 25357), (714, 25318), (794, 25168), (805, 25153),

Gene: Acme\_40 Start: 29877, Stop: 31391, Start Num: 187

Candidate Starts for Acme\_40:

(Start: 98 @29796 has 29 MA's), (Start: 102 @29802 has 3 MA's), (Start: 107 @29808 has 10 MA's), (Start: 109 @29811 has 10 MA's), (Start: 119 @29826 has 12 MA's), (Start: 187 @29877 has 221 MA's), (Start: 195 @29892 has 10 MA's), (227, 29994), (264, 30102), (269, 30123), (326, 30252), (329, 30261), (331, 30270), (334, 30276), (362, 30366), (366, 30378), (384, 30411), (396, 30447), (457, 30606), (480, 30666), (500, 30723), (512, 30750), (525, 30777), (526, 30780), (533, 30792), (580, 30861), (606, 30894), (608, 30900), (622, 30933), (655, 31014), (660, 31029), (710, 31134), (766, 31248),

Gene: Adahisdi\_38 Start: 29753, Stop: 31255, Start Num: 187

Candidate Starts for Adahisdi\_38:

(Start: 98 @29672 has 29 MA's), (Start: 102 @29678 has 3 MA's), (Start: 107 @29684 has 10 MA's), (Start: 109 @29687 has 10 MA's), (Start: 119 @29702 has 12 MA's), (Start: 187 @29753 has 221 MA's), (Start: 222 @29861 has 1 MA's), (264, 29978), (269, 29999), (326, 30128), (329, 30137), (331, 30146), (366, 30254), (379, 30275), (384, 30287), (391, 30311), (457, 30482), (480, 30542), (500, 30599), (512, 30626), (525, 30653), (526, 30656), (533, 30668), (580, 30737), (606, 30770), (608, 30776), (622, 30809), (655, 30890), (660, 30905), (710, 31010), (766, 31124), (828, 31223), (840, 31247),

Gene: Adolin\_53 Start: 34720, Stop: 36138, Start Num: 180

Candidate Starts for Adolin\_53:

(Start: 163 @34702 has 10 MA's), (177, 34717), (Start: 180 @34720 has 37 MA's), (Start: 187 @34729 has 221 MA's), (Start: 197 @34747 has 3 MA's), (Start: 234 @34867 has 1 MA's), (264, 34951), (271, 34984), (277, 34999), (317, 35062), (323, 35074), (358, 35182), (391, 35275), (404, 35314), (493, 35494), (628, 35773), (634, 35794), (729, 35977),

Gene: Adumb2043\_47 Start: 34394, Stop: 35812, Start Num: 180

Candidate Starts for Adumb2043\_47:

(Start: 163 @34376 has 10 MA's), (177, 34391), (Start: 180 @34394 has 37 MA's), (Start: 187 @34403 has 221 MA's), (225, 34517), (264, 34625), (271, 34658), (317, 34736), (323, 34748), (325, 34757), (358, 34856), (370, 34898), (391, 34949), (404, 34988), (461, 35093), (628, 35447), (629, 35450), (634, 35468), (638, 35480), (729, 35651),

Gene: Aeneas\_40 Start: 29906, Stop: 31408, Start Num: 187

Candidate Starts for Aeneas\_40:

(Start: 98 @29825 has 29 MA's), (Start: 102 @29831 has 3 MA's), (Start: 107 @29837 has 10 MA's), (Start: 109 @29840 has 10 MA's), (Start: 119 @29855 has 12 MA's), (Start: 187 @29906 has 221 MA's), (Start: 195 @29921 has 10 MA's), (198, 29930), (262, 30125), (264, 30131), (269, 30152), (326, 30281), (329, 30290), (331, 30299), (366, 30407), (379, 30428), (384, 30440), (391, 30464), (404, 30506), (457, 30635), (480, 30695), (500, 30752), (512, 30779), (525, 30806), (526, 30809), (533,

30821), (608, 30929), (622, 30962), (655, 31043), (660, 31058), (766, 31277), (828, 31376), (840, 31400),

Gene: Agent47\_39 Start: 31420, Stop: 32865, Start Num: 170

Candidate Starts for Agent47\_39:

(33, 31168), (50, 31231), (76, 31285), (132, 31372), (Start: 170 @31420 has 8 MA's), (Start: 206 @31495 has 9 MA's), (210, 31507), (253, 31618), (254, 31621), (263, 31654), (269, 31678), (292, 31741), (329, 31816), (436, 32092), (543, 32314), (548, 32326), (591, 32374), (603, 32404), (611, 32425), (622, 32449), (693, 32602), (731, 32683), (736, 32689), (742, 32701), (755, 32737), (759, 32743), (768, 32764), (775, 32779), (777, 32785), (808, 32833), (815, 32842),

Gene: AgentM\_30 Start: 25856, Stop: 24363, Start Num: 187

Candidate Starts for AgentM\_30:

(Start: 187 @25856 has 221 MA's), (Start: 200 @25823 has 1 MA's), (Start: 201 @25820 has 3 MA's), (Start: 206 @25802 has 9 MA's), (Start: 234 @25721 has 1 MA's), (281, 25577), (294, 25550), (323, 25502), (379, 25337), (387, 25313), (389, 25310), (396, 25289), (471, 25100), (546, 24929), (614, 24794), (633, 24752), (637, 24740), (673, 24656), (680, 24641), (692, 24626), (776, 24449), (806, 24419), (829, 24386),

Gene: AgronaGT15\_36 Start: 27130, Stop: 25562, Start Num: 171

Candidate Starts for AgronaGT15\_36:

(64, 27280), (70, 27265), (139, 27166), (Start: 171 @27130 has 112 MA's), (269, 26875), (276, 26851), (300, 26791), (320, 26743), (321, 26740), (347, 26653), (353, 26641), (358, 26620), (364, 26596), (391, 26527), (415, 26458), (417, 26449), (462, 26344), (471, 26299), (521, 26167), (567, 26083), (606, 26026), (696, 25819), (765, 25678),

Gene: AinMach\_48 Start: 34606, Stop: 36066, Start Num: 155

Candidate Starts for AinMach\_48:

(155, 34606), (Start: 187 @34645 has 221 MA's), (228, 34765), (279, 34918), (284, 34930), (317, 34975), (323, 34987), (328, 35005), (331, 35017), (387, 35176), (401, 35218), (462, 35338), (546, 35524), (575, 35578), (682, 35812), (692, 35821), (729, 35893),

Gene: Airmid\_31 Start: 25414, Stop: 23933, Start Num: 187

Candidate Starts for Airmid\_31:

(155, 25441), (Start: 187 @25414 has 221 MA's), (Start: 201 @25378 has 3 MA's), (Start: 234 @25279 has 1 MA's), (247, 25243), (264, 25195), (274, 25153), (285, 25129), (299, 25102), (322, 25063), (329, 25039), (334, 25024), (379, 24895), (489, 24601), (507, 24556), (521, 24526), (533, 24502), (546, 24487), (590, 24427), (611, 24376), (614, 24367), (652, 24280), (680, 24214), (776, 24022), (836, 23944),

Gene: Ajay\_38 Start: 29543, Stop: 31045, Start Num: 187

Candidate Starts for Ajay\_38:

(Start: 98 @29462 has 29 MA's), (Start: 102 @29468 has 3 MA's), (Start: 107 @29474 has 10 MA's), (Start: 109 @29477 has 10 MA's), (Start: 119 @29492 has 12 MA's), (Start: 187 @29543 has 221 MA's), (262, 29762), (264, 29768), (269, 29789), (323, 29906), (326, 29918), (329, 29927), (331, 29936), (334, 29942), (362, 30032), (366, 30044), (384, 30077), (457, 30272), (480, 30332), (500, 30389), (512, 30416), (525, 30443), (526, 30446), (533, 30458), (580, 30527), (606, 30560), (608, 30566), (622, 30599), (655, 30680), (660, 30695), (710, 30800), (766, 30914), (828, 31013), (840, 31037),

Gene: Alatin\_29 Start: 23703, Stop: 22195, Start Num: 165

Candidate Starts for Alatin\_29:

(Start: 165 @23703 has 35 MA's), (Start: 187 @23682 has 221 MA's), (Start: 190 @23676 has 3 MA's), (Start: 234 @23547 has 1 MA's), (252, 23499), (278, 23412), (329, 23307), (364, 23196), (389, 23136), (392, 23124), (414, 23061), (429, 23031), (443, 22998), (452, 22977), (461, 22947), (469, 22932), (471, 22926), (485, 22878), (497, 22845), (521, 22788), (546, 22749), (548, 22743), (634, 22593), (714, 22422), (836, 22206),

Gene: Albee\_33 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for Albee\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Alberto7\_34 Start: 26999, Stop: 25437, Start Num: 119

Candidate Starts for Alberto7\_34:

(Start: 119 @26999 has 12 MA's), (Start: 187 @26933 has 221 MA's), (Start: 197 @26915 has 3 MA's), (212, 26858), (217, 26840), (229, 26810), (Start: 234 @26798 has 1 MA's), (274, 26672), (283, 26651), (299, 26621), (322, 26582), (334, 26543), (363, 26453), (387, 26393), (405, 26339), (461, 26201), (569, 25970), (611, 25880), (629, 25844), (637, 25817), (659, 25763), (663, 25754), (768, 25544), (776, 25526), (791, 25514), (796, 25505),

Gene: Aldrich\_39 Start: 30730, Stop: 32217, Start Num: 195

Candidate Starts for Aldrich\_39:

(Start: 98 @30634 has 29 MA's), (Start: 102 @30640 has 3 MA's), (Start: 107 @30646 has 10 MA's), (Start: 109 @30649 has 10 MA's), (Start: 119 @30664 has 12 MA's), (Start: 187 @30715 has 221 MA's), (Start: 195 @30730 has 10 MA's), (262, 30934), (264, 30940), (269, 30961), (323, 31078), (326, 31090), (329, 31099), (331, 31108), (362, 31204), (366, 31216), (379, 31237), (384, 31249), (391, 31273), (457, 31444), (480, 31504), (500, 31561), (512, 31588), (525, 31615), (533, 31630), (580, 31699), (608, 31738), (622, 31771), (655, 31852), (660, 31867), (710, 31972), (766, 32086), (828, 32185), (840, 32209),

Gene: AlleyCat\_39 Start: 31272, Stop: 32717, Start Num: 170

Candidate Starts for AlleyCat\_39:

(59, 31101), (76, 31137), (132, 31224), (Start: 170 @31272 has 8 MA's), (Start: 206 @31347 has 9 MA's), (210, 31359), (253, 31470), (254, 31473), (263, 31506), (269, 31530), (292, 31593), (329, 31668), (436, 31944), (543, 32166), (548, 32178), (591, 32226), (603, 32256), (611, 32277), (622, 32301), (693, 32454), (731, 32535), (736, 32541), (742, 32553), (755, 32589), (759, 32595), (767, 32613), (768, 32616), (775, 32631), (777, 32637), (808, 32685), (815, 32694),

Gene: Alpacados\_28 Start: 23572, Stop: 22076, Start Num: 165

Candidate Starts for Alpacados\_28:

(Start: 165 @23572 has 35 MA's), (Start: 187 @23551 has 221 MA's), (Start: 190 @23545 has 3 MA's), (Start: 234 @23416 has 1 MA's), (252, 23368), (278, 23281), (329, 23176), (364, 23065), (389, 23005), (392, 22993), (414, 22930), (429, 22900), (443, 22867), (452, 22846), (461, 22816), (471, 22795), (484, 22750), (485, 22747), (487, 22741), (521, 22657), (546, 22618), (548, 22612), (611, 22516), (628, 22483), (634, 22462), (637, 22453), (714, 22291),

Gene: Alsaber\_52 Start: 36706, Stop: 38124, Start Num: 179

Candidate Starts for Alsaber\_52:

(156, 36682), (Start: 179 @36706 has 5 MA's), (198, 36736), (Start: 220 @36817 has 1 MA's), (256, 36901), (261, 36919), (268, 36943), (269, 36952), (271, 36964), (281, 36991), (307, 37024), (322, 37063), (323, 37066), (329, 37087), (380, 37213), (401, 37276), (454, 37402), (471, 37447), (511,

37540), (563, 37624), (602, 37681), (608, 37693), (613, 37708), (652, 37792), (659, 37813), (688, 37849), (705, 37882), (744, 37960), (768, 38023), (777, 38041), (798, 38074), (801, 38077),

Gene: Alsfro\_41 Start: 29931, Stop: 31442, Start Num: 187

Candidate Starts for Alsfro\_41:

(Start: 187 @29931 has 221 MA's), (Start: 193 @29943 has 3 MA's), (Start: 195 @29946 has 10 MA's), (Start: 200 @29964 has 1 MA's), (Start: 222 @30039 has 1 MA's), (225, 30042), (Start: 234 @30066 has 1 MA's), (239, 30078), (262, 30150), (264, 30156), (268, 30168), (279, 30210), (293, 30240), (294, 30243), (326, 30306), (329, 30315), (331, 30324), (334, 30330), (362, 30420), (366, 30432), (384, 30465), (457, 30660), (480, 30720), (500, 30777), (525, 30831), (533, 30846), (606, 30945), (622, 30984), (625, 30987), (655, 31065), (660, 31080), (766, 31299),

Gene: Altman\_39 Start: 30360, Stop: 31874, Start Num: 187

Candidate Starts for Altman\_39:

(Start: 98 @30279 has 29 MA's), (Start: 102 @30285 has 3 MA's), (Start: 107 @30291 has 10 MA's), (Start: 109 @30294 has 10 MA's), (Start: 119 @30309 has 12 MA's), (Start: 187 @30360 has 221 MA's), (Start: 222 @30468 has 1 MA's), (262, 30579), (264, 30585), (269, 30606), (326, 30735), (329, 30744), (331, 30753), (366, 30861), (379, 30882), (384, 30894), (391, 30918), (404, 30960), (457, 31089), (480, 31149), (500, 31206), (512, 31233), (525, 31260), (526, 31263), (533, 31275), (580, 31344), (606, 31377), (608, 31383), (622, 31416), (655, 31497), (660, 31512), (710, 31617), (766, 31731),

Gene: Alvin\_38 Start: 30002, Stop: 31504, Start Num: 187

Candidate Starts for Alvin\_38:

(Start: 98 @29921 has 29 MA's), (Start: 102 @29927 has 3 MA's), (Start: 107 @29933 has 10 MA's), (Start: 109 @29936 has 10 MA's), (Start: 119 @29951 has 12 MA's), (Start: 187 @30002 has 221 MA's), (Start: 195 @30017 has 10 MA's), (262, 30221), (264, 30227), (269, 30248), (279, 30281), (326, 30377), (329, 30386), (331, 30395), (366, 30503), (379, 30524), (384, 30536), (391, 30560), (457, 30731), (480, 30791), (500, 30848), (525, 30902), (526, 30905), (533, 30917), (580, 30986), (608, 31025), (622, 31058), (655, 31139), (660, 31154), (710, 31259), (766, 31373), (828, 31472), (840, 31496),

Gene: Alvy\_56 Start: 38642, Stop: 40063, Start Num: 163

Candidate Starts for Alvy\_56:

(Start: 102 @38561 has 3 MA's), (Start: 109 @38570 has 10 MA's), (Start: 116 @38582 has 3 MA's), (Start: 157 @38633 has 5 MA's), (Start: 163 @38642 has 10 MA's), (253, 38852), (264, 38879), (270, 38909), (326, 39017), (369, 39146), (395, 39194), (448, 39305), (452, 39314), (460, 39341), (470, 39362), (471, 39365), (489, 39404), (494, 39419), (578, 39563), (621, 39647), (674, 39764), (695, 39800), (720, 39854), (721, 39857), (741, 39890), (768, 39956), (807, 40013), (834, 40052),

Gene: Amela\_51 Start: 37563, Stop: 38975, Start Num: 179

Candidate Starts for Amela\_51:

(Start: 179 @37563 has 5 MA's), (198, 37593), (253, 37749), (256, 37758), (261, 37776), (263, 37785), (268, 37800), (269, 37809), (271, 37821), (281, 37848), (301, 37872), (307, 37881), (322, 37920), (323, 37923), (329, 37944), (380, 38070), (381, 38073), (401, 38133), (448, 38244), (454, 38259), (471, 38304), (511, 38397), (543, 38451), (554, 38466), (563, 38481), (608, 38550), (613, 38565), (641, 38628), (688, 38706), (710, 38754), (768, 38880), (777, 38898), (801, 38934), (816, 38955),

Gene: Amethyst\_51 Start: 36872, Stop: 38293, Start Num: 163

Candidate Starts for Amethyst\_51:

(Start: 102 @36791 has 3 MA's), (Start: 109 @36800 has 10 MA's), (Start: 116 @36812 has 3 MA's), (Start: 157 @36863 has 5 MA's), (Start: 163 @36872 has 10 MA's), (Start: 197 @36917 has 3 MA's), (246, 37061), (253, 37082), (264, 37109), (270, 37139), (326, 37247), (369, 37376), (381, 37385),

(395, 37424), (404, 37454), (433, 37502), (448, 37535), (452, 37544), (470, 37592), (471, 37595), (489, 37634), (494, 37649), (578, 37793), (621, 37877), (674, 37994), (695, 38030), (720, 38084), (721, 38087), (741, 38120), (744, 38129), (768, 38186), (801, 38234), (807, 38243),

Gene: Amploria\_48 Start: 34579, Stop: 35997, Start Num: 180

Candidate Starts for Amploria\_48:

(Start: 163 @34561 has 10 MA's), (177, 34576), (Start: 180 @34579 has 37 MA's), (Start: 187 @34588 has 221 MA's), (225, 34702), (264, 34810), (271, 34843), (277, 34858), (317, 34921), (323, 34933), (325, 34942), (358, 35041), (370, 35083), (391, 35134), (404, 35173), (461, 35278), (628, 35632), (629, 35635), (634, 35653), (638, 35665), (729, 35836),

Gene: Amyev\_51 Start: 37772, Stop: 39232, Start Num: 181

Candidate Starts for Amyev\_51:

(Start: 170 @37763 has 8 MA's), (Start: 181 @37772 has 19 MA's), (256, 37958), (265, 37991), (322, 38129), (325, 38141), (358, 38240), (376, 38291), (410, 38384), (556, 38717), (669, 38960), (817, 39218),

Gene: Anglerfish\_39 Start: 29761, Stop: 31353, Start Num: 98

Candidate Starts for Anglerfish\_39:

(Start: 98 @29761 has 29 MA's), (Start: 102 @29767 has 3 MA's), (Start: 107 @29773 has 10 MA's), (Start: 109 @29776 has 10 MA's), (Start: 119 @29791 has 12 MA's), (Start: 187 @29842 has 221 MA's), (Start: 195 @29857 has 10 MA's), (Start: 222 @29950 has 1 MA's), (262, 30061), (264, 30067), (326, 30217), (329, 30226), (331, 30235), (366, 30343), (379, 30364), (384, 30376), (391, 30400), (404, 30442), (457, 30571), (480, 30631), (500, 30688), (525, 30742), (526, 30745), (533, 30757), (622, 30895), (655, 30976), (660, 30991), (668, 31006), (766, 31210),

Gene: AngryOrchard\_28 Start: 23567, Stop: 22059, Start Num: 165

Candidate Starts for AngryOrchard\_28:

(Start: 165 @23567 has 35 MA's), (Start: 187 @23546 has 221 MA's), (Start: 190 @23540 has 3 MA's), (Start: 234 @23411 has 1 MA's), (252, 23363), (278, 23276), (329, 23171), (364, 23060), (389, 23000), (392, 22988), (429, 22895), (443, 22862), (452, 22841), (461, 22811), (469, 22796), (471, 22790), (485, 22742), (497, 22709), (521, 22652), (546, 22613), (548, 22607), (634, 22457), (702, 22316), (714, 22286), (775, 22160), (819, 22094),

Gene: Annyong\_33 Start: 26638, Stop: 25124, Start Num: 171

Candidate Starts for Annyong\_33:

(Start: 134 @26680 has 1 MA's), (Start: 162 @26647 has 16 MA's), (Start: 171 @26638 has 112 MA's), (239, 26476), (262, 26410), (268, 26392), (294, 26317), (305, 26293), (320, 26254), (321, 26251), (347, 26164), (387, 26050), (391, 26038), (462, 25855), (498, 25744), (521, 25693), (603, 25564), (607, 25555), (637, 25480), (639, 25474), (696, 25351), (714, 25312), (794, 25162), (805, 25147),

Gene: Anthony\_33 Start: 25025, Stop: 23601, Start Num: 191

Candidate Starts for Anthony\_33:

(3, 25649), (4, 25601), (5, 25574), (6, 25571), (7, 25547), (9, 25487), (10, 25475), (16, 25409), (Start: 114 @25121 has 1 MA's), (154, 25070), (Start: 187 @25034 has 221 MA's), (Start: 191 @25025 has 17 MA's), (Start: 234 @24899 has 1 MA's), (274, 24773), (285, 24749), (321, 24692), (359, 24569), (364, 24548), (396, 24470), (401, 24452), (412, 24422), (471, 24281), (485, 24236), (526, 24140), (546, 24113), (595, 24044), (630, 23978), (659, 23906), (692, 23846), (771, 23681), (814, 23645), (831, 23621),

Gene: AppleCloud\_27 Start: 23605, Stop: 22106, Start Num: 165

Candidate Starts for AppleCloud\_27:

(Start: 165 @23605 has 35 MA's), (Start: 187 @23584 has 221 MA's), (Start: 190 @23578 has 3 MA's), (212, 23509), (Start: 234 @23449 has 1 MA's), (278, 23311), (279, 23308), (291, 23281), (322, 23230), (353, 23140), (386, 23044), (391, 23029), (396, 23017), (410, 22978), (445, 22897), (449, 22885), (462, 22846), (471, 22828), (493, 22759), (504, 22732), (509, 22720), (521, 22696), (525, 22687), (546, 22657), (556, 22639), (573, 22618), (587, 22597), (610, 22564), (614, 22552), (659, 22444), (712, 22339), (746, 22279), (764, 22240), (765, 22237), (774, 22213), (776, 22207),

Gene: Aragog\_30 Start: 25886, Stop: 24393, Start Num: 187

Candidate Starts for Aragog\_30:

(Start: 187 @25886 has 221 MA's), (Start: 200 @25853 has 1 MA's), (Start: 201 @25850 has 3 MA's), (Start: 206 @25832 has 9 MA's), (Start: 234 @25751 has 1 MA's), (281, 25607), (294, 25580), (323, 25532), (379, 25367), (387, 25343), (389, 25340), (396, 25319), (471, 25130), (546, 24959), (614, 24824), (633, 24782), (637, 24770), (673, 24686), (680, 24671), (692, 24656), (776, 24479), (806, 24449), (829, 24416),

Gene: Arcanine\_37 Start: 28843, Stop: 30426, Start Num: 98

Candidate Starts for Arcanine\_37:

(Start: 98 @28843 has 29 MA's), (Start: 102 @28849 has 3 MA's), (Start: 107 @28855 has 10 MA's), (Start: 109 @28858 has 10 MA's), (Start: 119 @28873 has 12 MA's), (Start: 187 @28924 has 221 MA's), (Start: 195 @28939 has 10 MA's), (262, 29143), (264, 29149), (326, 29299), (329, 29308), (331, 29317), (366, 29425), (379, 29446), (384, 29458), (391, 29482), (404, 29524), (457, 29653), (480, 29713), (500, 29770), (512, 29797), (525, 29824), (526, 29827), (533, 29839), (580, 29908), (606, 29941), (608, 29947), (622, 29980), (655, 30061), (660, 30076), (710, 30181), (766, 30295), (828, 30394), (840, 30418),

Gene: Archetta\_30 Start: 25923, Stop: 24442, Start Num: 187

Candidate Starts for Archetta\_30:

(155, 25950), (Start: 187 @25923 has 221 MA's), (Start: 201 @25887 has 3 MA's), (Start: 234 @25788 has 1 MA's), (264, 25704), (274, 25662), (285, 25638), (299, 25611), (322, 25572), (329, 25548), (379, 25404), (489, 25110), (507, 25065), (521, 25035), (533, 25011), (546, 24996), (590, 24936), (611, 24885), (614, 24876), (637, 24822), (652, 24789), (680, 24723), (776, 24531), (836, 24453),

Gene: ArizonaGT\_30 Start: 22964, Stop: 21345, Start Num: 158

Candidate Starts for ArizonaGT\_30:

(Start: 158 @22964 has 5 MA's), (250, 22760), (257, 22742), (335, 22538), (388, 22355), (405, 22304), (435, 22238), (438, 22229), (485, 22088), (493, 22064), (516, 22010), (545, 21944), (593, 21839), (607, 21803), (645, 21716), (667, 21662), (713, 21560), (752, 21491), (763, 21467), (766, 21455), (809, 21404),

Gene: Arlo\_36 Start: 29428, Stop: 30942, Start Num: 187

Candidate Starts for Arlo\_36:

(Start: 98 @29347 has 29 MA's), (Start: 102 @29353 has 3 MA's), (Start: 107 @29359 has 10 MA's), (Start: 109 @29362 has 10 MA's), (Start: 119 @29377 has 12 MA's), (Start: 187 @29428 has 221 MA's), (262, 29647), (264, 29653), (269, 29674), (323, 29791), (326, 29803), (329, 29812), (331, 29821), (366, 29929), (379, 29950), (384, 29962), (391, 29986), (404, 30028), (457, 30157), (480, 30217), (500, 30274), (512, 30301), (525, 30328), (526, 30331), (533, 30343), (580, 30412), (606, 30445), (608, 30451), (622, 30484), (655, 30565), (660, 30580), (766, 30799),

Gene: Arturo\_32 Start: 26750, Stop: 25254, Start Num: 187

Candidate Starts for Arturo\_32:

(Start: 119 @26816 has 12 MA's), (Start: 176 @26759 has 15 MA's), (Start: 187 @26750 has 221 MA's), (Start: 197 @26732 has 3 MA's), (212, 26675), (217, 26657), (229, 26627), (Start: 234 @26615 has 1 MA's), (274, 26489), (283, 26468), (299, 26438), (322, 26399), (387, 26210), (400, 26174), (405,

26156), (461, 26018), (479, 25973), (569, 25787), (629, 25661), (637, 25634), (659, 25580), (663, 25571), (768, 25361), (776, 25343), (791, 25331), (796, 25322),

Gene: Asa16\_48 Start: 35961, Stop: 37382, Start Num: 180

Candidate Starts for Asa16\_48:

(Start: 163 @35943 has 10 MA's), (177, 35958), (Start: 180 @35961 has 37 MA's), (Start: 187 @35970 has 221 MA's), (225, 36084), (Start: 234 @36108 has 1 MA's), (264, 36192), (271, 36225), (277, 36240), (317, 36303), (323, 36315), (325, 36324), (358, 36423), (370, 36465), (391, 36516), (404, 36555), (453, 36633), (461, 36660), (486, 36714), (629, 37020), (630, 37029), (634, 37038), (638, 37050), (729, 37221), (776, 37308),

Gene: Ascela\_51 Start: 36003, Stop: 37418, Start Num: 187

Candidate Starts for Ascela\_51:

(Start: 187 @36003 has 221 MA's), (Start: 197 @36021 has 3 MA's), (Start: 234 @36141 has 1 MA's), (264, 36225), (278, 36276), (317, 36336), (323, 36348), (331, 36378), (358, 36456), (391, 36549), (404, 36588), (634, 37071), (638, 37083), (729, 37254),

Gene: Ashballer\_39 Start: 30219, Stop: 31802, Start Num: 98

Candidate Starts for Ashballer\_39:

(Start: 98 @30219 has 29 MA's), (Start: 102 @30225 has 3 MA's), (Start: 107 @30231 has 10 MA's), (Start: 109 @30234 has 10 MA's), (Start: 119 @30249 has 12 MA's), (Start: 187 @30300 has 221 MA's), (262, 30519), (264, 30525), (326, 30675), (329, 30684), (331, 30693), (366, 30801), (379, 30822), (384, 30834), (391, 30858), (404, 30900), (457, 31029), (480, 31089), (500, 31146), (512, 31173), (525, 31200), (533, 31215), (580, 31284), (608, 31323), (622, 31356), (655, 31437), (660, 31452), (766, 31671), (828, 31770), (840, 31794),

Gene: Ashes\_43 Start: 31555, Stop: 32994, Start Num: 181

Candidate Starts for Ashes\_43:

(Start: 181 @31555 has 19 MA's), (Start: 222 @31666 has 1 MA's), (227, 31675), (256, 31738), (262, 31762), (265, 31771), (323, 31921), (325, 31930), (376, 32086), (379, 32092), (389, 32119), (486, 32353), (491, 32368), (551, 32476), (681, 32746), (777, 32923), (785, 32938), (787, 32941),

Gene: Asten\_50 Start: 36160, Stop: 37782, Start Num: 82

Candidate Starts for Asten\_50:

(Start: 55 @36103 has 7 MA's), (Start: 82 @36160 has 5 MA's), (Start: 89 @36169 has 25 MA's), (Start: 179 @36289 has 5 MA's), (Start: 197 @36316 has 3 MA's), (227, 36415), (Start: 234 @36433 has 1 MA's), (255, 36484), (277, 36565), (278, 36568), (321, 36640), (322, 36649), (323, 36652), (362, 36778), (373, 36805), (400, 36874), (403, 36886), (415, 36919), (454, 36988), (462, 37015), (481, 37063), (497, 37111), (513, 37150), (546, 37207), (622, 37330), (646, 37390), (664, 37435), (729, 37564), (754, 37615), (759, 37624), (774, 37663), (786, 37687), (793, 37702), (804, 37717), (815, 37732),

Gene: Astro\_30 Start: 25018, Stop: 23516, Start Num: 171

Candidate Starts for Astro\_30:

(Start: 109 @25087 has 10 MA's), (Start: 134 @25060 has 1 MA's), (139, 25054), (Start: 171 @25018 has 112 MA's), (Start: 234 @24868 has 1 MA's), (269, 24763), (294, 24697), (300, 24679), (320, 24637), (321, 24634), (347, 24547), (387, 24433), (391, 24421), (423, 24328), (448, 24280), (462, 24238), (481, 24178), (521, 24076), (633, 23869), (677, 23764), (696, 23728), (714, 23689), (763, 23605), (788, 23557),

Gene: Atkinbua\_39 Start: 29777, Stop: 31345, Start Num: 109

Candidate Starts for Atkinbua\_39:

(Start: 98 @29762 has 29 MA's), (Start: 102 @29768 has 3 MA's), (Start: 107 @29774 has 10 MA's), (Start: 109 @29777 has 10 MA's), (Start: 119 @29792 has 12 MA's), (Start: 187 @29843 has 221 MA's), (262, 30062), (264, 30068), (269, 30089), (326, 30218), (329, 30227), (331, 30236), (366, 30344), (379, 30365), (384, 30377), (391, 30401), (404, 30443), (457, 30572), (480, 30632), (500, 30689), (512, 30716), (525, 30743), (533, 30758), (608, 30866), (622, 30899), (655, 30980), (660, 30995), (766, 31214), (828, 31313), (840, 31337),

Gene: Attoomi\_51 Start: 39130, Stop: 40542, Start Num: 222

Candidate Starts for Attoomi\_51:

(Start: 142 @38968 has 1 MA's), (Start: 151 @38980 has 2 MA's), (Start: 222 @39130 has 1 MA's), (227, 39142), (229, 39148), (Start: 234 @39160 has 1 MA's), (256, 39208), (262, 39232), (271, 39271), (275, 39283), (279, 39292), (289, 39316), (294, 39325), (308, 39349), (347, 39451), (359, 39484), (370, 39523), (385, 39556), (396, 39586), (398, 39589), (420, 39661), (425, 39676), (451, 39736), (453, 39742), (458, 39760), (470, 39793), (481, 39826), (487, 39847), (504, 39889), (525, 39931), (533, 39946), (546, 39961), (567, 39997), (569, 40000), (603, 40045), (606, 40051), (615, 40078), (639, 40135), (675, 40216), (771, 40414), (791, 40447), (829, 40498), (839, 40519), (840, 40522), (843, 40534),

Gene: Auspice\_131 Start: 69640, Stop: 68180, Start Num: 140

Candidate Starts for Auspice\_131:

(Start: 107 @69682 has 10 MA's), (Start: 133 @69649 has 1 MA's), (Start: 140 @69640 has 21 MA's), (198, 69568), (225, 69487), (245, 69445), (253, 69421), (271, 69349), (322, 69232), (340, 69169), (375, 69085), (381, 69073), (396, 69031), (401, 69013), (485, 68851), (492, 68830), (513, 68779), (532, 68752), (551, 68725), (624, 68605), (695, 68455), (733, 68377), (753, 68332), (778, 68275),

Gene: AvatarAhPeg\_34 Start: 27306, Stop: 25744, Start Num: 119

Candidate Starts for AvatarAhPeg\_34:

(Start: 119 @27306 has 12 MA's), (Start: 176 @27249 has 15 MA's), (Start: 187 @27240 has 221 MA's), (Start: 197 @27222 has 3 MA's), (212, 27165), (229, 27117), (Start: 234 @27105 has 1 MA's), (274, 26979), (283, 26958), (285, 26955), (299, 26928), (322, 26889), (363, 26760), (387, 26700), (461, 26508), (525, 26346), (629, 26151), (637, 26124), (659, 26070), (663, 26061), (768, 25851), (776, 25833), (791, 25821), (796, 25812), (809, 25794),

Gene: Avle17\_33 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for Avle17\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: AxeJC\_29 Start: 22952, Stop: 21372, Start Num: 176

Candidate Starts for AxeJC\_29:

(Start: 176 @22952 has 15 MA's), (Start: 199 @22907 has 3 MA's), (250, 22772), (257, 22754), (438, 22241), (516, 22013), (577, 21884), (581, 21878), (594, 21848), (651, 21716), (667, 21677), (678, 21650), (707, 21593), (741, 21533), (744, 21524), (766, 21470), (771, 21458), (772, 21455), (799, 21425), (806, 21416), (816, 21401),

Gene: Aziz\_145 Start: 70550, Stop: 69096, Start Num: 140

Candidate Starts for Aziz\_145:

(Start: 107 @70592 has 10 MA's), (Start: 133 @70559 has 1 MA's), (Start: 140 @70550 has 21 MA's), (Start: 190 @70496 has 3 MA's), (198, 70478), (221, 70403), (271, 70259), (322, 70142), (340, 70079), (381, 69989), (396, 69947), (497, 69734), (513, 69695), (532, 69668), (551, 69641), (607, 69560), (618, 69530), (622, 69524), (624, 69521), (695, 69371), (706, 69350), (733, 69293), (778, 69191),

Gene: Azula\_38 Start: 30375, Stop: 31766, Start Num: 188

Candidate Starts for Azula\_38:

(Start: 87 @30240 has 1 MA's), (Start: 168 @30354 has 2 MA's), (Start: 188 @30375 has 36 MA's), (227, 30495), (288, 30672), (345, 30798), (362, 30852), (404, 30969), (447, 31047), (470, 31110), (487, 31146), (522, 31224), (543, 31251), (561, 31266), (607, 31332), (608, 31335), (617, 31359), (622, 31368), (624, 31371), (656, 31449), (682, 31506), (704, 31542), (719, 31575), (723, 31584), (735, 31602), (759, 31653),

Gene: BK1\_34 Start: 28460, Stop: 30028, Start Num: 109

Candidate Starts for BK1\_34:

(Start: 98 @28445 has 29 MA's), (Start: 102 @28451 has 3 MA's), (Start: 107 @28457 has 10 MA's), (Start: 109 @28460 has 10 MA's), (Start: 119 @28475 has 12 MA's), (Start: 187 @28526 has 221 MA's), (Start: 191 @28535 has 17 MA's), (262, 28745), (264, 28751), (269, 28772), (326, 28901), (329, 28910), (331, 28919), (366, 29027), (379, 29048), (384, 29060), (391, 29084), (404, 29126), (457, 29255), (480, 29315), (500, 29372), (512, 29399), (525, 29426), (526, 29429), (533, 29441), (580, 29510), (606, 29543), (608, 29549), (622, 29582), (655, 29663), (660, 29678), (710, 29783), (766, 29897), (828, 29996), (840, 30020),

Gene: BPBiebs31\_38 Start: 29878, Stop: 31392, Start Num: 187

Candidate Starts for BPBiebs31\_38:

(Start: 98 @29797 has 29 MA's), (Start: 102 @29803 has 3 MA's), (Start: 107 @29809 has 10 MA's), (Start: 109 @29812 has 10 MA's), (Start: 119 @29827 has 12 MA's), (Start: 187 @29878 has 221 MA's), (Start: 195 @29893 has 10 MA's), (262, 30097), (264, 30103), (268, 30115), (269, 30124), (326, 30253), (329, 30262), (331, 30271), (366, 30379), (379, 30400), (384, 30412), (391, 30436), (404, 30478), (457, 30607), (480, 30667), (500, 30724), (525, 30778), (533, 30793), (608, 30901), (622, 30934), (655, 31015), (660, 31030), (710, 31135), (766, 31249),

Gene: Baby16\_33 Start: 26648, Stop: 25134, Start Num: 171

Candidate Starts for Baby16\_33:

(Start: 134 @26690 has 1 MA's), (Start: 162 @26657 has 16 MA's), (Start: 171 @26648 has 112 MA's), (239, 26486), (262, 26420), (268, 26402), (294, 26327), (305, 26303), (320, 26264), (321, 26261), (347, 26174), (387, 26060), (391, 26048), (462, 25865), (498, 25754), (521, 25703), (603, 25574), (607, 25565), (637, 25490), (639, 25484), (696, 25361), (714, 25322), (794, 25172), (805, 25157),

Gene: BabyBack\_34 Start: 26301, Stop: 27938, Start Num: 180

Candidate Starts for BabyBack\_34:

(150, 26265), (Start: 180 @26301 has 37 MA's), (Start: 222 @26418 has 1 MA's), (227, 26427), (Start: 234 @26445 has 1 MA's), (262, 26529), (279, 26589), (308, 26649), (322, 26670), (329, 26694), (331, 26703), (362, 26799), (387, 26859), (396, 26883), (427, 26964), (445, 27003), (457, 27039), (520, 27204), (525, 27216), (543, 27240), (608, 27360), (622, 27393), (628, 27402), (764, 27699), (766, 27708), (831, 27810), (840, 27831), (845, 27855), (847, 27879), (850, 27906), (852, 27924),

Gene: Backyardigan\_33 Start: 26665, Stop: 25142, Start Num: 162

Candidate Starts for Backyardigan\_33:

(Start: 134 @26698 has 1 MA's), (Start: 162 @26665 has 16 MA's), (Start: 171 @26656 has 112 MA's), (239, 26494), (262, 26428), (268, 26410), (294, 26335), (320, 26272), (321, 26269), (347, 26182), (391, 26056), (462, 25873), (480, 25816), (498, 25762), (521, 25711), (603, 25582), (607, 25573), (637, 25498), (639, 25492), (692, 25378), (696, 25369), (714, 25330), (794, 25180), (805, 25165),

Gene: BaconJack\_40 Start: 29834, Stop: 31405, Start Num: 107

Candidate Starts for BaconJack\_40:

(Start: 98 @29822 has 29 MA's), (Start: 102 @29828 has 3 MA's), (Start: 107 @29834 has 10 MA's), (Start: 109 @29837 has 10 MA's), (Start: 119 @29852 has 12 MA's), (Start: 187 @29903 has 221 MA's), (262, 30122), (264, 30128), (269, 30149), (326, 30278), (329, 30287), (331, 30296), (366, 30404), (379, 30425), (384, 30437), (391, 30461), (404, 30503), (457, 30632), (480, 30692), (500, 30749), (512, 30776), (525, 30803), (526, 30806), (533, 30818), (580, 30887), (608, 30926), (622, 30959), (655, 31040), (660, 31055), (710, 31160), (766, 31274), (828, 31373), (840, 31397),

Gene: Badger\_33 Start: 26645, Stop: 25131, Start Num: 171

Candidate Starts for Badger\_33:

(Start: 134 @26687 has 1 MA's), (Start: 162 @26654 has 16 MA's), (Start: 171 @26645 has 112 MA's), (239, 26483), (262, 26417), (268, 26399), (294, 26324), (320, 26261), (321, 26258), (347, 26171), (391, 26045), (462, 25862), (480, 25805), (498, 25751), (521, 25700), (603, 25571), (607, 25562), (637, 25487), (639, 25481), (692, 25367), (696, 25358), (714, 25319), (794, 25169), (805, 25154),

Gene: BaileyBlu\_48 Start: 34192, Stop: 35604, Start Num: 187

Candidate Starts for BaileyBlu\_48:

(Start: 187 @34192 has 221 MA's), (257, 34384), (317, 34522), (323, 34534), (328, 34552), (331, 34564), (339, 34591), (341, 34597), (392, 34738), (396, 34747), (404, 34774), (453, 34855), (461, 34882), (471, 34903), (513, 35002), (546, 35071), (597, 35164), (603, 35182), (633, 35254), (669, 35335), (679, 35353), (729, 35440),

Gene: BananenDer11\_39 Start: 31456, Stop: 32826, Start Num: 206

Candidate Starts for BananenDer11\_39:

(33, 31129), (50, 31192), (76, 31246), (132, 31333), (Start: 170 @31381 has 8 MA's), (Start: 206 @31456 has 9 MA's), (210, 31468), (253, 31579), (254, 31582), (263, 31615), (269, 31639), (292, 31702), (329, 31777), (436, 32053), (543, 32275), (548, 32287), (591, 32335), (603, 32365), (611, 32386), (622, 32410), (693, 32563), (731, 32644), (736, 32650), (742, 32662), (755, 32698), (759, 32704), (768, 32725), (775, 32740), (777, 32746), (808, 32794), (815, 32803),

Gene: Barnstormer\_59 Start: 38306, Stop: 39811, Start Num: 183

Candidate Starts for Barnstormer\_59:

(43, 38096), (Start: 183 @38306 has 12 MA's), (253, 38498), (322, 38669), (396, 38861), (421, 38915), (452, 38963), (493, 39065), (621, 39302), (694, 39452), (743, 39551), (851, 39806),

Gene: Barriga\_37 Start: 29037, Stop: 30524, Start Num: 195

Candidate Starts for Barriga\_37:

(Start: 130 @28977 has 3 MA's), (Start: 187 @29022 has 221 MA's), (Start: 195 @29037 has 10 MA's), (262, 29241), (264, 29247), (326, 29397), (329, 29406), (331, 29415), (366, 29523), (379, 29544), (384, 29556), (391, 29580), (404, 29622), (457, 29751), (480, 29811), (500, 29868), (512, 29895), (525, 29922), (526, 29925), (533, 29937), (580, 30006), (606, 30039), (608, 30045), (622, 30078), (655, 30159), (660, 30174), (710, 30279), (766, 30393), (828, 30492), (840, 30516),

Gene: BarrowTuph\_36 Start: 29337, Stop: 30932, Start Num: 98

Candidate Starts for BarrowTuph\_36:

(Start: 98 @29337 has 29 MA's), (Start: 102 @29343 has 3 MA's), (Start: 107 @29349 has 10 MA's), (Start: 109 @29352 has 10 MA's), (Start: 119 @29367 has 12 MA's), (Start: 187 @29418 has 221 MA's), (Start: 195 @29433 has 10 MA's), (262, 29637), (264, 29643), (269, 29664), (323, 29781), (326, 29793), (329, 29802), (331, 29811), (362, 29907), (366, 29919), (379, 29940), (384, 29952), (391, 29976), (457, 30147), (480, 30207), (500, 30264), (512, 30291), (525, 30318), (533, 30333), (608, 30441), (655, 30555), (660, 30570), (766, 30789),

Gene: BarryBee\_53 Start: 36191, Stop: 37804, Start Num: 89

Candidate Starts for BarryBee\_53:

(Start: 55 @36125 has 7 MA's), (Start: 82 @36182 has 5 MA's), (Start: 89 @36191 has 25 MA's), (Start: 197 @36338 has 3 MA's), (227, 36437), (Start: 234 @36455 has 1 MA's), (255, 36506), (277, 36587), (278, 36590), (321, 36662), (322, 36671), (323, 36674), (362, 36800), (373, 36827), (400, 36896), (415, 36941), (454, 37010), (462, 37037), (481, 37085), (497, 37133), (513, 37172), (525, 37199), (546, 37229), (622, 37352), (646, 37412), (664, 37457), (729, 37586), (754, 37637), (759, 37646), (774, 37685), (786, 37709), (793, 37724), (804, 37739), (815, 37754),

Gene: BartholomewSD\_56 Start: 37761, Stop: 39182, Start Num: 163

Candidate Starts for BartholomewSD\_56:

(Start: 102 @37680 has 3 MA's), (Start: 109 @37689 has 10 MA's), (Start: 116 @37701 has 3 MA's), (Start: 157 @37752 has 5 MA's), (Start: 163 @37761 has 10 MA's), (253, 37971), (264, 37998), (270, 38028), (326, 38136), (369, 38265), (395, 38313), (448, 38424), (452, 38433), (460, 38460), (470, 38481), (471, 38484), (489, 38523), (494, 38538), (578, 38682), (621, 38766), (674, 38883), (695, 38919), (720, 38973), (721, 38976), (741, 39009), (768, 39075), (807, 39132), (834, 39171),

Gene: Bartimeaus\_33 Start: 26639, Stop: 25125, Start Num: 171

Candidate Starts for Bartimeaus\_33:

(Start: 134 @26681 has 1 MA's), (Start: 162 @26648 has 16 MA's), (Start: 171 @26639 has 112 MA's), (239, 26477), (262, 26411), (268, 26393), (294, 26318), (305, 26294), (320, 26255), (321, 26252), (347, 26165), (387, 26051), (391, 26039), (462, 25856), (498, 25745), (521, 25694), (603, 25565), (607, 25556), (637, 25481), (639, 25475), (696, 25352), (714, 25313), (794, 25163), (805, 25148),

Gene: BeardedLady\_49 Start: 34453, Stop: 35775, Start Num: 191

Candidate Starts for BeardedLady\_49:

(Start: 183 @34441 has 12 MA's), (Start: 191 @34453 has 17 MA's), (198, 34468), (Start: 222 @34555 has 1 MA's), (Start: 224 @34558 has 1 MA's), (237, 34582), (256, 34633), (268, 34675), (269, 34684), (271, 34696), (321, 34786), (322, 34795), (329, 34819), (369, 34939), (380, 34945), (426, 35035), (448, 35050), (452, 35059), (462, 35092), (511, 35203), (513, 35209), (543, 35257), (554, 35272), (563, 35287), (603, 35347), (613, 35371), (650, 35452), (670, 35482), (688, 35512), (710, 35560), (749, 35638), (768, 35686), (774, 35695), (789, 35722), (816, 35761),

Gene: Beatrix\_37 Start: 30878, Stop: 32380, Start Num: 187

Candidate Starts for Beatrix\_37:

(Start: 98 @30797 has 29 MA's), (Start: 102 @30803 has 3 MA's), (Start: 107 @30809 has 10 MA's), (Start: 109 @30812 has 10 MA's), (Start: 119 @30827 has 12 MA's), (Start: 187 @30878 has 221 MA's), (Start: 195 @30893 has 10 MA's), (Start: 222 @30986 has 1 MA's), (262, 31097), (264, 31103), (279, 31157), (326, 31253), (329, 31262), (331, 31271), (366, 31379), (379, 31400), (391, 31436), (457, 31607), (480, 31667), (500, 31724), (512, 31751), (525, 31778), (526, 31781), (533, 31793), (608, 31901), (622, 31934), (655, 32015), (660, 32030), (766, 32249), (828, 32348), (840, 32372),

Gene: Beaupre\_42 Start: 31365, Stop: 32804, Start Num: 181

Candidate Starts for Beaupre\_42:

(Start: 181 @31365 has 19 MA's), (Start: 222 @31476 has 1 MA's), (227, 31485), (256, 31548), (262, 31572), (265, 31581), (323, 31731), (325, 31740), (376, 31896), (379, 31902), (389, 31929), (486, 32163), (491, 32178), (551, 32286), (681, 32556), (777, 32733), (785, 32748), (787, 32751),

Gene: BeesKnees\_38 Start: 29463, Stop: 30965, Start Num: 187

Candidate Starts for BeesKnees\_38:

(Start: 98 @29382 has 29 MA's), (Start: 102 @29388 has 3 MA's), (Start: 107 @29394 has 10 MA's), (Start: 109 @29397 has 10 MA's), (Start: 119 @29412 has 12 MA's), (Start: 187 @29463 has 221

MA's), (Start: 222 @29571 has 1 MA's), (262, 29682), (264, 29688), (269, 29709), (326, 29838), (329, 29847), (331, 29856), (366, 29964), (379, 29985), (384, 29997), (391, 30021), (404, 30063), (457, 30192), (480, 30252), (500, 30309), (512, 30336), (525, 30363), (533, 30378), (580, 30447), (608, 30486), (622, 30519), (660, 30615), (689, 30678), (710, 30720), (718, 30735), (766, 30834), (828, 30933), (840, 30957),

Gene: Begonia\_38 Start: 31872, Stop: 33263, Start Num: 188

Candidate Starts for Begonia\_38:

(122, 31794), (Start: 147 @31824 has 1 MA's), (161, 31842), (Start: 188 @31872 has 36 MA's), (227, 31992), (262, 32085), (334, 32262), (336, 32268), (345, 32295), (362, 32349), (404, 32466), (447, 32544), (522, 32721), (543, 32748), (561, 32763), (607, 32829), (608, 32832), (615, 32853), (617, 32856), (622, 32865), (624, 32868), (656, 32946), (659, 32955), (682, 33003), (719, 33072), (723, 33081), (735, 33099), (755, 33144), (759, 33150), (768, 33171), (801, 33225),

Gene: Belenaria\_29 Start: 23636, Stop: 22140, Start Num: 165

Candidate Starts for Belenaria\_29:

(Start: 165 @23636 has 35 MA's), (Start: 187 @23615 has 221 MA's), (Start: 190 @23609 has 3 MA's), (Start: 234 @23480 has 1 MA's), (252, 23432), (278, 23345), (329, 23240), (364, 23129), (378, 23099), (389, 23069), (392, 23057), (414, 22994), (429, 22964), (443, 22931), (452, 22910), (461, 22880), (469, 22865), (471, 22859), (485, 22811), (497, 22778), (521, 22721), (546, 22682), (548, 22676), (611, 22580), (628, 22547), (634, 22526), (637, 22517), (714, 22355),

Gene: Benedict\_31 Start: 25417, Stop: 23936, Start Num: 187

Candidate Starts for Benedict\_31:

(155, 25444), (Start: 187 @25417 has 221 MA's), (Start: 201 @25381 has 3 MA's), (Start: 234 @25282 has 1 MA's), (247, 25246), (264, 25198), (274, 25156), (285, 25132), (299, 25105), (322, 25066), (329, 25042), (334, 25027), (379, 24898), (489, 24604), (507, 24559), (521, 24529), (533, 24505), (546, 24490), (590, 24430), (611, 24379), (614, 24370), (637, 24316), (652, 24283), (680, 24217), (776, 24025), (836, 23947),

Gene: Berrie\_51 Start: 36108, Stop: 37529, Start Num: 180

Candidate Starts for Berrie\_51:

(Start: 163 @36090 has 10 MA's), (177, 36105), (Start: 180 @36108 has 37 MA's), (Start: 187 @36117 has 221 MA's), (225, 36231), (264, 36339), (277, 36387), (317, 36450), (323, 36462), (325, 36471), (358, 36570), (391, 36663), (404, 36702), (584, 37068), (634, 37185), (638, 37197), (683, 37290), (729, 37368), (756, 37416),

Gene: Bethlehem\_37 Start: 30167, Stop: 31669, Start Num: 187

Candidate Starts for Bethlehem\_37:

(Start: 98 @30086 has 29 MA's), (Start: 102 @30092 has 3 MA's), (Start: 107 @30098 has 10 MA's), (Start: 109 @30101 has 10 MA's), (Start: 119 @30116 has 12 MA's), (Start: 187 @30167 has 221 MA's), (Start: 195 @30182 has 10 MA's), (250, 30347), (262, 30386), (264, 30392), (269, 30413), (326, 30542), (329, 30551), (331, 30560), (334, 30566), (362, 30656), (366, 30668), (384, 30701), (391, 30725), (404, 30767), (457, 30896), (480, 30956), (500, 31013), (525, 31067), (533, 31082), (608, 31190), (622, 31223), (655, 31304), (660, 31319), (710, 31424), (766, 31538), (828, 31637), (840, 31661),

Gene: Bexan\_35 Start: 30373, Stop: 31875, Start Num: 187

Candidate Starts for Bexan\_35:

(Start: 98 @30292 has 29 MA's), (Start: 102 @30298 has 3 MA's), (Start: 107 @30304 has 10 MA's), (Start: 109 @30307 has 10 MA's), (Start: 119 @30322 has 12 MA's), (Start: 187 @30373 has 221 MA's), (264, 30598), (323, 30736), (326, 30748), (329, 30757), (331, 30766), (366, 30874), (379, 30895), (384, 30907), (391, 30931), (404, 30973), (453, 31087), (457, 31102), (480, 31162), (500,

31219), (512, 31246), (525, 31273), (526, 31276), (533, 31288), (608, 31396), (622, 31429), (655, 31510), (660, 31525), (766, 31744), (828, 31843), (840, 31867),

Gene: Big3\_37 Start: 30045, Stop: 31547, Start Num: 187

Candidate Starts for Big3\_37:

(Start: 98 @29964 has 29 MA's), (Start: 102 @29970 has 3 MA's), (Start: 107 @29976 has 10 MA's), (Start: 109 @29979 has 10 MA's), (Start: 119 @29994 has 12 MA's), (Start: 187 @30045 has 221 MA's), (198, 30069), (264, 30270), (279, 30324), (326, 30420), (329, 30429), (331, 30438), (366, 30546), (379, 30567), (384, 30579), (391, 30603), (404, 30645), (457, 30774), (480, 30834), (500, 30891), (512, 30918), (525, 30945), (526, 30948), (533, 30960), (580, 31029), (608, 31068), (622, 31101), (655, 31182), (766, 31416), (828, 31515), (840, 31539),

Gene: BigMau\_39 Start: 29582, Stop: 31084, Start Num: 187

Candidate Starts for BigMau\_39:

(Start: 98 @29501 has 29 MA's), (Start: 102 @29507 has 3 MA's), (Start: 107 @29513 has 10 MA's), (Start: 109 @29516 has 10 MA's), (Start: 119 @29531 has 12 MA's), (Start: 187 @29582 has 221 MA's), (Start: 191 @29591 has 17 MA's), (Start: 195 @29597 has 10 MA's), (198, 29606), (Start: 200 @29615 has 1 MA's), (264, 29807), (268, 29819), (269, 29828), (279, 29861), (326, 29957), (329, 29966), (331, 29975), (366, 30083), (379, 30104), (384, 30116), (391, 30140), (404, 30182), (457, 30311), (480, 30371), (500, 30428), (512, 30455), (525, 30482), (526, 30485), (533, 30497), (580, 30566), (606, 30599), (608, 30605), (622, 30638), (655, 30719), (660, 30734), (710, 30839), (766, 30953), (828, 31052), (840, 31076),

Gene: Bigchungj\_37 Start: 29171, Stop: 30658, Start Num: 195

Candidate Starts for Bigchungj\_37:

(Start: 130 @29111 has 3 MA's), (Start: 187 @29156 has 221 MA's), (Start: 195 @29171 has 10 MA's), (239, 29303), (262, 29375), (264, 29381), (326, 29531), (329, 29540), (331, 29549), (366, 29657), (379, 29678), (384, 29690), (391, 29714), (404, 29756), (457, 29885), (480, 29945), (500, 30002), (512, 30029), (520, 30044), (521, 30047), (525, 30056), (526, 30059), (533, 30071), (608, 30179), (622, 30212), (637, 30251), (655, 30293), (660, 30308), (766, 30527), (828, 30626), (840, 30650),

Gene: Bigfoot\_35 Start: 28813, Stop: 30315, Start Num: 187

Candidate Starts for Bigfoot\_35:

(78, 28708), (Start: 89 @28720 has 25 MA's), (Start: 98 @28732 has 29 MA's), (Start: 102 @28738 has 3 MA's), (Start: 107 @28744 has 10 MA's), (Start: 109 @28747 has 10 MA's), (Start: 119 @28762 has 12 MA's), (Start: 187 @28813 has 221 MA's), (262, 29032), (264, 29038), (269, 29059), (326, 29188), (329, 29197), (331, 29206), (366, 29314), (379, 29335), (384, 29347), (391, 29371), (404, 29413), (457, 29542), (480, 29602), (500, 29659), (512, 29686), (525, 29713), (526, 29716), (533, 29728), (580, 29797), (608, 29836), (622, 29869), (655, 29950), (660, 29965), (710, 30070), (766, 30184), (828, 30283), (840, 30307),

Gene: BillKnuckles\_38 Start: 30267, Stop: 31769, Start Num: 187

Candidate Starts for BillKnuckles\_38:

(Start: 98 @30186 has 29 MA's), (Start: 102 @30192 has 3 MA's), (Start: 107 @30198 has 10 MA's), (Start: 109 @30201 has 10 MA's), (Start: 119 @30216 has 12 MA's), (Start: 187 @30267 has 221 MA's), (262, 30486), (264, 30492), (269, 30513), (326, 30642), (329, 30651), (331, 30660), (366, 30768), (379, 30789), (384, 30801), (391, 30825), (404, 30867), (457, 30996), (480, 31056), (500, 31113), (512, 31140), (525, 31167), (526, 31170), (533, 31182), (608, 31290), (622, 31323), (655, 31404), (660, 31419), (710, 31524), (766, 31638), (828, 31737), (840, 31761),

Gene: Bioscum\_31 Start: 23000, Stop: 21264, Start Num: 145

Candidate Starts for Bioscum\_31:

(17, 23297), (Start: 145 @23000 has 12 MA's), (192, 22943), (198, 22928), (265, 22736), (325, 22595), (368, 22445), (376, 22433), (387, 22385), (419, 22295), (468, 22151), (501, 22052), (519, 22010), (581, 21869), (594, 21839), (602, 21818), (672, 21653), (701, 21593), (720, 21551), (739, 21521), (744, 21509), (763, 21467), (764, 21464), (784, 21422), (809, 21386), (842, 21332),

Gene: Bircsak\_37 Start: 29814, Stop: 31382, Start Num: 107

Candidate Starts for Bircsak\_37:

(Start: 98 @29802 has 29 MA's), (Start: 102 @29808 has 3 MA's), (Start: 107 @29814 has 10 MA's), (Start: 109 @29817 has 10 MA's), (Start: 119 @29832 has 12 MA's), (Start: 187 @29883 has 221 MA's), (Start: 195 @29898 has 10 MA's), (198, 29907), (262, 30102), (264, 30108), (269, 30129), (326, 30258), (329, 30267), (331, 30276), (366, 30384), (379, 30405), (384, 30417), (391, 30441), (457, 30612), (480, 30672), (500, 30729), (512, 30756), (525, 30783), (526, 30786), (533, 30798), (606, 30897), (622, 30936), (625, 30939), (655, 31017), (660, 31032), (766, 31251), (828, 31350), (840, 31374),

Gene: Blackflame\_37 Start: 29053, Stop: 30567, Start Num: 187

Candidate Starts for Blackflame\_37:

(73, 28939), (Start: 98 @28972 has 29 MA's), (Start: 102 @28978 has 3 MA's), (Start: 107 @28984 has 10 MA's), (Start: 109 @28987 has 10 MA's), (Start: 119 @29002 has 12 MA's), (Start: 187 @29053 has 221 MA's), (262, 29272), (264, 29278), (269, 29299), (326, 29428), (329, 29437), (331, 29446), (366, 29554), (379, 29575), (384, 29587), (391, 29611), (404, 29653), (457, 29782), (480, 29842), (500, 29899), (512, 29926), (525, 29953), (533, 29968), (608, 30076), (655, 30190), (660, 30205), (710, 30310), (766, 30424),

Gene: Blackmoor\_33 Start: 26639, Stop: 25125, Start Num: 171

Candidate Starts for Blackmoor\_33:

(Start: 134 @26681 has 1 MA's), (Start: 162 @26648 has 16 MA's), (Start: 171 @26639 has 112 MA's), (239, 26477), (262, 26411), (268, 26393), (294, 26318), (305, 26294), (320, 26255), (321, 26252), (347, 26165), (387, 26051), (391, 26039), (462, 25856), (498, 25745), (521, 25694), (603, 25565), (607, 25556), (637, 25481), (639, 25475), (696, 25352), (714, 25313), (794, 25163), (805, 25148),

Gene: Blesser\_37 Start: 29938, Stop: 31440, Start Num: 187

Candidate Starts for Blesser\_37:

(Start: 89 @29848 has 25 MA's), (Start: 130 @29893 has 3 MA's), (Start: 187 @29938 has 221 MA's), (262, 30157), (264, 30163), (269, 30184), (326, 30313), (329, 30322), (331, 30331), (366, 30439), (379, 30460), (384, 30472), (391, 30496), (404, 30538), (457, 30667), (480, 30727), (500, 30784), (512, 30811), (525, 30838), (526, 30841), (533, 30853), (606, 30955), (608, 30961), (622, 30994), (655, 31075), (660, 31090), (710, 31195), (718, 31210), (766, 31309), (840, 31432),

Gene: Blino\_41 Start: 33377, Stop: 34768, Start Num: 188

Candidate Starts for Blino\_41:

(161, 33347), (Start: 180 @33368 has 37 MA's), (Start: 188 @33377 has 36 MA's), (227, 33497), (288, 33674), (334, 33767), (336, 33773), (345, 33800), (362, 33854), (404, 33971), (447, 34049), (487, 34148), (493, 34166), (497, 34175), (522, 34226), (543, 34253), (561, 34268), (607, 34334), (608, 34337), (615, 34358), (622, 34370), (624, 34373), (656, 34451), (682, 34508), (723, 34586), (735, 34604), (755, 34649), (759, 34655), (768, 34676), (801, 34730),

Gene: Blue\_37 Start: 29798, Stop: 31393, Start Num: 98

Candidate Starts for Blue\_37:

(Start: 98 @29798 has 29 MA's), (Start: 102 @29804 has 3 MA's), (Start: 107 @29810 has 10 MA's), (Start: 109 @29813 has 10 MA's), (Start: 119 @29828 has 12 MA's), (Start: 187 @29879 has 221 MA's), (Start: 195 @29894 has 10 MA's), (198, 29903), (262, 30098), (264, 30104), (326, 30254), (329,

30263), (331, 30272), (366, 30380), (379, 30401), (384, 30413), (391, 30437), (404, 30479), (457, 30608), (480, 30668), (500, 30725), (512, 30752), (525, 30779), (526, 30782), (533, 30794), (608, 30902), (622, 30935), (655, 31016), (660, 31031), (766, 31250),

Gene: Blueberry\_37 Start: 30375, Stop: 31766, Start Num: 188

Candidate Starts for Blueberry\_37:

(Start: 87 @30240 has 1 MA's), (Start: 168 @30354 has 2 MA's), (Start: 188 @30375 has 36 MA's), (227, 30495), (288, 30672), (345, 30798), (362, 30852), (404, 30969), (447, 31047), (470, 31110), (487, 31146), (522, 31224), (543, 31251), (561, 31266), (607, 31332), (608, 31335), (617, 31359), (622, 31368), (624, 31371), (656, 31449), (682, 31506), (704, 31542), (719, 31575), (723, 31584), (735, 31602), (759, 31653),

Gene: Bluefalcon\_29 Start: 25903, Stop: 24443, Start Num: 200

Candidate Starts for Bluefalcon\_29:

(Start: 187 @25936 has 221 MA's), (Start: 200 @25903 has 1 MA's), (Start: 201 @25900 has 3 MA's), (Start: 206 @25882 has 9 MA's), (Start: 234 @25801 has 1 MA's), (281, 25657), (294, 25630), (323, 25582), (379, 25417), (387, 25393), (389, 25390), (396, 25369), (471, 25180), (525, 25039), (546, 25009), (633, 24832), (637, 24820), (673, 24736), (680, 24721), (692, 24706), (776, 24529), (806, 24499), (829, 24466),

Gene: Bob3\_36 Start: 28857, Stop: 30434, Start Num: 102

Candidate Starts for Bob3\_36:

(Start: 98 @28851 has 29 MA's), (Start: 102 @28857 has 3 MA's), (Start: 107 @28863 has 10 MA's), (Start: 109 @28866 has 10 MA's), (Start: 119 @28881 has 12 MA's), (Start: 187 @28932 has 221 MA's), (264, 29157), (268, 29169), (269, 29178), (279, 29211), (323, 29295), (326, 29307), (329, 29316), (331, 29325), (362, 29421), (366, 29433), (384, 29466), (457, 29661), (480, 29721), (500, 29778), (525, 29832), (533, 29847), (606, 29949), (608, 29955), (622, 29988), (625, 29991), (649, 30054), (660, 30084), (710, 30189), (766, 30303), (828, 30402), (840, 30426),

Gene: BobbyDazzler\_29 Start: 23682, Stop: 22186, Start Num: 165

Candidate Starts for BobbyDazzler\_29:

(Start: 165 @23682 has 35 MA's), (Start: 187 @23661 has 221 MA's), (Start: 190 @23655 has 3 MA's), (Start: 234 @23526 has 1 MA's), (252, 23478), (278, 23391), (329, 23286), (364, 23175), (389, 23115), (392, 23103), (414, 23040), (429, 23010), (443, 22977), (452, 22956), (461, 22926), (471, 22905), (484, 22860), (485, 22857), (487, 22851), (521, 22767), (546, 22728), (548, 22722), (628, 22593), (634, 22572), (637, 22563), (714, 22401),

Gene: Bombshell\_33 Start: 26646, Stop: 25123, Start Num: 162

Candidate Starts for Bombshell\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Bonamassa\_30 Start: 25777, Stop: 24284, Start Num: 187

Candidate Starts for Bonamassa\_30:

(Start: 187 @25777 has 221 MA's), (Start: 200 @25744 has 1 MA's), (Start: 201 @25741 has 3 MA's), (Start: 206 @25723 has 9 MA's), (Start: 234 @25642 has 1 MA's), (281, 25498), (294, 25471), (323, 25423), (379, 25258), (387, 25234), (389, 25231), (396, 25210), (471, 25021), (525, 24880), (546, 24850), (633, 24673), (637, 24661), (673, 24577), (680, 24562), (692, 24547), (776, 24370), (806, 24340), (829, 24307),

Gene: Bonanza\_29 Start: 23610, Stop: 22114, Start Num: 165

Candidate Starts for Bonanza\_29:

(Start: 165 @23610 has 35 MA's), (Start: 187 @23589 has 221 MA's), (Start: 190 @23583 has 3 MA's), (Start: 234 @23454 has 1 MA's), (252, 23406), (278, 23319), (329, 23214), (364, 23103), (389, 23043), (392, 23031), (429, 22938), (443, 22905), (452, 22884), (461, 22854), (469, 22839), (471, 22833), (485, 22785), (521, 22695), (546, 22656), (548, 22650), (611, 22554), (628, 22521), (634, 22500), (637, 22491), (714, 22329),

Gene: Bones\_37 Start: 29287, Stop: 30786, Start Num: 187

Candidate Starts for Bones\_37:

(Start: 130 @29242 has 3 MA's), (Start: 187 @29287 has 221 MA's), (Start: 195 @29302 has 10 MA's), (198, 29311), (239, 29434), (262, 29506), (264, 29512), (279, 29566), (326, 29662), (329, 29671), (331, 29680), (366, 29788), (379, 29809), (384, 29821), (391, 29845), (404, 29887), (457, 30016), (480, 30076), (500, 30133), (512, 30160), (525, 30187), (526, 30190), (533, 30202), (606, 30301), (622, 30340), (655, 30421), (660, 30436), (710, 30541), (766, 30655), (771, 30667), (828, 30754), (840, 30778),

Gene: Bongo\_130 Start: 69256, Stop: 67796, Start Num: 140

Candidate Starts for Bongo\_130:

(Start: 107 @69298 has 10 MA's), (Start: 133 @69265 has 1 MA's), (Start: 140 @69256 has 21 MA's), (198, 69184), (225, 69103), (245, 69061), (253, 69037), (271, 68965), (322, 68848), (340, 68785), (375, 68701), (381, 68689), (396, 68647), (401, 68629), (485, 68467), (492, 68446), (513, 68395), (532, 68368), (551, 68341), (624, 68221), (695, 68071), (733, 67993), (753, 67948), (778, 67891),

Gene: Bovely\_49 Start: 34070, Stop: 35404, Start Num: 183

Candidate Starts for Bovely\_49:

(Start: 183 @34070 has 12 MA's), (Start: 191 @34082 has 17 MA's), (198, 34097), (Start: 222 @34184 has 1 MA's), (Start: 224 @34187 has 1 MA's), (237, 34211), (253, 34253), (256, 34262), (268, 34304), (269, 34313), (271, 34325), (321, 34415), (322, 34424), (329, 34448), (369, 34568), (380, 34574), (426, 34664), (448, 34679), (452, 34688), (462, 34721), (511, 34832), (513, 34838), (543, 34886), (554, 34901), (563, 34916), (603, 34976), (608, 34985), (613, 35000), (650, 35081), (670, 35111), (688, 35141), (710, 35189), (749, 35267), (768, 35315), (774, 35324), (789, 35351), (816, 35390),

Gene: Bowden\_53 Start: 38547, Stop: 39977, Start Num: 157

Candidate Starts for Bowden\_53:

(Start: 102 @38475 has 3 MA's), (Start: 109 @38484 has 10 MA's), (Start: 116 @38496 has 3 MA's), (Start: 157 @38547 has 5 MA's), (Start: 163 @38556 has 10 MA's), (264, 38793), (326, 38931), (369, 39060), (395, 39108), (448, 39219), (452, 39228), (460, 39255), (470, 39276), (471, 39279), (489, 39318), (494, 39333), (578, 39477), (609, 39534), (621, 39561), (674, 39678), (695, 39714), (720, 39768), (721, 39771), (741, 39804), (768, 39870), (807, 39927), (834, 39966),

Gene: Bradshaw\_29 Start: 23636, Stop: 22140, Start Num: 165

Candidate Starts for Bradshaw\_29:

(Start: 165 @23636 has 35 MA's), (Start: 187 @23615 has 221 MA's), (Start: 190 @23609 has 3 MA's), (Start: 234 @23480 has 1 MA's), (252, 23432), (278, 23345), (329, 23240), (364, 23129), (389, 23069), (392, 23057), (414, 22994), (429, 22964), (443, 22931), (452, 22910), (461, 22880), (469, 22865), (471, 22859), (485, 22811), (497, 22778), (521, 22721), (546, 22682), (548, 22676), (611, 22580), (628, 22547), (634, 22526), (637, 22517), (714, 22355),

Gene: Brataylor\_53 Start: 35602, Stop: 37179, Start Num: 89

Candidate Starts for Brataylor\_53:

(Start: 55 @35536 has 7 MA's), (Start: 89 @35602 has 25 MA's), (Start: 197 @35722 has 3 MA's), (Start: 222 @35812 has 1 MA's), (Start: 234 @35839 has 1 MA's), (255, 35890), (277, 35971), (278,

35974), (321, 36046), (322, 36055), (323, 36058), (373, 36211), (396, 36268), (398, 36271), (400, 36280), (408, 36304), (497, 36508), (525, 36574), (533, 36589), (546, 36604), (611, 36703), (622, 36727), (628, 36736), (635, 36760), (664, 36832), (759, 37021), (774, 37060), (786, 37084), (793, 37099), (804, 37114),

Gene: Bricole\_133 Start: 69404, Stop: 67944, Start Num: 140

Candidate Starts for Bricole\_133:

(Start: 107 @69446 has 10 MA's), (Start: 133 @69413 has 1 MA's), (Start: 140 @69404 has 21 MA's), (198, 69332), (225, 69251), (245, 69209), (253, 69185), (271, 69113), (322, 68996), (340, 68933), (375, 68849), (381, 68837), (396, 68795), (401, 68777), (485, 68615), (492, 68594), (513, 68543), (532, 68516), (551, 68489), (624, 68369), (695, 68219), (733, 68141), (753, 68096), (778, 68039),

Gene: Briton15\_39 Start: 29603, Stop: 31180, Start Num: 102

Candidate Starts for Briton15\_39:

(Start: 98 @29597 has 29 MA's), (Start: 102 @29603 has 3 MA's), (Start: 107 @29609 has 10 MA's), (Start: 109 @29612 has 10 MA's), (Start: 119 @29627 has 12 MA's), (Start: 187 @29678 has 221 MA's), (227, 29795), (262, 29897), (264, 29903), (326, 30053), (329, 30062), (331, 30071), (366, 30179), (379, 30200), (384, 30212), (391, 30236), (404, 30278), (457, 30407), (480, 30467), (500, 30524), (512, 30551), (525, 30578), (526, 30581), (533, 30593), (608, 30701), (622, 30734), (655, 30815), (660, 30830), (766, 31049), (828, 31148), (840, 31172),

Gene: Broseidon\_33 Start: 26639, Stop: 25125, Start Num: 171

Candidate Starts for Broseidon\_33:

(Start: 134 @26681 has 1 MA's), (Start: 162 @26648 has 16 MA's), (Start: 171 @26639 has 112 MA's), (239, 26477), (262, 26411), (268, 26393), (294, 26318), (305, 26294), (320, 26255), (321, 26252), (347, 26165), (387, 26051), (391, 26039), (462, 25856), (498, 25745), (521, 25694), (603, 25565), (607, 25556), (637, 25481), (639, 25475), (696, 25352), (714, 25313), (794, 25163), (805, 25148),

Gene: Bruiser\_32 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for Bruiser\_32:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Bruns\_36 Start: 29373, Stop: 30860, Start Num: 195

Candidate Starts for Bruns\_36:

(Start: 98 @29277 has 29 MA's), (Start: 102 @29283 has 3 MA's), (Start: 107 @29289 has 10 MA's), (Start: 109 @29292 has 10 MA's), (Start: 119 @29307 has 12 MA's), (Start: 187 @29358 has 221 MA's), (Start: 195 @29373 has 10 MA's), (262, 29577), (264, 29583), (268, 29595), (269, 29604), (323, 29721), (326, 29733), (329, 29742), (331, 29751), (366, 29859), (379, 29880), (384, 29892), (391, 29916), (457, 30087), (480, 30147), (500, 30204), (512, 30231), (525, 30258), (533, 30273), (580, 30342), (608, 30381), (622, 30414), (625, 30417), (655, 30495), (660, 30510), (710, 30615), (766, 30729), (828, 30828), (840, 30852),

Gene: BryanRecycles\_50 Start: 34372, Stop: 35694, Start Num: 191

Candidate Starts for BryanRecycles\_50:

(Start: 183 @34360 has 12 MA's), (Start: 191 @34372 has 17 MA's), (198, 34387), (Start: 222 @34474 has 1 MA's), (Start: 224 @34477 has 1 MA's), (237, 34501), (256, 34552), (268, 34594), (269, 34603), (271, 34615), (321, 34705), (322, 34714), (329, 34738), (369, 34858), (380, 34864), (426, 34954), (448, 34969), (452, 34978), (462, 35011), (511, 35122), (513, 35128), (543, 35176), (554, 35191), (563, 35206), (603, 35266), (608, 35275), (613, 35290), (649, 35368), (670, 35401), (688, 35431),

(710, 35479), (749, 35557), (768, 35605), (774, 35614), (789, 35641), (816, 35680),

Gene: Bryce\_29 Start: 23611, Stop: 22115, Start Num: 165

Candidate Starts for Bryce\_29:

(Start: 165 @23611 has 35 MA's), (Start: 187 @23590 has 221 MA's), (Start: 190 @23584 has 3 MA's), (Start: 234 @23455 has 1 MA's), (252, 23407), (278, 23320), (329, 23215), (364, 23104), (389, 23044), (392, 23032), (414, 22969), (429, 22939), (443, 22906), (452, 22885), (461, 22855), (471, 22834), (484, 22789), (485, 22786), (487, 22780), (521, 22696), (546, 22657), (548, 22651), (628, 22522), (634, 22501), (637, 22492), (714, 22330),

Gene: BubbleTrouble\_33 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for BubbleTrouble\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Bumblebee11\_33 Start: 26647, Stop: 25133, Start Num: 171

Candidate Starts for Bumblebee11\_33:

(Start: 134 @26689 has 1 MA's), (Start: 162 @26656 has 16 MA's), (Start: 171 @26647 has 112 MA's), (239, 26485), (262, 26419), (268, 26401), (294, 26326), (320, 26263), (321, 26260), (347, 26173), (391, 26047), (462, 25864), (480, 25807), (498, 25753), (521, 25702), (603, 25573), (607, 25564), (637, 25489), (639, 25483), (692, 25369), (696, 25360), (714, 25321), (794, 25171), (805, 25156),

Gene: Burger\_32 Start: 26646, Stop: 25123, Start Num: 162

Candidate Starts for Burger\_32:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Burton\_38 Start: 29535, Stop: 31049, Start Num: 187

Candidate Starts for Burton\_38:

(Start: 98 @29454 has 29 MA's), (Start: 102 @29460 has 3 MA's), (Start: 107 @29466 has 10 MA's), (Start: 109 @29469 has 10 MA's), (Start: 119 @29484 has 12 MA's), (Start: 187 @29535 has 221 MA's), (Start: 191 @29544 has 17 MA's), (Start: 195 @29550 has 10 MA's), (198, 29559), (Start: 200 @29568 has 1 MA's), (227, 29652), (Start: 234 @29670 has 1 MA's), (262, 29754), (264, 29760), (268, 29772), (269, 29781), (323, 29898), (326, 29910), (329, 29919), (331, 29928), (362, 30024), (366, 30036), (384, 30069), (457, 30264), (480, 30324), (500, 30381), (525, 30435), (526, 30438), (533, 30450), (606, 30552), (608, 30558), (622, 30591), (655, 30672), (660, 30687), (710, 30792), (766, 30906),

Gene: BuzzBuzz\_35 Start: 27309, Stop: 25741, Start Num: 171

Candidate Starts for BuzzBuzz\_35:

(64, 27459), (70, 27444), (139, 27345), (Start: 171 @27309 has 112 MA's), (269, 27054), (276, 27030), (300, 26970), (320, 26922), (321, 26919), (347, 26832), (353, 26820), (358, 26799), (364, 26775), (391, 26706), (415, 26637), (417, 26628), (462, 26523), (471, 26478), (521, 26346), (567, 26262), (606, 26205), (696, 25998), (765, 25857),

Gene: Bxb1\_35 Start: 29491, Stop: 30993, Start Num: 187

Candidate Starts for Bxb1\_35:

(Start: 98 @29410 has 29 MA's), (Start: 102 @29416 has 3 MA's), (Start: 107 @29422 has 10 MA's), (Start: 109 @29425 has 10 MA's), (Start: 119 @29440 has 12 MA's), (Start: 187 @29491 has 221 MA's), (262, 29710), (264, 29716), (269, 29737), (326, 29866), (329, 29875), (331, 29884), (366, 29992), (379, 30013), (384, 30025), (391, 30049), (404, 30091), (453, 30205), (457, 30220), (480, 30280), (500, 30337), (512, 30364), (525, 30391), (526, 30394), (533, 30406), (580, 30475), (606, 30508), (608, 30514), (622, 30547), (655, 30628), (660, 30643), (766, 30862), (828, 30961), (840, 30985),

Gene: Bxz2\_34 Start: 27316, Stop: 25748, Start Num: 171

Candidate Starts for Bxz2\_34:

(64, 27466), (70, 27451), (139, 27352), (Start: 171 @27316 has 112 MA's), (269, 27061), (276, 27037), (300, 26977), (320, 26929), (321, 26926), (347, 26839), (353, 26827), (358, 26806), (364, 26782), (391, 26713), (415, 26644), (417, 26635), (462, 26530), (471, 26485), (521, 26353), (567, 26269), (606, 26212), (696, 26005), (765, 25864),

Gene: CactusRose\_35 Start: 28926, Stop: 30428, Start Num: 187

Candidate Starts for CactusRose\_35:

(27, 28689), (30, 28692), (37, 28707), (54, 28770), (Start: 130 @28881 has 3 MA's), (Start: 187 @28926 has 221 MA's), (Start: 195 @28941 has 10 MA's), (Start: 222 @29034 has 1 MA's), (262, 29145), (264, 29151), (269, 29172), (323, 29289), (326, 29301), (329, 29310), (331, 29319), (362, 29415), (366, 29427), (384, 29460), (396, 29496), (457, 29655), (480, 29715), (500, 29772), (525, 29826), (526, 29829), (533, 29841), (608, 29949), (622, 29982), (655, 30063), (660, 30078), (710, 30183), (766, 30297), (828, 30396), (840, 30420),

Gene: Caelakin\_33 Start: 26646, Stop: 25123, Start Num: 162

Candidate Starts for Caelakin\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Caelum\_54 Start: 37075, Stop: 38505, Start Num: 157

Candidate Starts for Caelum\_54:

(Start: 102 @37003 has 3 MA's), (Start: 116 @37024 has 3 MA's), (Start: 157 @37075 has 5 MA's), (Start: 163 @37084 has 10 MA's), (253, 37294), (264, 37321), (278, 37372), (286, 37387), (288, 37393), (326, 37459), (369, 37588), (381, 37597), (395, 37636), (448, 37747), (452, 37756), (471, 37807), (494, 37861), (518, 37915), (578, 38005), (621, 38089), (674, 38206), (695, 38242), (721, 38299), (741, 38332), (744, 38341), (768, 38398), (807, 38455),

Gene: Caitlin\_30 Start: 25011, Stop: 23509, Start Num: 171

Candidate Starts for Caitlin\_30:

(Start: 109 @25080 has 10 MA's), (Start: 134 @25053 has 1 MA's), (139, 25047), (Start: 171 @25011 has 112 MA's), (Start: 234 @24861 has 1 MA's), (269, 24756), (294, 24690), (300, 24672), (320, 24630), (321, 24627), (347, 24540), (358, 24507), (391, 24414), (423, 24321), (448, 24273), (462, 24231), (481, 24171), (521, 24069), (633, 23862), (677, 23757), (696, 23721), (714, 23682), (763, 23598), (788, 23550),

Gene: Caliburn\_48 Start: 34183, Stop: 35505, Start Num: 191

Candidate Starts for Caliburn\_48:

(Start: 183 @34171 has 12 MA's), (Start: 191 @34183 has 17 MA's), (198, 34198), (Start: 222 @34285 has 1 MA's), (Start: 224 @34288 has 1 MA's), (237, 34312), (256, 34363), (268, 34405), (269, 34414),

(271, 34426), (321, 34516), (322, 34525), (329, 34549), (369, 34669), (380, 34675), (426, 34765), (448, 34780), (452, 34789), (462, 34822), (511, 34933), (513, 34939), (543, 34987), (554, 35002), (563, 35017), (603, 35077), (613, 35101), (650, 35182), (670, 35212), (688, 35242), (710, 35290), (749, 35368), (768, 35416), (774, 35425), (789, 35452), (816, 35491),

Gene: CallinAllBarbz\_48 Start: 34767, Stop: 36179, Start Num: 187

Candidate Starts for CallinAllBarbz\_48:

(Start: 187 @34767 has 221 MA's), (317, 35097), (323, 35109), (328, 35127), (331, 35139), (339, 35166), (341, 35172), (392, 35313), (404, 35349), (453, 35430), (471, 35478), (513, 35577), (546, 35646), (603, 35757), (629, 35814), (633, 35829), (669, 35910), (679, 35928), (729, 36015), (817, 36165),

Gene: Camperdownii\_32 Start: 26250, Stop: 24772, Start Num: 197

Candidate Starts for Camperdownii\_32:

(Start: 119 @26334 has 12 MA's), (Start: 187 @26268 has 221 MA's), (Start: 197 @26250 has 3 MA's), (212, 26193), (217, 26175), (229, 26145), (Start: 234 @26133 has 1 MA's), (274, 26007), (283, 25986), (299, 25956), (322, 25917), (334, 25878), (363, 25788), (387, 25728), (405, 25674), (461, 25536), (527, 25368), (569, 25305), (611, 25215), (629, 25179), (637, 25152), (659, 25098), (663, 25089), (768, 24879), (776, 24861), (791, 24849), (796, 24840),

Gene: Cappuccino\_43 Start: 31421, Stop: 32860, Start Num: 181

Candidate Starts for Cappuccino\_43:

(Start: 181 @31421 has 19 MA's), (Start: 222 @31532 has 1 MA's), (227, 31541), (256, 31604), (262, 31628), (265, 31637), (323, 31787), (325, 31796), (376, 31952), (379, 31958), (389, 31985), (410, 32045), (486, 32219), (491, 32234), (551, 32342), (640, 32525), (777, 32789), (785, 32804), (787, 32807),

Gene: CarolAnn\_40 Start: 33367, Stop: 34767, Start Num: 180

Candidate Starts for CarolAnn\_40:

(161, 33346), (Start: 180 @33367 has 37 MA's), (Start: 188 @33376 has 36 MA's), (227, 33496), (288, 33673), (334, 33766), (336, 33772), (345, 33799), (362, 33853), (404, 33970), (447, 34048), (487, 34147), (493, 34165), (497, 34174), (522, 34225), (543, 34252), (561, 34267), (607, 34333), (608, 34336), (615, 34357), (622, 34369), (624, 34372), (656, 34450), (682, 34507), (723, 34585), (735, 34603), (755, 34648), (759, 34654), (768, 34675), (801, 34729),

Gene: Caron\_62 Start: 38824, Stop: 40329, Start Num: 183

Candidate Starts for Caron\_62:

(1, 38068), (2, 38149), (8, 38335), (19, 38500), (144, 38776), (Start: 183 @38824 has 12 MA's), (253, 39016), (322, 39187), (421, 39433), (444, 39466), (452, 39481), (493, 39583), (569, 39715), (621, 39820), (851, 40324),

Gene: CartmannCramer\_37 Start: 31594, Stop: 33081, Start Num: 195

Candidate Starts for CartmannCramer\_37:

(Start: 98 @31498 has 29 MA's), (Start: 102 @31504 has 3 MA's), (Start: 107 @31510 has 10 MA's), (Start: 109 @31513 has 10 MA's), (Start: 119 @31528 has 12 MA's), (Start: 187 @31579 has 221 MA's), (Start: 195 @31594 has 10 MA's), (262, 31798), (264, 31804), (268, 31816), (269, 31825), (326, 31954), (329, 31963), (331, 31972), (366, 32080), (379, 32101), (384, 32113), (391, 32137), (404, 32179), (457, 32308), (466, 32326), (480, 32368), (500, 32425), (512, 32452), (525, 32479), (526, 32482), (533, 32494), (580, 32563), (606, 32596), (608, 32602), (622, 32635), (655, 32716), (660, 32731), (710, 32836), (766, 32950), (828, 33049), (840, 33073),

Gene: Cassia\_48 Start: 35110, Stop: 36528, Start Num: 180

Candidate Starts for Cassia\_48:

(Start: 163 @35092 has 10 MA's), (177, 35107), (Start: 180 @35110 has 37 MA's), (Start: 187 @35119 has 221 MA's), (Start: 234 @35257 has 1 MA's), (264, 35341), (317, 35452), (323, 35464), (325, 35473), (358, 35572), (370, 35614), (391, 35665), (404, 35704), (603, 36109), (629, 36166), (634, 36184), (638, 36196), (731, 36370),

Gene: CatBus\_39 Start: 30922, Stop: 32409, Start Num: 195

Candidate Starts for CatBus\_39:

(Start: 98 @30826 has 29 MA's), (Start: 102 @30832 has 3 MA's), (Start: 107 @30838 has 10 MA's), (Start: 109 @30841 has 10 MA's), (Start: 119 @30856 has 12 MA's), (Start: 187 @30907 has 221 MA's), (Start: 195 @30922 has 10 MA's), (262, 31126), (264, 31132), (269, 31153), (323, 31270), (326, 31282), (329, 31291), (331, 31300), (362, 31396), (366, 31408), (379, 31429), (384, 31441), (391, 31465), (457, 31636), (480, 31696), (500, 31753), (512, 31780), (525, 31807), (533, 31822), (580, 31891), (608, 31930), (622, 31963), (655, 32044), (660, 32059), (710, 32164), (766, 32278), (828, 32377), (840, 32401),

Gene: Caviar\_34 Start: 27229, Stop: 25721, Start Num: 187

Candidate Starts for Caviar\_34:

(Start: 175 @27244 has 3 MA's), (Start: 187 @27229 has 221 MA's), (Start: 190 @27223 has 3 MA's), (Start: 191 @27220 has 17 MA's), (249, 27052), (252, 27046), (293, 26929), (325, 26869), (362, 26752), (379, 26713), (389, 26686), (392, 26674), (437, 26539), (492, 26386), (532, 26296), (557, 26257), (614, 26167), (633, 26125), (637, 26113), (656, 26068), (664, 26047), (771, 25834), (785, 25813),

Gene: Celery\_54 Start: 36669, Stop: 38081, Start Num: 179

Candidate Starts for Celery\_54:

(Start: 179 @36669 has 5 MA's), (198, 36699), (Start: 220 @36780 has 1 MA's), (Start: 224 @36789 has 1 MA's), (253, 36855), (256, 36864), (268, 36906), (269, 36915), (271, 36927), (281, 36954), (307, 36987), (322, 37026), (323, 37029), (329, 37050), (380, 37176), (401, 37239), (448, 37350), (454, 37365), (471, 37410), (511, 37503), (513, 37509), (522, 37530), (563, 37587), (608, 37656), (613, 37671), (641, 37734), (676, 37797), (688, 37812), (705, 37845), (710, 37860), (744, 37923), (768, 37986),

Gene: Celeste\_51 Start: 35002, Stop: 36645, Start Num: 55

Candidate Starts for Celeste\_51:

(Start: 55 @35002 has 7 MA's), (Start: 89 @35068 has 25 MA's), (Start: 197 @35188 has 3 MA's), (227, 35287), (Start: 234 @35305 has 1 MA's), (277, 35437), (278, 35440), (321, 35512), (322, 35521), (323, 35524), (373, 35677), (396, 35734), (398, 35737), (400, 35746), (408, 35770), (448, 35839), (497, 35974), (525, 36040), (546, 36070), (611, 36169), (622, 36193), (628, 36202), (635, 36226), (664, 36298), (759, 36487), (770, 36517), (774, 36526), (786, 36550), (793, 36565), (804, 36580),

Gene: Celestiallunch\_33 Start: 26340, Stop: 24784, Start Num: 168

Candidate Starts for Celestiallunch\_33:

(Start: 168 @26340 has 2 MA's), (185, 26328), (218, 26226), (Start: 234 @26187 has 1 MA's), (269, 26082), (276, 26058), (294, 26016), (321, 25944), (322, 25935), (338, 25884), (358, 25824), (396, 25719), (410, 25680), (414, 25665), (415, 25662), (423, 25638), (447, 25596), (453, 25578), (462, 25548), (471, 25530), (479, 25506), (525, 25389), (542, 25359), (603, 25278), (606, 25272), (633, 25206), (637, 25194), (652, 25161), (672, 25113), (688, 25080), (696, 25065), (710, 25035), (714, 25026), (718, 25020), (763, 24933), (770, 24912), (774, 24903), (832, 24816),

Gene: Celia\_50 Start: 33292, Stop: 34872, Start Num: 106

Candidate Starts for Celia\_50:

(Start: 106 @33292 has 3 MA's), (Start: 114 @33304 has 1 MA's), (Start: 179 @33379 has 5 MA's), (211, 33466), (246, 33556), (260, 33601), (271, 33649), (296, 33709), (326, 33778), (349, 33844),

(439, 34075), (454, 34108), (460, 34129), (494, 34207), (603, 34399), (614, 34429), (627, 34453), (629, 34459), (678, 34582), (721, 34663), (792, 34807),

Gene: Cen1621\_56 Start: 37861, Stop: 39441, Start Num: 151

Candidate Starts for Cen1621\_56:

(Start: 151 @37861 has 2 MA's), (229, 38014), (256, 38071), (280, 38158), (322, 38272), (337, 38320), (338, 38323), (348, 38353), (404, 38518), (449, 38638), (454, 38650), (551, 38890), (596, 38965), (681, 39169), (746, 39283), (780, 39349), (785, 39358),

Gene: CentreCat\_33 Start: 26640, Stop: 25126, Start Num: 171

Candidate Starts for CentreCat\_33:

(Start: 134 @26682 has 1 MA's), (Start: 162 @26649 has 16 MA's), (Start: 171 @26640 has 112 MA's), (239, 26478), (262, 26412), (268, 26394), (294, 26319), (305, 26295), (320, 26256), (321, 26253), (347, 26166), (387, 26052), (391, 26040), (462, 25857), (498, 25746), (521, 25695), (603, 25566), (607, 25557), (637, 25482), (639, 25476), (696, 25353), (714, 25314), (794, 25164), (805, 25149),

Gene: Chadwick\_32 Start: 25311, Stop: 23830, Start Num: 187

Candidate Starts for Chadwick\_32:

(155, 25338), (Start: 187 @25311 has 221 MA's), (Start: 201 @25275 has 3 MA's), (Start: 234 @25176 has 1 MA's), (264, 25092), (274, 25050), (285, 25026), (299, 24999), (322, 24960), (329, 24936), (379, 24792), (489, 24498), (507, 24453), (521, 24423), (533, 24399), (546, 24384), (590, 24324), (611, 24273), (614, 24264), (637, 24210), (652, 24177), (680, 24111), (692, 24096), (714, 24048), (776, 23919), (836, 23841),

Gene: Chanagan\_36 Start: 28977, Stop: 30479, Start Num: 187

Candidate Starts for Chanagan\_36:

(Start: 89 @28887 has 25 MA's), (Start: 130 @28932 has 3 MA's), (Start: 187 @28977 has 221 MA's), (Start: 195 @28992 has 10 MA's), (239, 29124), (262, 29196), (264, 29202), (326, 29352), (329, 29361), (331, 29370), (366, 29478), (379, 29499), (384, 29511), (391, 29535), (404, 29577), (457, 29706), (480, 29766), (500, 29823), (512, 29850), (525, 29877), (533, 29892), (580, 29961), (606, 29994), (608, 30000), (622, 30033), (655, 30114), (660, 30129), (710, 30234), (766, 30348), (828, 30447), (840, 30471),

Gene: Chaph\_33 Start: 26648, Stop: 25134, Start Num: 171

Candidate Starts for Chaph\_33:

(Start: 134 @26690 has 1 MA's), (Start: 162 @26657 has 16 MA's), (Start: 171 @26648 has 112 MA's), (239, 26486), (262, 26420), (268, 26402), (294, 26327), (305, 26303), (320, 26264), (321, 26261), (347, 26174), (387, 26060), (391, 26048), (462, 25865), (498, 25754), (521, 25703), (603, 25574), (607, 25565), (637, 25490), (639, 25484), (696, 25361), (714, 25322), (794, 25172), (805, 25157),

Gene: Chargerpower\_35 Start: 26253, Stop: 24691, Start Num: 187

Candidate Starts for Chargerpower\_35:

(Start: 187 @26253 has 221 MA's), (Start: 234 @26118 has 1 MA's), (325, 25890), (378, 25737), (379, 25734), (387, 25710), (396, 25686), (410, 25647), (415, 25629), (461, 25518), (471, 25497), (521, 25365), (522, 25362), (525, 25356), (533, 25341), (539, 25323), (668, 25056), (680, 25029), (707, 24984), (709, 24978), (714, 24966), (746, 24909), (765, 24867), (768, 24855), (774, 24843), (776, 24837), (816, 24786),

Gene: Charm\_33 Start: 26356, Stop: 24809, Start Num: 182

Candidate Starts for Charm\_33:

(92, 26449), (Start: 135 @26401 has 2 MA's), (155, 26380), (Start: 162 @26371 has 16 MA's), (Start: 182 @26356 has 3 MA's), (198, 26326), (269, 26107), (297, 26035), (321, 25969), (322, 25960), (328, 25939), (338, 25909), (362, 25831), (363, 25828), (402, 25723), (414, 25690), (448, 25615), (462, 25573), (471, 25555), (479, 25531), (525, 25414), (542, 25384), (603, 25303), (633, 25231), (637, 25219), (688, 25105), (696, 25090), (728, 25027), (731, 25021), (746, 24994), (763, 24958), (764, 24955), (770, 24937), (801, 24886),

Gene: CheeseSpider\_44 Start: 30163, Stop: 31554, Start Num: 188

Candidate Starts for CheeseSpider\_44:

(Start: 188 @30163 has 36 MA's), (202, 30205), (Start: 206 @30220 has 9 MA's), (262, 30376), (288, 30460), (342, 30577), (345, 30586), (362, 30640), (396, 30730), (404, 30757), (447, 30835), (470, 30898), (487, 30934), (497, 30961), (522, 31012), (543, 31039), (561, 31054), (615, 31144), (622, 31156), (624, 31159), (682, 31294), (719, 31363), (723, 31372), (759, 31441), (801, 31516),

Gene: Chucky\_50 Start: 36208, Stop: 37821, Start Num: 89

Candidate Starts for Chucky\_50:

(Start: 55 @36142 has 7 MA's), (Start: 82 @36199 has 5 MA's), (Start: 89 @36208 has 25 MA's), (Start: 197 @36355 has 3 MA's), (227, 36454), (Start: 234 @36472 has 1 MA's), (255, 36523), (277, 36604), (278, 36607), (321, 36679), (322, 36688), (323, 36691), (362, 36817), (373, 36844), (400, 36913), (415, 36958), (454, 37027), (462, 37054), (481, 37102), (497, 37150), (513, 37189), (525, 37216), (546, 37246), (622, 37369), (646, 37429), (664, 37474), (729, 37603), (754, 37654), (759, 37663), (774, 37702), (786, 37726), (793, 37741), (804, 37756), (815, 37771),

Gene: Chupacabra\_33 Start: 26669, Stop: 25161, Start Num: 187

Candidate Starts for Chupacabra\_33:

(Start: 187 @26669 has 221 MA's), (Start: 197 @26651 has 3 MA's), (198, 26645), (225, 26558), (Start: 234 @26534 has 1 MA's), (293, 26369), (362, 26192), (379, 26153), (384, 26141), (387, 26129), (389, 26126), (392, 26114), (479, 25868), (485, 25847), (546, 25718), (557, 25697), (615, 25604), (629, 25580), (633, 25565), (656, 25508), (664, 25487),

Gene: Ciao\_37 Start: 29363, Stop: 30862, Start Num: 195

Candidate Starts for Ciao\_37:

(Start: 98 @29267 has 29 MA's), (Start: 102 @29273 has 3 MA's), (Start: 107 @29279 has 10 MA's), (Start: 109 @29282 has 10 MA's), (Start: 119 @29297 has 12 MA's), (Start: 187 @29348 has 221 MA's), (Start: 195 @29363 has 10 MA's), (262, 29567), (264, 29573), (269, 29594), (323, 29711), (326, 29723), (329, 29732), (331, 29741), (366, 29849), (379, 29870), (384, 29882), (391, 29906), (404, 29948), (457, 30077), (480, 30137), (500, 30194), (512, 30221), (525, 30248), (526, 30251), (533, 30263), (580, 30332), (606, 30365), (608, 30371), (622, 30404), (655, 30485), (660, 30500), (710, 30605), (766, 30719),

Gene: Cici\_33 Start: 26641, Stop: 25127, Start Num: 171

Candidate Starts for Cici\_33:

(Start: 134 @26683 has 1 MA's), (Start: 162 @26650 has 16 MA's), (Start: 171 @26641 has 112 MA's), (239, 26479), (262, 26413), (268, 26395), (294, 26320), (320, 26257), (321, 26254), (347, 26167), (391, 26041), (462, 25858), (480, 25801), (498, 25747), (521, 25696), (603, 25567), (607, 25558), (637, 25483), (639, 25477), (692, 25363), (696, 25354), (714, 25315), (794, 25165), (805, 25150),

Gene: Cindaradix\_32 Start: 26384, Stop: 24879, Start Num: 176

Candidate Starts for Cindaradix\_32:

(34, 26615), (39, 26597), (41, 26588), (Start: 119 @26441 has 12 MA's), (Start: 176 @26384 has 15 MA's), (Start: 187 @26375 has 221 MA's), (Start: 197 @26357 has 3 MA's), (212, 26300), (217, 26282), (229, 26252), (Start: 234 @26240 has 1 MA's), (274, 26114), (283, 26093), (299, 26063), (322,

26024), (363, 25895), (387, 25835), (405, 25781), (461, 25643), (484, 25580), (569, 25412), (571, 25409), (629, 25286), (637, 25259), (659, 25205), (663, 25196), (768, 24986), (776, 24968), (791, 24956), (796, 24947),

Gene: Cintron\_33 Start: 26703, Stop: 25171, Start Num: 171

Candidate Starts for Cintron\_33:

(Start: 134 @26745 has 1 MA's), (Start: 162 @26712 has 16 MA's), (Start: 171 @26703 has 112 MA's), (239, 26541), (262, 26475), (268, 26457), (294, 26382), (305, 26358), (320, 26319), (321, 26316), (347, 26229), (391, 26103), (396, 26091), (462, 25920), (498, 25809), (521, 25758), (569, 25659), (603, 25611), (607, 25602), (637, 25527), (639, 25521), (696, 25398), (714, 25359), (794, 25209), (805, 25194),

Gene: Citius\_33 Start: 26652, Stop: 25138, Start Num: 171

Candidate Starts for Citius\_33:

(Start: 134 @26694 has 1 MA's), (Start: 162 @26661 has 16 MA's), (Start: 171 @26652 has 112 MA's), (239, 26490), (262, 26424), (268, 26406), (294, 26331), (305, 26307), (320, 26268), (321, 26265), (347, 26178), (387, 26064), (391, 26052), (462, 25869), (498, 25758), (521, 25707), (603, 25578), (607, 25569), (637, 25494), (639, 25488), (696, 25365), (714, 25326), (794, 25176), (805, 25161),

Gene: Clarenza\_33 Start: 26634, Stop: 25120, Start Num: 171

Candidate Starts for Clarenza\_33:

(Start: 134 @26676 has 1 MA's), (Start: 162 @26643 has 16 MA's), (Start: 171 @26634 has 112 MA's), (239, 26472), (262, 26406), (268, 26388), (294, 26313), (305, 26289), (320, 26250), (321, 26247), (347, 26160), (387, 26046), (391, 26034), (462, 25851), (498, 25740), (521, 25689), (603, 25560), (607, 25551), (637, 25476), (639, 25470), (696, 25347), (714, 25308), (794, 25158), (805, 25143),

Gene: Cocoaberry\_33 Start: 26641, Stop: 25127, Start Num: 171

Candidate Starts for Cocoaberry\_33:

(Start: 134 @26683 has 1 MA's), (Start: 162 @26650 has 16 MA's), (Start: 171 @26641 has 112 MA's), (239, 26479), (262, 26413), (268, 26395), (294, 26320), (305, 26296), (320, 26257), (321, 26254), (347, 26167), (387, 26053), (391, 26041), (462, 25858), (498, 25747), (521, 25696), (603, 25567), (607, 25558), (637, 25483), (639, 25477), (696, 25354), (714, 25315), (794, 25165), (805, 25150),

Gene: Collard\_38 Start: 31381, Stop: 32826, Start Num: 170

Candidate Starts for Collard\_38:

(33, 31129), (50, 31192), (76, 31246), (132, 31333), (Start: 170 @31381 has 8 MA's), (Start: 206 @31456 has 9 MA's), (210, 31468), (253, 31579), (254, 31582), (263, 31615), (269, 31639), (292, 31702), (329, 31777), (436, 32053), (543, 32275), (548, 32287), (591, 32335), (603, 32365), (611, 32386), (622, 32410), (693, 32563), (731, 32644), (736, 32650), (742, 32662), (755, 32698), (759, 32704), (768, 32725), (775, 32740), (777, 32746), (808, 32794), (815, 32803),

Gene: Community\_53 Start: 37437, Stop: 38921, Start Num: 168

Candidate Starts for Community\_53:

(Start: 168 @37437 has 2 MA's), (Start: 176 @37446 has 15 MA's), (309, 37767), (399, 38046), (461, 38220), (559, 38412), (669, 38649), (762, 38811),

Gene: Conan\_52 Start: 36624, Stop: 38183, Start Num: 106

Candidate Starts for Conan\_52:

(81, 36582), (Start: 106 @36624 has 3 MA's), (211, 36798), (253, 36909), (278, 36999), (296, 37041), (323, 37098), (326, 37110), (376, 37248), (414, 37359), (441, 37410), (460, 37461), (494, 37539),

(614, 37761), (624, 37779), (627, 37785), (634, 37809), (660, 37878), (685, 37929), (711, 37983), (720, 37995), (733, 38019), (769, 38097), (792, 38142), (803, 38154),

Gene: ConceptII\_39 Start: 30495, Stop: 32009, Start Num: 187

Candidate Starts for ConceptII\_39:

(Start: 98 @30414 has 29 MA's), (Start: 102 @30420 has 3 MA's), (Start: 107 @30426 has 10 MA's), (Start: 109 @30429 has 10 MA's), (Start: 119 @30444 has 12 MA's), (Start: 187 @30495 has 221 MA's), (264, 30720), (326, 30870), (329, 30879), (331, 30888), (366, 30996), (379, 31017), (384, 31029), (391, 31053), (404, 31095), (457, 31224), (480, 31284), (500, 31341), (512, 31368), (525, 31395), (533, 31410), (606, 31512), (608, 31518), (622, 31551), (625, 31554), (655, 31632), (660, 31647), (710, 31752), (766, 31866),

Gene: Connomayer\_33 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for Connomayer\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Conspiracy\_30 Start: 25686, Stop: 24193, Start Num: 187

Candidate Starts for Conspiracy\_30:

(Start: 187 @25686 has 221 MA's), (Start: 200 @25653 has 1 MA's), (Start: 201 @25650 has 3 MA's), (Start: 206 @25632 has 9 MA's), (Start: 234 @25551 has 1 MA's), (281, 25407), (294, 25380), (323, 25332), (379, 25167), (387, 25143), (389, 25140), (396, 25119), (471, 24930), (546, 24759), (614, 24624), (633, 24582), (637, 24570), (673, 24486), (680, 24471), (692, 24456), (776, 24279), (806, 24249), (829, 24216),

Gene: Coog\_30 Start: 25790, Stop: 24333, Start Num: 201

Candidate Starts for Coog\_30:

(Start: 187 @25826 has 221 MA's), (Start: 200 @25793 has 1 MA's), (Start: 201 @25790 has 3 MA's), (Start: 206 @25772 has 9 MA's), (Start: 234 @25691 has 1 MA's), (281, 25547), (294, 25520), (323, 25472), (379, 25307), (387, 25283), (389, 25280), (396, 25259), (415, 25202), (471, 25070), (525, 24929), (546, 24899), (633, 24722), (637, 24710), (673, 24626), (680, 24611), (692, 24596), (776, 24419), (806, 24389), (829, 24356),

Gene: Corvo\_38 Start: 30261, Stop: 31844, Start Num: 98

Candidate Starts for Corvo\_38:

(Start: 98 @30261 has 29 MA's), (Start: 102 @30267 has 3 MA's), (Start: 107 @30273 has 10 MA's), (Start: 109 @30276 has 10 MA's), (Start: 119 @30291 has 12 MA's), (Start: 187 @30342 has 221 MA's), (Start: 195 @30357 has 10 MA's), (198, 30366), (262, 30561), (264, 30567), (268, 30579), (269, 30588), (326, 30717), (329, 30726), (331, 30735), (366, 30843), (379, 30864), (384, 30876), (391, 30900), (457, 31071), (480, 31131), (500, 31188), (525, 31242), (526, 31245), (533, 31257), (608, 31365), (622, 31398), (637, 31437), (655, 31479), (660, 31494), (766, 31713), (828, 31812), (840, 31836),

Gene: CosmicSans\_29 Start: 23636, Stop: 22140, Start Num: 165

Candidate Starts for CosmicSans\_29:

(Start: 165 @23636 has 35 MA's), (Start: 187 @23615 has 221 MA's), (Start: 190 @23609 has 3 MA's), (Start: 234 @23480 has 1 MA's), (252, 23432), (329, 23240), (364, 23129), (389, 23069), (392, 23057), (414, 22994), (429, 22964), (443, 22931), (452, 22910), (461, 22880), (469, 22865), (471, 22859), (485, 22811), (497, 22778), (521, 22721), (546, 22682), (548, 22676), (611, 22580), (628, 22547), (634, 22526), (637, 22517), (714, 22355),

Gene: Crewmate\_55 Start: 36855, Stop: 38273, Start Num: 180

Candidate Starts for Crewmate\_55:

(Start: 163 @36837 has 10 MA's), (177, 36852), (Start: 180 @36855 has 37 MA's), (Start: 187 @36864 has 221 MA's), (225, 36978), (Start: 234 @37002 has 1 MA's), (244, 37023), (264, 37086), (277, 37134), (317, 37197), (323, 37209), (358, 37317), (370, 37359), (391, 37410), (404, 37449), (603, 37854), (634, 37929), (638, 37941), (683, 38034), (729, 38112), (777, 38202),

Gene: Crispicous1\_36 Start: 28941, Stop: 30443, Start Num: 187

Candidate Starts for Crispicous1\_36:

(Start: 98 @28860 has 29 MA's), (Start: 102 @28866 has 3 MA's), (Start: 107 @28872 has 10 MA's), (Start: 109 @28875 has 10 MA's), (Start: 119 @28890 has 12 MA's), (Start: 187 @28941 has 221 MA's), (Start: 222 @29049 has 1 MA's), (262, 29160), (264, 29166), (279, 29220), (323, 29304), (326, 29316), (329, 29325), (331, 29334), (366, 29442), (379, 29463), (384, 29475), (391, 29499), (404, 29541), (457, 29670), (480, 29730), (500, 29787), (512, 29814), (525, 29841), (526, 29844), (533, 29856), (580, 29925), (606, 29958), (608, 29964), (622, 29997), (655, 30078), (660, 30093), (766, 30312), (828, 30411), (840, 30435),

Gene: Cuco\_30 Start: 25776, Stop: 24283, Start Num: 187

Candidate Starts for Cuco\_30:

(Start: 187 @25776 has 221 MA's), (Start: 200 @25743 has 1 MA's), (Start: 201 @25740 has 3 MA's), (Start: 206 @25722 has 9 MA's), (Start: 234 @25641 has 1 MA's), (281, 25497), (294, 25470), (323, 25422), (379, 25257), (387, 25233), (389, 25230), (396, 25209), (471, 25020), (525, 24879), (546, 24849), (633, 24672), (637, 24660), (673, 24576), (680, 24561), (692, 24546), (776, 24369), (806, 24339), (829, 24306),

Gene: Cueyllyss\_37 Start: 29520, Stop: 31019, Start Num: 187

Candidate Starts for Cueyllyss\_37:

(Start: 130 @29475 has 3 MA's), (Start: 187 @29520 has 221 MA's), (Start: 195 @29535 has 10 MA's), (198, 29544), (239, 29667), (262, 29739), (264, 29745), (279, 29799), (326, 29895), (329, 29904), (331, 29913), (366, 30021), (379, 30042), (384, 30054), (391, 30078), (404, 30120), (457, 30249), (480, 30309), (500, 30366), (512, 30393), (525, 30420), (526, 30423), (533, 30435), (606, 30534), (622, 30573), (655, 30654), (660, 30669), (710, 30774), (766, 30888), (828, 30987), (840, 31011),

Gene: Cumberbatch\_30 Start: 22964, Stop: 21345, Start Num: 158

Candidate Starts for Cumberbatch\_30:

(Start: 158 @22964 has 5 MA's), (250, 22760), (257, 22742), (335, 22538), (388, 22355), (405, 22304), (435, 22238), (438, 22229), (485, 22088), (493, 22064), (516, 22010), (545, 21944), (593, 21839), (607, 21803), (645, 21716), (667, 21662), (713, 21560), (752, 21491), (763, 21467), (766, 21455), (809, 21404),

Gene: Curiosium\_43 Start: 31007, Stop: 32419, Start Num: 178

Candidate Starts for Curiosium\_43:

(Start: 170 @30998 has 8 MA's), (Start: 178 @31007 has 1 MA's), (Start: 191 @31028 has 17 MA's), (213, 31100), (236, 31157), (253, 31199), (254, 31202), (262, 31232), (264, 31238), (287, 31310), (340, 31433), (369, 31511), (389, 31541), (404, 31589), (448, 31658), (452, 31667), (460, 31694), (469, 31709), (487, 31748), (488, 31751), (499, 31778), (510, 31805), (544, 31859), (549, 31871), (553, 31877), (572, 31901), (615, 31994), (622, 32006), (624, 32009), (629, 32018), (634, 32036), (658, 32093), (659, 32096), (700, 32168), (707, 32183), (755, 32285), (777, 32330), (778, 32333), (833, 32414),

Gene: CurlyFries\_42 Start: 31973, Stop: 33400, Start Num: 182

Candidate Starts for CurlyFries\_42:

(60, 31793), (65, 31802), (71, 31817), (75, 31823), (Start: 112 @31886 has 2 MA's), (Start: 182 @31973 has 3 MA's), (Start: 188 @31979 has 36 MA's), (198, 32003), (Start: 206 @32036 has 9 MA's), (223, 32090), (227, 32099), (288, 32279), (323, 32336), (358, 32444), (372, 32489), (443, 32651), (451, 32669), (452, 32672), (588, 32918), (622, 32999), (646, 33059), (682, 33140), (755, 33281), (760, 33290), (770, 33314), (791, 33350),

Gene: Cyan\_50 Start: 35259, Stop: 36668, Start Num: 187

Candidate Starts for Cyan\_50:

(Start: 187 @35259 has 221 MA's), (225, 35373), (Start: 234 @35397 has 1 MA's), (264, 35481), (317, 35592), (323, 35604), (325, 35613), (358, 35712), (391, 35805), (396, 35817), (486, 36003), (629, 36306), (634, 36324), (638, 36336), (655, 36369), (729, 36507),

Gene: DD5\_38 Start: 30268, Stop: 31770, Start Num: 187

Candidate Starts for DD5\_38:

(Start: 98 @30187 has 29 MA's), (Start: 102 @30193 has 3 MA's), (Start: 107 @30199 has 10 MA's), (Start: 109 @30202 has 10 MA's), (Start: 119 @30217 has 12 MA's), (Start: 187 @30268 has 221 MA's), (Start: 191 @30277 has 17 MA's), (Start: 195 @30283 has 10 MA's), (198, 30292), (262, 30487), (264, 30493), (269, 30514), (323, 30631), (326, 30643), (329, 30652), (331, 30661), (366, 30769), (379, 30790), (384, 30802), (391, 30826), (404, 30868), (457, 30997), (480, 31057), (500, 31114), (525, 31168), (533, 31183), (606, 31285), (608, 31291), (655, 31405), (660, 31420), (766, 31639), (828, 31738), (840, 31762),

Gene: DaRealMyers\_29 Start: 24708, Stop: 23053, Start Num: 145

Candidate Starts for DaRealMyers\_29:

(Start: 145 @24708 has 12 MA's), (250, 24489), (330, 24282), (353, 24222), (403, 24042), (460, 23898), (468, 23859), (469, 23856), (516, 23727), (559, 23643), (581, 23589), (660, 23391), (667, 23376), (707, 23292), (744, 23223), (763, 23181), (772, 23154), (800, 23109), (816, 23085),

Gene: Dadosky\_39 Start: 31274, Stop: 32719, Start Num: 170

Candidate Starts for Dadosky\_39:

(59, 31103), (76, 31139), (132, 31226), (Start: 170 @31274 has 8 MA's), (Start: 206 @31349 has 9 MA's), (210, 31361), (253, 31472), (254, 31475), (263, 31508), (269, 31532), (292, 31595), (329, 31670), (436, 31946), (543, 32168), (548, 32180), (591, 32228), (603, 32258), (611, 32279), (622, 32303), (693, 32456), (731, 32537), (736, 32543), (742, 32555), (755, 32591), (759, 32597), (767, 32615), (768, 32618), (775, 32633), (777, 32639), (808, 32687), (815, 32696),

Gene: Daishi\_35 Start: 26150, Stop: 24582, Start Num: 171

Candidate Starts for Daishi\_35:

(64, 26300), (70, 26285), (139, 26186), (Start: 171 @26150 has 112 MA's), (269, 25895), (276, 25871), (300, 25811), (320, 25763), (321, 25760), (347, 25673), (353, 25661), (358, 25640), (364, 25616), (391, 25547), (415, 25478), (417, 25469), (462, 25364), (471, 25319), (521, 25187), (567, 25103), (606, 25046), (696, 24839), (765, 24698),

Gene: Danforth\_29 Start: 24993, Stop: 23491, Start Num: 171

Candidate Starts for Danforth\_29:

(Start: 109 @25062 has 10 MA's), (Start: 134 @25035 has 1 MA's), (139, 25029), (Start: 171 @24993 has 112 MA's), (Start: 234 @24843 has 1 MA's), (269, 24738), (294, 24672), (300, 24654), (320, 24612), (321, 24609), (347, 24522), (391, 24396), (423, 24303), (448, 24255), (462, 24213), (481, 24153), (521, 24051), (603, 23916), (633, 23844), (677, 23739), (692, 23712), (696, 23703), (763, 23580), (788, 23532),

Gene: Danzina\_52 Start: 35300, Stop: 36943, Start Num: 55

Candidate Starts for Danzina\_52:

(Start: 55 @35300 has 7 MA's), (Start: 89 @35366 has 25 MA's), (Start: 197 @35486 has 3 MA's), (Start: 222 @35576 has 1 MA's), (Start: 234 @35603 has 1 MA's), (255, 35654), (277, 35735), (278, 35738), (321, 35810), (322, 35819), (323, 35822), (373, 35975), (396, 36032), (398, 36035), (400, 36044), (408, 36068), (448, 36137), (497, 36272), (525, 36338), (533, 36353), (546, 36368), (611, 36467), (622, 36491), (628, 36500), (635, 36524), (664, 36596), (759, 36785), (770, 36815), (774, 36824), (786, 36848), (793, 36863), (804, 36878),

Gene: Darolandstone\_29 Start: 24567, Stop: 22855, Start Num: 145

Candidate Starts for Darolandstone\_29:

(Start: 145 @24567 has 12 MA's), (198, 24492), (250, 24351), (261, 24318), (265, 24303), (322, 24174), (325, 24162), (327, 24156), (387, 23952), (405, 23895), (413, 23874), (414, 23871), (419, 23859), (432, 23838), (532, 23559), (559, 23505), (581, 23451), (593, 23424), (594, 23421), (613, 23370), (659, 23262), (661, 23256), (667, 23244), (683, 23205), (707, 23160), (739, 23103), (752, 23073), (772, 23022), (809, 22968), (816, 22959), (837, 22929),

Gene: DARTHPhader\_36 Start: 28430, Stop: 26865, Start Num: 187

Candidate Starts for DARTHPhader\_36:

(Start: 187 @28430 has 221 MA's), (198, 28406), (Start: 234 @28295 has 1 MA's), (239, 28283), (278, 28160), (378, 27911), (387, 27884), (396, 27860), (410, 27821), (415, 27803), (439, 27749), (461, 27692), (497, 27593), (507, 27569), (522, 27536), (525, 27530), (533, 27515), (535, 27509), (539, 27497), (637, 27302), (656, 27257), (680, 27203), (714, 27140), (746, 27083), (765, 27041), (809, 26969), (816, 26960), (831, 26939), (848, 26876),

Gene: Dattran\_52 Start: 35171, Stop: 36814, Start Num: 55

Candidate Starts for Dattran\_52:

(Start: 55 @35171 has 7 MA's), (Start: 89 @35237 has 25 MA's), (Start: 197 @35357 has 3 MA's), (227, 35456), (Start: 234 @35474 has 1 MA's), (255, 35525), (277, 35606), (278, 35609), (321, 35681), (322, 35690), (323, 35693), (396, 35903), (398, 35906), (400, 35915), (497, 36143), (525, 36209), (546, 36239), (611, 36338), (622, 36362), (628, 36371), (635, 36395), (664, 36467), (759, 36656), (770, 36686), (774, 36695), (786, 36719), (793, 36734), (804, 36749),

Gene: Datway\_33 Start: 26665, Stop: 25142, Start Num: 162

Candidate Starts for Datway\_33:

(Start: 134 @26698 has 1 MA's), (Start: 162 @26665 has 16 MA's), (Start: 171 @26656 has 112 MA's), (Start: 200 @26611 has 1 MA's), (239, 26494), (262, 26428), (268, 26410), (294, 26335), (320, 26272), (321, 26269), (347, 26182), (391, 26056), (462, 25873), (480, 25816), (498, 25762), (521, 25711), (603, 25582), (607, 25573), (637, 25498), (639, 25492), (692, 25378), (696, 25369), (714, 25330), (794, 25180), (805, 25165),

Gene: Daudau\_52 Start: 37034, Stop: 38455, Start Num: 163

Candidate Starts for Daudau\_52:

(Start: 102 @36953 has 3 MA's), (Start: 116 @36974 has 3 MA's), (Start: 157 @37025 has 5 MA's), (Start: 163 @37034 has 10 MA's), (264, 37271), (326, 37409), (369, 37538), (395, 37586), (448, 37697), (452, 37706), (460, 37733), (470, 37754), (471, 37757), (489, 37796), (494, 37811), (578, 37955), (621, 38039), (674, 38156), (695, 38192), (720, 38246), (721, 38249), (768, 38348), (807, 38405), (811, 38411),

Gene: Deano\_33 Start: 26645, Stop: 25131, Start Num: 171

Candidate Starts for Deano\_33:

(Start: 134 @26687 has 1 MA's), (Start: 162 @26654 has 16 MA's), (Start: 171 @26645 has 112 MA's), (239, 26483), (262, 26417), (268, 26399), (294, 26324), (305, 26300), (320, 26261), (321, 26258), (347, 26171), (387, 26057), (391, 26045), (462, 25862), (498, 25751), (521, 25700), (603,

25571), (607, 25562), (637, 25487), (639, 25481), (696, 25358), (714, 25319), (794, 25169), (805, 25154),

Gene: Dexers\_50 Start: 36616, Stop: 38022, Start Num: 179

Candidate Starts for Dexers\_50:

(159, 36595), (Start: 179 @36616 has 5 MA's), (198, 36646), (256, 36811), (261, 36829), (268, 36853), (269, 36862), (271, 36874), (321, 36964), (322, 36973), (323, 36976), (329, 36997), (381, 37126), (401, 37186), (448, 37297), (471, 37357), (530, 37489), (543, 37504), (609, 37606), (652, 37702), (688, 37759), (728, 37843), (738, 37858), (744, 37870), (777, 37951), (812, 38002),

Gene: Dexes\_37 Start: 29719, Stop: 31221, Start Num: 187

Candidate Starts for Dexes\_37:

(26, 29482), (29, 29485), (36, 29500), (53, 29563), (Start: 98 @29638 has 29 MA's), (Start: 102 @29644 has 3 MA's), (Start: 107 @29650 has 10 MA's), (Start: 109 @29653 has 10 MA's), (Start: 119 @29668 has 12 MA's), (Start: 187 @29719 has 221 MA's), (264, 29944), (269, 29965), (293, 30028), (326, 30094), (329, 30103), (331, 30112), (366, 30220), (379, 30241), (384, 30253), (391, 30277), (404, 30319), (457, 30448), (480, 30508), (500, 30565), (512, 30592), (525, 30619), (526, 30622), (533, 30634), (606, 30736), (608, 30742), (622, 30775), (655, 30856), (660, 30871), (766, 31090), (828, 31189), (840, 31213),

Gene: Dhanush\_33 Start: 26640, Stop: 25126, Start Num: 171

Candidate Starts for Dhanush\_33:

(Start: 134 @26682 has 1 MA's), (Start: 162 @26649 has 16 MA's), (Start: 171 @26640 has 112 MA's), (239, 26478), (262, 26412), (268, 26394), (294, 26319), (305, 26295), (320, 26256), (321, 26253), (347, 26166), (387, 26052), (391, 26040), (462, 25857), (498, 25746), (521, 25695), (603, 25566), (607, 25557), (637, 25482), (639, 25476), (696, 25353), (714, 25314), (794, 25164), (805, 25149),

Gene: Diminimus\_131 Start: 69072, Stop: 67612, Start Num: 140

Candidate Starts for Diminimus\_131:

(Start: 107 @69114 has 10 MA's), (Start: 133 @69081 has 1 MA's), (Start: 140 @69072 has 21 MA's), (198, 69000), (225, 68919), (245, 68877), (253, 68853), (271, 68781), (322, 68664), (340, 68601), (375, 68517), (381, 68505), (396, 68463), (401, 68445), (485, 68283), (492, 68262), (513, 68211), (532, 68184), (551, 68157), (624, 68037), (695, 67887), (733, 67809), (753, 67764), (778, 67707),

Gene: Dinger\_29 Start: 23598, Stop: 22111, Start Num: 187

Candidate Starts for Dinger\_29:

(Start: 187 @23598 has 221 MA's), (Start: 190 @23592 has 3 MA's), (Start: 234 @23463 has 1 MA's), (252, 23415), (329, 23223), (340, 23184), (364, 23112), (389, 23052), (392, 23040), (429, 22947), (443, 22914), (452, 22893), (457, 22875), (461, 22863), (469, 22848), (471, 22842), (485, 22794), (497, 22761), (521, 22704), (546, 22665), (548, 22659), (634, 22509), (702, 22368), (714, 22338), (836, 22122),

Gene: DirtDevil\_39 Start: 30730, Stop: 32217, Start Num: 195

Candidate Starts for DirtDevil\_39:

(Start: 98 @30634 has 29 MA's), (Start: 102 @30640 has 3 MA's), (Start: 107 @30646 has 10 MA's), (Start: 109 @30649 has 10 MA's), (Start: 119 @30664 has 12 MA's), (Start: 187 @30715 has 221 MA's), (Start: 195 @30730 has 10 MA's), (262, 30934), (264, 30940), (269, 30961), (323, 31078), (326, 31090), (329, 31099), (331, 31108), (362, 31204), (366, 31216), (379, 31237), (384, 31249), (391, 31273), (457, 31444), (480, 31504), (500, 31561), (512, 31588), (525, 31615), (533, 31630), (580, 31699), (608, 31738), (622, 31771), (655, 31852), (660, 31867), (710, 31972), (766, 32086), (828, 32185), (840, 32209),

Gene: DirtyDunning\_33 Start: 26700, Stop: 25138, Start Num: 119

Candidate Starts for DirtyDunning\_33:

(Start: 119 @26700 has 12 MA's), (Start: 187 @26634 has 221 MA's), (Start: 197 @26616 has 3 MA's), (212, 26559), (217, 26541), (229, 26511), (Start: 234 @26499 has 1 MA's), (274, 26373), (283, 26352), (299, 26322), (322, 26283), (334, 26244), (363, 26154), (387, 26094), (405, 26040), (461, 25902), (569, 25671), (611, 25581), (629, 25545), (637, 25518), (659, 25464), (663, 25455), (768, 25245), (776, 25227), (791, 25215), (796, 25206),

Gene: Discoknowium\_30 Start: 25895, Stop: 24402, Start Num: 187

Candidate Starts for Discoknowium\_30:

(Start: 187 @25895 has 221 MA's), (Start: 200 @25862 has 1 MA's), (Start: 201 @25859 has 3 MA's), (Start: 206 @25841 has 9 MA's), (Start: 234 @25760 has 1 MA's), (281, 25616), (294, 25589), (323, 25541), (379, 25376), (387, 25352), (389, 25349), (396, 25328), (471, 25139), (546, 24968), (614, 24833), (633, 24791), (637, 24779), (673, 24695), (680, 24680), (692, 24665), (776, 24488), (806, 24458), (829, 24425),

Gene: Dixon\_30 Start: 25012, Stop: 23510, Start Num: 171

Candidate Starts for Dixon\_30:

(Start: 109 @25081 has 10 MA's), (Start: 134 @25054 has 1 MA's), (139, 25048), (Start: 171 @25012 has 112 MA's), (Start: 234 @24862 has 1 MA's), (269, 24757), (294, 24691), (300, 24673), (320, 24631), (321, 24628), (347, 24541), (391, 24415), (423, 24322), (448, 24274), (462, 24232), (481, 24172), (521, 24070), (603, 23935), (633, 23863), (677, 23758), (696, 23722), (714, 23683), (763, 23599), (788, 23551),

Gene: Donkey\_43 Start: 31411, Stop: 32850, Start Num: 181

Candidate Starts for Donkey\_43:

(Start: 181 @31411 has 19 MA's), (Start: 222 @31522 has 1 MA's), (227, 31531), (256, 31594), (262, 31618), (265, 31627), (323, 31777), (325, 31786), (376, 31942), (379, 31948), (389, 31975), (410, 32035), (486, 32209), (491, 32224), (551, 32332), (640, 32515), (777, 32779), (785, 32794), (787, 32797),

Gene: DontArgue\_32 Start: 25416, Stop: 23920, Start Num: 187

Candidate Starts for DontArgue\_32:

(129, 25482), (Start: 176 @25425 has 15 MA's), (Start: 187 @25416 has 221 MA's), (Start: 197 @25398 has 3 MA's), (225, 25305), (Start: 234 @25281 has 1 MA's), (264, 25197), (274, 25155), (285, 25131), (299, 25104), (322, 25065), (363, 24936), (387, 24876), (405, 24822), (461, 24684), (610, 24366), (629, 24327), (637, 24300), (654, 24261), (659, 24246), (663, 24237), (764, 24042), (771, 24021), (774, 24015), (776, 24009), (791, 23997), (796, 23988), (806, 23976), (838, 23925),

Gene: Doom\_37 Start: 29713, Stop: 31212, Start Num: 187

Candidate Starts for Doom\_37:

(Start: 98 @29632 has 29 MA's), (Start: 102 @29638 has 3 MA's), (Start: 107 @29644 has 10 MA's), (Start: 109 @29647 has 10 MA's), (Start: 119 @29662 has 12 MA's), (Start: 187 @29713 has 221 MA's), (Start: 195 @29728 has 10 MA's), (Start: 222 @29821 has 1 MA's), (262, 29932), (264, 29938), (269, 29959), (326, 30088), (329, 30097), (331, 30106), (366, 30214), (379, 30235), (384, 30247), (391, 30271), (404, 30313), (457, 30442), (480, 30502), (500, 30559), (512, 30586), (525, 30613), (526, 30616), (533, 30628), (606, 30727), (622, 30766), (625, 30769), (655, 30847), (660, 30862), (766, 31081), (828, 31180), (840, 31204),

Gene: DoubleChamp\_38 Start: 31456, Stop: 32826, Start Num: 206

Candidate Starts for DoubleChamp\_38:

(33, 31129), (50, 31192), (76, 31246), (132, 31333), (Start: 170 @31381 has 8 MA's), (Start: 206 @31456 has 9 MA's), (210, 31468), (253, 31579), (254, 31582), (263, 31615), (269, 31639), (292,

31702), (329, 31777), (436, 32053), (543, 32275), (548, 32287), (591, 32335), (603, 32365), (611, 32386), (622, 32410), (693, 32563), (731, 32644), (736, 32650), (742, 32662), (755, 32698), (759, 32704), (768, 32725), (775, 32740), (777, 32746), (808, 32794), (815, 32803),

Gene: DrFeelGood\_36 Start: 29804, Stop: 31306, Start Num: 187

Candidate Starts for DrFeelGood\_36:

(Start: 98 @29723 has 29 MA's), (Start: 102 @29729 has 3 MA's), (Start: 107 @29735 has 10 MA's), (Start: 109 @29738 has 10 MA's), (Start: 119 @29753 has 12 MA's), (Start: 187 @29804 has 221 MA's), (Start: 222 @29912 has 1 MA's), (262, 30023), (264, 30029), (279, 30083), (323, 30167), (326, 30179), (329, 30188), (331, 30197), (366, 30305), (379, 30326), (384, 30338), (391, 30362), (404, 30404), (457, 30533), (480, 30593), (500, 30650), (512, 30677), (525, 30704), (526, 30707), (533, 30719), (580, 30788), (606, 30821), (608, 30827), (622, 30860), (655, 30941), (660, 30956), (766, 31175), (828, 31274), (840, 31298),

Gene: DrManhattan\_52 Start: 34287, Stop: 35705, Start Num: 180

Candidate Starts for DrManhattan\_52:

(Start: 163 @34269 has 10 MA's), (177, 34284), (Start: 180 @34287 has 37 MA's), (Start: 187 @34296 has 221 MA's), (Start: 197 @34314 has 3 MA's), (Start: 234 @34434 has 1 MA's), (264, 34518), (277, 34566), (317, 34629), (323, 34641), (358, 34749), (391, 34842), (493, 35061), (628, 35340), (634, 35361), (729, 35544),

Gene: DrSierra\_48 Start: 34086, Stop: 35504, Start Num: 180

Candidate Starts for DrSierra\_48:

(Start: 163 @34068 has 10 MA's), (177, 34083), (Start: 180 @34086 has 37 MA's), (Start: 187 @34095 has 221 MA's), (Start: 197 @34113 has 3 MA's), (225, 34209), (Start: 234 @34233 has 1 MA's), (264, 34317), (265, 34320), (277, 34365), (317, 34428), (323, 34440), (325, 34449), (358, 34548), (391, 34641), (404, 34680), (598, 35070), (634, 35160), (638, 35172), (729, 35343),

Gene: Drake94\_32 Start: 23843, Stop: 25489, Start Num: 180

Candidate Starts for Drake94\_32:

(Start: 136 @23795 has 3 MA's), (Start: 165 @23834 has 35 MA's), (Start: 180 @23843 has 37 MA's), (Start: 191 @23861 has 17 MA's), (Start: 200 @23885 has 1 MA's), (Start: 222 @23960 has 1 MA's), (227, 23969), (Start: 234 @23987 has 1 MA's), (262, 24071), (263, 24074), (271, 24110), (322, 24212), (329, 24236), (331, 24245), (362, 24341), (379, 24377), (392, 24416), (396, 24425), (398, 24428), (445, 24545), (453, 24566), (457, 24581), (461, 24593), (479, 24641), (493, 24686), (525, 24758), (543, 24782), (608, 24902), (614, 24920), (615, 24923), (617, 24926), (675, 25061), (766, 25250), (825, 25343), (840, 25373), (845, 25397), (850, 25445), (852, 25463),

Gene: DreamCatcher\_40 Start: 30683, Stop: 32266, Start Num: 98

Candidate Starts for DreamCatcher\_40:

(Start: 98 @30683 has 29 MA's), (Start: 102 @30689 has 3 MA's), (Start: 107 @30695 has 10 MA's), (Start: 109 @30698 has 10 MA's), (Start: 119 @30713 has 12 MA's), (Start: 187 @30764 has 221 MA's), (227, 30881), (262, 30983), (264, 30989), (269, 31010), (323, 31127), (326, 31139), (329, 31148), (331, 31157), (366, 31265), (379, 31286), (384, 31298), (391, 31322), (404, 31364), (457, 31493), (480, 31553), (500, 31610), (512, 31637), (525, 31664), (526, 31667), (533, 31679), (580, 31748), (606, 31781), (608, 31787), (622, 31820), (655, 31901), (660, 31916), (710, 32021), (766, 32135), (828, 32234), (840, 32258),

Gene: DreamTeam1\_33 Start: 26239, Stop: 24692, Start Num: 182

Candidate Starts for DreamTeam1\_33:

(92, 26332), (Start: 135 @26284 has 2 MA's), (155, 26263), (Start: 162 @26254 has 16 MA's), (Start: 182 @26239 has 3 MA's), (198, 26209), (240, 26080), (269, 25990), (297, 25918), (321, 25852), (322, 25843), (328, 25822), (338, 25792), (362, 25714), (363, 25711), (402, 25606), (414, 25573), (448,

25498), (462, 25456), (471, 25438), (479, 25414), (525, 25297), (542, 25267), (603, 25186), (633, 25114), (637, 25102), (688, 24988), (696, 24973), (731, 24904), (763, 24841), (764, 24838), (770, 24820), (801, 24769),

Gene: Dreamboat\_38 Start: 29353, Stop: 30855, Start Num: 187

Candidate Starts for Dreamboat\_38:

(Start: 98 @29272 has 29 MA's), (Start: 102 @29278 has 3 MA's), (Start: 107 @29284 has 10 MA's), (Start: 109 @29287 has 10 MA's), (Start: 119 @29302 has 12 MA's), (Start: 187 @29353 has 221 MA's), (Start: 195 @29368 has 10 MA's), (227, 29470), (Start: 234 @29488 has 1 MA's), (239, 29500), (262, 29572), (264, 29578), (268, 29590), (269, 29599), (323, 29716), (326, 29728), (329, 29737), (331, 29746), (362, 29842), (366, 29854), (379, 29875), (384, 29887), (391, 29911), (404, 29953), (457, 30082), (480, 30142), (500, 30199), (525, 30253), (533, 30268), (606, 30370), (608, 30376), (622, 30409), (625, 30412), (637, 30448), (649, 30475), (660, 30505), (766, 30724), (828, 30823), (840, 30847),

Gene: DroogsArmy\_34 Start: 29062, Stop: 27602, Start Num: 187

Candidate Starts for DroogsArmy\_34:

(72, 29215), (146, 29110), (159, 29095), (Start: 187 @29062 has 221 MA's), (Start: 190 @29056 has 3 MA's), (Start: 197 @29044 has 3 MA's), (198, 29038), (231, 28933), (Start: 234 @28927 has 1 MA's), (247, 28891), (279, 28789), (294, 28756), (321, 28720), (329, 28687), (392, 28507), (453, 28357), (470, 28312), (525, 28168), (556, 28120), (614, 28039), (621, 28027), (625, 28021), (637, 27985), (659, 27931), (673, 27901), (836, 27613),

Gene: Druantia\_33 Start: 26640, Stop: 25126, Start Num: 171

Candidate Starts for Druantia\_33:

(Start: 134 @26682 has 1 MA's), (Start: 162 @26649 has 16 MA's), (Start: 171 @26640 has 112 MA's), (239, 26478), (262, 26412), (268, 26394), (294, 26319), (305, 26295), (320, 26256), (321, 26253), (347, 26166), (387, 26052), (391, 26040), (462, 25857), (498, 25746), (521, 25695), (603, 25566), (607, 25557), (637, 25482), (639, 25476), (696, 25353), (714, 25314), (794, 25164), (805, 25149),

Gene: Dublin\_29 Start: 25745, Stop: 24252, Start Num: 187

Candidate Starts for Dublin\_29:

(Start: 187 @25745 has 221 MA's), (Start: 200 @25712 has 1 MA's), (Start: 201 @25709 has 3 MA's), (Start: 206 @25691 has 9 MA's), (Start: 234 @25610 has 1 MA's), (281, 25466), (294, 25439), (323, 25391), (379, 25226), (387, 25202), (389, 25199), (396, 25178), (415, 25121), (471, 24989), (525, 24848), (546, 24818), (633, 24641), (637, 24629), (673, 24545), (680, 24530), (692, 24515), (776, 24338), (806, 24308), (829, 24275),

Gene: Dubu\_44 Start: 35625, Stop: 37253, Start Num: 99

Candidate Starts for Dubu\_44:

(Start: 99 @35625 has 1 MA's), (Start: 151 @35694 has 2 MA's), (209, 35805), (210, 35808), (282, 36018), (284, 36021), (364, 36255), (399, 36366), (458, 36486), (506, 36603), (555, 36696), (606, 36798), (609, 36807), (630, 36858), (654, 36909), (655, 36912), (669, 36945), (743, 37065), (756, 37092), (777, 37134), (778, 37137), (780, 37140), (809, 37188),

Gene: Dulcita\_131 Start: 69073, Stop: 67613, Start Num: 140

Candidate Starts for Dulcita\_131:

(Start: 107 @69115 has 10 MA's), (Start: 133 @69082 has 1 MA's), (Start: 140 @69073 has 21 MA's), (198, 69001), (225, 68920), (245, 68878), (253, 68854), (271, 68782), (322, 68665), (340, 68602), (375, 68518), (381, 68506), (396, 68464), (401, 68446), (485, 68284), (492, 68263), (513, 68212), (532, 68185), (551, 68158), (624, 68038), (695, 67888), (733, 67810), (753, 67765), (778, 67708),

Gene: Dussy\_38 Start: 29615, Stop: 31129, Start Num: 187

Candidate Starts for Dussy\_38:

(Start: 98 @29534 has 29 MA's), (Start: 102 @29540 has 3 MA's), (Start: 107 @29546 has 10 MA's), (Start: 109 @29549 has 10 MA's), (Start: 119 @29564 has 12 MA's), (Start: 187 @29615 has 221 MA's), (Start: 193 @29627 has 3 MA's), (264, 29840), (268, 29852), (269, 29861), (279, 29894), (326, 29990), (329, 29999), (331, 30008), (366, 30116), (379, 30137), (384, 30149), (391, 30173), (404, 30215), (457, 30344), (480, 30404), (500, 30461), (512, 30488), (525, 30515), (526, 30518), (533, 30530), (580, 30599), (608, 30638), (622, 30671), (655, 30752), (660, 30767), (766, 30986),

Gene: DustyMartin\_38 Start: 26956, Stop: 25430, Start Num: 187

Candidate Starts for DustyMartin\_38:

(Start: 175 @26971 has 3 MA's), (Start: 187 @26956 has 221 MA's), (Start: 234 @26821 has 1 MA's), (379, 26440), (389, 26413), (392, 26401), (476, 26161), (485, 26134), (513, 26062), (532, 26023), (557, 25984), (610, 25906), (629, 25867), (633, 25852), (656, 25795), (664, 25774), (710, 25687), (764, 25582), (771, 25561), (774, 25555), (819, 25486),

Gene: Dwayne\_50 Start: 36196, Stop: 37809, Start Num: 89

Candidate Starts for Dwayne\_50:

(Start: 55 @36130 has 7 MA's), (Start: 82 @36187 has 5 MA's), (Start: 89 @36196 has 25 MA's), (Start: 197 @36343 has 3 MA's), (227, 36442), (Start: 234 @36460 has 1 MA's), (255, 36511), (277, 36592), (278, 36595), (321, 36667), (322, 36676), (323, 36679), (362, 36805), (373, 36832), (400, 36901), (415, 36946), (454, 37015), (462, 37042), (481, 37090), (497, 37138), (513, 37177), (525, 37204), (546, 37234), (622, 37357), (646, 37417), (664, 37462), (729, 37591), (754, 37642), (759, 37651), (774, 37690), (786, 37714), (793, 37729), (804, 37744), (815, 37759),

Gene: Dynamix\_38 Start: 29367, Stop: 30950, Start Num: 98

Candidate Starts for Dynamix\_38:

(Start: 98 @29367 has 29 MA's), (Start: 102 @29373 has 3 MA's), (Start: 107 @29379 has 10 MA's), (Start: 109 @29382 has 10 MA's), (Start: 119 @29397 has 12 MA's), (Start: 187 @29448 has 221 MA's), (Start: 195 @29463 has 10 MA's), (262, 29667), (264, 29673), (323, 29811), (326, 29823), (329, 29832), (331, 29841), (334, 29847), (362, 29937), (366, 29949), (384, 29982), (448, 30150), (457, 30177), (480, 30237), (500, 30294), (512, 30321), (525, 30348), (533, 30363), (580, 30432), (608, 30471), (622, 30504), (649, 30570), (660, 30600), (689, 30663), (710, 30705), (718, 30720), (766, 30819), (828, 30918), (840, 30942),

Gene: ELB20\_52 Start: 37707, Stop: 38996, Start Num: 220

Candidate Starts for ELB20\_52:

(Start: 163 @37578 has 10 MA's), (166, 37581), (Start: 220 @37707 has 1 MA's), (Start: 222 @37713 has 1 MA's), (227, 37722), (253, 37785), (270, 37842), (278, 37863), (303, 37893), (306, 37896), (326, 37950), (369, 38079), (381, 38088), (395, 38127), (404, 38157), (448, 38238), (452, 38247), (471, 38298), (494, 38352), (621, 38580), (652, 38649), (695, 38733), (721, 38790), (741, 38823), (744, 38832), (768, 38889), (807, 38946), (811, 38952), (834, 38985),

Gene: Eaglepride\_35 Start: 26850, Stop: 25342, Start Num: 187

Candidate Starts for Eaglepride\_35:

(Start: 187 @26850 has 221 MA's), (Start: 190 @26844 has 3 MA's), (198, 26826), (Start: 234 @26715 has 1 MA's), (293, 26550), (362, 26373), (379, 26334), (384, 26322), (387, 26310), (389, 26307), (392, 26295), (476, 26055), (479, 26049), (485, 26028), (502, 25983), (557, 25878), (610, 25800), (615, 25785), (629, 25761), (633, 25746), (656, 25689), (664, 25668), (702, 25602), (771, 25455), (819, 25380),

Gene: Eapen\_33 Start: 26635, Stop: 25121, Start Num: 171

Candidate Starts for Eapen\_33:

(Start: 134 @26677 has 1 MA's), (Start: 162 @26644 has 16 MA's), (Start: 171 @26635 has 112 MA's), (239, 26473), (262, 26407), (268, 26389), (294, 26314), (305, 26290), (320, 26251), (321, 26248), (347, 26161), (387, 26047), (391, 26035), (462, 25852), (498, 25741), (521, 25690), (603, 25561), (607, 25552), (637, 25477), (639, 25471), (696, 25348), (714, 25309), (794, 25159), (805, 25144),

Gene: Eastland\_29 Start: 22937, Stop: 21357, Start Num: 176

Candidate Starts for Eastland\_29:

(Start: 176 @22937 has 15 MA's), (Start: 199 @22892 has 3 MA's), (250, 22757), (257, 22739), (438, 22226), (516, 21998), (577, 21869), (581, 21863), (594, 21833), (651, 21701), (667, 21662), (678, 21635), (707, 21578), (741, 21518), (744, 21509), (766, 21455), (771, 21443), (772, 21440), (799, 21410), (806, 21401), (816, 21386),

Gene: Eddasa\_50 Start: 34372, Stop: 35694, Start Num: 191

Candidate Starts for Eddasa\_50:

(Start: 183 @34360 has 12 MA's), (Start: 191 @34372 has 17 MA's), (198, 34387), (Start: 222 @34474 has 1 MA's), (Start: 224 @34477 has 1 MA's), (237, 34501), (256, 34552), (268, 34594), (269, 34603), (271, 34615), (321, 34705), (322, 34714), (329, 34738), (369, 34858), (380, 34864), (426, 34954), (448, 34969), (452, 34978), (462, 35011), (511, 35122), (513, 35128), (543, 35176), (554, 35191), (563, 35206), (603, 35266), (608, 35275), (613, 35290), (649, 35368), (670, 35401), (688, 35431), (710, 35479), (749, 35557), (768, 35605), (774, 35614), (789, 35641), (816, 35680),

Gene: Edison31\_34 Start: 26880, Stop: 25372, Start Num: 187

Candidate Starts for Edison31\_34:

(Start: 187 @26880 has 221 MA's), (Start: 190 @26874 has 3 MA's), (Start: 197 @26862 has 3 MA's), (198, 26856), (225, 26769), (Start: 234 @26745 has 1 MA's), (293, 26580), (362, 26403), (379, 26364), (384, 26352), (387, 26340), (389, 26337), (392, 26325), (479, 26079), (485, 26058), (557, 25908), (610, 25830), (615, 25815), (629, 25791), (633, 25776), (656, 25719), (664, 25698), (785, 25464),

Gene: Edtherson\_38 Start: 30287, Stop: 31789, Start Num: 187

Candidate Starts for Edtherson\_38:

(Start: 98 @30206 has 29 MA's), (Start: 102 @30212 has 3 MA's), (Start: 107 @30218 has 10 MA's), (Start: 109 @30221 has 10 MA's), (Start: 119 @30236 has 12 MA's), (Start: 187 @30287 has 221 MA's), (Start: 195 @30302 has 10 MA's), (262, 30506), (264, 30512), (269, 30533), (326, 30662), (329, 30671), (331, 30680), (366, 30788), (379, 30809), (384, 30821), (391, 30845), (404, 30887), (457, 31016), (480, 31076), (500, 31133), (512, 31160), (525, 31187), (533, 31202), (580, 31271), (608, 31310), (622, 31343), (655, 31424), (660, 31439), (710, 31544), (766, 31658), (828, 31757), (840, 31781),

Gene: Edugator\_39 Start: 31774, Stop: 33144, Start Num: 206

Candidate Starts for Edugator\_39:

(33, 31447), (59, 31528), (76, 31564), (132, 31651), (Start: 170 @31699 has 8 MA's), (Start: 206 @31774 has 9 MA's), (210, 31786), (253, 31897), (254, 31900), (263, 31933), (269, 31957), (292, 32020), (329, 32095), (436, 32371), (543, 32593), (548, 32605), (591, 32653), (603, 32683), (611, 32704), (693, 32881), (731, 32962), (736, 32968), (742, 32980), (755, 33016), (759, 33022), (767, 33040), (768, 33043), (775, 33058), (777, 33064), (808, 33112), (815, 33121),

Gene: Ejemplo\_49 Start: 36125, Stop: 37747, Start Num: 82

Candidate Starts for Ejemplo\_49:

(Start: 55 @36068 has 7 MA's), (Start: 82 @36125 has 5 MA's), (Start: 89 @36134 has 25 MA's), (Start: 197 @36281 has 3 MA's), (227, 36380), (Start: 234 @36398 has 1 MA's), (255, 36449), (277, 36530), (278, 36533), (321, 36605), (322, 36614), (323, 36617), (362, 36743), (373, 36770), (400, 36839), (415, 36884), (454, 36953), (462, 36980), (481, 37028), (497, 37076), (513, 37115), (546,

37172), (622, 37295), (646, 37355), (664, 37400), (729, 37529), (754, 37580), (759, 37589), (774, 37628), (786, 37652), (793, 37667), (804, 37682), (815, 37697),

Gene: Eklok\_30 Start: 22952, Stop: 21372, Start Num: 176

Candidate Starts for Eklok\_30:

(Start: 176 @22952 has 15 MA's), (Start: 199 @22907 has 3 MA's), (250, 22772), (257, 22754), (438, 22241), (516, 22013), (577, 21884), (581, 21878), (594, 21848), (651, 21716), (667, 21677), (678, 21650), (707, 21593), (741, 21533), (744, 21524), (766, 21470), (771, 21458), (772, 21455), (799, 21425), (806, 21416), (816, 21401),

Gene: ElGato\_52 Start: 36418, Stop: 38001, Start Num: 148

Candidate Starts for ElGato\_52:

(Start: 148 @36418 has 2 MA's), (192, 36472), (Start: 197 @36481 has 3 MA's), (Start: 199 @36493 has 3 MA's), (208, 36523), (219, 36565), (227, 36580), (231, 36592), (271, 36709), (324, 36817), (326, 36826), (347, 36889), (394, 37024), (412, 37081), (432, 37123), (438, 37144), (478, 37237), (531, 37360), (535, 37369), (538, 37378), (565, 37441), (593, 37501), (632, 37588), (661, 37648), (678, 37681), (690, 37705), (744, 37813), (754, 37837), (757, 37843), (766, 37867), (774, 37885), (790, 37918), (818, 37960),

Gene: ElTiger69\_31 Start: 25415, Stop: 23934, Start Num: 187

Candidate Starts for ElTiger69\_31:

(155, 25442), (Start: 187 @25415 has 221 MA's), (Start: 201 @25379 has 3 MA's), (Start: 234 @25280 has 1 MA's), (247, 25244), (264, 25196), (274, 25154), (285, 25130), (299, 25103), (322, 25064), (329, 25040), (334, 25025), (379, 24896), (489, 24602), (495, 24584), (507, 24557), (521, 24527), (533, 24503), (546, 24488), (590, 24428), (611, 24377), (614, 24368), (637, 24314), (652, 24281), (680, 24215), (714, 24152), (776, 24023), (836, 23945),

Gene: Elezi\_48 Start: 35958, Stop: 37379, Start Num: 180

Candidate Starts for Elezi\_48:

(Start: 163 @35940 has 10 MA's), (177, 35955), (Start: 180 @35958 has 37 MA's), (Start: 187 @35967 has 221 MA's), (225, 36081), (Start: 234 @36105 has 1 MA's), (264, 36189), (271, 36222), (277, 36237), (317, 36300), (323, 36312), (325, 36321), (358, 36420), (370, 36462), (391, 36513), (404, 36552), (453, 36630), (461, 36657), (629, 37017), (630, 37026), (634, 37035), (638, 37047), (729, 37218), (776, 37305),

Gene: Elfy\_51 Start: 33960, Stop: 35375, Start Num: 187

Candidate Starts for Elfy\_51:

(Start: 187 @33960 has 221 MA's), (273, 34215), (284, 34245), (317, 34290), (323, 34302), (328, 34320), (331, 34332), (339, 34359), (341, 34365), (343, 34371), (389, 34494), (396, 34515), (404, 34542), (406, 34548), (414, 34569), (493, 34722), (498, 34734), (546, 34839), (548, 34845), (570, 34887), (617, 34986), (634, 35025), (649, 35055), (652, 35061), (655, 35070), (669, 35103), (715, 35184), (729, 35208), (731, 35211), (778, 35307), (821, 35367),

Gene: Emaanora\_53 Start: 36119, Stop: 37732, Start Num: 89

Candidate Starts for Emaanora\_53:

(Start: 55 @36053 has 7 MA's), (Start: 82 @36110 has 5 MA's), (Start: 89 @36119 has 25 MA's), (Start: 197 @36266 has 3 MA's), (227, 36365), (Start: 234 @36383 has 1 MA's), (255, 36434), (277, 36515), (278, 36518), (321, 36590), (322, 36599), (323, 36602), (362, 36728), (373, 36755), (400, 36824), (415, 36869), (454, 36938), (462, 36965), (481, 37013), (497, 37061), (513, 37100), (525, 37127), (546, 37157), (622, 37280), (646, 37340), (664, 37385), (729, 37514), (754, 37565), (759, 37574), (774, 37613), (786, 37637), (793, 37652), (804, 37667), (815, 37682),

Gene: EnochSoames\_52 Start: 34356, Stop: 35690, Start Num: 183

Candidate Starts for EnochSoames\_52:

(Start: 183 @34356 has 12 MA's), (Start: 191 @34368 has 17 MA's), (198, 34383), (Start: 222 @34470 has 1 MA's), (Start: 224 @34473 has 1 MA's), (237, 34497), (253, 34539), (256, 34548), (268, 34590), (269, 34599), (271, 34611), (321, 34701), (322, 34710), (329, 34734), (369, 34854), (380, 34860), (426, 34950), (448, 34965), (452, 34974), (462, 35007), (511, 35118), (513, 35124), (543, 35172), (554, 35187), (563, 35202), (603, 35262), (608, 35271), (649, 35364), (670, 35397), (688, 35427), (710, 35475), (749, 35553), (768, 35601), (774, 35610), (789, 35637), (816, 35676),

Gene: Eraser\_48 Start: 35968, Stop: 37389, Start Num: 180

Candidate Starts for Eraser\_48:

(Start: 163 @35950 has 10 MA's), (177, 35965), (Start: 180 @35968 has 37 MA's), (Start: 187 @35977 has 221 MA's), (225, 36091), (Start: 234 @36115 has 1 MA's), (264, 36199), (271, 36232), (277, 36247), (317, 36310), (323, 36322), (325, 36331), (358, 36430), (370, 36472), (391, 36523), (404, 36562), (453, 36640), (461, 36667), (629, 37027), (630, 37036), (634, 37045), (638, 37057), (729, 37228), (776, 37315),

Gene: Erik\_29 Start: 23479, Stop: 22139, Start Num: 234

Candidate Starts for Erik\_29:

(Start: 234 @23479 has 1 MA's), (252, 23431), (329, 23239), (364, 23128), (389, 23068), (392, 23056), (414, 22993), (429, 22963), (443, 22930), (452, 22909), (461, 22879), (469, 22864), (471, 22858), (485, 22810), (497, 22777), (521, 22720), (546, 22681), (548, 22675), (611, 22579), (628, 22546), (634, 22525), (637, 22516), (714, 22354),

Gene: Eris\_32 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for Eris\_32:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Eros\_33 Start: 26648, Stop: 25125, Start Num: 162

Candidate Starts for Eros\_33:

(Start: 134 @26681 has 1 MA's), (Start: 162 @26648 has 16 MA's), (Start: 171 @26639 has 112 MA's), (239, 26477), (262, 26411), (268, 26393), (294, 26318), (305, 26294), (320, 26255), (321, 26252), (347, 26165), (387, 26051), (391, 26039), (462, 25856), (498, 25745), (521, 25694), (603, 25565), (607, 25556), (637, 25481), (639, 25475), (696, 25352), (714, 25313), (794, 25163), (805, 25148),

Gene: Esperer\_49 Start: 33895, Stop: 35217, Start Num: 191

Candidate Starts for Esperer\_49:

(Start: 183 @33883 has 12 MA's), (Start: 191 @33895 has 17 MA's), (198, 33910), (Start: 222 @33997 has 1 MA's), (Start: 224 @34000 has 1 MA's), (237, 34024), (253, 34066), (256, 34075), (268, 34117), (269, 34126), (271, 34138), (321, 34228), (322, 34237), (329, 34261), (369, 34381), (380, 34387), (426, 34477), (448, 34492), (452, 34501), (462, 34534), (511, 34645), (513, 34651), (543, 34699), (554, 34714), (563, 34729), (603, 34789), (613, 34813), (650, 34894), (670, 34924), (688, 34954), (710, 35002), (749, 35080), (768, 35128), (774, 35137), (789, 35164), (816, 35203),

Gene: Espica\_29 Start: 23636, Stop: 22140, Start Num: 165

Candidate Starts for Espica\_29:

(Start: 165 @23636 has 35 MA's), (Start: 187 @23615 has 221 MA's), (Start: 190 @23609 has 3 MA's), (Start: 234 @23480 has 1 MA's), (252, 23432), (278, 23345), (329, 23240), (364, 23129), (378, 23099), (389, 23069), (392, 23057), (414, 22994), (429, 22964), (443, 22931), (452, 22910), (461,

22880), (469, 22865), (471, 22859), (485, 22811), (497, 22778), (521, 22721), (546, 22682), (548, 22676), (611, 22580), (628, 22547), (634, 22526), (637, 22517), (714, 22355),

Gene: Espresso\_37 Start: 29637, Stop: 31136, Start Num: 187

Candidate Starts for Espresso\_37:

(Start: 98 @29556 has 29 MA's), (Start: 102 @29562 has 3 MA's), (Start: 107 @29568 has 10 MA's), (Start: 109 @29571 has 10 MA's), (Start: 119 @29586 has 12 MA's), (Start: 187 @29637 has 221 MA's), (Start: 195 @29652 has 10 MA's), (198, 29661), (264, 29862), (268, 29874), (326, 30012), (329, 30021), (331, 30030), (334, 30036), (366, 30138), (379, 30159), (384, 30171), (391, 30195), (457, 30366), (480, 30426), (500, 30483), (525, 30537), (526, 30540), (533, 30552), (622, 30690), (637, 30729), (649, 30756), (660, 30786), (710, 30891), (766, 31005), (828, 31104), (840, 31128),

Gene: Estes\_146 Start: 70719, Stop: 69265, Start Num: 140

Candidate Starts for Estes\_146:

(32, 70932), (45, 70887), (64, 70836), (Start: 107 @70761 has 10 MA's), (Start: 133 @70728 has 1 MA's), (Start: 140 @70719 has 21 MA's), (Start: 190 @70665 has 3 MA's), (198, 70647), (221, 70572), (271, 70428), (322, 70311), (340, 70248), (381, 70158), (396, 70116), (497, 69903), (513, 69864), (532, 69837), (551, 69810), (607, 69729), (618, 69699), (622, 69693), (624, 69690), (695, 69540), (706, 69519), (733, 69462), (778, 69360), (807, 69318), (811, 69312),

Gene: EtoileNova\_34 Start: 27227, Stop: 25725, Start Num: 190

Candidate Starts for EtoileNova\_34:

(Start: 175 @27248 has 3 MA's), (Start: 187 @27233 has 221 MA's), (Start: 190 @27227 has 3 MA's), (Start: 191 @27224 has 17 MA's), (249, 27056), (252, 27050), (293, 26933), (325, 26873), (362, 26756), (379, 26717), (389, 26690), (392, 26678), (437, 26543), (492, 26390), (532, 26300), (557, 26261), (614, 26171), (633, 26129), (637, 26117), (656, 26072), (664, 26051), (771, 25838), (785, 25817),

Gene: Euphoria\_37 Start: 29484, Stop: 30986, Start Num: 187

Candidate Starts for Euphoria\_37:

(Start: 98 @29403 has 29 MA's), (Start: 102 @29409 has 3 MA's), (Start: 107 @29415 has 10 MA's), (Start: 109 @29418 has 10 MA's), (Start: 119 @29433 has 12 MA's), (Start: 187 @29484 has 221 MA's), (Start: 195 @29499 has 10 MA's), (262, 29703), (264, 29709), (326, 29859), (329, 29868), (331, 29877), (366, 29985), (379, 30006), (384, 30018), (391, 30042), (404, 30084), (457, 30213), (480, 30273), (500, 30330), (512, 30357), (525, 30384), (526, 30387), (533, 30399), (608, 30507), (622, 30540), (655, 30621), (660, 30636), (710, 30741), (766, 30855), (771, 30867), (828, 30954), (840, 30978),

Gene: Euratis\_57 Start: 38667, Stop: 40322, Start Num: 119

Candidate Starts for Euratis\_57:

(Start: 119 @38667 has 12 MA's), (Start: 164 @38712 has 4 MA's), (173, 38721), (Start: 187 @38733 has 221 MA's), (Start: 199 @38763 has 3 MA's), (263, 38949), (264, 38952), (271, 38985), (274, 38994), (291, 39033), (321, 39099), (323, 39111), (340, 39171), (348, 39189), (352, 39198), (362, 39240), (398, 39327), (464, 39525), (466, 39537), (471, 39555), (479, 39582), (493, 39627), (498, 39639), (520, 39693), (525, 39705), (546, 39735), (606, 39834), (630, 39894), (664, 39978), (726, 40095), (730, 40101), (763, 40167), (801, 40245), (808, 40257),

Gene: Exile\_44 Start: 37249, Stop: 38688, Start Num: 180

Candidate Starts for Exile\_44:

(169, 37237), (Start: 180 @37249 has 37 MA's), (185, 37255), (194, 37273), (253, 37441), (266, 37486), (268, 37492), (292, 37552), (325, 37612), (391, 37780), (469, 37939), (557, 38107), (609, 38161), (649, 38254), (694, 38341), (753, 38464), (763, 38476), (765, 38482), (771, 38500), (807, 38560), (844, 38620),

Gene: Expelliarmus\_29 Start: 24979, Stop: 23477, Start Num: 171

Candidate Starts for Expelliarmus\_29:

(Start: 109 @25048 has 10 MA's), (Start: 134 @25021 has 1 MA's), (139, 25015), (Start: 171 @24979 has 112 MA's), (Start: 234 @24829 has 1 MA's), (269, 24724), (294, 24658), (300, 24640), (320, 24598), (321, 24595), (347, 24508), (358, 24475), (391, 24382), (423, 24289), (448, 24241), (462, 24199), (481, 24139), (521, 24037), (603, 23902), (633, 23830), (677, 23725), (692, 23698), (696, 23689), (763, 23566), (774, 23536), (788, 23518),

Gene: Eyeball\_37 Start: 29191, Stop: 30690, Start Num: 187

Candidate Starts for Eyeball\_37:

(Start: 98 @29110 has 29 MA's), (Start: 102 @29116 has 3 MA's), (Start: 107 @29122 has 10 MA's), (Start: 109 @29125 has 10 MA's), (Start: 119 @29140 has 12 MA's), (Start: 187 @29191 has 221 MA's), (262, 29410), (264, 29416), (269, 29437), (326, 29566), (329, 29575), (331, 29584), (366, 29692), (379, 29713), (384, 29725), (391, 29749), (404, 29791), (457, 29920), (480, 29980), (500, 30037), (512, 30064), (525, 30091), (526, 30094), (533, 30106), (606, 30205), (622, 30244), (655, 30325), (660, 30340), (710, 30445), (766, 30559), (828, 30658), (840, 30682),

Gene: Fairfaxidum\_39 Start: 30789, Stop: 32177, Start Num: 188

Candidate Starts for Fairfaxidum\_39:

(161, 30759), (Start: 188 @30789 has 36 MA's), (Start: 206 @30846 has 9 MA's), (339, 31200), (345, 31212), (362, 31266), (364, 31272), (373, 31299), (387, 31332), (389, 31335), (448, 31467), (487, 31560), (493, 31578), (532, 31653), (543, 31665), (561, 31680), (569, 31689), (596, 31716), (615, 31770), (622, 31782), (634, 31812), (656, 31863), (682, 31920), (719, 31989), (723, 31998), (725, 32001), (732, 32013), (735, 32016), (740, 32025), (788, 32121), (804, 32142), (816, 32157),

Gene: Fajezeel\_39 Start: 29706, Stop: 31220, Start Num: 187

Candidate Starts for Fajezeel\_39:

(Start: 98 @29625 has 29 MA's), (Start: 102 @29631 has 3 MA's), (Start: 107 @29637 has 10 MA's), (Start: 109 @29640 has 10 MA's), (Start: 119 @29655 has 12 MA's), (Start: 187 @29706 has 221 MA's), (Start: 195 @29721 has 10 MA's), (262, 29925), (264, 29931), (269, 29952), (323, 30069), (326, 30081), (329, 30090), (331, 30099), (366, 30207), (379, 30228), (384, 30240), (391, 30264), (404, 30306), (457, 30435), (480, 30495), (500, 30552), (512, 30579), (525, 30606), (526, 30609), (533, 30621), (580, 30690), (606, 30723), (608, 30729), (622, 30762), (655, 30843), (660, 30858), (710, 30963), (766, 31077),

Gene: Fascinus\_36 Start: 28964, Stop: 30466, Start Num: 187

Candidate Starts for Fascinus\_36:

(78, 28859), (Start: 89 @28871 has 25 MA's), (Start: 98 @28883 has 29 MA's), (Start: 102 @28889 has 3 MA's), (Start: 107 @28895 has 10 MA's), (Start: 109 @28898 has 10 MA's), (Start: 119 @28913 has 12 MA's), (Start: 187 @28964 has 221 MA's), (262, 29183), (264, 29189), (269, 29210), (326, 29339), (329, 29348), (331, 29357), (366, 29465), (379, 29486), (384, 29498), (391, 29522), (404, 29564), (457, 29693), (480, 29753), (500, 29810), (512, 29837), (525, 29864), (526, 29867), (533, 29879), (580, 29948), (608, 29987), (622, 30020), (655, 30101), (660, 30116), (710, 30221), (766, 30335), (828, 30434), (840, 30458),

Gene: FatCactus\_32 Start: 25084, Stop: 23525, Start Num: 171

Candidate Starts for FatCactus\_32:

(65, 25234), (67, 25231), (Start: 168 @25087 has 2 MA's), (Start: 171 @25084 has 112 MA's), (Start: 200 @25039 has 1 MA's), (Start: 234 @24934 has 1 MA's), (294, 24763), (297, 24757), (321, 24691), (322, 24682), (328, 24661), (358, 24571), (364, 24547), (370, 24529), (384, 24502), (402, 24445), (414, 24412), (423, 24385), (428, 24379), (451, 24331), (452, 24328), (467, 24280), (472, 24274), (479, 24253), (525, 24136), (542, 24106), (603, 24022), (640, 23929), (652, 23905), (696, 23809),

(754, 23695), (763, 23677), (774, 23647), (777, 23638), (788, 23623), (826, 23569), (835, 23554),

Gene: Fenn\_38 Start: 31030, Stop: 32544, Start Num: 187

Candidate Starts for Fenn\_38:

(Start: 98 @30949 has 29 MA's), (Start: 102 @30955 has 3 MA's), (Start: 107 @30961 has 10 MA's), (Start: 109 @30964 has 10 MA's), (Start: 119 @30979 has 12 MA's), (Start: 187 @31030 has 221 MA's), (264, 31255), (269, 31276), (323, 31393), (326, 31405), (329, 31414), (331, 31423), (366, 31531), (379, 31552), (384, 31564), (391, 31588), (404, 31630), (457, 31759), (480, 31819), (500, 31876), (525, 31930), (533, 31945), (608, 32053), (622, 32086), (625, 32089), (655, 32167), (660, 32182), (663, 32188), (766, 32401), (771, 32413),

Gene: Fenry\_37 Start: 30762, Stop: 32153, Start Num: 188

Candidate Starts for Fenry\_37:

(Start: 147 @30714 has 1 MA's), (161, 30732), (Start: 180 @30753 has 37 MA's), (Start: 188 @30762 has 36 MA's), (227, 30882), (262, 30975), (334, 31152), (336, 31158), (345, 31185), (362, 31239), (404, 31356), (487, 31533), (493, 31551), (497, 31560), (522, 31611), (543, 31638), (561, 31653), (607, 31719), (608, 31722), (615, 31743), (617, 31746), (622, 31755), (624, 31758), (643, 31809), (656, 31836), (682, 31893), (704, 31929), (719, 31962), (735, 31989), (759, 32040), (801, 32115),

Gene: Feyre\_38 Start: 31236, Stop: 32642, Start Num: 188

Candidate Starts for Feyre\_38:

(Start: 180 @31227 has 37 MA's), (Start: 188 @31236 has 36 MA's), (227, 31356), (288, 31533), (316, 31557), (328, 31608), (342, 31650), (364, 31719), (373, 31746), (379, 31755), (389, 31782), (396, 31803), (401, 31821), (411, 31848), (443, 31893), (454, 31899), (497, 32004), (533, 32070), (543, 32079), (555, 32100), (568, 32118), (581, 32139), (622, 32226), (627, 32235), (629, 32238), (672, 32346), (691, 32382), (727, 32454), (732, 32463), (755, 32514), (774, 32553), (780, 32565), (788, 32574), (813, 32604), (824, 32619),

Gene: Floof\_64 Start: 39661, Stop: 41214, Start Num: 135

Candidate Starts for Floof\_64:

(Start: 120 @39643 has 1 MA's), (Start: 135 @39661 has 2 MA's), (Start: 151 @39679 has 2 MA's), (Start: 206 @39766 has 9 MA's), (Start: 222 @39820 has 1 MA's), (253, 39886), (256, 39892), (268, 39934), (329, 40114), (337, 40138), (404, 40336), (410, 40348), (493, 40603), (596, 40783), (604, 40807), (610, 40819), (669, 40963), (682, 40987), (746, 41098),

Gene: Florean\_33 Start: 26636, Stop: 25122, Start Num: 171

Candidate Starts for Florean\_33:

(Start: 134 @26678 has 1 MA's), (Start: 162 @26645 has 16 MA's), (Start: 171 @26636 has 112 MA's), (239, 26474), (262, 26408), (268, 26390), (294, 26315), (305, 26291), (320, 26252), (321, 26249), (347, 26162), (387, 26048), (391, 26036), (462, 25853), (498, 25742), (521, 25691), (603, 25562), (607, 25553), (637, 25478), (639, 25472), (696, 25349), (714, 25310), (794, 25160), (805, 25145),

Gene: Florence1\_30 Start: 25514, Stop: 24075, Start Num: 206

Candidate Starts for Florence1\_30:

(Start: 187 @25568 has 221 MA's), (Start: 200 @25535 has 1 MA's), (Start: 201 @25532 has 3 MA's), (Start: 206 @25514 has 9 MA's), (Start: 234 @25433 has 1 MA's), (281, 25289), (294, 25262), (323, 25214), (379, 25049), (387, 25025), (389, 25022), (396, 25001), (471, 24812), (525, 24671), (546, 24641), (633, 24464), (637, 24452), (673, 24368), (680, 24353), (692, 24338), (776, 24161), (806, 24131), (829, 24098),

Gene: Florence4\_31 Start: 25514, Stop: 24075, Start Num: 206

Candidate Starts for Florence4\_31:

(Start: 187 @25568 has 221 MA's), (Start: 200 @25535 has 1 MA's), (Start: 201 @25532 has 3 MA's), (Start: 206 @25514 has 9 MA's), (Start: 234 @25433 has 1 MA's), (281, 25289), (294, 25262), (323, 25214), (379, 25049), (387, 25025), (389, 25022), (396, 25001), (471, 24812), (525, 24671), (546, 24641), (633, 24464), (637, 24452), (673, 24368), (680, 24353), (692, 24338), (776, 24161), (806, 24131), (829, 24098),

Gene: Flutur\_49 Start: 35547, Stop: 36965, Start Num: 180

Candidate Starts for Flutur\_49:

(Start: 163 @35529 has 10 MA's), (177, 35544), (Start: 180 @35547 has 37 MA's), (Start: 187 @35556 has 221 MA's), (225, 35670), (264, 35778), (317, 35889), (323, 35901), (325, 35910), (358, 36009), (391, 36102), (396, 36114), (404, 36141), (461, 36246), (486, 36300), (634, 36621), (638, 36633), (655, 36666), (729, 36804),

Gene: Flux\_33 Start: 26681, Stop: 25125, Start Num: 134

Candidate Starts for Flux\_33:

(Start: 134 @26681 has 1 MA's), (Start: 162 @26648 has 16 MA's), (Start: 171 @26639 has 112 MA's), (239, 26477), (262, 26411), (268, 26393), (294, 26318), (305, 26294), (320, 26255), (321, 26252), (347, 26165), (387, 26051), (391, 26039), (462, 25856), (498, 25745), (521, 25694), (603, 25565), (607, 25556), (637, 25481), (639, 25475), (696, 25352), (714, 25313), (794, 25163), (805, 25148),

Gene: FlyCatcher\_36 Start: 28870, Stop: 27362, Start Num: 187

Candidate Starts for FlyCatcher\_36:

(Start: 175 @28885 has 3 MA's), (Start: 187 @28870 has 221 MA's), (239, 28723), (293, 28570), (325, 28510), (362, 28393), (379, 28354), (387, 28330), (389, 28327), (392, 28315), (437, 28180), (479, 28069), (485, 28048), (492, 28027), (532, 27937), (556, 27901), (557, 27898), (605, 27832), (614, 27808), (629, 27781), (633, 27766), (637, 27754), (652, 27721), (664, 27688), (764, 27496), (771, 27475), (785, 27454), (819, 27400),

Gene: ForGetIt\_30 Start: 25711, Stop: 24218, Start Num: 187

Candidate Starts for ForGetIt\_30:

(Start: 187 @25711 has 221 MA's), (Start: 200 @25678 has 1 MA's), (Start: 201 @25675 has 3 MA's), (Start: 206 @25657 has 9 MA's), (Start: 234 @25576 has 1 MA's), (281, 25432), (294, 25405), (323, 25357), (379, 25192), (387, 25168), (389, 25165), (396, 25144), (471, 24955), (546, 24784), (614, 24649), (633, 24607), (637, 24595), (673, 24511), (680, 24496), (692, 24481), (776, 24304), (806, 24274), (829, 24241),

Gene: Forester\_56 Start: 39179, Stop: 40756, Start Num: 120

Candidate Starts for Forester\_56:

(Start: 120 @39179 has 1 MA's), (Start: 135 @39197 has 2 MA's), (Start: 151 @39218 has 2 MA's), (Start: 206 @39308 has 9 MA's), (Start: 222 @39362 has 1 MA's), (256, 39434), (329, 39656), (337, 39680), (338, 39683), (385, 39821), (404, 39878), (410, 39890), (562, 40271), (596, 40325), (604, 40349), (610, 40361), (655, 40472), (669, 40505), (682, 40529), (746, 40640), (806, 40748),

Gene: Forsytheast\_37 Start: 29539, Stop: 31122, Start Num: 98

Candidate Starts for Forsytheast\_37:

(Start: 98 @29539 has 29 MA's), (Start: 102 @29545 has 3 MA's), (Start: 107 @29551 has 10 MA's), (Start: 109 @29554 has 10 MA's), (Start: 119 @29569 has 12 MA's), (Start: 187 @29620 has 221 MA's), (Start: 195 @29635 has 10 MA's), (198, 29644), (262, 29839), (264, 29845), (268, 29857), (269, 29866), (326, 29995), (329, 30004), (331, 30013), (366, 30121), (379, 30142), (384, 30154), (391, 30178), (457, 30349), (480, 30409), (500, 30466), (525, 30520), (526, 30523), (533, 30535), (608, 30643), (622, 30676), (637, 30715), (655, 30757), (660, 30772), (766, 30991), (828, 31090), (840, 31114),

Gene: Francis47\_37 Start: 30069, Stop: 31553, Start Num: 195

Candidate Starts for Francis47\_37:

(Start: 98 @29973 has 29 MA's), (Start: 102 @29979 has 3 MA's), (Start: 107 @29985 has 10 MA's), (Start: 109 @29988 has 10 MA's), (Start: 119 @30003 has 12 MA's), (Start: 187 @30054 has 221 MA's), (Start: 195 @30069 has 10 MA's), (262, 30273), (264, 30279), (269, 30300), (326, 30429), (329, 30438), (331, 30447), (366, 30555), (379, 30576), (384, 30588), (391, 30612), (457, 30783), (480, 30843), (500, 30900), (512, 30927), (525, 30954), (526, 30957), (533, 30969), (606, 31068), (622, 31107), (625, 31110), (655, 31188), (660, 31203), (766, 31422), (828, 31521), (840, 31545),

Gene: FreakyGoo\_131 Start: 69557, Stop: 68097, Start Num: 140

Candidate Starts for FreakyGoo\_131:

(Start: 107 @69599 has 10 MA's), (Start: 133 @69566 has 1 MA's), (Start: 140 @69557 has 21 MA's), (198, 69485), (225, 69404), (245, 69362), (253, 69338), (271, 69266), (322, 69149), (340, 69086), (375, 69002), (381, 68990), (396, 68948), (401, 68930), (485, 68768), (492, 68747), (513, 68696), (532, 68669), (551, 68642), (624, 68522), (695, 68372), (733, 68294), (753, 68249), (778, 68192),

Gene: Froghopper\_37 Start: 28895, Stop: 30478, Start Num: 98

Candidate Starts for Froghopper\_37:

(Start: 98 @28895 has 29 MA's), (Start: 102 @28901 has 3 MA's), (Start: 107 @28907 has 10 MA's), (Start: 109 @28910 has 10 MA's), (Start: 119 @28925 has 12 MA's), (Start: 187 @28976 has 221 MA's), (264, 29201), (326, 29351), (329, 29360), (331, 29369), (366, 29477), (379, 29498), (384, 29510), (391, 29534), (457, 29705), (480, 29765), (500, 29822), (525, 29876), (526, 29879), (533, 29891), (580, 29960), (608, 29999), (622, 30032), (655, 30113), (660, 30128), (710, 30233), (766, 30347), (771, 30359), (828, 30446), (840, 30470),

Gene: Frokostdame\_39 Start: 30677, Stop: 32089, Start Num: 168

Candidate Starts for Frokostdame\_39:

(Start: 87 @30563 has 1 MA's), (Start: 168 @30677 has 2 MA's), (Start: 188 @30698 has 36 MA's), (227, 30818), (345, 31121), (362, 31175), (404, 31292), (447, 31370), (470, 31433), (487, 31469), (522, 31547), (543, 31574), (561, 31589), (607, 31655), (608, 31658), (622, 31691), (624, 31694), (656, 31772), (682, 31829), (704, 31865), (719, 31898), (735, 31925), (801, 32051),

Gene: FrumpyGal\_30 Start: 22937, Stop: 21357, Start Num: 176

Candidate Starts for FrumpyGal\_30:

(Start: 176 @22937 has 15 MA's), (Start: 199 @22892 has 3 MA's), (250, 22757), (257, 22739), (438, 22226), (516, 21998), (577, 21869), (581, 21863), (594, 21833), (651, 21701), (667, 21662), (678, 21635), (707, 21578), (741, 21518), (744, 21509), (766, 21455), (771, 21443), (772, 21440), (799, 21410), (806, 21401), (816, 21386),

Gene: Funston\_33 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for Funston\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: GMonster\_36 Start: 28786, Stop: 30288, Start Num: 187

Candidate Starts for GMonster\_36:

(Start: 98 @28705 has 29 MA's), (Start: 102 @28711 has 3 MA's), (Start: 107 @28717 has 10 MA's), (Start: 109 @28720 has 10 MA's), (Start: 119 @28735 has 12 MA's), (Start: 187 @28786 has 221 MA's), (Start: 191 @28795 has 17 MA's), (Start: 195 @28801 has 10 MA's), (198, 28810), (262,

29005), (264, 29011), (269, 29032), (326, 29161), (329, 29170), (331, 29179), (366, 29287), (379, 29308), (384, 29320), (391, 29344), (457, 29515), (480, 29575), (500, 29632), (512, 29659), (525, 29686), (526, 29689), (533, 29701), (608, 29809), (622, 29842), (655, 29923), (660, 29938), (710, 30043), (766, 30157), (771, 30169), (828, 30256), (840, 30280),

Gene: Gachnar\_39 Start: 29558, Stop: 31060, Start Num: 187

Candidate Starts for Gachnar\_39:

(Start: 98 @29477 has 29 MA's), (Start: 102 @29483 has 3 MA's), (Start: 107 @29489 has 10 MA's), (Start: 109 @29492 has 10 MA's), (Start: 119 @29507 has 12 MA's), (Start: 187 @29558 has 221 MA's), (264, 29783), (279, 29837), (326, 29933), (329, 29942), (331, 29951), (366, 30059), (379, 30080), (384, 30092), (391, 30116), (404, 30158), (457, 30287), (480, 30347), (500, 30404), (512, 30431), (525, 30458), (533, 30473), (608, 30581), (622, 30614), (639, 30659), (655, 30695), (660, 30710), (710, 30815), (766, 30929), (828, 31028), (840, 31052),

Gene: Gadost\_33 Start: 26641, Stop: 25127, Start Num: 171

Candidate Starts for Gadost\_33:

(Start: 134 @26683 has 1 MA's), (Start: 162 @26650 has 16 MA's), (Start: 171 @26641 has 112 MA's), (239, 26479), (262, 26413), (268, 26395), (294, 26320), (305, 26296), (320, 26257), (321, 26254), (347, 26167), (387, 26053), (391, 26041), (462, 25858), (498, 25747), (521, 25696), (603, 25567), (607, 25558), (637, 25483), (639, 25477), (696, 25354), (714, 25315), (794, 25165), (805, 25150),

Gene: GageAP\_39 Start: 29769, Stop: 31271, Start Num: 187

Candidate Starts for GageAP\_39:

(74, 29655), (Start: 98 @29688 has 29 MA's), (Start: 102 @29694 has 3 MA's), (Start: 107 @29700 has 10 MA's), (Start: 109 @29703 has 10 MA's), (Start: 119 @29718 has 12 MA's), (Start: 187 @29769 has 221 MA's), (262, 29988), (264, 29994), (269, 30015), (326, 30144), (329, 30153), (331, 30162), (366, 30270), (379, 30291), (384, 30303), (391, 30327), (404, 30369), (457, 30498), (480, 30558), (500, 30615), (512, 30642), (525, 30669), (526, 30672), (533, 30684), (580, 30753), (608, 30792), (622, 30825), (655, 30906), (660, 30921), (766, 31140), (771, 31152), (828, 31239), (840, 31263),

Gene: Gambino\_40 Start: 30240, Stop: 31766, Start Num: 87

Candidate Starts for Gambino\_40:

(Start: 87 @30240 has 1 MA's), (Start: 168 @30354 has 2 MA's), (Start: 188 @30375 has 36 MA's), (227, 30495), (288, 30672), (345, 30798), (362, 30852), (404, 30969), (447, 31047), (470, 31110), (487, 31146), (522, 31224), (543, 31251), (561, 31266), (607, 31332), (608, 31335), (617, 31359), (622, 31368), (624, 31371), (656, 31449), (682, 31506), (704, 31542), (719, 31575), (723, 31584), (735, 31602), (759, 31653),

Gene: Gambol\_44 Start: 31430, Stop: 32869, Start Num: 181

Candidate Starts for Gambol\_44:

(Start: 181 @31430 has 19 MA's), (Start: 222 @31541 has 1 MA's), (227, 31550), (256, 31613), (262, 31637), (265, 31646), (323, 31796), (325, 31805), (376, 31961), (379, 31967), (389, 31994), (410, 32054), (486, 32228), (491, 32243), (551, 32351), (640, 32534), (777, 32798), (785, 32813), (787, 32816),

Gene: Gandalf20\_38 Start: 30239, Stop: 31741, Start Num: 187

Candidate Starts for Gandalf20\_38:

(Start: 98 @30158 has 29 MA's), (Start: 102 @30164 has 3 MA's), (Start: 107 @30170 has 10 MA's), (Start: 109 @30173 has 10 MA's), (Start: 119 @30188 has 12 MA's), (Start: 187 @30239 has 221 MA's), (Start: 193 @30251 has 3 MA's), (264, 30464), (268, 30476), (269, 30485), (279, 30518), (326, 30614), (329, 30623), (331, 30632), (366, 30740), (379, 30761), (384, 30773), (391, 30797), (404,

30839), (457, 30968), (480, 31028), (500, 31085), (512, 31112), (525, 31139), (526, 31142), (533, 31154), (580, 31223), (606, 31256), (608, 31262), (622, 31295), (655, 31376), (660, 31391), (710, 31496), (766, 31610), (828, 31709), (840, 31733),

Gene: GardenSalsa\_146 Start: 70892, Stop: 69438, Start Num: 140

Candidate Starts for GardenSalsa\_146:

(64, 71009), (Start: 107 @70934 has 10 MA's), (Start: 133 @70901 has 1 MA's), (Start: 140 @70892 has 21 MA's), (Start: 190 @70838 has 3 MA's), (198, 70820), (221, 70745), (271, 70601), (322, 70484), (340, 70421), (381, 70331), (396, 70289), (497, 70076), (532, 70010), (551, 69983), (607, 69902), (618, 69872), (622, 69866), (624, 69863), (695, 69713), (706, 69692), (733, 69635), (778, 69533), (807, 69491),

Gene: GardenState\_58 Start: 37501, Stop: 38922, Start Num: 171

Candidate Starts for GardenState\_58:

(Start: 171 @37501 has 112 MA's), (323, 37861), (389, 38053), (391, 38062), (448, 38167), (559, 38401), (579, 38440), (669, 38641), (682, 38665), (698, 38686), (768, 38812), (818, 38899),

Gene: GenevaB15\_148 Start: 70550, Stop: 69096, Start Num: 140

Candidate Starts for GenevaB15\_148:

(Start: 107 @70592 has 10 MA's), (Start: 133 @70559 has 1 MA's), (Start: 140 @70550 has 21 MA's), (Start: 190 @70496 has 3 MA's), (198, 70478), (221, 70403), (271, 70259), (322, 70142), (340, 70079), (381, 69989), (396, 69947), (497, 69734), (513, 69695), (532, 69668), (551, 69641), (607, 69560), (618, 69530), (622, 69524), (624, 69521), (695, 69371), (706, 69350), (733, 69293), (778, 69191),

Gene: Gengar\_38 Start: 31346, Stop: 32752, Start Num: 188

Candidate Starts for Gengar\_38:

(Start: 180 @31337 has 37 MA's), (Start: 188 @31346 has 36 MA's), (227, 31466), (288, 31643), (316, 31667), (328, 31718), (342, 31760), (364, 31829), (373, 31856), (379, 31865), (389, 31892), (396, 31913), (401, 31931), (411, 31958), (443, 32003), (454, 32009), (497, 32114), (533, 32180), (543, 32189), (555, 32210), (568, 32228), (622, 32336), (627, 32345), (629, 32348), (672, 32456), (691, 32492), (727, 32564), (732, 32573), (755, 32624), (774, 32663), (780, 32675), (788, 32684), (813, 32714), (824, 32729),

Gene: George\_29 Start: 25777, Stop: 24284, Start Num: 187

Candidate Starts for George\_29:

(Start: 187 @25777 has 221 MA's), (Start: 200 @25744 has 1 MA's), (Start: 201 @25741 has 3 MA's), (Start: 206 @25723 has 9 MA's), (Start: 234 @25642 has 1 MA's), (281, 25498), (294, 25471), (323, 25423), (379, 25258), (387, 25234), (389, 25231), (396, 25210), (471, 25021), (525, 24880), (546, 24850), (633, 24673), (637, 24661), (673, 24577), (680, 24562), (692, 24547), (776, 24370), (806, 24340), (829, 24307),

Gene: Ghouboy\_30 Start: 25972, Stop: 24533, Start Num: 206

Candidate Starts for Ghouboy\_30:

(Start: 187 @26026 has 221 MA's), (Start: 200 @25993 has 1 MA's), (Start: 201 @25990 has 3 MA's), (Start: 206 @25972 has 9 MA's), (Start: 234 @25891 has 1 MA's), (273, 25771), (281, 25747), (294, 25720), (323, 25672), (379, 25507), (387, 25483), (389, 25480), (396, 25459), (415, 25402), (471, 25270), (525, 25129), (546, 25099), (614, 24964), (633, 24922), (637, 24910), (673, 24826), (680, 24811), (692, 24796), (776, 24619), (806, 24589),

Gene: Giorgio\_42 Start: 31348, Stop: 32787, Start Num: 181

Candidate Starts for Giorgio\_42:

(Start: 181 @31348 has 19 MA's), (Start: 222 @31459 has 1 MA's), (227, 31468), (256, 31531), (262, 31555), (265, 31564), (323, 31714), (325, 31723), (376, 31879), (379, 31885), (389, 31912), (486,

32146), (491, 32161), (551, 32269), (681, 32539), (777, 32716), (785, 32731), (787, 32734),

Gene: Glaske16\_133 Start: 70191, Stop: 68731, Start Num: 140

Candidate Starts for Glaske16\_133:

(Start: 107 @70233 has 10 MA's), (Start: 133 @70200 has 1 MA's), (Start: 140 @70191 has 21 MA's), (198, 70119), (225, 70038), (245, 69996), (253, 69972), (271, 69900), (322, 69783), (340, 69720), (375, 69636), (381, 69624), (396, 69582), (401, 69564), (485, 69402), (492, 69381), (513, 69330), (532, 69303), (551, 69276), (624, 69156), (695, 69006), (733, 68928), (753, 68883), (778, 68826),

Gene: Goby\_50 Start: 35136, Stop: 36713, Start Num: 89

Candidate Starts for Goby\_50:

(Start: 55 @35070 has 7 MA's), (Start: 89 @35136 has 25 MA's), (Start: 197 @35256 has 3 MA's), (227, 35355), (Start: 234 @35373 has 1 MA's), (255, 35424), (277, 35505), (278, 35508), (321, 35580), (322, 35589), (323, 35592), (396, 35802), (398, 35805), (400, 35814), (497, 36042), (525, 36108), (546, 36138), (611, 36237), (622, 36261), (628, 36270), (635, 36294), (664, 36366), (759, 36555), (770, 36585), (774, 36594), (786, 36618), (793, 36633), (804, 36648),

Gene: Godpower\_51 Start: 35115, Stop: 36692, Start Num: 89

Candidate Starts for Godpower\_51:

(Start: 55 @35049 has 7 MA's), (Start: 89 @35115 has 25 MA's), (Start: 197 @35235 has 3 MA's), (227, 35334), (Start: 234 @35352 has 1 MA's), (255, 35403), (277, 35484), (278, 35487), (321, 35559), (322, 35568), (323, 35571), (373, 35724), (396, 35781), (398, 35784), (400, 35793), (497, 36021), (525, 36087), (546, 36117), (611, 36216), (622, 36240), (628, 36249), (635, 36273), (664, 36345), (759, 36534), (774, 36573), (786, 36597), (793, 36612), (804, 36627),

Gene: Gollum\_29 Start: 23636, Stop: 22140, Start Num: 165

Candidate Starts for Gollum\_29:

(Start: 165 @23636 has 35 MA's), (Start: 187 @23615 has 221 MA's), (Start: 190 @23609 has 3 MA's), (Start: 234 @23480 has 1 MA's), (252, 23432), (329, 23240), (340, 23201), (364, 23129), (389, 23069), (392, 23057), (414, 22994), (429, 22964), (443, 22931), (452, 22910), (461, 22880), (469, 22865), (471, 22859), (485, 22811), (497, 22778), (521, 22721), (546, 22682), (548, 22676), (611, 22580), (628, 22547), (634, 22526), (637, 22517), (714, 22355),

Gene: Gompeii16\_37 Start: 29884, Stop: 31383, Start Num: 187

Candidate Starts for Gompeii16\_37:

(Start: 98 @29803 has 29 MA's), (Start: 102 @29809 has 3 MA's), (Start: 107 @29815 has 10 MA's), (Start: 109 @29818 has 10 MA's), (Start: 119 @29833 has 12 MA's), (Start: 187 @29884 has 221 MA's), (Start: 195 @29899 has 10 MA's), (198, 29908), (262, 30103), (264, 30109), (269, 30130), (326, 30259), (329, 30268), (331, 30277), (366, 30385), (379, 30406), (384, 30418), (391, 30442), (457, 30613), (480, 30673), (500, 30730), (512, 30757), (525, 30784), (526, 30787), (533, 30799), (606, 30898), (622, 30937), (625, 30940), (655, 31018), (660, 31033), (766, 31252), (828, 31351), (840, 31375),

Gene: Graduation\_39 Start: 30062, Stop: 31606, Start Num: 130

Candidate Starts for Graduation\_39:

(Start: 130 @30062 has 3 MA's), (Start: 187 @30107 has 221 MA's), (Start: 195 @30122 has 10 MA's), (198, 30131), (239, 30254), (262, 30326), (264, 30332), (279, 30386), (326, 30482), (329, 30491), (331, 30500), (366, 30608), (379, 30629), (384, 30641), (391, 30665), (404, 30707), (457, 30836), (480, 30896), (500, 30953), (512, 30980), (525, 31007), (526, 31010), (533, 31022), (606, 31121), (622, 31160), (655, 31241), (660, 31256), (710, 31361), (766, 31475), (771, 31487), (828, 31574), (840, 31598),

Gene: GrecoEtereo\_39 Start: 30180, Stop: 31682, Start Num: 187

Candidate Starts for GrecoEtereo\_39:

(Start: 98 @30099 has 29 MA's), (Start: 102 @30105 has 3 MA's), (Start: 107 @30111 has 10 MA's), (Start: 109 @30114 has 10 MA's), (Start: 119 @30129 has 12 MA's), (Start: 187 @30180 has 221 MA's), (Start: 195 @30195 has 10 MA's), (264, 30405), (326, 30555), (329, 30564), (331, 30573), (366, 30681), (379, 30702), (384, 30714), (391, 30738), (404, 30780), (457, 30909), (480, 30969), (500, 31026), (525, 31080), (533, 31095), (580, 31164), (606, 31197), (608, 31203), (622, 31236), (625, 31239), (655, 31317), (660, 31332), (710, 31437), (766, 31551), (828, 31650), (840, 31674),

Gene: Greg\_39 Start: 29706, Stop: 31220, Start Num: 187

Candidate Starts for Greg\_39:

(Start: 98 @29625 has 29 MA's), (Start: 102 @29631 has 3 MA's), (Start: 107 @29637 has 10 MA's), (Start: 109 @29640 has 10 MA's), (Start: 119 @29655 has 12 MA's), (Start: 187 @29706 has 221 MA's), (Start: 195 @29721 has 10 MA's), (262, 29925), (264, 29931), (269, 29952), (323, 30069), (326, 30081), (329, 30090), (331, 30099), (366, 30207), (379, 30228), (384, 30240), (391, 30264), (404, 30306), (457, 30435), (480, 30495), (500, 30552), (512, 30579), (525, 30606), (526, 30609), (533, 30621), (580, 30690), (606, 30723), (608, 30729), (622, 30762), (655, 30843), (660, 30858), (710, 30963), (766, 31077),

Gene: Gretchen\_58 Start: 38919, Stop: 40406, Start Num: 183

Candidate Starts for Gretchen\_58:

(19, 38601), (37, 38670), (Start: 183 @38919 has 12 MA's), (Start: 206 @38982 has 9 MA's), (215, 39012), (253, 39111), (254, 39114), (264, 39150), (322, 39282), (325, 39294), (351, 39366), (369, 39423), (387, 39450), (421, 39528), (452, 39576), (532, 39753), (543, 39765), (607, 39885), (621, 39918), (648, 39978), (664, 40020), (672, 40032), (739, 40158), (745, 40173), (777, 40251), (789, 40269), (849, 40401),

Gene: GrimEater\_47 Start: 33306, Stop: 34718, Start Num: 187

Candidate Starts for GrimEater\_47:

(Start: 187 @33306 has 221 MA's), (271, 33558), (317, 33636), (323, 33648), (331, 33678), (339, 33705), (341, 33711), (414, 33915), (445, 33948), (461, 33996), (546, 34185), (548, 34191), (603, 34296), (629, 34353), (633, 34368), (692, 34482), (729, 34554), (780, 34653),

Gene: GroundGoblin\_39 Start: 30857, Stop: 32359, Start Num: 187

Candidate Starts for GroundGoblin\_39:

(Start: 98 @30776 has 29 MA's), (Start: 102 @30782 has 3 MA's), (Start: 107 @30788 has 10 MA's), (Start: 109 @30791 has 10 MA's), (Start: 119 @30806 has 12 MA's), (Start: 187 @30857 has 221 MA's), (262, 31076), (264, 31082), (268, 31094), (269, 31103), (323, 31220), (326, 31232), (329, 31241), (331, 31250), (362, 31346), (366, 31358), (379, 31379), (384, 31391), (391, 31415), (457, 31586), (480, 31646), (500, 31703), (512, 31730), (525, 31757), (533, 31772), (580, 31841), (608, 31880), (622, 31913), (655, 31994), (660, 32009), (710, 32114), (766, 32228), (828, 32327), (840, 32351),

Gene: Groundhog\_29 Start: 24980, Stop: 23478, Start Num: 171

Candidate Starts for Groundhog\_29:

(Start: 109 @25052 has 10 MA's), (Start: 134 @25022 has 1 MA's), (139, 25016), (Start: 171 @24980 has 112 MA's), (Start: 234 @24830 has 1 MA's), (269, 24725), (294, 24659), (300, 24641), (320, 24599), (321, 24596), (347, 24509), (391, 24383), (423, 24290), (448, 24242), (462, 24200), (481, 24140), (521, 24038), (603, 23903), (633, 23831), (677, 23726), (692, 23699), (696, 23690), (763, 23567), (788, 23519),

Gene: Guillsminger\_39 Start: 31317, Stop: 32723, Start Num: 188

Candidate Starts for Guillsminger\_39:

(Start: 180 @31308 has 37 MA's), (Start: 188 @31317 has 36 MA's), (227, 31437), (288, 31614), (316, 31638), (328, 31689), (342, 31731), (358, 31779), (364, 31800), (373, 31827), (379, 31836), (389, 31863), (396, 31884), (401, 31902), (411, 31929), (443, 31974), (454, 31980), (497, 32085), (533, 32151), (543, 32160), (555, 32181), (568, 32199), (622, 32307), (627, 32316), (629, 32319), (672, 32427), (691, 32463), (727, 32535), (732, 32544), (755, 32595), (774, 32634), (780, 32646), (788, 32655), (813, 32685), (824, 32700),

Gene: Gumpizza\_42 Start: 31304, Stop: 32743, Start Num: 181

Candidate Starts for Gumpizza\_42:

(Start: 181 @31304 has 19 MA's), (Start: 222 @31415 has 1 MA's), (227, 31424), (256, 31487), (262, 31511), (265, 31520), (323, 31670), (325, 31679), (376, 31835), (379, 31841), (389, 31868), (486, 32102), (491, 32117), (551, 32225), (681, 32495), (777, 32672), (785, 32687), (787, 32690),

Gene: Gwendoluna\_40 Start: 31439, Stop: 33007, Start Num: 109

Candidate Starts for Gwendoluna\_40:

(Start: 98 @31424 has 29 MA's), (Start: 102 @31430 has 3 MA's), (Start: 107 @31436 has 10 MA's), (Start: 109 @31439 has 10 MA's), (Start: 119 @31454 has 12 MA's), (Start: 187 @31505 has 221 MA's), (Start: 195 @31520 has 10 MA's), (262, 31724), (264, 31730), (269, 31751), (326, 31880), (329, 31889), (331, 31898), (366, 32006), (379, 32027), (384, 32039), (391, 32063), (404, 32105), (457, 32234), (480, 32294), (500, 32351), (512, 32378), (525, 32405), (526, 32408), (533, 32420), (580, 32489), (608, 32528), (622, 32561), (655, 32642), (660, 32657), (668, 32672), (710, 32762), (766, 32876), (828, 32975), (840, 32999),

Gene: HFrancette\_30 Start: 23607, Stop: 21988, Start Num: 158

Candidate Starts for HFrancette\_30:

(Start: 158 @23607 has 5 MA's), (250, 23403), (257, 23385), (335, 23181), (388, 22998), (405, 22947), (435, 22881), (438, 22872), (485, 22731), (493, 22707), (516, 22653), (545, 22587), (593, 22482), (607, 22446), (645, 22359), (667, 22305), (713, 22203), (752, 22134), (763, 22110), (766, 22098), (809, 22047),

Gene: HINdeR\_33 Start: 29171, Stop: 27708, Start Num: 187

Candidate Starts for HINdeR\_33:

(103, 29273), (124, 29243), (Start: 151 @29210 has 2 MA's), (Start: 187 @29171 has 221 MA's), (Start: 234 @29036 has 1 MA's), (247, 29000), (274, 28910), (283, 28889), (285, 28886), (322, 28820), (329, 28796), (334, 28781), (353, 28730), (376, 28658), (378, 28655), (384, 28640), (386, 28631), (412, 28556), (415, 28547), (453, 28463), (476, 28397), (576, 28208), (615, 28139), (636, 28091), (663, 28025), (673, 28004), (729, 27899), (791, 27785), (807, 27761), (819, 27743), (836, 27719), (838, 27713),

Gene: Halsey\_43 Start: 31558, Stop: 32997, Start Num: 181

Candidate Starts for Halsey\_43:

(Start: 181 @31558 has 19 MA's), (Start: 222 @31669 has 1 MA's), (227, 31678), (256, 31741), (262, 31765), (265, 31774), (323, 31924), (325, 31933), (376, 32089), (379, 32095), (389, 32122), (486, 32356), (551, 32479), (777, 32926), (785, 32941), (787, 32944),

Gene: HamSlice\_32 Start: 26644, Stop: 25121, Start Num: 162

Candidate Starts for HamSlice\_32:

(Start: 134 @26677 has 1 MA's), (Start: 162 @26644 has 16 MA's), (Start: 171 @26635 has 112 MA's), (239, 26473), (262, 26407), (268, 26389), (294, 26314), (305, 26290), (320, 26251), (321, 26248), (347, 26161), (387, 26047), (391, 26035), (462, 25852), (498, 25741), (521, 25690), (603, 25561), (607, 25552), (637, 25477), (639, 25471), (696, 25348), (714, 25309), (794, 25159), (805, 25144),

Gene: HanShotFirst\_36 Start: 28972, Stop: 30474, Start Num: 187

Candidate Starts for HanShotFirst\_36:

(26, 28735), (29, 28738), (36, 28753), (53, 28816), (Start: 98 @28891 has 29 MA's), (Start: 102 @28897 has 3 MA's), (Start: 107 @28903 has 10 MA's), (Start: 109 @28906 has 10 MA's), (Start: 119 @28921 has 12 MA's), (Start: 187 @28972 has 221 MA's), (Start: 195 @28987 has 10 MA's), (Start: 222 @29080 has 1 MA's), (262, 29191), (264, 29197), (269, 29218), (323, 29335), (326, 29347), (329, 29356), (331, 29365), (362, 29461), (366, 29473), (379, 29494), (384, 29506), (391, 29530), (457, 29701), (480, 29761), (500, 29818), (525, 29872), (533, 29887), (606, 29989), (608, 29995), (622, 30028), (625, 30031), (649, 30094), (660, 30124), (710, 30229), (766, 30343), (828, 30442), (840, 30466),

Gene: Happiness\_33 Start: 26642, Stop: 25128, Start Num: 171

Candidate Starts for Happiness\_33:

(Start: 134 @26684 has 1 MA's), (Start: 162 @26651 has 16 MA's), (Start: 171 @26642 has 112 MA's), (239, 26480), (262, 26414), (268, 26396), (294, 26321), (305, 26297), (320, 26258), (321, 26255), (347, 26168), (387, 26054), (391, 26042), (462, 25859), (498, 25748), (521, 25697), (603, 25568), (607, 25559), (637, 25484), (639, 25478), (696, 25355), (714, 25316), (794, 25166), (805, 25151),

Gene: Harlequin\_29 Start: 23641, Stop: 22145, Start Num: 165

Candidate Starts for Harlequin\_29:

(Start: 165 @23641 has 35 MA's), (Start: 187 @23620 has 221 MA's), (Start: 190 @23614 has 3 MA's), (Start: 234 @23485 has 1 MA's), (252, 23437), (278, 23350), (329, 23245), (364, 23134), (389, 23074), (392, 23062), (414, 22999), (429, 22969), (443, 22936), (452, 22915), (461, 22885), (471, 22864), (484, 22819), (485, 22816), (487, 22810), (521, 22726), (546, 22687), (548, 22681), (628, 22552), (634, 22531), (637, 22522), (714, 22360),

Gene: HarryOW\_37 Start: 29352, Stop: 30854, Start Num: 187

Candidate Starts for HarryOW\_37:

(Start: 98 @29271 has 29 MA's), (Start: 102 @29277 has 3 MA's), (Start: 107 @29283 has 10 MA's), (Start: 109 @29286 has 10 MA's), (Start: 187 @29352 has 221 MA's), (262, 29571), (264, 29577), (269, 29598), (326, 29727), (329, 29736), (331, 29745), (366, 29853), (379, 29874), (384, 29886), (391, 29910), (404, 29952), (457, 30081), (480, 30141), (500, 30198), (525, 30252), (533, 30267), (580, 30336), (606, 30369), (608, 30375), (622, 30408), (625, 30411), (655, 30489), (660, 30504), (710, 30609), (766, 30723), (828, 30822), (840, 30846),

Gene: HashRod\_37 Start: 27309, Stop: 25741, Start Num: 171

Candidate Starts for HashRod\_37:

(64, 27459), (70, 27444), (139, 27345), (Start: 171 @27309 has 112 MA's), (269, 27054), (276, 27030), (300, 26970), (320, 26922), (321, 26919), (347, 26832), (353, 26820), (358, 26799), (364, 26775), (391, 26706), (415, 26637), (417, 26628), (462, 26523), (471, 26478), (521, 26346), (567, 26262), (606, 26205), (696, 25998), (765, 25857),

Gene: Heather\_56 Start: 38485, Stop: 40254, Start Num: 128

Candidate Starts for Heather\_56:

(111, 38461), (122, 38479), (Start: 128 @38485 has 3 MA's), (143, 38500), (174, 38539), (184, 38551), (253, 38728), (262, 38761), (284, 38833), (290, 38848), (302, 38875), (304, 38878), (318, 38914), (356, 39040), (381, 39112), (382, 39115), (404, 39187), (435, 39274), (440, 39292), (450, 39313), (477, 39424), (482, 39445), (495, 39487), (525, 39559), (536, 39586), (558, 39628), (586, 39694), (599, 39721), (617, 39775), (635, 39820), (642, 39841), (676, 39922), (721, 40024), (746, 40069), (761, 40105), (768, 40126), (774, 40138),

Gene: Heftyboy\_38 Start: 31463, Stop: 32869, Start Num: 188

Candidate Starts for Heftyboy\_38:

(Start: 180 @31454 has 37 MA's), (Start: 188 @31463 has 36 MA's), (227, 31583), (288, 31760), (316, 31784), (328, 31835), (342, 31877), (358, 31925), (364, 31946), (373, 31973), (379, 31982), (389, 32009), (396, 32030), (401, 32048), (411, 32075), (443, 32120), (454, 32126), (497, 32231), (533, 32297), (543, 32306), (555, 32327), (568, 32345), (622, 32453), (627, 32462), (629, 32465), (664, 32561), (672, 32573), (691, 32609), (727, 32681), (732, 32690), (755, 32741), (774, 32780), (780, 32792), (788, 32801), (813, 32831), (824, 32846),

Gene: Herbertwm\_31 Start: 25845, Stop: 24304, Start Num: 171

Candidate Starts for Herbertwm\_31:

(29, 26094), (31, 26091), (40, 26064), (42, 26055), (88, 25950), (93, 25944), (Start: 110 @25911 has 1 MA's), (Start: 136 @25884 has 3 MA's), (138, 25881), (Start: 171 @25845 has 112 MA's), (262, 25617), (268, 25599), (293, 25527), (315, 25470), (320, 25452), (321, 25449), (353, 25350), (363, 25308), (391, 25236), (414, 25170), (417, 25158), (462, 25053), (471, 25023), (481, 24993), (525, 24882), (603, 24729), (611, 24708), (633, 24657), (637, 24645), (639, 24639), (666, 24576), (688, 24531), (696, 24516),

Gene: Hermia\_40 Start: 30907, Stop: 32409, Start Num: 187

Candidate Starts for Hermia\_40:

(Start: 98 @30826 has 29 MA's), (Start: 102 @30832 has 3 MA's), (Start: 107 @30838 has 10 MA's), (Start: 109 @30841 has 10 MA's), (Start: 119 @30856 has 12 MA's), (Start: 187 @30907 has 221 MA's), (Start: 195 @30922 has 10 MA's), (262, 31126), (264, 31132), (269, 31153), (323, 31270), (326, 31282), (329, 31291), (331, 31300), (362, 31396), (366, 31408), (379, 31429), (384, 31441), (391, 31465), (457, 31636), (480, 31696), (500, 31753), (512, 31780), (525, 31807), (533, 31822), (580, 31891), (608, 31930), (622, 31963), (655, 32044), (660, 32059), (710, 32164), (766, 32278), (828, 32377), (840, 32401),

Gene: HermioneGrange\_37 Start: 29320, Stop: 30822, Start Num: 187

Candidate Starts for HermioneGrange\_37:

(Start: 98 @29239 has 29 MA's), (Start: 102 @29245 has 3 MA's), (Start: 107 @29251 has 10 MA's), (Start: 109 @29254 has 10 MA's), (Start: 119 @29269 has 12 MA's), (Start: 187 @29320 has 221 MA's), (Start: 193 @29332 has 3 MA's), (264, 29545), (268, 29557), (269, 29566), (279, 29599), (326, 29695), (329, 29704), (331, 29713), (366, 29821), (379, 29842), (384, 29854), (391, 29878), (404, 29920), (457, 30049), (480, 30109), (500, 30166), (512, 30193), (525, 30220), (526, 30223), (533, 30235), (580, 30304), (606, 30337), (608, 30343), (622, 30376), (655, 30457), (660, 30472), (710, 30577), (766, 30691), (828, 30790), (840, 30814),

Gene: Hippo\_50 Start: 36182, Stop: 37795, Start Num: 89

Candidate Starts for Hippo\_50:

(Start: 55 @36116 has 7 MA's), (Start: 82 @36173 has 5 MA's), (Start: 89 @36182 has 25 MA's), (Start: 197 @36329 has 3 MA's), (227, 36428), (Start: 234 @36446 has 1 MA's), (255, 36497), (277, 36578), (278, 36581), (321, 36653), (322, 36662), (323, 36665), (362, 36791), (373, 36818), (400, 36887), (415, 36932), (454, 37001), (462, 37028), (481, 37076), (497, 37124), (513, 37163), (525, 37190), (546, 37220), (622, 37343), (646, 37403), (664, 37448), (729, 37577), (754, 37628), (759, 37637), (774, 37676), (786, 37700), (793, 37715), (804, 37730), (815, 37745),

Gene: Hiro\_29 Start: 23875, Stop: 22397, Start Num: 187

Candidate Starts for Hiro\_29:

(Start: 165 @23896 has 35 MA's), (Start: 187 @23875 has 221 MA's), (Start: 190 @23869 has 3 MA's), (212, 23800), (Start: 234 @23740 has 1 MA's), (278, 23602), (279, 23599), (291, 23572), (322, 23521), (353, 23431), (378, 23359), (386, 23335), (391, 23320), (396, 23308), (410, 23269), (445, 23188), (449, 23176), (462, 23137), (471, 23119), (493, 23050), (498, 23038), (504, 23023), (509, 23011), (521, 22987), (525, 22978), (546, 22948), (556, 22930), (573, 22909), (587, 22888), (610,

22855), (614, 22843), (659, 22735), (712, 22630), (746, 22570), (764, 22531), (765, 22528), (774, 22504), (776, 22498),

Gene: Holli\_33 Start: 26436, Stop: 24913, Start Num: 162

Candidate Starts for Holli\_33:

(Start: 134 @26469 has 1 MA's), (Start: 162 @26436 has 16 MA's), (Start: 171 @26427 has 112 MA's), (239, 26265), (262, 26199), (268, 26181), (294, 26106), (305, 26082), (320, 26043), (321, 26040), (347, 25953), (387, 25839), (391, 25827), (462, 25644), (498, 25533), (521, 25482), (603, 25353), (607, 25344), (637, 25269), (639, 25263), (696, 25140), (714, 25101), (794, 24951), (805, 24936),

Gene: Honk\_61 Start: 38228, Stop: 39772, Start Num: 162

Candidate Starts for Honk\_61:

(Start: 162 @38228 has 16 MA's), (256, 38429), (277, 38507), (325, 38630), (343, 38690), (359, 38738), (364, 38759), (376, 38786), (379, 38792), (404, 38870), (543, 39188), (559, 39218), (562, 39224), (623, 39353), (629, 39365), (630, 39374), (659, 39449), (669, 39470), (722, 39560), (731, 39575), (806, 39707),

Gene: Hookmount\_34 Start: 27245, Stop: 25722, Start Num: 175

Candidate Starts for Hookmount\_34:

(Start: 175 @27245 has 3 MA's), (Start: 187 @27230 has 221 MA's), (Start: 190 @27224 has 3 MA's), (Start: 191 @27221 has 17 MA's), (249, 27053), (252, 27047), (293, 26930), (325, 26870), (362, 26753), (379, 26714), (389, 26687), (392, 26675), (437, 26540), (492, 26387), (532, 26297), (557, 26258), (614, 26168), (633, 26126), (637, 26114), (656, 26069), (664, 26048), (771, 25835), (785, 25814),

Gene: Hope4ever\_37 Start: 29718, Stop: 31289, Start Num: 107

Candidate Starts for Hope4ever\_37:

(Start: 98 @29706 has 29 MA's), (Start: 102 @29712 has 3 MA's), (Start: 107 @29718 has 10 MA's), (Start: 109 @29721 has 10 MA's), (Start: 119 @29736 has 12 MA's), (Start: 187 @29787 has 221 MA's), (Start: 191 @29796 has 17 MA's), (Start: 195 @29802 has 10 MA's), (198, 29811), (262, 30006), (264, 30012), (323, 30150), (326, 30162), (329, 30171), (331, 30180), (366, 30288), (379, 30309), (384, 30321), (391, 30345), (404, 30387), (457, 30516), (480, 30576), (500, 30633), (525, 30687), (526, 30690), (533, 30702), (580, 30771), (608, 30810), (622, 30843), (655, 30924), (660, 30939), (710, 31044), (766, 31158), (828, 31257), (840, 31281),

Gene: Houdini22\_33 Start: 26641, Stop: 25127, Start Num: 171

Candidate Starts for Houdini22\_33:

(Start: 134 @26683 has 1 MA's), (Start: 162 @26650 has 16 MA's), (Start: 171 @26641 has 112 MA's), (239, 26479), (262, 26413), (268, 26395), (294, 26320), (305, 26296), (320, 26257), (321, 26254), (347, 26167), (387, 26053), (391, 26041), (462, 25858), (498, 25747), (521, 25696), (603, 25567), (607, 25558), (637, 25483), (639, 25477), (696, 25354), (714, 25315), (794, 25165), (805, 25150),

Gene: HuhtaEnerson15\_30 Start: 25723, Stop: 24284, Start Num: 206

Candidate Starts for HuhtaEnerson15\_30:

(Start: 187 @25777 has 221 MA's), (Start: 200 @25744 has 1 MA's), (Start: 201 @25741 has 3 MA's), (Start: 206 @25723 has 9 MA's), (Start: 234 @25642 has 1 MA's), (281, 25498), (294, 25471), (323, 25423), (379, 25258), (387, 25234), (389, 25231), (396, 25210), (471, 25021), (525, 24880), (546, 24850), (633, 24673), (637, 24661), (673, 24577), (680, 24562), (692, 24547), (776, 24370), (806, 24340), (829, 24307),

Gene: Huxley\_33 Start: 26698, Stop: 25184, Start Num: 171

Candidate Starts for Huxley\_33:

(Start: 134 @26740 has 1 MA's), (Start: 162 @26707 has 16 MA's), (Start: 171 @26698 has 112 MA's), (239, 26536), (262, 26470), (268, 26452), (294, 26377), (305, 26353), (320, 26314), (321, 26311), (347, 26224), (387, 26110), (391, 26098), (462, 25915), (498, 25804), (521, 25753), (603, 25624), (607, 25615), (637, 25540), (639, 25534), (696, 25411), (714, 25372), (794, 25222), (805, 25207),

Gene: Hydra\_50 Start: 34719, Stop: 36053, Start Num: 183

Candidate Starts for Hydra\_50:

(Start: 183 @34719 has 12 MA's), (Start: 191 @34731 has 17 MA's), (198, 34746), (Start: 222 @34833 has 1 MA's), (Start: 224 @34836 has 1 MA's), (237, 34860), (253, 34902), (256, 34911), (268, 34953), (269, 34962), (271, 34974), (321, 35064), (322, 35073), (329, 35097), (369, 35217), (380, 35223), (426, 35313), (448, 35328), (452, 35337), (462, 35370), (511, 35481), (513, 35487), (543, 35535), (554, 35550), (563, 35565), (603, 35625), (608, 35634), (613, 35649), (650, 35730), (670, 35760), (688, 35790), (710, 35838), (749, 35916), (768, 35964), (774, 35973), (789, 36000), (816, 36039),

Gene: IAmGroot\_57 Start: 37709, Stop: 39130, Start Num: 171

Candidate Starts for IAmGroot\_57:

(Start: 171 @37709 has 112 MA's), (323, 38069), (389, 38261), (391, 38270), (448, 38375), (559, 38609), (579, 38648), (669, 38849), (682, 38873), (698, 38894), (768, 39020), (818, 39107),

Gene: ICleared\_33 Start: 26628, Stop: 25132, Start Num: 187

Candidate Starts for ICleared\_33:

(Start: 119 @26694 has 12 MA's), (Start: 187 @26628 has 221 MA's), (Start: 197 @26610 has 3 MA's), (211, 26556), (229, 26505), (Start: 234 @26493 has 1 MA's), (274, 26367), (283, 26346), (299, 26316), (322, 26277), (334, 26238), (363, 26148), (387, 26088), (405, 26034), (461, 25896), (569, 25665), (611, 25575), (629, 25539), (637, 25512), (659, 25458), (663, 25449), (768, 25239), (776, 25221), (791, 25209), (796, 25200),

Gene: ILeeKay\_39 Start: 29491, Stop: 31056, Start Num: 109

Candidate Starts for ILeeKay\_39:

(Start: 98 @29476 has 29 MA's), (Start: 102 @29482 has 3 MA's), (Start: 107 @29488 has 10 MA's), (Start: 109 @29491 has 10 MA's), (Start: 119 @29506 has 12 MA's), (Start: 187 @29557 has 221 MA's), (Start: 191 @29566 has 17 MA's), (Start: 195 @29572 has 10 MA's), (198, 29581), (262, 29776), (264, 29782), (326, 29932), (329, 29941), (331, 29950), (366, 30058), (379, 30079), (384, 30091), (391, 30115), (404, 30157), (457, 30286), (480, 30346), (500, 30403), (512, 30430), (525, 30457), (533, 30472), (606, 30571), (622, 30610), (655, 30691), (660, 30706), (710, 30811), (766, 30925), (828, 31024), (840, 31048),

Gene: IPhane7\_129 Start: 69256, Stop: 67796, Start Num: 140

Candidate Starts for IPhane7\_129:

(Start: 107 @69298 has 10 MA's), (Start: 133 @69265 has 1 MA's), (Start: 140 @69256 has 21 MA's), (198, 69184), (225, 69103), (245, 69061), (253, 69037), (271, 68965), (322, 68848), (340, 68785), (375, 68701), (381, 68689), (396, 68647), (401, 68629), (485, 68467), (492, 68446), (513, 68395), (532, 68368), (551, 68341), (624, 68221), (695, 68071), (733, 67993), (753, 67948), (778, 67891),

Gene: IUFootball\_51 Start: 37490, Stop: 38902, Start Num: 187

Candidate Starts for IUFootball\_51:

(Start: 187 @37490 has 221 MA's), (Start: 234 @37628 has 1 MA's), (278, 37763), (317, 37823), (323, 37835), (328, 37853), (339, 37892), (389, 38027), (391, 38036), (457, 38168), (461, 38180), (497, 38261), (603, 38471), (615, 38504), (634, 38546), (644, 38573), (655, 38591), (731, 38732), (767, 38795), (777, 38819), (830, 38897),

Gene: lbantik\_5 Start: 2018, Stop: 3472, Start Num: 272

Candidate Starts for lbantik\_5:

(126, 1661), (185, 1733), (194, 1751), (216, 1826), (233, 1886), (251, 1943), (Start: 272 @2018 has 1 MA's), (315, 2126), (332, 2195), (334, 2198), (340, 2222), (343, 2231), (344, 2234), (377, 2345), (461, 2612), (465, 2639), (574, 2936), (612, 3026), (620, 3047), (626, 3059), (634, 3083), (771, 3395),

Gene: Iceman\_34 Start: 26926, Stop: 25412, Start Num: 171

Candidate Starts for Iceman\_34:

(Start: 134 @26968 has 1 MA's), (Start: 162 @26935 has 16 MA's), (Start: 171 @26926 has 112 MA's), (239, 26764), (262, 26698), (268, 26680), (294, 26605), (305, 26581), (320, 26542), (321, 26539), (347, 26452), (391, 26326), (462, 26143), (498, 26032), (521, 25981), (603, 25852), (607, 25843), (637, 25768), (639, 25762), (696, 25639), (714, 25600), (794, 25450), (805, 25435),

Gene: Ichabod\_38 Start: 29525, Stop: 31093, Start Num: 109

Candidate Starts for Ichabod\_38:

(Start: 98 @29510 has 29 MA's), (Start: 102 @29516 has 3 MA's), (Start: 107 @29522 has 10 MA's), (Start: 109 @29525 has 10 MA's), (Start: 119 @29540 has 12 MA's), (Start: 187 @29591 has 221 MA's), (Start: 222 @29699 has 1 MA's), (262, 29810), (264, 29816), (269, 29837), (326, 29966), (329, 29975), (331, 29984), (366, 30092), (379, 30113), (384, 30125), (391, 30149), (457, 30320), (480, 30380), (500, 30437), (512, 30464), (525, 30491), (533, 30506), (580, 30575), (606, 30608), (608, 30614), (622, 30647), (655, 30728), (660, 30743), (710, 30848), (766, 30962), (828, 31061), (840, 31085),

Gene: Ididsumtinwong\_31 Start: 23000, Stop: 21264, Start Num: 145

Candidate Starts for Ididsumtinwong\_31:

(17, 23297), (Start: 145 @23000 has 12 MA's), (192, 22943), (198, 22928), (265, 22736), (325, 22595), (368, 22445), (376, 22433), (387, 22385), (419, 22295), (468, 22151), (501, 22052), (519, 22010), (581, 21869), (594, 21839), (602, 21818), (672, 21653), (701, 21593), (720, 21551), (739, 21521), (744, 21509), (763, 21467), (764, 21464), (784, 21422), (809, 21386), (842, 21332),

Gene: Ignacio\_30 Start: 23614, Stop: 22034, Start Num: 176

Candidate Starts for Ignacio\_30:

(Start: 176 @23614 has 15 MA's), (Start: 199 @23569 has 3 MA's), (250, 23434), (257, 23416), (438, 22903), (516, 22675), (577, 22546), (581, 22540), (594, 22510), (651, 22378), (667, 22339), (678, 22312), (707, 22255), (741, 22195), (744, 22186), (766, 22132), (771, 22120), (772, 22117), (799, 22087), (806, 22078), (816, 22063),

Gene: IgnatiusPatJac\_36 Start: 29287, Stop: 30789, Start Num: 187

Candidate Starts for IgnatiusPatJac\_36:

(26, 29050), (29, 29053), (36, 29068), (53, 29131), (Start: 98 @29206 has 29 MA's), (Start: 102 @29212 has 3 MA's), (Start: 107 @29218 has 10 MA's), (Start: 109 @29221 has 10 MA's), (Start: 119 @29236 has 12 MA's), (Start: 187 @29287 has 221 MA's), (Start: 195 @29302 has 10 MA's), (198, 29311), (264, 29512), (268, 29524), (269, 29533), (326, 29662), (329, 29671), (331, 29680), (366, 29788), (379, 29809), (384, 29821), (391, 29845), (404, 29887), (457, 30016), (480, 30076), (500, 30133), (525, 30187), (526, 30190), (533, 30202), (580, 30271), (608, 30310), (622, 30343), (655, 30424), (660, 30439), (710, 30544), (766, 30658), (771, 30670), (828, 30757), (840, 30781),

Gene: Indigo\_48 Start: 34063, Stop: 35397, Start Num: 183

Candidate Starts for Indigo\_48:

(Start: 183 @34063 has 12 MA's), (Start: 191 @34075 has 17 MA's), (198, 34090), (Start: 222 @34177 has 1 MA's), (Start: 224 @34180 has 1 MA's), (237, 34204), (253, 34246), (256, 34255), (268, 34297), (269, 34306), (271, 34318), (321, 34408), (322, 34417), (329, 34441), (369, 34561), (380, 34567), (426, 34657), (448, 34672), (452, 34681), (462, 34714), (511, 34825), (513, 34831), (543, 34879),

(554, 34894), (563, 34909), (603, 34969), (613, 34993), (650, 35074), (670, 35104), (688, 35134), (710, 35182), (749, 35260), (768, 35308), (774, 35317), (789, 35344), (816, 35383),

Gene: InvictusManeo\_38 Start: 31499, Stop: 32869, Start Num: 206

Candidate Starts for InvictusManeo\_38:

(33, 31172), (50, 31235), (76, 31289), (132, 31376), (Start: 170 @31424 has 8 MA's), (Start: 206 @31499 has 9 MA's), (210, 31511), (253, 31622), (254, 31625), (263, 31658), (269, 31682), (292, 31745), (329, 31820), (436, 32096), (543, 32318), (548, 32330), (591, 32378), (603, 32408), (611, 32429), (622, 32453), (693, 32606), (731, 32687), (736, 32693), (742, 32705), (755, 32741), (759, 32747), (768, 32768), (775, 32783), (777, 32789), (808, 32837), (815, 32846),

Gene: Inyanga\_35 Start: 28750, Stop: 30237, Start Num: 195

Candidate Starts for Inyanga\_35:

(Start: 98 @28654 has 29 MA's), (Start: 102 @28660 has 3 MA's), (Start: 107 @28666 has 10 MA's), (Start: 109 @28669 has 10 MA's), (Start: 119 @28684 has 12 MA's), (Start: 187 @28735 has 221 MA's), (Start: 195 @28750 has 10 MA's), (264, 28960), (326, 29110), (329, 29119), (331, 29128), (366, 29236), (379, 29257), (384, 29269), (391, 29293), (404, 29335), (453, 29449), (457, 29464), (480, 29524), (500, 29581), (512, 29608), (525, 29635), (533, 29650), (580, 29719), (608, 29758), (622, 29791), (655, 29872), (660, 29887), (766, 30106), (828, 30205), (840, 30229),

Gene: Iqorha\_35 Start: 28749, Stop: 30236, Start Num: 195

Candidate Starts for Iqorha\_35:

(Start: 98 @28653 has 29 MA's), (Start: 102 @28659 has 3 MA's), (Start: 107 @28665 has 10 MA's), (Start: 109 @28668 has 10 MA's), (Start: 119 @28683 has 12 MA's), (Start: 187 @28734 has 221 MA's), (Start: 195 @28749 has 10 MA's), (264, 28959), (326, 29109), (329, 29118), (331, 29127), (366, 29235), (379, 29256), (384, 29268), (391, 29292), (404, 29334), (453, 29448), (457, 29463), (480, 29523), (500, 29580), (512, 29607), (525, 29634), (533, 29649), (580, 29718), (608, 29757), (622, 29790), (655, 29871), (660, 29886), (766, 30105), (828, 30204), (840, 30228),

Gene: Iracema64\_34 Start: 26931, Stop: 25453, Start Num: 197

Candidate Starts for Iracema64\_34:

(Start: 119 @27015 has 12 MA's), (Start: 187 @26949 has 221 MA's), (Start: 197 @26931 has 3 MA's), (212, 26874), (217, 26856), (229, 26826), (Start: 234 @26814 has 1 MA's), (274, 26688), (283, 26667), (299, 26637), (322, 26598), (334, 26559), (363, 26469), (387, 26409), (405, 26355), (461, 26217), (569, 25986), (611, 25896), (629, 25860), (637, 25833), (659, 25779), (663, 25770), (768, 25560), (776, 25542), (791, 25530), (796, 25521),

Gene: Issmi\_53 Start: 37574, Stop: 38995, Start Num: 163

Candidate Starts for Issmi\_53:

(Start: 116 @37514 has 3 MA's), (Start: 157 @37565 has 5 MA's), (Start: 163 @37574 has 10 MA's), (253, 37784), (264, 37811), (286, 37877), (326, 37949), (369, 38078), (381, 38087), (395, 38126), (448, 38237), (460, 38273), (470, 38294), (471, 38297), (489, 38336), (494, 38351), (578, 38495), (621, 38579), (674, 38696), (695, 38732), (720, 38786), (721, 38789), (741, 38822), (768, 38888), (801, 38936), (807, 38945), (834, 38984),

Gene: Iter\_51 Start: 35996, Stop: 37411, Start Num: 187

Candidate Starts for Iter\_51:

(Start: 187 @35996 has 221 MA's), (Start: 197 @36014 has 3 MA's), (225, 36110), (Start: 234 @36134 has 1 MA's), (264, 36218), (278, 36269), (317, 36329), (323, 36341), (331, 36371), (358, 36449), (391, 36542), (404, 36581), (634, 37064), (638, 37076), (729, 37247),

Gene: IttyBittyPiggy\_50 Start: 34701, Stop: 36119, Start Num: 180

Candidate Starts for IttyBittyPiggy\_50:

(Start: 163 @34683 has 10 MA's), (177, 34698), (Start: 180 @34701 has 37 MA's), (Start: 187 @34710 has 221 MA's), (264, 34932), (317, 35043), (323, 35055), (325, 35064), (354, 35142), (358, 35163), (370, 35205), (391, 35256), (396, 35268), (414, 35322), (629, 35757), (634, 35775), (638, 35787),

Gene: Itza\_50 Start: 33245, Stop: 34663, Start Num: 193

Candidate Starts for Itza\_50:

(105, 33131), (Start: 109 @33137 has 10 MA's), (Start: 180 @33224 has 37 MA's), (Start: 193 @33245 has 3 MA's), (306, 33557), (325, 33611), (326, 33614), (339, 33659), (346, 33674), (369, 33740), (409, 33824), (433, 33857), (461, 33929), (470, 33947), (493, 34001), (528, 34082), (547, 34106), (550, 34112), (589, 34163), (603, 34196), (633, 34265), (653, 34310), (688, 34391), (705, 34424), (706, 34427), (816, 34646),

Gene: Izel\_131 Start: 69072, Stop: 67612, Start Num: 140

Candidate Starts for Izel\_131:

(Start: 107 @69114 has 10 MA's), (Start: 133 @69081 has 1 MA's), (Start: 140 @69072 has 21 MA's), (198, 69000), (225, 68919), (245, 68877), (253, 68853), (271, 68781), (322, 68664), (340, 68601), (375, 68517), (381, 68505), (396, 68463), (401, 68445), (485, 68283), (492, 68262), (513, 68211), (532, 68184), (551, 68157), (624, 68037), (695, 67887), (733, 67809), (753, 67764), (778, 67707),

Gene: Izzy\_50 Start: 34419, Stop: 35741, Start Num: 191

Candidate Starts for Izzy\_50:

(Start: 183 @34407 has 12 MA's), (Start: 191 @34419 has 17 MA's), (198, 34434), (Start: 222 @34521 has 1 MA's), (Start: 224 @34524 has 1 MA's), (237, 34548), (256, 34599), (268, 34641), (269, 34650), (271, 34662), (321, 34752), (322, 34761), (329, 34785), (369, 34905), (380, 34911), (426, 35001), (448, 35016), (452, 35025), (462, 35058), (511, 35169), (513, 35175), (543, 35223), (554, 35238), (563, 35253), (603, 35313), (608, 35322), (613, 35337), (649, 35415), (670, 35448), (688, 35478), (710, 35526), (749, 35604), (768, 35652), (774, 35661), (789, 35688), (816, 35727),

Gene: JC27\_38 Start: 29870, Stop: 31372, Start Num: 187

Candidate Starts for JC27\_38:

(Start: 98 @29789 has 29 MA's), (Start: 102 @29795 has 3 MA's), (Start: 107 @29801 has 10 MA's), (Start: 109 @29804 has 10 MA's), (Start: 119 @29819 has 12 MA's), (Start: 187 @29870 has 221 MA's), (262, 30089), (264, 30095), (326, 30245), (329, 30254), (331, 30263), (366, 30371), (379, 30392), (384, 30404), (391, 30428), (404, 30470), (457, 30599), (480, 30659), (500, 30716), (512, 30743), (525, 30770), (533, 30785), (580, 30854), (608, 30893), (622, 30926), (655, 31007), (660, 31022), (766, 31241), (828, 31340), (840, 31364),

Gene: Jabiru\_31 Start: 25464, Stop: 23983, Start Num: 187

Candidate Starts for Jabiru\_31:

(155, 25491), (Start: 187 @25464 has 221 MA's), (Start: 201 @25428 has 3 MA's), (Start: 234 @25329 has 1 MA's), (247, 25293), (264, 25245), (274, 25203), (285, 25179), (299, 25152), (322, 25113), (329, 25089), (334, 25074), (379, 24945), (489, 24651), (495, 24633), (507, 24606), (521, 24576), (533, 24552), (546, 24537), (590, 24477), (611, 24426), (614, 24417), (637, 24363), (652, 24330), (680, 24264), (714, 24201), (776, 24072), (836, 23994),

Gene: JackSparrow\_38 Start: 29845, Stop: 31416, Start Num: 107

Candidate Starts for JackSparrow\_38:

(Start: 98 @29833 has 29 MA's), (Start: 102 @29839 has 3 MA's), (Start: 107 @29845 has 10 MA's), (Start: 109 @29848 has 10 MA's), (Start: 119 @29863 has 12 MA's), (Start: 187 @29914 has 221 MA's), (198, 29938), (262, 30133), (264, 30139), (326, 30289), (329, 30298), (331, 30307), (366, 30415), (379, 30436), (384, 30448), (391, 30472), (404, 30514), (457, 30643), (480, 30703), (500, 30760), (512, 30787), (525, 30814), (533, 30829), (580, 30898), (608, 30937), (622, 30970), (655, 31051), (660, 31066), (710, 31171), (766, 31285), (828, 31384), (840, 31408),

Gene: Jalammah\_42 Start: 32075, Stop: 33466, Start Num: 188

Candidate Starts for Jalammah\_42:

(Start: 147 @32027 has 1 MA's), (161, 32045), (Start: 180 @32066 has 37 MA's), (Start: 188 @32075 has 36 MA's), (227, 32195), (262, 32288), (334, 32465), (336, 32471), (345, 32498), (362, 32552), (404, 32669), (487, 32846), (493, 32864), (497, 32873), (522, 32924), (543, 32951), (561, 32966), (607, 33032), (608, 33035), (615, 33056), (617, 33059), (622, 33068), (624, 33071), (643, 33122), (656, 33149), (682, 33206), (704, 33242), (719, 33275), (735, 33302), (759, 33353), (801, 33428),

Gene: Janeemi\_52 Start: 36965, Stop: 38386, Start Num: 180

Candidate Starts for Janeemi\_52:

(139, 36914), (Start: 163 @36947 has 10 MA's), (177, 36962), (Start: 180 @36965 has 37 MA's), (Start: 187 @36974 has 221 MA's), (231, 37106), (Start: 234 @37112 has 1 MA's), (264, 37196), (277, 37244), (317, 37307), (323, 37319), (325, 37328), (358, 37427), (391, 37520), (404, 37559), (486, 37718), (493, 37739), (634, 38042), (638, 38054), (729, 38225), (776, 38312),

Gene: Jankie\_48 Start: 33484, Stop: 34896, Start Num: 187

Candidate Starts for Jankie\_48:

(Start: 187 @33484 has 221 MA's), (271, 33736), (317, 33814), (323, 33826), (331, 33856), (341, 33889), (414, 34093), (445, 34126), (461, 34174), (546, 34363), (548, 34369), (603, 34474), (629, 34531), (633, 34546), (692, 34660), (729, 34732), (780, 34831),

Gene: Jash\_50 Start: 34372, Stop: 35694, Start Num: 191

Candidate Starts for Jash\_50:

(Start: 183 @34360 has 12 MA's), (Start: 191 @34372 has 17 MA's), (198, 34387), (Start: 222 @34474 has 1 MA's), (Start: 224 @34477 has 1 MA's), (237, 34501), (256, 34552), (268, 34594), (269, 34603), (271, 34615), (321, 34705), (322, 34714), (329, 34738), (369, 34858), (380, 34864), (426, 34954), (448, 34969), (452, 34978), (462, 35011), (511, 35122), (513, 35128), (543, 35176), (554, 35191), (563, 35206), (603, 35266), (608, 35275), (613, 35290), (649, 35368), (670, 35401), (688, 35431), (710, 35479), (749, 35557), (768, 35605), (774, 35614), (789, 35641), (816, 35680),

Gene: Jasper\_38 Start: 29239, Stop: 30741, Start Num: 187

Candidate Starts for Jasper\_38:

(Start: 98 @29158 has 29 MA's), (Start: 102 @29164 has 3 MA's), (Start: 107 @29170 has 10 MA's), (Start: 109 @29173 has 10 MA's), (Start: 119 @29188 has 12 MA's), (Start: 187 @29239 has 221 MA's), (Start: 195 @29254 has 10 MA's), (227, 29356), (Start: 234 @29374 has 1 MA's), (239, 29386), (262, 29458), (264, 29464), (268, 29476), (269, 29485), (323, 29602), (326, 29614), (329, 29623), (331, 29632), (362, 29728), (366, 29740), (379, 29761), (384, 29773), (391, 29797), (404, 29839), (457, 29968), (480, 30028), (500, 30085), (525, 30139), (533, 30154), (606, 30256), (608, 30262), (622, 30295), (625, 30298), (637, 30334), (649, 30361), (660, 30391), (766, 30610), (828, 30709), (840, 30733),

Gene: Jaykayelowell\_33 Start: 26633, Stop: 25119, Start Num: 171

Candidate Starts for Jaykayelowell\_33:

(Start: 134 @26675 has 1 MA's), (Start: 162 @26642 has 16 MA's), (Start: 171 @26633 has 112 MA's), (239, 26471), (262, 26405), (268, 26387), (294, 26312), (305, 26288), (320, 26249), (321, 26246), (347, 26159), (387, 26045), (391, 26033), (462, 25850), (498, 25739), (521, 25688), (603, 25559), (607, 25550), (615, 25526), (637, 25475), (639, 25469), (696, 25346), (714, 25307), (794, 25157), (805, 25142),

Gene: Jerm2\_38 Start: 29575, Stop: 31077, Start Num: 187

Candidate Starts for Jerm2\_38:

(Start: 98 @29494 has 29 MA's), (Start: 102 @29500 has 3 MA's), (Start: 107 @29506 has 10 MA's), (Start: 109 @29509 has 10 MA's), (Start: 119 @29524 has 12 MA's), (Start: 187 @29575 has 221 MA's), (Start: 195 @29590 has 10 MA's), (264, 29800), (268, 29812), (269, 29821), (279, 29854), (326, 29950), (329, 29959), (331, 29968), (366, 30076), (379, 30097), (384, 30109), (391, 30133), (404, 30175), (457, 30304), (480, 30364), (500, 30421), (512, 30448), (525, 30475), (526, 30478), (533, 30490), (580, 30559), (606, 30592), (608, 30598), (622, 30631), (655, 30712), (660, 30727), (710, 30832), (766, 30946), (828, 31045), (840, 31069),

Gene: Jester\_29 Start: 23572, Stop: 22076, Start Num: 165

Candidate Starts for Jester\_29:

(Start: 165 @23572 has 35 MA's), (Start: 187 @23551 has 221 MA's), (Start: 190 @23545 has 3 MA's), (Start: 234 @23416 has 1 MA's), (252, 23368), (278, 23281), (329, 23176), (364, 23065), (389, 23005), (392, 22993), (414, 22930), (429, 22900), (443, 22867), (452, 22846), (461, 22816), (471, 22795), (484, 22750), (485, 22747), (487, 22741), (521, 22657), (546, 22618), (548, 22612), (628, 22483), (634, 22462), (637, 22453), (714, 22291),

Gene: JetBlade\_33 Start: 26634, Stop: 25120, Start Num: 171

Candidate Starts for JetBlade\_33:

(Start: 134 @26676 has 1 MA's), (Start: 162 @26643 has 16 MA's), (Start: 171 @26634 has 112 MA's), (239, 26472), (262, 26406), (268, 26388), (294, 26313), (305, 26289), (320, 26250), (321, 26247), (347, 26160), (387, 26046), (391, 26034), (462, 25851), (498, 25740), (521, 25689), (603, 25560), (607, 25551), (637, 25476), (639, 25470), (696, 25347), (714, 25308), (794, 25158), (805, 25143),

Gene: Jevington\_52 Start: 36147, Stop: 37628, Start Num: 116

Candidate Starts for Jevington\_52:

(22, 35931), (47, 36015), (48, 36021), (100, 36123), (Start: 116 @36147 has 3 MA's), (Start: 157 @36198 has 5 MA's), (Start: 163 @36207 has 10 MA's), (253, 36417), (264, 36444), (326, 36582), (369, 36711), (395, 36759), (448, 36870), (452, 36879), (470, 36927), (471, 36930), (489, 36969), (578, 37128), (621, 37212), (674, 37329), (695, 37365), (741, 37455), (744, 37464), (768, 37521), (801, 37569), (807, 37578), (834, 37617),

Gene: Jflix2\_51 Start: 35443, Stop: 36906, Start Num: 110

Candidate Starts for Jflix2\_51:

(66, 35365), (Start: 110 @35443 has 1 MA's), (121, 35461), (Start: 170 @35521 has 8 MA's), (198, 35566), (Start: 206 @35596 has 9 MA's), (223, 35650), (227, 35659), (236, 35677), (316, 35860), (323, 35893), (342, 35953), (389, 36085), (392, 36097), (401, 36124), (452, 36208), (493, 36310), (494, 36313), (523, 36373), (561, 36412), (592, 36439), (603, 36469), (606, 36475), (611, 36490), (615, 36502), (622, 36514), (638, 36556), (664, 36619), (697, 36679), (717, 36721), (755, 36796), (764, 36808), (768, 36823), (791, 36862),

Gene: Jhitchelle\_50 Start: 36343, Stop: 37926, Start Num: 148

Candidate Starts for Jhitchelle\_50:

(Start: 148 @36343 has 2 MA's), (192, 36397), (Start: 199 @36418 has 3 MA's), (208, 36448), (219, 36490), (227, 36505), (268, 36613), (271, 36634), (324, 36742), (326, 36751), (347, 36814), (353, 36826), (362, 36865), (383, 36907), (394, 36949), (412, 37006), (432, 37048), (438, 37069), (478, 37162), (531, 37285), (535, 37294), (538, 37303), (565, 37366), (593, 37426), (598, 37438), (632, 37513), (661, 37573), (678, 37606), (682, 37615), (690, 37630), (701, 37651), (706, 37660), (728, 37708), (743, 37735), (752, 37756), (754, 37762), (766, 37792), (790, 37843),

Gene: Joemato\_50 Start: 35318, Stop: 36736, Start Num: 180

Candidate Starts for Joemato\_50:

(Start: 163 @35300 has 10 MA's), (177, 35315), (Start: 180 @35318 has 37 MA's), (Start: 187 @35327 has 221 MA's), (225, 35441), (Start: 234 @35465 has 1 MA's), (264, 35549), (317, 35660), (323, 35672), (325, 35681), (358, 35780), (391, 35873), (396, 35885), (404, 35912), (461, 36017), (486, 36071), (634, 36392), (638, 36404), (655, 36437), (729, 36575),

Gene: JohnDoe\_50 Start: 35314, Stop: 36732, Start Num: 180

Candidate Starts for JohnDoe\_50:

(Start: 163 @35296 has 10 MA's), (177, 35311), (Start: 180 @35314 has 37 MA's), (Start: 187 @35323 has 221 MA's), (225, 35437), (264, 35545), (317, 35656), (323, 35668), (325, 35677), (358, 35776), (391, 35869), (404, 35908), (486, 36067), (634, 36388), (638, 36400), (655, 36433), (729, 36571),

Gene: JoongJeon\_33 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for JoongJeon\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Jorgensen\_37 Start: 29286, Stop: 30788, Start Num: 187

Candidate Starts for Jorgensen\_37:

(Start: 98 @29205 has 29 MA's), (Start: 102 @29211 has 3 MA's), (Start: 107 @29217 has 10 MA's), (Start: 109 @29220 has 10 MA's), (Start: 119 @29235 has 12 MA's), (Start: 187 @29286 has 221 MA's), (Start: 195 @29301 has 10 MA's), (264, 29511), (269, 29532), (326, 29661), (329, 29670), (331, 29679), (366, 29787), (379, 29808), (384, 29820), (391, 29844), (404, 29886), (457, 30015), (480, 30075), (500, 30132), (512, 30159), (525, 30186), (526, 30189), (533, 30201), (606, 30303), (608, 30309), (622, 30342), (637, 30381), (655, 30423), (660, 30438), (766, 30657), (828, 30756), (840, 30780),

Gene: Jovo\_30 Start: 25967, Stop: 24474, Start Num: 187

Candidate Starts for Jovo\_30:

(Start: 187 @25967 has 221 MA's), (Start: 200 @25934 has 1 MA's), (Start: 201 @25931 has 3 MA's), (Start: 206 @25913 has 9 MA's), (Start: 234 @25832 has 1 MA's), (281, 25688), (294, 25661), (323, 25613), (379, 25448), (387, 25424), (389, 25421), (396, 25400), (471, 25211), (546, 25040), (614, 24905), (633, 24863), (637, 24851), (673, 24767), (680, 24752), (692, 24737), (776, 24560), (806, 24530), (829, 24497),

Gene: Jstan\_50 Start: 35963, Stop: 37384, Start Num: 180

Candidate Starts for Jstan\_50:

(Start: 163 @35945 has 10 MA's), (177, 35960), (Start: 180 @35963 has 37 MA's), (Start: 187 @35972 has 221 MA's), (225, 36086), (Start: 234 @36110 has 1 MA's), (264, 36194), (271, 36227), (277, 36242), (317, 36305), (323, 36317), (325, 36326), (358, 36425), (370, 36467), (391, 36518), (404, 36557), (453, 36635), (461, 36662), (486, 36716), (629, 37022), (630, 37031), (634, 37040), (638, 37052), (729, 37223), (776, 37310),

Gene: JuJu\_41 Start: 31203, Stop: 32594, Start Num: 188

Candidate Starts for JuJu\_41:

(161, 31173), (Start: 188 @31203 has 36 MA's), (227, 31323), (288, 31500), (334, 31593), (336, 31599), (345, 31626), (362, 31680), (379, 31722), (404, 31797), (414, 31824), (447, 31875), (470, 31938), (484, 31965), (487, 31974), (493, 31992), (497, 32001), (522, 32052), (543, 32079), (561, 32094), (615, 32184), (622, 32196), (624, 32199), (656, 32277), (682, 32334), (723, 32412), (759, 32481),

Gene: JuliaChild\_39 Start: 30024, Stop: 31526, Start Num: 187

Candidate Starts for JuliaChild\_39:

(Start: 98 @29943 has 29 MA's), (Start: 102 @29949 has 3 MA's), (Start: 107 @29955 has 10 MA's), (Start: 109 @29958 has 10 MA's), (Start: 119 @29973 has 12 MA's), (Start: 187 @30024 has 221 MA's), (Start: 195 @30039 has 10 MA's), (262, 30243), (264, 30249), (269, 30270), (279, 30303), (326, 30399), (329, 30408), (331, 30417), (364, 30519), (366, 30525), (379, 30546), (384, 30558), (391, 30582), (404, 30624), (457, 30753), (480, 30813), (500, 30870), (512, 30897), (525, 30924), (526, 30927), (533, 30939), (606, 31041), (608, 31047), (622, 31080), (625, 31083), (655, 31161), (660, 31176), (668, 31191), (710, 31281), (766, 31395), (828, 31494), (840, 31518),

Gene: JuneStar\_51 Start: 38077, Stop: 39495, Start Num: 180

Candidate Starts for JuneStar\_51:

(Start: 163 @38059 has 10 MA's), (177, 38074), (Start: 180 @38077 has 37 MA's), (Start: 187 @38086 has 221 MA's), (Start: 234 @38224 has 1 MA's), (264, 38308), (317, 38419), (323, 38431), (325, 38440), (358, 38539), (370, 38581), (391, 38632), (404, 38671), (603, 39076), (629, 39133), (634, 39151), (638, 39163), (731, 39337),

Gene: KADY\_37 Start: 27309, Stop: 25741, Start Num: 171

Candidate Starts for KADY\_37:

(64, 27459), (70, 27444), (139, 27345), (Start: 171 @27309 has 112 MA's), (269, 27054), (276, 27030), (300, 26970), (320, 26922), (321, 26919), (347, 26832), (353, 26820), (358, 26799), (364, 26775), (391, 26706), (415, 26637), (417, 26628), (462, 26523), (471, 26478), (521, 26346), (567, 26262), (606, 26205), (696, 25998), (765, 25857),

Gene: KBG\_38 Start: 30500, Stop: 31999, Start Num: 187

Candidate Starts for KBG\_38:

(Start: 98 @30419 has 29 MA's), (Start: 102 @30425 has 3 MA's), (Start: 107 @30431 has 10 MA's), (Start: 109 @30434 has 10 MA's), (Start: 119 @30449 has 12 MA's), (Start: 187 @30500 has 221 MA's), (210, 30566), (Start: 222 @30608 has 1 MA's), (262, 30719), (264, 30725), (269, 30746), (326, 30875), (329, 30884), (331, 30893), (334, 30899), (366, 31001), (379, 31022), (384, 31034), (391, 31058), (404, 31100), (457, 31229), (480, 31289), (500, 31346), (512, 31373), (525, 31400), (526, 31403), (533, 31415), (606, 31514), (622, 31553), (625, 31556), (655, 31634), (660, 31649), (766, 31868), (828, 31967), (840, 31991),

Gene: KFPoly\_33 Start: 26634, Stop: 25120, Start Num: 171

Candidate Starts for KFPoly\_33:

(Start: 134 @26676 has 1 MA's), (Start: 162 @26643 has 16 MA's), (Start: 171 @26634 has 112 MA's), (239, 26472), (262, 26406), (268, 26388), (294, 26313), (305, 26289), (320, 26250), (321, 26247), (347, 26160), (387, 26046), (391, 26034), (462, 25851), (498, 25740), (521, 25689), (603, 25560), (607, 25551), (637, 25476), (639, 25470), (696, 25347), (714, 25308), (794, 25158), (805, 25143),

Gene: KSSJEB\_37 Start: 29202, Stop: 30704, Start Num: 187

Candidate Starts for KSSJEB\_37:

(Start: 98 @29121 has 29 MA's), (Start: 102 @29127 has 3 MA's), (Start: 107 @29133 has 10 MA's), (Start: 109 @29136 has 10 MA's), (Start: 119 @29151 has 12 MA's), (Start: 187 @29202 has 221 MA's), (227, 29319), (262, 29421), (264, 29427), (269, 29448), (323, 29565), (326, 29577), (329, 29586), (331, 29595), (366, 29703), (384, 29736), (448, 29904), (457, 29931), (480, 29991), (500, 30048), (512, 30075), (525, 30102), (533, 30117), (580, 30186), (608, 30225), (622, 30258), (649, 30324), (660, 30354), (689, 30417), (710, 30459), (766, 30573), (828, 30672), (840, 30696),

Gene: Kaine\_52 Start: 36736, Stop: 38322, Start Num: 89

Candidate Starts for Kaine\_52:

(56, 36673), (58, 36679), (Start: 89 @36736 has 25 MA's), (Start: 199 @36874 has 3 MA's), (Start: 220 @36946 has 1 MA's), (Start: 222 @36952 has 1 MA's), (Start: 234 @36979 has 1 MA's), (255, 37030), (259, 37042), (271, 37096), (278, 37114), (322, 37195), (323, 37198), (390, 37393), (415, 37465), (430, 37474), (454, 37531), (471, 37573), (481, 37603), (525, 37717), (546, 37747), (548, 37753), (611, 37846), (617, 37861), (622, 37870), (633, 37897), (634, 37900), (652, 37942), (664, 37975), (669, 37984), (733, 38110), (754, 38155), (759, 38164), (765, 38179), (770, 38194), (774, 38203), (786, 38227), (815, 38272),

Gene: Kalimba\_43 Start: 31408, Stop: 32847, Start Num: 181

Candidate Starts for Kalimba\_43:

(Start: 181 @31408 has 19 MA's), (Start: 222 @31519 has 1 MA's), (227, 31528), (256, 31591), (262, 31615), (265, 31624), (323, 31774), (325, 31783), (376, 31939), (379, 31945), (389, 31972), (410, 32032), (486, 32206), (491, 32221), (551, 32329), (640, 32512), (777, 32776), (785, 32791), (787, 32794),

Gene: Kanely\_38 Start: 30151, Stop: 31650, Start Num: 195

Candidate Starts for Kanely\_38:

(Start: 89 @30046 has 25 MA's), (Start: 130 @30091 has 3 MA's), (Start: 187 @30136 has 221 MA's), (Start: 195 @30151 has 10 MA's), (Start: 222 @30244 has 1 MA's), (262, 30355), (264, 30361), (269, 30382), (326, 30511), (329, 30520), (331, 30529), (366, 30637), (379, 30658), (384, 30670), (391, 30694), (404, 30736), (457, 30865), (480, 30925), (500, 30982), (512, 31009), (525, 31036), (526, 31039), (533, 31051), (580, 31120), (606, 31153), (608, 31159), (622, 31192), (655, 31273), (660, 31288), (710, 31393), (766, 31507),

Gene: KappaFarmDelta\_40 Start: 29698, Stop: 31089, Start Num: 188

Candidate Starts for KappaFarmDelta\_40:

(Start: 188 @29698 has 36 MA's), (288, 29995), (345, 30121), (362, 30175), (404, 30292), (470, 30433), (487, 30469), (493, 30487), (522, 30547), (543, 30574), (561, 30589), (596, 30625), (607, 30655), (622, 30691), (624, 30694), (656, 30772), (719, 30898), (759, 30976), (768, 30997), (801, 31051),

Gene: Katalie\_50 Start: 36352, Stop: 37929, Start Num: 89

Candidate Starts for Katalie\_50:

(Start: 55 @36286 has 7 MA's), (Start: 82 @36343 has 5 MA's), (Start: 89 @36352 has 25 MA's), (Start: 197 @36472 has 3 MA's), (Start: 234 @36589 has 1 MA's), (255, 36640), (277, 36721), (278, 36724), (321, 36796), (322, 36805), (323, 36808), (373, 36961), (379, 36970), (396, 37018), (400, 37030), (408, 37054), (448, 37123), (449, 37126), (497, 37258), (525, 37324), (546, 37354), (611, 37453), (617, 37468), (622, 37477), (628, 37486), (635, 37510), (664, 37582), (759, 37771), (774, 37810), (781, 37825), (786, 37834), (793, 37849),

Gene: Katalie136\_33 Start: 26647, Stop: 25133, Start Num: 171

Candidate Starts for Katalie136\_33:

(Start: 134 @26689 has 1 MA's), (Start: 162 @26656 has 16 MA's), (Start: 171 @26647 has 112 MA's), (239, 26485), (262, 26419), (268, 26401), (294, 26326), (320, 26263), (321, 26260), (347, 26173), (391, 26047), (462, 25864), (480, 25807), (498, 25753), (521, 25702), (603, 25573), (607, 25564), (637, 25489), (639, 25483), (692, 25369), (696, 25360), (714, 25321), (794, 25171), (805, 25156),

Gene: Kaylissa\_51 Start: 35709, Stop: 37127, Start Num: 180

Candidate Starts for Kaylissa\_51:

(Start: 163 @35691 has 10 MA's), (177, 35706), (Start: 180 @35709 has 37 MA's), (Start: 187 @35718 has 221 MA's), (225, 35832), (Start: 234 @35856 has 1 MA's), (264, 35940), (317, 36051), (323, 36063), (325, 36072), (358, 36171), (391, 36264), (396, 36276), (404, 36303), (461, 36408), (486,

36462), (634, 36783), (638, 36795), (655, 36828), (729, 36966),

Gene: KeAlii\_47 Start: 34815, Stop: 36296, Start Num: 176

Candidate Starts for KeAlii\_47:

(Start: 176 @34815 has 15 MA's), (262, 35031), (309, 35142), (376, 35355), (669, 36024), (731, 36132), (752, 36174), (780, 36228),

Gene: KekoraPapaka\_32 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for KekoraPapaka\_32:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Kenmech\_40 Start: 30663, Stop: 32255, Start Num: 98

Candidate Starts for Kenmech\_40:

(Start: 98 @30663 has 29 MA's), (Start: 102 @30669 has 3 MA's), (Start: 107 @30675 has 10 MA's), (Start: 109 @30678 has 10 MA's), (Start: 119 @30693 has 12 MA's), (Start: 187 @30744 has 221 MA's), (Start: 195 @30759 has 10 MA's), (262, 30963), (264, 30969), (326, 31119), (329, 31128), (331, 31137), (366, 31245), (379, 31266), (384, 31278), (391, 31302), (404, 31344), (453, 31458), (457, 31473), (480, 31533), (500, 31590), (512, 31617), (525, 31644), (533, 31659), (622, 31797), (637, 31836), (655, 31878), (660, 31893), (766, 32112),

Gene: KikiBouba\_40 Start: 30716, Stop: 32218, Start Num: 187

Candidate Starts for KikiBouba\_40:

(Start: 98 @30635 has 29 MA's), (Start: 102 @30641 has 3 MA's), (Start: 107 @30647 has 10 MA's), (Start: 109 @30650 has 10 MA's), (Start: 119 @30665 has 12 MA's), (Start: 187 @30716 has 221 MA's), (Start: 195 @30731 has 10 MA's), (262, 30935), (264, 30941), (269, 30962), (323, 31079), (326, 31091), (329, 31100), (331, 31109), (362, 31205), (366, 31217), (379, 31238), (384, 31250), (391, 31274), (457, 31445), (480, 31505), (500, 31562), (512, 31589), (525, 31616), (533, 31631), (580, 31700), (608, 31739), (622, 31772), (655, 31853), (660, 31868), (710, 31973), (766, 32087), (828, 32186), (840, 32210),

Gene: Killigrew\_35 Start: 28933, Stop: 30432, Start Num: 195

Candidate Starts for Killigrew\_35:

(Start: 98 @28837 has 29 MA's), (Start: 102 @28843 has 3 MA's), (Start: 107 @28849 has 10 MA's), (Start: 109 @28852 has 10 MA's), (Start: 119 @28867 has 12 MA's), (Start: 187 @28918 has 221 MA's), (Start: 195 @28933 has 10 MA's), (Start: 222 @29026 has 1 MA's), (262, 29137), (264, 29143), (269, 29164), (326, 29293), (329, 29302), (331, 29311), (334, 29317), (362, 29407), (366, 29419), (384, 29452), (457, 29647), (480, 29707), (500, 29764), (512, 29791), (525, 29818), (533, 29833), (606, 29935), (608, 29941), (622, 29974), (625, 29977), (655, 30055), (660, 30070), (766, 30289),

Gene: Kingmustik0402\_33 Start: 26629, Stop: 25115, Start Num: 171

Candidate Starts for Kingmustik0402\_33:

(Start: 134 @26671 has 1 MA's), (Start: 162 @26638 has 16 MA's), (Start: 171 @26629 has 112 MA's), (239, 26467), (262, 26401), (268, 26383), (294, 26308), (305, 26284), (320, 26245), (321, 26242), (347, 26155), (391, 26029), (462, 25846), (498, 25735), (521, 25684), (603, 25555), (607, 25546), (637, 25471), (639, 25465), (696, 25342), (714, 25303), (794, 25153), (805, 25138),

Gene: Kinmap\_35 Start: 26619, Stop: 25138, Start Num: 197

Candidate Starts for Kinmap\_35:

(Start: 176 @26646 has 15 MA's), (Start: 187 @26637 has 221 MA's), (Start: 197 @26619 has 3 MA's), (293, 26337), (363, 26160), (387, 26100), (452, 25938), (461, 25908), (527, 25740), (555, 25701), (600, 25617), (629, 25551), (637, 25524), (639, 25518), (654, 25485), (659, 25470), (764, 25266), (776, 25233), (791, 25221),

Gene: KittenMittens\_32 Start: 23842, Stop: 25497, Start Num: 165

Candidate Starts for KittenMittens\_32:

(Start: 136 @23803 has 3 MA's), (Start: 165 @23842 has 35 MA's), (Start: 180 @23851 has 37 MA's), (Start: 191 @23869 has 17 MA's), (Start: 200 @23893 has 1 MA's), (Start: 222 @23968 has 1 MA's), (227, 23977), (Start: 234 @23995 has 1 MA's), (262, 24079), (271, 24118), (322, 24220), (329, 24244), (331, 24253), (362, 24349), (379, 24385), (392, 24424), (396, 24433), (398, 24436), (445, 24553), (453, 24574), (457, 24589), (461, 24601), (479, 24649), (493, 24694), (525, 24766), (543, 24790), (608, 24910), (614, 24928), (615, 24931), (617, 24934), (675, 25069), (766, 25258), (825, 25351), (840, 25381), (845, 25405), (850, 25453), (852, 25471),

Gene: KleverKiS\_134 Start: 70309, Stop: 68849, Start Num: 140

Candidate Starts for KleverKiS\_134:

(Start: 107 @70351 has 10 MA's), (Start: 133 @70318 has 1 MA's), (Start: 140 @70309 has 21 MA's), (198, 70237), (225, 70156), (245, 70114), (253, 70090), (271, 70018), (322, 69901), (340, 69838), (375, 69754), (381, 69742), (396, 69700), (401, 69682), (485, 69520), (492, 69499), (513, 69448), (532, 69421), (551, 69394), (624, 69274), (695, 69124), (733, 69046), (753, 69001), (778, 68944),

Gene: Klodlith\_34 Start: 26445, Stop: 24916, Start Num: 193

Candidate Starts for Klodlith\_34:

(Start: 91 @26547 has 1 MA's), (155, 26487), (Start: 162 @26478 has 16 MA's), (Start: 191 @26448 has 17 MA's), (Start: 193 @26445 has 3 MA's), (Start: 234 @26319 has 1 MA's), (269, 26214), (297, 26142), (321, 26076), (322, 26067), (402, 25830), (414, 25797), (431, 25758), (452, 25713), (462, 25680), (471, 25662), (498, 25581), (533, 25506), (542, 25491), (603, 25410), (621, 25368), (637, 25326), (672, 25245), (696, 25197), (728, 25134), (763, 25065), (770, 25044), (774, 25035),

Gene: Koan\_33 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for Koan\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Koreni\_32 Start: 26343, Stop: 24781, Start Num: 119

Candidate Starts for Koreni\_32:

(Start: 119 @26343 has 12 MA's), (Start: 187 @26277 has 221 MA's), (Start: 197 @26259 has 3 MA's), (211, 26205), (229, 26154), (Start: 234 @26142 has 1 MA's), (274, 26016), (283, 25995), (299, 25965), (322, 25926), (334, 25887), (363, 25797), (387, 25737), (405, 25683), (461, 25545), (569, 25314), (611, 25224), (629, 25188), (637, 25161), (659, 25107), (663, 25098), (768, 24888), (776, 24870), (791, 24858), (796, 24849),

Gene: Kratark\_33 Start: 26699, Stop: 25137, Start Num: 119

Candidate Starts for Kratark\_33:

(80, 26747), (Start: 119 @26699 has 12 MA's), (Start: 176 @26642 has 15 MA's), (Start: 187 @26633 has 221 MA's), (Start: 197 @26615 has 3 MA's), (212, 26558), (217, 26540), (229, 26510), (Start: 234 @26498 has 1 MA's), (274, 26372), (283, 26351), (299, 26321), (322, 26282), (387, 26093), (400, 26057), (405, 26039), (461, 25901), (479, 25856), (569, 25670), (629, 25544), (637, 25517), (659, 25463), (663, 25454), (768, 25244), (776, 25226), (791, 25214), (796, 25205),

Gene: Kratio\_37 Start: 30972, Stop: 32417, Start Num: 170

Candidate Starts for Kratio\_37:

(33, 30720), (50, 30783), (76, 30837), (132, 30924), (Start: 170 @30972 has 8 MA's), (Start: 206 @31047 has 9 MA's), (210, 31059), (253, 31170), (254, 31173), (263, 31206), (269, 31230), (292, 31293), (329, 31368), (436, 31644), (543, 31866), (548, 31878), (591, 31926), (603, 31956), (611, 31977), (622, 32001), (693, 32154), (731, 32235), (736, 32241), (742, 32253), (755, 32289), (759, 32295), (767, 32313), (768, 32316), (775, 32331), (777, 32337), (808, 32385), (815, 32394),

Gene: Kremtemulon\_33 Start: 26749, Stop: 25187, Start Num: 119

Candidate Starts for Kremtemulon\_33:

(Start: 119 @26749 has 12 MA's), (Start: 187 @26683 has 221 MA's), (Start: 197 @26665 has 3 MA's), (212, 26608), (217, 26590), (229, 26560), (Start: 234 @26548 has 1 MA's), (274, 26422), (283, 26401), (299, 26371), (322, 26332), (334, 26293), (363, 26203), (387, 26143), (405, 26089), (461, 25951), (527, 25783), (569, 25720), (611, 25630), (629, 25594), (637, 25567), (659, 25513), (663, 25504), (768, 25294), (776, 25276), (791, 25264), (796, 25255),

Gene: Krishelle\_29 Start: 23947, Stop: 22448, Start Num: 165

Candidate Starts for Krishelle\_29:

(Start: 165 @23947 has 35 MA's), (Start: 187 @23926 has 221 MA's), (Start: 190 @23920 has 3 MA's), (212, 23851), (Start: 234 @23791 has 1 MA's), (278, 23653), (279, 23650), (291, 23623), (322, 23572), (353, 23482), (386, 23386), (391, 23371), (396, 23359), (410, 23320), (445, 23239), (449, 23227), (462, 23188), (471, 23170), (493, 23101), (504, 23074), (509, 23062), (521, 23038), (525, 23029), (546, 22999), (556, 22981), (573, 22960), (587, 22939), (610, 22906), (614, 22894), (659, 22786), (712, 22681), (746, 22621), (764, 22582), (765, 22579), (774, 22555), (776, 22549),

Gene: Kristoff\_35 Start: 27044, Stop: 25536, Start Num: 187

Candidate Starts for Kristoff\_35:

(Start: 187 @27044 has 221 MA's), (Start: 190 @27038 has 3 MA's), (Start: 197 @27026 has 3 MA's), (198, 27020), (225, 26933), (Start: 234 @26909 has 1 MA's), (293, 26744), (362, 26567), (379, 26528), (384, 26516), (387, 26504), (389, 26501), (392, 26489), (479, 26243), (485, 26222), (557, 26072), (615, 25979), (629, 25955), (633, 25940), (656, 25883), (664, 25862), (785, 25628),

Gene: Kugel\_38 Start: 29732, Stop: 31234, Start Num: 187

Candidate Starts for Kugel\_38:

(Start: 98 @29651 has 29 MA's), (Start: 102 @29657 has 3 MA's), (Start: 107 @29663 has 10 MA's), (Start: 109 @29666 has 10 MA's), (Start: 119 @29681 has 12 MA's), (Start: 187 @29732 has 221 MA's), (262, 29951), (264, 29957), (269, 29978), (323, 30095), (326, 30107), (329, 30116), (331, 30125), (366, 30233), (379, 30254), (384, 30266), (391, 30290), (404, 30332), (457, 30461), (480, 30521), (500, 30578), (525, 30632), (533, 30647), (608, 30755), (622, 30788), (655, 30869), (660, 30884), (710, 30989), (766, 31103), (771, 31115), (828, 31202), (840, 31226),

Gene: Kumao\_96 Start: 59042, Stop: 60475, Start Num: 176

Candidate Starts for Kumao\_96:

(101, 58946), (153, 59015), (167, 59033), (Start: 176 @59042 has 15 MA's), (Start: 193 @59066 has 3 MA's), (238, 59189), (253, 59231), (274, 59312), (325, 59414), (329, 59426), (334, 59441), (351, 59486), (396, 59609), (400, 59621), (453, 59714), (462, 59744), (494, 59816), (498, 59825), (551, 59915), (555, 59921), (557, 59927), (614, 60035), (615, 60038), (621, 60047), (622, 60050), (664, 60155), (695, 60206), (721, 60263), (724, 60269), (736, 60287), (741, 60296), (744, 60305), (755, 60335), (761, 60341), (777, 60380),

Gene: KyMonks1A\_40 Start: 29951, Stop: 31453, Start Num: 187

Candidate Starts for KyMonks1A\_40:

(Start: 98 @29870 has 29 MA's), (Start: 102 @29876 has 3 MA's), (Start: 107 @29882 has 10 MA's), (Start: 109 @29885 has 10 MA's), (Start: 119 @29900 has 12 MA's), (Start: 187 @29951 has 221 MA's), (262, 30170), (264, 30176), (269, 30197), (326, 30326), (329, 30335), (331, 30344), (366, 30452), (379, 30473), (384, 30485), (391, 30509), (404, 30551), (457, 30680), (480, 30740), (500, 30797), (512, 30824), (525, 30851), (533, 30866), (606, 30968), (608, 30974), (622, 31007), (655, 31088), (660, 31103), (766, 31322), (828, 31421), (840, 31445),

Gene: Kyee\_33 Start: 26635, Stop: 25121, Start Num: 171

Candidate Starts for Kyee\_33:

(Start: 134 @26677 has 1 MA's), (Start: 162 @26644 has 16 MA's), (Start: 171 @26635 has 112 MA's), (239, 26473), (262, 26407), (268, 26389), (294, 26314), (305, 26290), (320, 26251), (321, 26248), (347, 26161), (387, 26047), (391, 26035), (462, 25852), (498, 25741), (521, 25690), (603, 25561), (607, 25552), (637, 25477), (639, 25471), (696, 25348), (714, 25309), (794, 25159), (805, 25144),

Gene: Kykar\_36 Start: 28846, Stop: 30429, Start Num: 98

Candidate Starts for Kykar\_36:

(Start: 98 @28846 has 29 MA's), (Start: 102 @28852 has 3 MA's), (Start: 107 @28858 has 10 MA's), (Start: 109 @28861 has 10 MA's), (Start: 119 @28876 has 12 MA's), (Start: 187 @28927 has 221 MA's), (Start: 195 @28942 has 10 MA's), (262, 29146), (264, 29152), (269, 29173), (323, 29290), (326, 29302), (329, 29311), (331, 29320), (366, 29428), (379, 29449), (384, 29461), (391, 29485), (404, 29527), (457, 29656), (480, 29716), (500, 29773), (512, 29800), (525, 29827), (526, 29830), (533, 29842), (608, 29950), (622, 29983), (655, 30064), (660, 30079), (710, 30184), (766, 30298), (828, 30397), (840, 30421),

Gene: Lambert1\_34 Start: 27244, Stop: 25721, Start Num: 175

Candidate Starts for Lambert1\_34:

(Start: 175 @27244 has 3 MA's), (Start: 187 @27229 has 221 MA's), (Start: 190 @27223 has 3 MA's), (Start: 191 @27220 has 17 MA's), (249, 27052), (252, 27046), (293, 26929), (325, 26869), (362, 26752), (379, 26713), (389, 26686), (392, 26674), (437, 26539), (492, 26386), (532, 26296), (557, 26257), (614, 26167), (633, 26125), (637, 26113), (656, 26068), (664, 26047), (771, 25834), (785, 25813),

Gene: Lamina13\_37 Start: 29040, Stop: 30542, Start Num: 187

Candidate Starts for Lamina13\_37:

(Start: 98 @28959 has 29 MA's), (Start: 102 @28965 has 3 MA's), (Start: 107 @28971 has 10 MA's), (Start: 109 @28974 has 10 MA's), (Start: 119 @28989 has 12 MA's), (Start: 187 @29040 has 221 MA's), (Start: 195 @29055 has 10 MA's), (198, 29064), (264, 29265), (326, 29415), (329, 29424), (331, 29433), (362, 29529), (366, 29541), (379, 29562), (384, 29574), (391, 29598), (404, 29640), (457, 29769), (480, 29829), (500, 29886), (525, 29940), (533, 29955), (608, 30063), (622, 30096), (655, 30177), (660, 30192), (710, 30297), (766, 30411), (828, 30510), (840, 30534),

Gene: Lannister\_51 Start: 35058, Stop: 36647, Start Num: 89

Candidate Starts for Lannister\_51:

(51, 34986), (56, 34995), (58, 35001), (Start: 89 @35058 has 25 MA's), (156, 35130), (Start: 197 @35184 has 3 MA's), (Start: 220 @35268 has 1 MA's), (227, 35283), (242, 35316), (271, 35418), (278, 35436), (322, 35517), (323, 35520), (362, 35646), (373, 35673), (396, 35730), (400, 35742), (414, 35784), (415, 35787), (441, 35826), (449, 35844), (454, 35856), (546, 36072), (611, 36171), (622, 36195), (633, 36222), (652, 36267), (664, 36300), (754, 36480), (759, 36489), (774, 36528), (815, 36597), (827, 36615),

Gene: LappelDuVide\_33 Start: 26636, Stop: 25122, Start Num: 171

Candidate Starts for LappelDuVide\_33:

(Start: 134 @26678 has 1 MA's), (Start: 162 @26645 has 16 MA's), (Start: 171 @26636 has 112 MA's), (239, 26474), (262, 26408), (268, 26390), (294, 26315), (305, 26291), (320, 26252), (321, 26249), (347, 26162), (387, 26048), (391, 26036), (462, 25853), (498, 25742), (521, 25691), (603, 25562), (607, 25553), (637, 25478), (639, 25472), (696, 25349), (714, 25310), (794, 25160), (805, 25145),

Gene: LarryKay\_36 Start: 27311, Stop: 25743, Start Num: 171

Candidate Starts for LarryKay\_36:

(64, 27461), (70, 27446), (139, 27347), (Start: 171 @27311 has 112 MA's), (269, 27056), (276, 27032), (300, 26972), (320, 26924), (321, 26921), (347, 26834), (353, 26822), (358, 26801), (364, 26777), (391, 26708), (415, 26639), (417, 26630), (462, 26525), (471, 26480), (521, 26348), (567, 26264), (606, 26207), (696, 26000), (765, 25859),

Gene: Larva\_39 Start: 31141, Stop: 32586, Start Num: 170

Candidate Starts for Larva\_39:

(59, 30970), (76, 31006), (132, 31093), (Start: 170 @31141 has 8 MA's), (Start: 206 @31216 has 9 MA's), (210, 31228), (253, 31339), (254, 31342), (263, 31375), (269, 31399), (292, 31462), (329, 31537), (436, 31813), (543, 32035), (548, 32047), (591, 32095), (603, 32125), (611, 32146), (622, 32170), (693, 32323), (731, 32404), (736, 32410), (742, 32422), (755, 32458), (759, 32464), (767, 32482), (768, 32485), (775, 32500), (777, 32506), (808, 32554), (815, 32563),

Gene: LastHope\_43 Start: 31352, Stop: 32743, Start Num: 191

Candidate Starts for LastHope\_43:

(Start: 170 @31322 has 8 MA's), (Start: 178 @31331 has 1 MA's), (Start: 191 @31352 has 17 MA's), (213, 31424), (236, 31481), (253, 31523), (254, 31526), (262, 31556), (264, 31562), (287, 31634), (340, 31757), (369, 31835), (389, 31865), (404, 31913), (421, 31940), (448, 31982), (452, 31991), (460, 32018), (485, 32066), (499, 32102), (503, 32111), (510, 32129), (544, 32183), (549, 32195), (572, 32225), (603, 32285), (613, 32312), (615, 32318), (621, 32327), (622, 32330), (629, 32342), (634, 32360), (658, 32417), (700, 32492), (707, 32507), (718, 32534), (755, 32609), (777, 32654), (778, 32657), (814, 32708), (831, 32732), (833, 32738),

Gene: Legacy\_48 Start: 34174, Stop: 35496, Start Num: 191

Candidate Starts for Legacy\_48:

(Start: 183 @34162 has 12 MA's), (Start: 191 @34174 has 17 MA's), (198, 34189), (Start: 222 @34276 has 1 MA's), (Start: 224 @34279 has 1 MA's), (237, 34303), (253, 34345), (256, 34354), (268, 34396), (269, 34405), (271, 34417), (321, 34507), (322, 34516), (329, 34540), (369, 34660), (380, 34666), (426, 34756), (448, 34771), (452, 34780), (462, 34813), (511, 34924), (513, 34930), (543, 34978), (554, 34993), (563, 35008), (603, 35068), (608, 35077), (613, 35092), (649, 35170), (670, 35203), (688, 35233), (710, 35281), (749, 35359), (768, 35407), (774, 35416), (789, 35443), (816, 35482),

Gene: Lego\_49 Start: 35038, Stop: 36447, Start Num: 187

Candidate Starts for Lego\_49:

(Start: 187 @35038 has 221 MA's), (225, 35152), (Start: 234 @35176 has 1 MA's), (264, 35260), (317, 35371), (323, 35383), (325, 35392), (358, 35491), (391, 35584), (396, 35596), (404, 35623), (486, 35782), (634, 36103), (638, 36115), (655, 36148), (729, 36286),

Gene: Lemur\_33 Start: 26634, Stop: 25120, Start Num: 171

Candidate Starts for Lemur\_33:

(Start: 134 @26676 has 1 MA's), (Start: 162 @26643 has 16 MA's), (Start: 171 @26634 has 112 MA's), (239, 26472), (262, 26406), (268, 26388), (294, 26313), (305, 26289), (320, 26250), (321, 26247), (347, 26160), (387, 26046), (391, 26034), (462, 25851), (498, 25740), (521, 25689), (603, 25560), (607, 25551), (637, 25476), (639, 25470), (696, 25347), (714, 25308), (794, 25158), (805, 25143),

Gene: Lesedi\_36 Start: 29315, Stop: 30817, Start Num: 187

Candidate Starts for Lesedi\_36:

(Start: 98 @29234 has 29 MA's), (Start: 102 @29240 has 3 MA's), (Start: 107 @29246 has 10 MA's), (Start: 109 @29249 has 10 MA's), (Start: 119 @29264 has 12 MA's), (Start: 187 @29315 has 221 MA's), (262, 29534), (264, 29540), (269, 29561), (326, 29690), (329, 29699), (331, 29708), (366, 29816), (379, 29837), (384, 29849), (391, 29873), (404, 29915), (457, 30044), (480, 30104), (500, 30161), (525, 30215), (533, 30230), (608, 30338), (622, 30371), (655, 30452), (660, 30467), (710, 30572), (766, 30686), (828, 30785), (840, 30809),

Gene: Leston\_38 Start: 31447, Stop: 32853, Start Num: 188

Candidate Starts for Leston\_38:

(Start: 180 @31438 has 37 MA's), (Start: 188 @31447 has 36 MA's), (227, 31567), (288, 31744), (316, 31768), (328, 31819), (342, 31861), (358, 31909), (364, 31930), (373, 31957), (379, 31966), (389, 31993), (396, 32014), (401, 32032), (411, 32059), (443, 32104), (454, 32110), (497, 32215), (533, 32281), (543, 32290), (555, 32311), (568, 32329), (627, 32446), (629, 32449), (672, 32557), (691, 32593), (727, 32665), (732, 32674), (755, 32725), (774, 32764), (780, 32776), (788, 32785), (813, 32815), (824, 32830),

Gene: Lev2\_30 Start: 25599, Stop: 24106, Start Num: 187

Candidate Starts for Lev2\_30:

(Start: 187 @25599 has 221 MA's), (Start: 200 @25566 has 1 MA's), (Start: 201 @25563 has 3 MA's), (Start: 206 @25545 has 9 MA's), (Start: 234 @25464 has 1 MA's), (281, 25320), (294, 25293), (323, 25245), (379, 25080), (387, 25056), (389, 25053), (396, 25032), (471, 24843), (546, 24672), (614, 24537), (633, 24495), (637, 24483), (673, 24399), (680, 24384), (692, 24369), (776, 24192), (806, 24162), (829, 24129),

Gene: Levia\_34 Start: 29230, Stop: 30810, Start Num: 109

Candidate Starts for Levia\_34:

(Start: 98 @29215 has 29 MA's), (Start: 102 @29221 has 3 MA's), (Start: 107 @29227 has 10 MA's), (Start: 109 @29230 has 10 MA's), (Start: 119 @29245 has 12 MA's), (Start: 187 @29296 has 221 MA's), (Start: 195 @29311 has 10 MA's), (262, 29515), (264, 29521), (269, 29542), (323, 29659), (326, 29671), (329, 29680), (331, 29689), (362, 29785), (366, 29797), (379, 29818), (384, 29830), (391, 29854), (457, 30025), (480, 30085), (500, 30142), (512, 30169), (525, 30196), (526, 30199), (533, 30211), (608, 30319), (655, 30433), (660, 30448), (766, 30667),

Gene: Leviticus\_49 Start: 34067, Stop: 35401, Start Num: 183

Candidate Starts for Leviticus\_49:

(Start: 183 @34067 has 12 MA's), (Start: 191 @34079 has 17 MA's), (198, 34094), (Start: 222 @34181 has 1 MA's), (Start: 224 @34184 has 1 MA's), (237, 34208), (253, 34250), (256, 34259), (268, 34301), (269, 34310), (271, 34322), (321, 34412), (322, 34421), (329, 34445), (369, 34565), (380, 34571), (426, 34661), (448, 34676), (452, 34685), (462, 34718), (511, 34829), (513, 34835), (543, 34883), (554, 34898), (563, 34913), (603, 34973), (613, 34997), (650, 35078), (670, 35108), (688, 35138), (710, 35186), (749, 35264), (768, 35312), (774, 35321), (789, 35348), (816, 35387),

Gene: Licorice\_39 Start: 30385, Stop: 31887, Start Num: 187

Candidate Starts for Licorice\_39:

(Start: 98 @30304 has 29 MA's), (Start: 102 @30310 has 3 MA's), (Start: 107 @30316 has 10 MA's), (Start: 109 @30319 has 10 MA's), (Start: 119 @30334 has 12 MA's), (Start: 187 @30385 has 221 MA's), (264, 30610), (326, 30760), (329, 30769), (331, 30778), (366, 30886), (379, 30907), (384, 30919), (391, 30943), (404, 30985), (457, 31114), (480, 31174), (500, 31231), (512, 31258), (525, 31285), (533, 31300), (580, 31369), (608, 31408), (622, 31441), (655, 31522), (660, 31537), (766, 31756), (828, 31855), (840, 31879),

Gene: Liebe\_51 Start: 37490, Stop: 38902, Start Num: 187

Candidate Starts for Liebe\_51:

(Start: 187 @37490 has 221 MA's), (Start: 234 @37628 has 1 MA's), (278, 37763), (317, 37823), (323, 37835), (328, 37853), (339, 37892), (389, 38027), (391, 38036), (457, 38168), (461, 38180), (497, 38261), (603, 38471), (615, 38504), (634, 38546), (644, 38573), (655, 38591), (731, 38732), (767, 38795), (777, 38819), (830, 38897),

Gene: Lika\_49 Start: 35118, Stop: 36695, Start Num: 89

Candidate Starts for Lika\_49:

(Start: 55 @35052 has 7 MA's), (Start: 89 @35118 has 25 MA's), (Start: 197 @35238 has 3 MA's), (227, 35337), (Start: 234 @35355 has 1 MA's), (255, 35406), (277, 35487), (278, 35490), (321, 35562), (322, 35571), (323, 35574), (373, 35727), (396, 35784), (398, 35787), (400, 35796), (497, 36024), (525, 36090), (546, 36120), (611, 36219), (622, 36243), (628, 36252), (635, 36276), (664, 36348), (759, 36537), (774, 36576), (786, 36600), (793, 36615), (804, 36630),

Gene: LilBib\_37 Start: 30176, Stop: 31678, Start Num: 187

Candidate Starts for LilBib\_37:

(Start: 98 @30095 has 29 MA's), (Start: 102 @30101 has 3 MA's), (Start: 107 @30107 has 10 MA's), (Start: 109 @30110 has 10 MA's), (Start: 119 @30125 has 12 MA's), (Start: 187 @30176 has 221 MA's), (Start: 195 @30191 has 10 MA's), (262, 30395), (264, 30401), (268, 30413), (269, 30422), (326, 30551), (329, 30560), (331, 30569), (366, 30677), (384, 30710), (391, 30734), (404, 30776), (457, 30905), (480, 30965), (500, 31022), (512, 31049), (525, 31076), (533, 31091), (608, 31199), (622, 31232), (655, 31313), (660, 31328), (710, 31433), (766, 31547), (828, 31646), (840, 31670),

Gene: LilDirt\_38 Start: 31257, Stop: 32627, Start Num: 206

Candidate Starts for LilDirt\_38:

(33, 30930), (50, 30993), (76, 31047), (132, 31134), (Start: 170 @31182 has 8 MA's), (Start: 206 @31257 has 9 MA's), (210, 31269), (253, 31380), (254, 31383), (263, 31416), (269, 31440), (292, 31503), (329, 31578), (436, 31854), (543, 32076), (548, 32088), (591, 32136), (603, 32166), (611, 32187), (622, 32211), (693, 32364), (731, 32445), (736, 32451), (742, 32463), (755, 32499), (759, 32505), (768, 32526), (775, 32541), (777, 32547), (808, 32595), (815, 32604),

Gene: Lilbooboo\_54 Start: 38473, Stop: 40032, Start Num: 199

Candidate Starts for Lilbooboo\_54:

(Start: 119 @38377 has 12 MA's), (Start: 164 @38422 has 4 MA's), (173, 38431), (Start: 199 @38473 has 3 MA's), (263, 38659), (264, 38662), (271, 38695), (274, 38704), (291, 38743), (313, 38779), (321, 38809), (323, 38821), (339, 38878), (340, 38881), (348, 38899), (352, 38908), (464, 39235), (466, 39247), (471, 39265), (479, 39292), (493, 39337), (522, 39409), (525, 39415), (527, 39421), (546, 39445), (569, 39490), (606, 39544), (630, 39604), (664, 39688), (726, 39805), (763, 39877), (801, 39955), (808, 39967),

Gene: LilhomieP\_131 Start: 70102, Stop: 68642, Start Num: 140

Candidate Starts for LilhomieP\_131:

(Start: 107 @70144 has 10 MA's), (Start: 133 @70111 has 1 MA's), (Start: 140 @70102 has 21 MA's), (198, 70030), (225, 69949), (245, 69907), (253, 69883), (271, 69811), (322, 69694), (340, 69631), (375, 69547), (381, 69535), (396, 69493), (401, 69475), (485, 69313), (492, 69292), (513, 69241), (532, 69214), (551, 69187), (624, 69067), (695, 68917), (733, 68839), (753, 68794), (778, 68737),

Gene: Lillie\_29 Start: 23636, Stop: 22140, Start Num: 165

Candidate Starts for Lillie\_29:

(Start: 165 @23636 has 35 MA's), (Start: 187 @23615 has 221 MA's), (Start: 190 @23609 has 3 MA's), (Start: 234 @23480 has 1 MA's), (252, 23432), (329, 23240), (364, 23129), (389, 23069), (392,

23057), (414, 22994), (429, 22964), (443, 22931), (452, 22910), (461, 22880), (469, 22865), (471, 22859), (485, 22811), (497, 22778), (521, 22721), (546, 22682), (548, 22676), (611, 22580), (628, 22547), (634, 22526), (637, 22517), (714, 22355),

Gene: LisoBros\_46 Start: 36667, Stop: 38088, Start Num: 187

Candidate Starts for LisoBros\_46:

(Start: 187 @36667 has 221 MA's), (227, 36784), (248, 36841), (263, 36883), (269, 36907), (271, 36919), (284, 36952), (317, 36997), (323, 37009), (328, 37027), (331, 37039), (359, 37120), (376, 37168), (404, 37249), (414, 37276), (445, 37309), (452, 37327), (462, 37360), (486, 37408), (546, 37546), (633, 37729), (708, 37876), (756, 37969), (780, 38017), (797, 38047), (809, 38065),

Gene: LittleB\_33 Start: 26638, Stop: 25124, Start Num: 171

Candidate Starts for LittleB\_33:

(Start: 134 @26680 has 1 MA's), (Start: 162 @26647 has 16 MA's), (Start: 171 @26638 has 112 MA's), (239, 26476), (262, 26410), (268, 26392), (294, 26317), (305, 26293), (320, 26254), (321, 26251), (347, 26164), (387, 26050), (391, 26038), (462, 25855), (498, 25744), (521, 25693), (603, 25564), (607, 25555), (637, 25480), (639, 25474), (696, 25351), (714, 25312), (794, 25162), (805, 25147),

Gene: LittleCherry\_30 Start: 25778, Stop: 24285, Start Num: 187

Candidate Starts for LittleCherry\_30:

(Start: 187 @25778 has 221 MA's), (Start: 200 @25745 has 1 MA's), (Start: 201 @25742 has 3 MA's), (Start: 206 @25724 has 9 MA's), (Start: 234 @25643 has 1 MA's), (281, 25499), (294, 25472), (323, 25424), (379, 25259), (387, 25235), (389, 25232), (396, 25211), (471, 25022), (525, 24881), (546, 24851), (633, 24674), (637, 24662), (673, 24578), (680, 24563), (692, 24548), (776, 24371), (806, 24341), (829, 24308),

Gene: LittleGuy\_33 Start: 26578, Stop: 25082, Start Num: 187

Candidate Starts for LittleGuy\_33:

(Start: 119 @26644 has 12 MA's), (Start: 187 @26578 has 221 MA's), (Start: 197 @26560 has 3 MA's), (211, 26506), (229, 26455), (Start: 234 @26443 has 1 MA's), (274, 26317), (283, 26296), (299, 26266), (322, 26227), (334, 26188), (363, 26098), (387, 26038), (405, 25984), (461, 25846), (569, 25615), (611, 25525), (629, 25489), (637, 25462), (663, 25399), (768, 25189), (776, 25171), (791, 25159), (796, 25150),

Gene: Lizalica\_49 Start: 34782, Stop: 36191, Start Num: 187

Candidate Starts for Lizalica\_49:

(Start: 187 @34782 has 221 MA's), (264, 35004), (277, 35052), (317, 35115), (323, 35127), (325, 35136), (358, 35235), (391, 35328), (404, 35367), (486, 35526), (629, 35829), (634, 35847), (638, 35859), (655, 35892), (729, 36030),

Gene: LochMonster\_33 Start: 26613, Stop: 25117, Start Num: 187

Candidate Starts for LochMonster\_33:

(Start: 119 @26679 has 12 MA's), (Start: 187 @26613 has 221 MA's), (Start: 197 @26595 has 3 MA's), (212, 26538), (217, 26520), (229, 26490), (Start: 234 @26478 has 1 MA's), (274, 26352), (283, 26331), (299, 26301), (322, 26262), (334, 26223), (363, 26133), (387, 26073), (405, 26019), (461, 25881), (569, 25650), (611, 25560), (629, 25524), (637, 25497), (659, 25443), (663, 25434), (768, 25224), (776, 25206), (791, 25194), (796, 25185),

Gene: Lockley\_38 Start: 29430, Stop: 30932, Start Num: 187

Candidate Starts for Lockley\_38:

(Start: 98 @29349 has 29 MA's), (Start: 102 @29355 has 3 MA's), (Start: 107 @29361 has 10 MA's), (Start: 109 @29364 has 10 MA's), (Start: 119 @29379 has 12 MA's), (Start: 187 @29430 has 221

MA's), (Start: 191 @29439 has 17 MA's), (Start: 195 @29445 has 10 MA's), (198, 29454), (262, 29649), (264, 29655), (269, 29676), (323, 29793), (326, 29805), (329, 29814), (331, 29823), (366, 29931), (379, 29952), (384, 29964), (391, 29988), (404, 30030), (457, 30159), (480, 30219), (500, 30276), (525, 30330), (533, 30345), (606, 30447), (608, 30453), (655, 30567), (660, 30582), (766, 30801), (828, 30900), (840, 30924),

Gene: London\_48 Start: 35959, Stop: 37380, Start Num: 180

Candidate Starts for London\_48:

(Start: 163 @35941 has 10 MA's), (177, 35956), (Start: 180 @35959 has 37 MA's), (Start: 187 @35968 has 221 MA's), (225, 36082), (Start: 234 @36106 has 1 MA's), (264, 36190), (271, 36223), (277, 36238), (317, 36301), (323, 36313), (325, 36322), (358, 36421), (370, 36463), (391, 36514), (404, 36553), (453, 36631), (461, 36658), (629, 37018), (630, 37027), (634, 37036), (638, 37048), (729, 37219), (776, 37306),

Gene: Loofah\_55 Start: 37744, Stop: 39162, Start Num: 163

Candidate Starts for Loofah\_55:

(Start: 163 @37744 has 10 MA's), (166, 37747), (Start: 220 @37873 has 1 MA's), (Start: 222 @37879 has 1 MA's), (253, 37951), (255, 37957), (278, 38029), (303, 38059), (306, 38062), (326, 38116), (369, 38245), (381, 38254), (395, 38293), (432, 38368), (448, 38404), (452, 38413), (471, 38464), (621, 38746), (652, 38815), (695, 38899), (741, 38989), (744, 38998), (768, 39055), (807, 39112), (811, 39118), (834, 39151),

Gene: Lopton\_38 Start: 30822, Stop: 32324, Start Num: 187

Candidate Starts for Lopton\_38:

(Start: 98 @30741 has 29 MA's), (Start: 102 @30747 has 3 MA's), (Start: 107 @30753 has 10 MA's), (Start: 109 @30756 has 10 MA's), (Start: 119 @30771 has 12 MA's), (Start: 187 @30822 has 221 MA's), (227, 30939), (262, 31041), (264, 31047), (269, 31068), (323, 31185), (326, 31197), (329, 31206), (331, 31215), (366, 31323), (379, 31344), (384, 31356), (391, 31380), (404, 31422), (457, 31551), (480, 31611), (500, 31668), (512, 31695), (525, 31722), (526, 31725), (533, 31737), (580, 31806), (608, 31845), (622, 31878), (655, 31959), (660, 31974), (710, 32079), (766, 32193), (828, 32292), (840, 32316),

Gene: Lorelei\_51 Start: 35146, Stop: 36723, Start Num: 89

Candidate Starts for Lorelei\_51:

(Start: 55 @35080 has 7 MA's), (Start: 89 @35146 has 25 MA's), (Start: 197 @35266 has 3 MA's), (Start: 234 @35383 has 1 MA's), (255, 35434), (277, 35515), (278, 35518), (321, 35590), (322, 35599), (323, 35602), (324, 35605), (329, 35623), (373, 35755), (396, 35812), (398, 35815), (400, 35824), (408, 35848), (448, 35917), (493, 36043), (497, 36052), (525, 36118), (546, 36148), (611, 36247), (622, 36271), (628, 36280), (635, 36304), (664, 36376), (759, 36565), (774, 36604), (786, 36628), (793, 36643), (804, 36658),

Gene: Lorenzo\_33 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for Lorenzo\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Louie6\_36 Start: 27310, Stop: 25742, Start Num: 171

Candidate Starts for Louie6\_36:

(64, 27460), (70, 27445), (139, 27346), (Start: 171 @27310 has 112 MA's), (269, 27055), (276, 27031), (300, 26971), (320, 26923), (321, 26920), (347, 26833), (353, 26821), (358, 26800), (364, 26776),

(391, 26707), (415, 26638), (417, 26629), (462, 26524), (471, 26479), (521, 26347), (567, 26263), (606, 26206), (696, 25999), (765, 25858),

Gene: LunarLander\_38 Start: 29509, Stop: 31008, Start Num: 187

Candidate Starts for LunarLander\_38:

(Start: 98 @29428 has 29 MA's), (Start: 102 @29434 has 3 MA's), (Start: 107 @29440 has 10 MA's), (Start: 109 @29443 has 10 MA's), (Start: 119 @29458 has 12 MA's), (Start: 187 @29509 has 221 MA's), (262, 29728), (264, 29734), (269, 29755), (326, 29884), (329, 29893), (331, 29902), (366, 30010), (379, 30031), (384, 30043), (391, 30067), (404, 30109), (457, 30238), (480, 30298), (500, 30355), (512, 30382), (525, 30409), (526, 30412), (533, 30424), (606, 30523), (622, 30562), (655, 30643), (660, 30658), (710, 30763), (766, 30877), (828, 30976), (840, 31000),

Gene: Lunsford\_34 Start: 26634, Stop: 25120, Start Num: 171

Candidate Starts for Lunsford\_34:

(Start: 134 @26676 has 1 MA's), (Start: 162 @26643 has 16 MA's), (Start: 171 @26634 has 112 MA's), (239, 26472), (262, 26406), (268, 26388), (294, 26313), (305, 26289), (320, 26250), (321, 26247), (387, 26046), (391, 26034), (462, 25851), (498, 25740), (521, 25689), (603, 25560), (607, 25551), (637, 25476), (639, 25470), (696, 25347), (714, 25308), (794, 25158), (805, 25143),

Gene: Lysidious\_38 Start: 30792, Stop: 32183, Start Num: 188

Candidate Starts for Lysidious\_38:

(83, 30651), (97, 30678), (161, 30762), (Start: 180 @30783 has 37 MA's), (Start: 188 @30792 has 36 MA's), (Start: 206 @30849 has 9 MA's), (227, 30912), (262, 31005), (288, 31089), (290, 31092), (334, 31182), (336, 31188), (345, 31215), (362, 31269), (404, 31386), (447, 31464), (493, 31581), (497, 31590), (522, 31641), (543, 31668), (561, 31683), (607, 31749), (608, 31752), (615, 31773), (622, 31785), (624, 31788), (656, 31866), (682, 31923), (719, 31992), (723, 32001), (735, 32019), (759, 32070),

Gene: MPlant7149\_37 Start: 29019, Stop: 30602, Start Num: 98

Candidate Starts for MPlant7149\_37:

(Start: 98 @29019 has 29 MA's), (Start: 102 @29025 has 3 MA's), (Start: 107 @29031 has 10 MA's), (Start: 109 @29034 has 10 MA's), (Start: 119 @29049 has 12 MA's), (Start: 187 @29100 has 221 MA's), (Start: 222 @29208 has 1 MA's), (262, 29319), (264, 29325), (268, 29337), (269, 29346), (279, 29379), (323, 29463), (326, 29475), (329, 29484), (331, 29493), (366, 29601), (379, 29622), (384, 29634), (391, 29658), (404, 29700), (457, 29829), (480, 29889), (500, 29946), (512, 29973), (520, 29988), (521, 29991), (525, 30000), (526, 30003), (533, 30015), (580, 30084), (608, 30123), (622, 30156), (655, 30237), (660, 30252), (710, 30357), (766, 30471), (828, 30570), (840, 30594),

Gene: MaGuCo\_47 Start: 36178, Stop: 37593, Start Num: 187

Candidate Starts for MaGuCo\_47:

(Start: 187 @36178 has 221 MA's), (Start: 234 @36316 has 1 MA's), (317, 36511), (323, 36523), (328, 36541), (348, 36601), (354, 36610), (389, 36715), (391, 36724), (457, 36856), (461, 36868), (497, 36949), (603, 37159), (615, 37192), (634, 37234), (644, 37261), (655, 37279), (731, 37420), (767, 37483), (775, 37501), (777, 37507), (826, 37579), (830, 37585),

Gene: Mabodamaca\_60 Start: 40399, Stop: 41982, Start Num: 135

Candidate Starts for Mabodamaca\_60:

(Start: 120 @40381 has 1 MA's), (Start: 135 @40399 has 2 MA's), (Start: 151 @40417 has 2 MA's), (256, 40633), (270, 40693), (329, 40855), (337, 40879), (449, 41197), (545, 41431), (611, 41554), (654, 41659), (669, 41695), (682, 41719), (692, 41728), (720, 41782), (726, 41794), (749, 41839), (780, 41896),

Gene: Madraxi\_55 Start: 38153, Stop: 39541, Start Num: 170

Candidate Starts for Madraxi\_55:

(Start: 110 @38075 has 1 MA's), (115, 38084), (Start: 170 @38153 has 8 MA's), (198, 38198), (Start: 206 @38228 has 9 MA's), (223, 38282), (227, 38291), (236, 38309), (316, 38492), (323, 38525), (342, 38585), (389, 38717), (392, 38729), (401, 38756), (452, 38840), (493, 38942), (494, 38945), (523, 39005), (561, 39044), (592, 39071), (603, 39101), (606, 39107), (611, 39122), (622, 39146), (638, 39188), (664, 39251), (695, 39311), (697, 39314), (755, 39431), (768, 39458), (772, 39467), (791, 39497),

Gene: Magnar\_37 Start: 29288, Stop: 30790, Start Num: 187

Candidate Starts for Magnar\_37:

(Start: 98 @29207 has 29 MA's), (Start: 102 @29213 has 3 MA's), (Start: 107 @29219 has 10 MA's), (Start: 109 @29222 has 10 MA's), (Start: 119 @29237 has 12 MA's), (Start: 187 @29288 has 221 MA's), (Start: 195 @29303 has 10 MA's), (262, 29507), (264, 29513), (268, 29525), (269, 29534), (323, 29651), (326, 29663), (329, 29672), (331, 29681), (366, 29789), (379, 29810), (384, 29822), (391, 29846), (404, 29888), (457, 30017), (480, 30077), (500, 30134), (512, 30161), (525, 30188), (526, 30191), (533, 30203), (580, 30272), (608, 30311), (622, 30344), (655, 30425), (660, 30440), (710, 30545), (766, 30659), (828, 30758), (840, 30782),

Gene: Magnito\_36 Start: 29012, Stop: 30595, Start Num: 98

Candidate Starts for Magnito\_36:

(Start: 98 @29012 has 29 MA's), (Start: 102 @29018 has 3 MA's), (Start: 107 @29024 has 10 MA's), (Start: 109 @29027 has 10 MA's), (Start: 119 @29042 has 12 MA's), (Start: 187 @29093 has 221 MA's), (262, 29312), (264, 29318), (269, 29339), (326, 29468), (329, 29477), (331, 29486), (366, 29594), (379, 29615), (384, 29627), (391, 29651), (404, 29693), (457, 29822), (480, 29882), (500, 29939), (525, 29993), (526, 29996), (533, 30008), (608, 30116), (622, 30149), (625, 30152), (655, 30230), (660, 30245), (710, 30350), (718, 30365), (766, 30464), (828, 30563), (840, 30587),

Gene: Maja\_29 Start: 25557, Stop: 24160, Start Num: 189

Candidate Starts for Maja\_29:

(117, 25635), (Start: 189 @25557 has 1 MA's), (254, 25380), (256, 25374), (264, 25344), (325, 25200), (478, 24819), (496, 24765), (514, 24723), (541, 24696), (581, 24609), (583, 24606), (619, 24519), (665, 24423), (683, 24384), (701, 24351),

Gene: Makemake\_38 Start: 30742, Stop: 32256, Start Num: 187

Candidate Starts for Makemake\_38:

(Start: 98 @30661 has 29 MA's), (Start: 102 @30667 has 3 MA's), (Start: 107 @30673 has 10 MA's), (Start: 109 @30676 has 10 MA's), (Start: 119 @30691 has 12 MA's), (Start: 187 @30742 has 221 MA's), (Start: 195 @30757 has 10 MA's), (262, 30961), (264, 30967), (269, 30988), (323, 31105), (326, 31117), (329, 31126), (331, 31135), (334, 31141), (362, 31231), (366, 31243), (384, 31276), (457, 31471), (471, 31504), (480, 31531), (500, 31588), (525, 31642), (533, 31657), (608, 31765), (622, 31798), (655, 31879), (660, 31894), (766, 32113),

Gene: Malachai\_38 Start: 31872, Stop: 33263, Start Num: 188

Candidate Starts for Malachai\_38:

(122, 31794), (Start: 147 @31824 has 1 MA's), (161, 31842), (Start: 188 @31872 has 36 MA's), (227, 31992), (262, 32085), (334, 32262), (336, 32268), (345, 32295), (362, 32349), (404, 32466), (447, 32544), (522, 32721), (543, 32748), (561, 32763), (607, 32829), (608, 32832), (615, 32853), (617, 32856), (622, 32865), (624, 32868), (656, 32946), (659, 32955), (682, 33003), (719, 33072), (723, 33081), (735, 33099), (755, 33144), (759, 33150), (768, 33171), (801, 33225),

Gene: MalagasyRose\_41 Start: 30932, Stop: 32326, Start Num: 188

Candidate Starts for MalagasyRose\_41:

(Start: 188 @30932 has 36 MA's), (198, 30956), (215, 31019), (227, 31052), (262, 31145), (263, 31148), (264, 31151), (275, 31196), (288, 31229), (290, 31232), (319, 31262), (328, 31304), (342, 31346), (358, 31394), (364, 31415), (379, 31451), (389, 31478), (404, 31526), (522, 31748), (523, 31751), (533, 31766), (543, 31775), (555, 31796), (568, 31814), (603, 31877), (622, 31922), (656, 32006), (691, 32075), (697, 32087), (732, 32156), (735, 32159), (740, 32168), (748, 32189), (751, 32195), (757, 32210), (777, 32255), (780, 32261), (788, 32270), (813, 32300),

Gene: Manatee\_38 Start: 29063, Stop: 30628, Start Num: 109

Candidate Starts for Manatee\_38:

(Start: 98 @29048 has 29 MA's), (Start: 102 @29054 has 3 MA's), (Start: 107 @29060 has 10 MA's), (Start: 109 @29063 has 10 MA's), (Start: 119 @29078 has 12 MA's), (Start: 187 @29129 has 221 MA's), (262, 29348), (264, 29354), (269, 29375), (323, 29492), (326, 29504), (329, 29513), (331, 29522), (334, 29528), (362, 29618), (366, 29630), (379, 29651), (384, 29663), (391, 29687), (404, 29729), (457, 29858), (480, 29918), (500, 29975), (505, 29990), (525, 30029), (533, 30044), (622, 30182), (637, 30221), (649, 30248), (660, 30278), (766, 30497), (828, 30596), (840, 30620),

Gene: Maneekul\_50 Start: 36203, Stop: 37825, Start Num: 82

Candidate Starts for Maneekul\_50:

(Start: 55 @36146 has 7 MA's), (Start: 82 @36203 has 5 MA's), (Start: 89 @36212 has 25 MA's), (Start: 197 @36359 has 3 MA's), (227, 36458), (Start: 234 @36476 has 1 MA's), (255, 36527), (277, 36608), (278, 36611), (321, 36683), (322, 36692), (323, 36695), (362, 36821), (373, 36848), (400, 36917), (415, 36962), (454, 37031), (462, 37058), (481, 37106), (497, 37154), (513, 37193), (525, 37220), (546, 37250), (622, 37373), (646, 37433), (664, 37478), (729, 37607), (754, 37658), (759, 37667), (774, 37706), (786, 37730), (793, 37745), (804, 37760), (815, 37775),

Gene: Marav\_53 Start: 36467, Stop: 37948, Start Num: 116

Candidate Starts for Marav\_53:

(22, 36248), (46, 36326), (61, 36368), (69, 36386), (100, 36443), (Start: 116 @36467 has 3 MA's), (Start: 157 @36518 has 5 MA's), (Start: 163 @36527 has 10 MA's), (Start: 220 @36659 has 1 MA's), (253, 36737), (278, 36815), (306, 36848), (326, 36902), (369, 37031), (395, 37079), (448, 37190), (452, 37199), (470, 37247), (471, 37250), (489, 37289), (578, 37448), (621, 37532), (674, 37649), (695, 37685), (741, 37775), (744, 37784), (768, 37841), (801, 37889), (807, 37898), (834, 37937),

Gene: Marcell\_37 Start: 29790, Stop: 31292, Start Num: 187

Candidate Starts for Marcell\_37:

(Start: 98 @29709 has 29 MA's), (Start: 102 @29715 has 3 MA's), (Start: 109 @29724 has 10 MA's), (Start: 119 @29739 has 12 MA's), (Start: 187 @29790 has 221 MA's), (262, 30009), (264, 30015), (269, 30036), (279, 30069), (326, 30165), (329, 30174), (331, 30183), (366, 30291), (379, 30312), (384, 30324), (391, 30348), (404, 30390), (457, 30519), (480, 30579), (500, 30636), (525, 30690), (526, 30693), (533, 30705), (608, 30813), (622, 30846), (655, 30927), (660, 30942), (710, 31047), (766, 31161), (828, 31260), (840, 31284),

Gene: Marchy\_32 Start: 26377, Stop: 27891, Start Num: 187

Candidate Starts for Marchy\_32:

(Start: 98 @26296 has 29 MA's), (Start: 102 @26302 has 3 MA's), (Start: 107 @26308 has 10 MA's), (Start: 109 @26311 has 10 MA's), (Start: 119 @26326 has 12 MA's), (Start: 187 @26377 has 221 MA's), (262, 26596), (264, 26602), (269, 26623), (326, 26752), (329, 26761), (331, 26770), (362, 26866), (366, 26878), (384, 26911), (396, 26947), (457, 27106), (480, 27166), (500, 27223), (525, 27277), (533, 27292), (608, 27400), (637, 27472), (655, 27514), (660, 27529), (766, 27748),

Gene: Marco3\_37 Start: 29594, Stop: 31177, Start Num: 98

Candidate Starts for Marco3\_37:

(Start: 98 @29594 has 29 MA's), (Start: 102 @29600 has 3 MA's), (Start: 107 @29606 has 10 MA's), (Start: 109 @29609 has 10 MA's), (Start: 119 @29624 has 12 MA's), (Start: 187 @29675 has 221 MA's), (Start: 222 @29783 has 1 MA's), (262, 29894), (264, 29900), (269, 29921), (323, 30038), (326, 30050), (329, 30059), (331, 30068), (366, 30176), (379, 30197), (384, 30209), (391, 30233), (404, 30275), (457, 30404), (480, 30464), (500, 30521), (525, 30575), (526, 30578), (533, 30590), (608, 30698), (622, 30731), (655, 30812), (660, 30827), (710, 30932), (766, 31046), (828, 31145), (840, 31169),

Gene: Marge\_38 Start: 30106, Stop: 31677, Start Num: 107

Candidate Starts for Marge\_38:

(Start: 102 @30100 has 3 MA's), (Start: 107 @30106 has 10 MA's), (Start: 109 @30109 has 10 MA's), (Start: 119 @30124 has 12 MA's), (Start: 187 @30175 has 221 MA's), (262, 30394), (264, 30400), (269, 30421), (326, 30550), (329, 30559), (331, 30568), (366, 30676), (379, 30697), (384, 30709), (391, 30733), (404, 30775), (457, 30904), (480, 30964), (500, 31021), (512, 31048), (525, 31075), (526, 31078), (533, 31090), (580, 31159), (608, 31198), (622, 31231), (655, 31312), (660, 31327), (710, 31432), (766, 31546), (828, 31645), (840, 31669),

Gene: Margo\_34 Start: 27255, Stop: 25747, Start Num: 187

Candidate Starts for Margo\_34:

(Start: 175 @27270 has 3 MA's), (Start: 187 @27255 has 221 MA's), (Start: 190 @27249 has 3 MA's), (Start: 191 @27246 has 17 MA's), (249, 27078), (252, 27072), (293, 26955), (325, 26895), (362, 26778), (379, 26739), (389, 26712), (392, 26700), (437, 26565), (492, 26412), (532, 26322), (557, 26283), (614, 26193), (633, 26151), (637, 26139), (656, 26094), (664, 26073), (771, 25860), (785, 25839),

Gene: Maroc7\_37 Start: 29274, Stop: 30776, Start Num: 187

Candidate Starts for Maroc7\_37:

(Start: 98 @29193 has 29 MA's), (Start: 102 @29199 has 3 MA's), (Start: 107 @29205 has 10 MA's), (Start: 109 @29208 has 10 MA's), (Start: 119 @29223 has 12 MA's), (Start: 187 @29274 has 221 MA's), (Start: 195 @29289 has 10 MA's), (262, 29493), (264, 29499), (326, 29649), (329, 29658), (331, 29667), (366, 29775), (379, 29796), (384, 29808), (391, 29832), (404, 29874), (457, 30003), (480, 30063), (500, 30120), (512, 30147), (525, 30174), (526, 30177), (533, 30189), (580, 30258), (606, 30291), (608, 30297), (622, 30330), (655, 30411), (660, 30426), (710, 30531), (766, 30645), (828, 30744), (840, 30768),

Gene: Marsha\_37 Start: 30335, Stop: 31873, Start Num: 187

Candidate Starts for Marsha\_37:

(Start: 98 @30254 has 29 MA's), (Start: 102 @30260 has 3 MA's), (Start: 107 @30266 has 10 MA's), (Start: 109 @30269 has 10 MA's), (Start: 119 @30284 has 12 MA's), (Start: 187 @30335 has 221 MA's), (262, 30554), (264, 30560), (326, 30710), (329, 30719), (331, 30728), (334, 30734), (366, 30836), (384, 30869), (396, 30905), (457, 31064), (480, 31124), (500, 31181), (512, 31208), (525, 31235), (533, 31250), (606, 31352), (608, 31358), (622, 31391), (625, 31394), (655, 31472), (660, 31487), (766, 31706),

Gene: MaryBeth\_37 Start: 29595, Stop: 31097, Start Num: 187

Candidate Starts for MaryBeth\_37:

(Start: 98 @29514 has 29 MA's), (Start: 102 @29520 has 3 MA's), (Start: 107 @29526 has 10 MA's), (Start: 109 @29529 has 10 MA's), (Start: 119 @29544 has 12 MA's), (Start: 187 @29595 has 221 MA's), (Start: 195 @29610 has 10 MA's), (262, 29814), (264, 29820), (268, 29832), (269, 29841), (326, 29970), (329, 29979), (331, 29988), (366, 30096), (379, 30117), (384, 30129), (391, 30153), (404, 30195), (457, 30324), (480, 30384), (500, 30441), (512, 30468), (525, 30495), (526, 30498), (533, 30510), (608, 30618), (622, 30651), (655, 30732), (660, 30747), (710, 30852), (766, 30966), (828, 31065), (840, 31089),

Gene: MarysWell\_29 Start: 25772, Stop: 24333, Start Num: 206

Candidate Starts for MarysWell\_29:

(Start: 187 @25826 has 221 MA's), (Start: 200 @25793 has 1 MA's), (Start: 201 @25790 has 3 MA's), (Start: 206 @25772 has 9 MA's), (Start: 234 @25691 has 1 MA's), (281, 25547), (294, 25520), (323, 25472), (379, 25307), (387, 25283), (389, 25280), (396, 25259), (471, 25070), (525, 24929), (546, 24899), (633, 24722), (637, 24710), (673, 24626), (680, 24611), (692, 24596), (776, 24419), (806, 24389), (807, 24386), (829, 24356),

Gene: Maureen\_51 Start: 37489, Stop: 38901, Start Num: 187

Candidate Starts for Maureen\_51:

(Start: 187 @37489 has 221 MA's), (Start: 234 @37627 has 1 MA's), (278, 37762), (317, 37822), (323, 37834), (328, 37852), (339, 37891), (389, 38026), (391, 38035), (457, 38167), (461, 38179), (497, 38260), (603, 38470), (615, 38503), (634, 38545), (644, 38572), (655, 38590), (731, 38731), (767, 38794), (777, 38818), (830, 38896),

Gene: Maverick\_33 Start: 26646, Stop: 25123, Start Num: 162

Candidate Starts for Maverick\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Mayonnaise\_33 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for Mayonnaise\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Mazhar510\_33 Start: 26638, Stop: 25124, Start Num: 171

Candidate Starts for Mazhar510\_33:

(Start: 134 @26680 has 1 MA's), (Start: 162 @26647 has 16 MA's), (Start: 171 @26638 has 112 MA's), (239, 26476), (262, 26410), (268, 26392), (294, 26317), (305, 26293), (320, 26254), (321, 26251), (387, 26050), (391, 26038), (462, 25855), (498, 25744), (521, 25693), (603, 25564), (607, 25555), (637, 25480), (639, 25474), (696, 25351), (714, 25312), (794, 25162), (805, 25147),

Gene: McGuire\_38 Start: 29330, Stop: 30922, Start Num: 89

Candidate Starts for McGuire\_38:

(Start: 89 @29330 has 25 MA's), (Start: 130 @29375 has 3 MA's), (Start: 187 @29420 has 221 MA's), (Start: 195 @29435 has 10 MA's), (198, 29444), (227, 29537), (262, 29639), (264, 29645), (269, 29666), (323, 29783), (326, 29795), (329, 29804), (331, 29813), (366, 29921), (379, 29942), (384, 29954), (391, 29978), (404, 30020), (457, 30149), (480, 30209), (500, 30266), (512, 30293), (525, 30320), (526, 30323), (533, 30335), (580, 30404), (606, 30437), (608, 30443), (622, 30476), (655, 30557), (660, 30572), (710, 30677), (766, 30791), (828, 30890), (840, 30914),

Gene: McSinger\_38 Start: 29906, Stop: 31483, Start Num: 102

Candidate Starts for McSinger\_38:

(Start: 98 @29900 has 29 MA's), (Start: 102 @29906 has 3 MA's), (Start: 107 @29912 has 10 MA's), (Start: 109 @29915 has 10 MA's), (Start: 119 @29930 has 12 MA's), (Start: 187 @29981 has 221 MA's), (262, 30200), (264, 30206), (326, 30356), (329, 30365), (331, 30374), (366, 30482), (379,

30503), (384, 30515), (391, 30539), (404, 30581), (457, 30710), (480, 30770), (500, 30827), (512, 30854), (525, 30881), (526, 30884), (533, 30896), (580, 30965), (608, 31004), (622, 31037), (655, 31118), (660, 31133), (710, 31238), (766, 31352), (771, 31364), (828, 31451), (840, 31475),

Gene: MeeZee\_33 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for MeeZee\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: MegTheThird\_33 Start: 26339, Stop: 24783, Start Num: 168

Candidate Starts for MegTheThird\_33:

(Start: 168 @26339 has 2 MA's), (185, 26327), (218, 26225), (Start: 234 @26186 has 1 MA's), (269, 26081), (276, 26057), (294, 26015), (321, 25943), (322, 25934), (338, 25883), (358, 25823), (396, 25718), (410, 25679), (414, 25664), (415, 25661), (423, 25637), (447, 25595), (453, 25577), (462, 25547), (471, 25529), (479, 25505), (525, 25388), (542, 25358), (603, 25277), (606, 25271), (633, 25205), (637, 25193), (652, 25160), (672, 25112), (688, 25079), (696, 25064), (710, 25034), (714, 25025), (718, 25019), (763, 24932), (770, 24911), (774, 24902), (832, 24815),

Gene: Mellie\_37 Start: 29588, Stop: 30979, Start Num: 188

Candidate Starts for Mellie\_37:

(Start: 188 @29588 has 36 MA's), (227, 29708), (262, 29801), (334, 29978), (345, 30011), (362, 30065), (401, 30173), (404, 30182), (447, 30260), (470, 30323), (484, 30350), (487, 30359), (493, 30377), (497, 30386), (543, 30464), (561, 30479), (596, 30515), (608, 30548), (622, 30581), (624, 30584), (656, 30662), (682, 30719), (719, 30788), (723, 30797), (735, 30815), (754, 30857), (759, 30866), (768, 30887), (801, 30941),

Gene: MetalQZJ\_37 Start: 29595, Stop: 31097, Start Num: 187

Candidate Starts for MetalQZJ\_37:

(Start: 98 @29514 has 29 MA's), (Start: 102 @29520 has 3 MA's), (Start: 107 @29526 has 10 MA's), (Start: 109 @29529 has 10 MA's), (Start: 119 @29544 has 12 MA's), (Start: 187 @29595 has 221 MA's), (Start: 195 @29610 has 10 MA's), (262, 29814), (264, 29820), (268, 29832), (269, 29841), (326, 29970), (329, 29979), (331, 29988), (366, 30096), (379, 30117), (384, 30129), (391, 30153), (404, 30195), (457, 30324), (480, 30384), (500, 30441), (512, 30468), (525, 30495), (526, 30498), (533, 30510), (608, 30618), (622, 30651), (655, 30732), (660, 30747), (710, 30852), (766, 30966), (828, 31065), (840, 31089),

Gene: Methuselah\_35 Start: 27305, Stop: 25737, Start Num: 171

Candidate Starts for Methuselah\_35:

(64, 27455), (70, 27440), (139, 27341), (Start: 171 @27305 has 112 MA's), (269, 27050), (276, 27026), (300, 26966), (320, 26918), (321, 26915), (347, 26828), (353, 26816), (358, 26795), (364, 26771), (391, 26702), (415, 26633), (417, 26624), (462, 26519), (471, 26474), (521, 26342), (567, 26258), (606, 26201), (696, 25994), (765, 25853),

Gene: Micasa\_30 Start: 25752, Stop: 24259, Start Num: 187

Candidate Starts for Micasa\_30:

(Start: 187 @25752 has 221 MA's), (Start: 200 @25719 has 1 MA's), (Start: 201 @25716 has 3 MA's), (Start: 206 @25698 has 9 MA's), (Start: 234 @25617 has 1 MA's), (281, 25473), (294, 25446), (323, 25398), (336, 25356), (379, 25233), (387, 25209), (389, 25206), (396, 25185), (415, 25128), (471, 24996), (525, 24855), (546, 24825), (633, 24648), (637, 24636), (673, 24552), (680, 24537), (692, 24522), (776, 24345), (806, 24315),

Gene: Michkear\_54 Start: 39243, Stop: 40769, Start Num: 170

Candidate Starts for Michkear\_54:

(23, 38976), (85, 39123), (Start: 142 @39207 has 1 MA's), (Start: 170 @39243 has 8 MA's), (Start: 178 @39252 has 1 MA's), (256, 39444), (309, 39579), (312, 39585), (322, 39624), (331, 39657), (403, 39861), (440, 39942), (454, 39969), (457, 39981), (497, 40074), (559, 40197), (603, 40287), (636, 40368), (669, 40440), (699, 40488),

Gene: Michley\_37 Start: 29186, Stop: 30769, Start Num: 98

Candidate Starts for Michley\_37:

(Start: 98 @29186 has 29 MA's), (Start: 102 @29192 has 3 MA's), (Start: 107 @29198 has 10 MA's), (Start: 109 @29201 has 10 MA's), (Start: 119 @29216 has 12 MA's), (Start: 187 @29267 has 221 MA's), (Start: 195 @29282 has 10 MA's), (262, 29486), (264, 29492), (268, 29504), (269, 29513), (326, 29642), (329, 29651), (331, 29660), (366, 29768), (379, 29789), (384, 29801), (391, 29825), (404, 29867), (457, 29996), (480, 30056), (500, 30113), (512, 30140), (525, 30167), (526, 30170), (533, 30182), (608, 30290), (622, 30323), (655, 30404), (660, 30419), (710, 30524), (766, 30638), (828, 30737), (840, 30761),

Gene: Midas2\_30 Start: 25826, Stop: 24333, Start Num: 187

Candidate Starts for Midas2\_30:

(Start: 187 @25826 has 221 MA's), (Start: 200 @25793 has 1 MA's), (Start: 201 @25790 has 3 MA's), (Start: 206 @25772 has 9 MA's), (Start: 234 @25691 has 1 MA's), (281, 25547), (294, 25520), (323, 25472), (379, 25307), (387, 25283), (389, 25280), (396, 25259), (415, 25202), (471, 25070), (525, 24929), (546, 24899), (633, 24722), (637, 24710), (673, 24626), (680, 24611), (692, 24596), (776, 24419), (806, 24389), (829, 24356),

Gene: Milcery\_30 Start: 25782, Stop: 24289, Start Num: 187

Candidate Starts for Milcery\_30:

(Start: 187 @25782 has 221 MA's), (Start: 200 @25749 has 1 MA's), (Start: 201 @25746 has 3 MA's), (Start: 206 @25728 has 9 MA's), (Start: 234 @25647 has 1 MA's), (281, 25503), (294, 25476), (323, 25428), (379, 25263), (387, 25239), (389, 25236), (396, 25215), (471, 25026), (525, 24885), (546, 24855), (633, 24678), (637, 24666), (673, 24582), (680, 24567), (692, 24552), (776, 24375), (806, 24345), (829, 24312),

Gene: MilleFeuille\_36 Start: 29443, Stop: 30945, Start Num: 187

Candidate Starts for MilleFeuille\_36:

(Start: 98 @29362 has 29 MA's), (Start: 102 @29368 has 3 MA's), (Start: 107 @29374 has 10 MA's), (Start: 109 @29377 has 10 MA's), (Start: 119 @29392 has 12 MA's), (Start: 187 @29443 has 221 MA's), (Start: 195 @29458 has 10 MA's), (262, 29662), (264, 29668), (268, 29680), (269, 29689), (323, 29806), (326, 29818), (329, 29827), (331, 29836), (366, 29944), (379, 29965), (384, 29977), (391, 30001), (457, 30172), (500, 30289), (512, 30316), (525, 30343), (533, 30358), (608, 30466), (622, 30499), (655, 30580), (660, 30595), (710, 30700), (764, 30805), (766, 30814), (828, 30913), (840, 30937),

Gene: Millski\_32 Start: 26641, Stop: 25127, Start Num: 171

Candidate Starts for Millski\_32:

(Start: 134 @26683 has 1 MA's), (Start: 162 @26650 has 16 MA's), (Start: 171 @26641 has 112 MA's), (239, 26479), (262, 26413), (268, 26395), (294, 26320), (305, 26296), (320, 26257), (321, 26254), (347, 26167), (387, 26053), (391, 26041), (462, 25858), (498, 25747), (521, 25696), (603, 25567), (607, 25558), (637, 25483), (639, 25477), (696, 25354), (714, 25315), (794, 25165), (805, 25150),

Gene: Miramae\_33 Start: 26969, Stop: 25407, Start Num: 119

Candidate Starts for Miramae\_33:

(Start: 119 @26969 has 12 MA's), (Start: 176 @26912 has 15 MA's), (Start: 187 @26903 has 221 MA's), (Start: 197 @26885 has 3 MA's), (212, 26828), (229, 26780), (Start: 234 @26768 has 1 MA's), (274, 26642), (283, 26621), (285, 26618), (299, 26591), (322, 26552), (363, 26423), (387, 26363), (461, 26171), (525, 26009), (629, 25814), (637, 25787), (659, 25733), (663, 25724), (768, 25514), (776, 25496), (791, 25484), (796, 25475), (809, 25457),

Gene: Miryou\_40 Start: 33649, Stop: 35055, Start Num: 188

Candidate Starts for Miryou\_40:

(Start: 180 @33640 has 37 MA's), (Start: 188 @33649 has 36 MA's), (227, 33769), (288, 33946), (316, 33970), (328, 34021), (342, 34063), (364, 34132), (373, 34159), (379, 34168), (389, 34195), (396, 34216), (401, 34234), (411, 34261), (443, 34306), (454, 34312), (497, 34417), (533, 34483), (543, 34492), (555, 34513), (568, 34531), (581, 34552), (622, 34639), (627, 34648), (629, 34651), (672, 34759), (691, 34795), (727, 34867), (732, 34876), (755, 34927), (774, 34966), (780, 34978), (788, 34987), (813, 35017), (824, 35032),

Gene: Misomonster\_38 Start: 27308, Stop: 25740, Start Num: 171

Candidate Starts for Misomonster\_38:

(64, 27458), (70, 27443), (139, 27344), (Start: 171 @27308 has 112 MA's), (269, 27053), (276, 27029), (300, 26969), (320, 26921), (321, 26918), (347, 26831), (353, 26819), (358, 26798), (364, 26774), (391, 26705), (415, 26636), (417, 26627), (462, 26522), (471, 26477), (521, 26345), (567, 26261), (606, 26204), (696, 25997), (765, 25856),

Gene: MissRona\_38 Start: 30376, Stop: 31767, Start Num: 188

Candidate Starts for MissRona\_38:

(Start: 87 @30241 has 1 MA's), (Start: 168 @30355 has 2 MA's), (Start: 188 @30376 has 36 MA's), (227, 30496), (288, 30673), (345, 30799), (362, 30853), (404, 30970), (447, 31048), (470, 31111), (487, 31147), (522, 31225), (543, 31252), (561, 31267), (607, 31333), (608, 31336), (617, 31360), (622, 31369), (624, 31372), (656, 31450), (682, 31507), (704, 31543), (719, 31576), (723, 31585), (735, 31603), (759, 31654),

Gene: MissSwiss\_52 Start: 34520, Stop: 35938, Start Num: 180

Candidate Starts for MissSwiss\_52:

(Start: 163 @34502 has 10 MA's), (177, 34517), (Start: 180 @34520 has 37 MA's), (Start: 187 @34529 has 221 MA's), (225, 34643), (264, 34751), (277, 34799), (317, 34862), (323, 34874), (358, 34982), (391, 35075), (396, 35087), (404, 35114), (414, 35141), (628, 35573), (634, 35594), (669, 35672), (729, 35777),

Gene: Mkhuseli\_38 Start: 29400, Stop: 30968, Start Num: 109

Candidate Starts for Mkhuseli\_38:

(Start: 98 @29385 has 29 MA's), (Start: 102 @29391 has 3 MA's), (Start: 107 @29397 has 10 MA's), (Start: 109 @29400 has 10 MA's), (Start: 119 @29415 has 12 MA's), (Start: 187 @29466 has 221 MA's), (Start: 195 @29481 has 10 MA's), (231, 29595), (262, 29685), (264, 29691), (268, 29703), (326, 29841), (329, 29850), (331, 29859), (366, 29967), (379, 29988), (384, 30000), (391, 30024), (404, 30066), (457, 30195), (480, 30255), (500, 30312), (512, 30339), (525, 30366), (526, 30369), (533, 30381), (580, 30450), (606, 30483), (608, 30489), (622, 30522), (655, 30603), (660, 30618), (766, 30837), (782, 30873), (828, 30936), (840, 30960),

Gene: Mojerita\_30 Start: 23368, Stop: 21647, Start Num: 145

Candidate Starts for Mojerita\_30:

(93, 23440), (Start: 145 @23368 has 12 MA's), (250, 23155), (330, 22948), (362, 22849), (387, 22756), (516, 22393), (556, 22315), (559, 22309), (593, 22228), (594, 22225), (647, 22090), (660, 22057), (667, 22042), (744, 21889), (763, 21847), (764, 21844), (772, 21820), (779, 21805), (783, 21799),

Gene: Molly\_39 Start: 29294, Stop: 30877, Start Num: 98

Candidate Starts for Molly\_39:

(Start: 98 @29294 has 29 MA's), (Start: 102 @29300 has 3 MA's), (Start: 107 @29306 has 10 MA's), (Start: 109 @29309 has 10 MA's), (Start: 119 @29324 has 12 MA's), (Start: 187 @29375 has 221 MA's), (Start: 193 @29387 has 3 MA's), (264, 29600), (268, 29612), (269, 29621), (279, 29654), (326, 29750), (329, 29759), (331, 29768), (366, 29876), (379, 29897), (384, 29909), (391, 29933), (404, 29975), (457, 30104), (480, 30164), (500, 30221), (512, 30248), (525, 30275), (526, 30278), (533, 30290), (580, 30359), (606, 30392), (608, 30398), (622, 30431), (655, 30512), (660, 30527), (710, 30632), (766, 30746), (828, 30845), (840, 30869),

Gene: Monet\_39 Start: 30804, Stop: 32306, Start Num: 187

Candidate Starts for Monet\_39:

(Start: 98 @30723 has 29 MA's), (Start: 102 @30729 has 3 MA's), (Start: 107 @30735 has 10 MA's), (Start: 109 @30738 has 10 MA's), (Start: 119 @30753 has 12 MA's), (Start: 187 @30804 has 221 MA's), (198, 30828), (262, 31023), (264, 31029), (269, 31050), (326, 31179), (329, 31188), (331, 31197), (366, 31305), (379, 31326), (384, 31338), (391, 31362), (404, 31404), (457, 31533), (480, 31593), (500, 31650), (512, 31677), (525, 31704), (533, 31719), (580, 31788), (608, 31827), (622, 31860), (655, 31941), (660, 31956), (710, 32061), (766, 32175), (771, 32187), (828, 32274), (840, 32298),

Gene: Moose\_37 Start: 29620, Stop: 31122, Start Num: 187

Candidate Starts for Moose\_37:

(Start: 98 @29539 has 29 MA's), (Start: 102 @29545 has 3 MA's), (Start: 107 @29551 has 10 MA's), (Start: 109 @29554 has 10 MA's), (Start: 119 @29569 has 12 MA's), (Start: 187 @29620 has 221 MA's), (Start: 195 @29635 has 10 MA's), (198, 29644), (262, 29839), (264, 29845), (268, 29857), (269, 29866), (326, 29995), (329, 30004), (331, 30013), (366, 30121), (379, 30142), (384, 30154), (391, 30178), (457, 30349), (480, 30409), (500, 30466), (525, 30520), (526, 30523), (533, 30535), (608, 30643), (622, 30676), (637, 30715), (655, 30757), (660, 30772), (766, 30991), (828, 31090), (840, 31114),

Gene: Morpher26\_33 Start: 26647, Stop: 25133, Start Num: 171

Candidate Starts for Morpher26\_33:

(Start: 134 @26689 has 1 MA's), (Start: 162 @26656 has 16 MA's), (Start: 171 @26647 has 112 MA's), (239, 26485), (262, 26419), (268, 26401), (294, 26326), (320, 26263), (321, 26260), (347, 26173), (391, 26047), (462, 25864), (480, 25807), (498, 25753), (521, 25702), (603, 25573), (607, 25564), (637, 25489), (639, 25483), (692, 25369), (696, 25360), (714, 25321), (794, 25171), (805, 25156),

Gene: Moss\_43 Start: 31498, Stop: 32937, Start Num: 181

Candidate Starts for Moss\_43:

(Start: 181 @31498 has 19 MA's), (Start: 222 @31609 has 1 MA's), (227, 31618), (256, 31681), (262, 31705), (265, 31714), (323, 31864), (325, 31873), (376, 32029), (379, 32035), (389, 32062), (486, 32296), (551, 32419), (777, 32866), (785, 32881), (787, 32884),

Gene: MrGordo\_37 Start: 29130, Stop: 30632, Start Num: 187

Candidate Starts for MrGordo\_37:

(Start: 98 @29049 has 29 MA's), (Start: 102 @29055 has 3 MA's), (Start: 107 @29061 has 10 MA's), (Start: 109 @29064 has 10 MA's), (Start: 119 @29079 has 12 MA's), (Start: 187 @29130 has 221 MA's), (198, 29154), (264, 29355), (279, 29409), (326, 29505), (329, 29514), (331, 29523), (366, 29631), (379, 29652), (384, 29664), (391, 29688), (404, 29730), (457, 29859), (480, 29919), (500, 29976), (512, 30003), (520, 30018), (521, 30021), (525, 30030), (526, 30033), (533, 30045), (580, 30114), (606, 30147), (608, 30153), (622, 30186), (625, 30189), (655, 30267), (660, 30282), (710,

30387), (766, 30501), (828, 30600), (840, 30624),

Gene: MrMagoo\_148 Start: 70893, Stop: 69439, Start Num: 140

Candidate Starts for MrMagoo\_148:

(64, 71010), (Start: 107 @70935 has 10 MA's), (Start: 133 @70902 has 1 MA's), (Start: 140 @70893 has 21 MA's), (Start: 190 @70839 has 3 MA's), (198, 70821), (221, 70746), (271, 70602), (322, 70485), (340, 70422), (381, 70332), (396, 70290), (497, 70077), (532, 70011), (551, 69984), (607, 69903), (618, 69873), (622, 69867), (624, 69864), (695, 69714), (706, 69693), (733, 69636), (778, 69534), (807, 69492),

Gene: Mryolo\_35 Start: 29138, Stop: 30640, Start Num: 187

Candidate Starts for Mryolo\_35:

(Start: 130 @29093 has 3 MA's), (Start: 187 @29138 has 221 MA's), (Start: 195 @29153 has 10 MA's), (239, 29285), (262, 29357), (264, 29363), (323, 29501), (326, 29513), (329, 29522), (331, 29531), (366, 29639), (379, 29660), (384, 29672), (391, 29696), (404, 29738), (457, 29867), (480, 29927), (500, 29984), (525, 30038), (533, 30053), (606, 30155), (608, 30161), (622, 30194), (625, 30197), (649, 30260), (660, 30290), (710, 30395), (766, 30509), (828, 30608), (840, 30632),

Gene: Mudpuppy\_46 Start: 34970, Stop: 36388, Start Num: 180

Candidate Starts for Mudpuppy\_46:

(Start: 163 @34952 has 10 MA's), (177, 34967), (Start: 180 @34970 has 37 MA's), (Start: 187 @34979 has 221 MA's), (225, 35093), (264, 35201), (317, 35312), (323, 35324), (325, 35333), (358, 35432), (391, 35525), (396, 35537), (414, 35591), (486, 35723), (611, 35990), (629, 36026), (634, 36044), (638, 36056), (655, 36089), (729, 36227),

Gene: Mundrea\_33 Start: 26612, Stop: 25116, Start Num: 187

Candidate Starts for Mundrea\_33:

(20, 26912), (34, 26852), (39, 26834), (41, 26825), (Start: 119 @26678 has 12 MA's), (Start: 176 @26621 has 15 MA's), (Start: 187 @26612 has 221 MA's), (Start: 197 @26594 has 3 MA's), (212, 26537), (217, 26519), (229, 26489), (Start: 234 @26477 has 1 MA's), (264, 26393), (274, 26351), (283, 26330), (322, 26261), (363, 26132), (387, 26072), (405, 26018), (461, 25880), (484, 25817), (527, 25712), (569, 25649), (611, 25559), (629, 25523), (637, 25496), (659, 25442), (663, 25433), (768, 25223), (771, 25217), (776, 25205), (791, 25193), (796, 25184),

Gene: Murp\_39 Start: 32170, Stop: 33561, Start Num: 188

Candidate Starts for Murp\_39:

(Start: 188 @32170 has 36 MA's), (227, 32290), (288, 32467), (339, 32581), (342, 32584), (345, 32593), (362, 32647), (404, 32764), (487, 32941), (493, 32959), (497, 32968), (522, 33019), (561, 33061), (596, 33097), (607, 33127), (622, 33163), (624, 33166), (656, 33244), (682, 33301), (693, 33316), (719, 33370), (759, 33448),

Gene: Museum\_39 Start: 29483, Stop: 30988, Start Num: 191

Candidate Starts for Museum\_39:

(Start: 98 @29393 has 29 MA's), (Start: 102 @29399 has 3 MA's), (Start: 107 @29405 has 10 MA's), (Start: 109 @29408 has 10 MA's), (Start: 119 @29423 has 12 MA's), (Start: 187 @29474 has 221 MA's), (Start: 191 @29483 has 17 MA's), (Start: 195 @29489 has 10 MA's), (198, 29498), (Start: 200 @29507 has 1 MA's), (227, 29591), (Start: 234 @29609 has 1 MA's), (262, 29693), (264, 29699), (268, 29711), (269, 29720), (323, 29837), (326, 29849), (329, 29858), (331, 29867), (362, 29963), (366, 29975), (384, 30008), (457, 30203), (480, 30263), (500, 30320), (525, 30374), (526, 30377), (533, 30389), (606, 30491), (608, 30497), (622, 30530), (655, 30611), (660, 30626), (710, 30731), (766, 30845),

Gene: MyraDee\_30 Start: 24175, Stop: 22685, Start Num: 171

Candidate Starts for MyraDee\_30:

(Start: 171 @24175 has 112 MA's), (Start: 193 @24151 has 3 MA's), (205, 24112), (Start: 234 @24025 has 1 MA's), (262, 23947), (263, 23944), (264, 23941), (269, 23920), (276, 23896), (294, 23854), (300, 23836), (320, 23794), (321, 23791), (347, 23704), (349, 23701), (353, 23692), (384, 23602), (391, 23578), (417, 23500), (448, 23437), (462, 23395), (471, 23365), (481, 23335), (521, 23233), (525, 23224), (615, 23074), (625, 23059), (655, 22981), (656, 22978), (677, 22930), (696, 22894), (746, 22798), (764, 22768), (785, 22723), (788, 22720), (794, 22708),

Gene: Mysterium\_42 Start: 31330, Stop: 32769, Start Num: 181

Candidate Starts for Mysterium\_42:

(Start: 181 @31330 has 19 MA's), (Start: 191 @31342 has 17 MA's), (Start: 222 @31441 has 1 MA's), (227, 31450), (256, 31513), (262, 31537), (265, 31546), (323, 31696), (325, 31705), (376, 31861), (379, 31867), (389, 31894), (486, 32128), (551, 32251), (681, 32521), (777, 32698), (785, 32713), (787, 32716),

Gene: NEHalo\_37 Start: 29293, Stop: 30861, Start Num: 107

Candidate Starts for NEHalo\_37:

(Start: 98 @29281 has 29 MA's), (Start: 102 @29287 has 3 MA's), (Start: 107 @29293 has 10 MA's), (Start: 109 @29296 has 10 MA's), (Start: 119 @29311 has 12 MA's), (Start: 187 @29362 has 221 MA's), (Start: 195 @29377 has 10 MA's), (198, 29386), (262, 29581), (264, 29587), (269, 29608), (326, 29737), (329, 29746), (331, 29755), (334, 29761), (362, 29851), (366, 29863), (384, 29896), (404, 29962), (457, 30091), (480, 30151), (500, 30208), (525, 30262), (526, 30265), (533, 30277), (622, 30415), (625, 30418), (637, 30454), (655, 30496), (660, 30511), (710, 30616), (766, 30730), (828, 30829), (840, 30853),

Gene: Nabi\_51 Start: 35146, Stop: 36723, Start Num: 89

Candidate Starts for Nabi\_51:

(Start: 55 @35080 has 7 MA's), (Start: 89 @35146 has 25 MA's), (Start: 197 @35266 has 3 MA's), (Start: 234 @35383 has 1 MA's), (255, 35434), (277, 35515), (278, 35518), (321, 35590), (322, 35599), (323, 35602), (324, 35605), (329, 35623), (373, 35755), (396, 35812), (398, 35815), (400, 35824), (408, 35848), (448, 35917), (493, 36043), (497, 36052), (525, 36118), (546, 36148), (611, 36247), (622, 36271), (628, 36280), (635, 36304), (664, 36376), (759, 36565), (774, 36604), (786, 36628), (793, 36643), (804, 36658),

Gene: Naca\_31 Start: 25915, Stop: 24470, Start Num: 201

Candidate Starts for Naca\_31:

(155, 25978), (Start: 187 @25951 has 221 MA's), (Start: 201 @25915 has 3 MA's), (Start: 234 @25816 has 1 MA's), (264, 25732), (274, 25690), (285, 25666), (299, 25639), (322, 25600), (329, 25576), (379, 25432), (489, 25138), (507, 25093), (521, 25063), (533, 25039), (546, 25024), (590, 24964), (611, 24913), (614, 24904), (637, 24850), (652, 24817), (680, 24751), (776, 24559), (836, 24481),

Gene: Naiad\_29 Start: 23649, Stop: 22141, Start Num: 165

Candidate Starts for Naiad\_29:

(Start: 165 @23649 has 35 MA's), (Start: 187 @23628 has 221 MA's), (Start: 190 @23622 has 3 MA's), (Start: 234 @23493 has 1 MA's), (252, 23445), (278, 23358), (329, 23253), (364, 23142), (389, 23082), (392, 23070), (414, 23007), (429, 22977), (443, 22944), (452, 22923), (461, 22893), (469, 22878), (471, 22872), (485, 22824), (497, 22791), (521, 22734), (546, 22695), (548, 22689), (634, 22539), (714, 22368), (836, 22152),

Gene: Naira\_38 Start: 31077, Stop: 32591, Start Num: 187

Candidate Starts for Naira\_38:

(Start: 98 @30996 has 29 MA's), (Start: 102 @31002 has 3 MA's), (Start: 107 @31008 has 10 MA's), (Start: 109 @31011 has 10 MA's), (Start: 119 @31026 has 12 MA's), (Start: 187 @31077 has 221

MA's), (264, 31302), (269, 31323), (323, 31440), (326, 31452), (329, 31461), (331, 31470), (366, 31578), (379, 31599), (384, 31611), (391, 31635), (404, 31677), (457, 31806), (480, 31866), (500, 31923), (525, 31977), (533, 31992), (608, 32100), (622, 32133), (625, 32136), (655, 32214), (660, 32229), (663, 32235), (766, 32448), (771, 32460),

Gene: Nancinator\_29 Start: 23636, Stop: 22140, Start Num: 165

Candidate Starts for Nancinator\_29:

(Start: 165 @23636 has 35 MA's), (Start: 187 @23615 has 221 MA's), (Start: 190 @23609 has 3 MA's), (Start: 234 @23480 has 1 MA's), (252, 23432), (278, 23345), (329, 23240), (364, 23129), (389, 23069), (392, 23057), (414, 22994), (429, 22964), (443, 22931), (452, 22910), (461, 22880), (469, 22865), (471, 22859), (485, 22811), (497, 22778), (521, 22721), (546, 22682), (548, 22676), (611, 22580), (628, 22547), (634, 22526), (637, 22517), (714, 22355),

Gene: Nanodon\_51 Start: 34791, Stop: 36407, Start Num: 86

Candidate Starts for Nanodon\_51:

(Start: 86 @34791 has 1 MA's), (Start: 106 @34827 has 3 MA's), (202, 34968), (Start: 206 @34983 has 9 MA's), (211, 35001), (230, 35055), (246, 35091), (260, 35136), (271, 35184), (296, 35244), (326, 35313), (339, 35358), (405, 35538), (434, 35601), (439, 35610), (441, 35613), (460, 35664), (611, 35955), (614, 35964), (627, 35988), (649, 36051), (662, 36081), (677, 36114), (678, 36117), (733, 36219), (769, 36297),

Gene: Nanosmite\_142 Start: 71091, Stop: 69622, Start Num: 140

Candidate Starts for Nanosmite\_142:

(131, 71103), (Start: 133 @71100 has 1 MA's), (Start: 140 @71091 has 21 MA's), (Start: 188 @71034 has 36 MA's), (Start: 190 @71028 has 3 MA's), (Start: 193 @71022 has 3 MA's), (198, 71010), (243, 70893), (245, 70887), (246, 70884), (253, 70863), (319, 70695), (322, 70674), (340, 70611), (381, 70515), (446, 70383), (485, 70293), (497, 70260), (506, 70236), (513, 70221), (551, 70167), (607, 70086), (622, 70050), (634, 70020), (695, 69897), (733, 69819), (742, 69804), (753, 69774),

Gene: Natosaleda\_29 Start: 23636, Stop: 22140, Start Num: 165

Candidate Starts for Natosaleda\_29:

(Start: 165 @23636 has 35 MA's), (Start: 187 @23615 has 221 MA's), (Start: 190 @23609 has 3 MA's), (Start: 234 @23480 has 1 MA's), (252, 23432), (278, 23345), (329, 23240), (364, 23129), (378, 23099), (389, 23069), (392, 23057), (414, 22994), (429, 22964), (443, 22931), (452, 22910), (461, 22880), (469, 22865), (471, 22859), (485, 22811), (497, 22778), (521, 22721), (546, 22682), (548, 22676), (611, 22580), (628, 22547), (634, 22526), (637, 22517), (714, 22355),

Gene: NearlyHeadless\_30 Start: 25032, Stop: 23530, Start Num: 171

Candidate Starts for NearlyHeadless\_30:

(Start: 109 @25101 has 10 MA's), (Start: 134 @25074 has 1 MA's), (139, 25068), (Start: 171 @25032 has 112 MA's), (Start: 234 @24882 has 1 MA's), (269, 24777), (294, 24711), (300, 24693), (320, 24651), (321, 24648), (347, 24561), (358, 24528), (387, 24447), (391, 24435), (423, 24342), (448, 24294), (462, 24252), (481, 24192), (521, 24090), (603, 23955), (633, 23883), (677, 23778), (696, 23742), (714, 23703), (763, 23619), (788, 23571),

Gene: Neighly\_39 Start: 31215, Stop: 32585, Start Num: 206

Candidate Starts for Neighly\_39:

(59, 30969), (76, 31005), (132, 31092), (Start: 170 @31140 has 8 MA's), (Start: 206 @31215 has 9 MA's), (210, 31227), (253, 31338), (254, 31341), (263, 31374), (269, 31398), (292, 31461), (329, 31536), (436, 31812), (543, 32034), (548, 32046), (591, 32094), (603, 32124), (611, 32145), (622, 32169), (693, 32322), (731, 32403), (736, 32409), (742, 32421), (755, 32457), (759, 32463), (767, 32481), (768, 32484), (775, 32499), (777, 32505), (808, 32553), (815, 32562),

Gene: Nemo27\_33 Start: 26636, Stop: 25122, Start Num: 171

Candidate Starts for Nemo27\_33:

(Start: 134 @26678 has 1 MA's), (Start: 162 @26645 has 16 MA's), (Start: 171 @26636 has 112 MA's), (239, 26474), (262, 26408), (268, 26390), (294, 26315), (305, 26291), (320, 26252), (321, 26249), (347, 26162), (387, 26048), (391, 26036), (462, 25853), (498, 25742), (521, 25691), (603, 25562), (607, 25553), (637, 25478), (639, 25472), (696, 25349), (714, 25310), (794, 25160), (805, 25145),

Gene: Nerdos\_48 Start: 34074, Stop: 35396, Start Num: 191

Candidate Starts for Nerdos\_48:

(Start: 183 @34062 has 12 MA's), (Start: 191 @34074 has 17 MA's), (198, 34089), (Start: 222 @34176 has 1 MA's), (Start: 224 @34179 has 1 MA's), (237, 34203), (253, 34245), (256, 34254), (268, 34296), (269, 34305), (271, 34317), (321, 34407), (322, 34416), (329, 34440), (369, 34560), (380, 34566), (426, 34656), (448, 34671), (452, 34680), (462, 34713), (511, 34824), (513, 34830), (543, 34878), (554, 34893), (563, 34908), (603, 34968), (613, 34992), (650, 35073), (670, 35103), (688, 35133), (710, 35181), (749, 35259), (768, 35307), (774, 35316), (789, 35343), (816, 35382),

Gene: Nerujay\_38 Start: 29948, Stop: 31531, Start Num: 98

Candidate Starts for Nerujay\_38:

(Start: 98 @29948 has 29 MA's), (Start: 102 @29954 has 3 MA's), (Start: 107 @29960 has 10 MA's), (Start: 109 @29963 has 10 MA's), (Start: 119 @29978 has 12 MA's), (Start: 187 @30029 has 221 MA's), (Start: 195 @30044 has 10 MA's), (262, 30248), (264, 30254), (269, 30275), (326, 30404), (329, 30413), (331, 30422), (366, 30530), (379, 30551), (384, 30563), (391, 30587), (404, 30629), (457, 30758), (480, 30818), (500, 30875), (512, 30902), (525, 30929), (533, 30944), (606, 31046), (608, 31052), (622, 31085), (655, 31166), (660, 31181), (710, 31286), (766, 31400), (828, 31499), (840, 31523),

Gene: Nesbitt\_55 Start: 38186, Stop: 39901, Start Num: 164

Candidate Starts for Nesbitt\_55:

(Start: 145 @38162 has 12 MA's), (156, 38177), (Start: 164 @38186 has 4 MA's), (186, 38204), (213, 38276), (218, 38294), (254, 38378), (273, 38450), (290, 38495), (295, 38504), (302, 38522), (311, 38543), (328, 38612), (355, 38696), (386, 38813), (410, 38882), (444, 38975), (477, 39080), (482, 39104), (578, 39338), (585, 39347), (722, 39683), (729, 39695), (747, 39722), (768, 39776), (774, 39788), (777, 39797), (780, 39803), (796, 39827), (807, 39839), (840, 39893),

Gene: Nhonho\_37 Start: 29766, Stop: 31268, Start Num: 187

Candidate Starts for Nhonho\_37:

(Start: 130 @29721 has 3 MA's), (Start: 187 @29766 has 221 MA's), (Start: 195 @29781 has 10 MA's), (262, 29985), (264, 29991), (326, 30141), (329, 30150), (331, 30159), (366, 30267), (379, 30288), (384, 30300), (391, 30324), (404, 30366), (457, 30495), (480, 30555), (500, 30612), (512, 30639), (525, 30666), (526, 30669), (533, 30681), (580, 30750), (606, 30783), (608, 30789), (622, 30822), (655, 30903), (660, 30918), (710, 31023), (766, 31137), (828, 31236), (840, 31260),

Gene: Niobe\_48 Start: 35962, Stop: 37383, Start Num: 180

Candidate Starts for Niobe\_48:

(Start: 163 @35944 has 10 MA's), (177, 35959), (Start: 180 @35962 has 37 MA's), (Start: 187 @35971 has 221 MA's), (225, 36085), (Start: 234 @36109 has 1 MA's), (264, 36193), (271, 36226), (277, 36241), (317, 36304), (323, 36316), (325, 36325), (358, 36424), (370, 36466), (391, 36517), (404, 36556), (453, 36634), (461, 36661), (486, 36715), (629, 37021), (630, 37030), (634, 37039), (638, 37051), (729, 37222), (776, 37309),

Gene: Nitro\_51 Start: 37058, Stop: 38473, Start Num: 187

Candidate Starts for Nitro\_51:

(Start: 187 @37058 has 221 MA's), (Start: 197 @37076 has 3 MA's), (225, 37172), (264, 37280), (278, 37331), (317, 37391), (323, 37403), (331, 37433), (358, 37511), (391, 37604), (404, 37643), (579, 38003), (629, 38108), (634, 38126), (638, 38138), (729, 38309),

Gene: Niza\_40 Start: 30658, Stop: 32160, Start Num: 187

Candidate Starts for Niza\_40:

(Start: 98 @30577 has 29 MA's), (Start: 102 @30583 has 3 MA's), (Start: 107 @30589 has 10 MA's), (Start: 109 @30592 has 10 MA's), (Start: 119 @30607 has 12 MA's), (Start: 187 @30658 has 221 MA's), (Start: 195 @30673 has 10 MA's), (262, 30877), (264, 30883), (326, 31033), (329, 31042), (331, 31051), (366, 31159), (379, 31180), (384, 31192), (391, 31216), (404, 31258), (457, 31387), (480, 31447), (500, 31504), (525, 31558), (526, 31561), (533, 31573), (608, 31681), (622, 31714), (655, 31795), (660, 31810), (710, 31915), (766, 32029), (828, 32128), (840, 32152),

Gene: Noella\_34 Start: 27230, Stop: 25722, Start Num: 187

Candidate Starts for Noella\_34:

(Start: 175 @27245 has 3 MA's), (Start: 187 @27230 has 221 MA's), (Start: 190 @27224 has 3 MA's), (Start: 191 @27221 has 17 MA's), (249, 27053), (252, 27047), (293, 26930), (325, 26870), (362, 26753), (379, 26714), (389, 26687), (392, 26675), (437, 26540), (492, 26387), (532, 26297), (557, 26258), (614, 26168), (633, 26126), (637, 26114), (656, 26069), (664, 26048), (771, 25835), (785, 25814),

Gene: Noelle\_33 Start: 26735, Stop: 25200, Start Num: 171

Candidate Starts for Noelle\_33:

(139, 26771), (Start: 162 @26744 has 16 MA's), (Start: 171 @26735 has 112 MA's), (210, 26654), (239, 26573), (262, 26507), (268, 26489), (294, 26414), (320, 26351), (321, 26348), (360, 26219), (391, 26135), (415, 26066), (445, 26003), (448, 25994), (462, 25952), (480, 25895), (498, 25841), (521, 25790), (603, 25640), (607, 25631), (637, 25556), (677, 25463), (692, 25436), (696, 25427), (714, 25388), (764, 25301), (794, 25238), (805, 25223),

Gene: Norbert\_33 Start: 27229, Stop: 25721, Start Num: 187

Candidate Starts for Norbert\_33:

(Start: 175 @27244 has 3 MA's), (Start: 187 @27229 has 221 MA's), (Start: 190 @27223 has 3 MA's), (Start: 191 @27220 has 17 MA's), (249, 27052), (252, 27046), (293, 26929), (325, 26869), (362, 26752), (379, 26713), (389, 26686), (392, 26674), (437, 26539), (492, 26386), (532, 26296), (557, 26257), (614, 26167), (633, 26125), (637, 26113), (656, 26068), (664, 26047), (771, 25834), (785, 25813),

Gene: NorthStar\_33 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for NorthStar\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Norz\_39 Start: 30310, Stop: 31824, Start Num: 187

Candidate Starts for Norz\_39:

(Start: 98 @30229 has 29 MA's), (Start: 102 @30235 has 3 MA's), (Start: 107 @30241 has 10 MA's), (Start: 109 @30244 has 10 MA's), (Start: 119 @30259 has 12 MA's), (Start: 187 @30310 has 221 MA's), (Start: 195 @30325 has 10 MA's), (Start: 222 @30418 has 1 MA's), (262, 30529), (264, 30535), (269, 30556), (326, 30685), (329, 30694), (331, 30703), (366, 30811), (379, 30832), (384, 30844), (391, 30868), (404, 30910), (457, 31039), (480, 31099), (500, 31156), (512, 31183), (520, 31198), (521, 31201), (525, 31210), (526, 31213), (533, 31225), (606, 31327), (608, 31333), (622, 31366),

(625, 31369), (655, 31447), (660, 31462), (710, 31567), (766, 31681),

Gene: NotAPhaseMom\_33 Start: 26641, Stop: 25127, Start Num: 171

Candidate Starts for NotAPhaseMom\_33:

(Start: 134 @26683 has 1 MA's), (Start: 162 @26650 has 16 MA's), (Start: 171 @26641 has 112 MA's), (239, 26479), (262, 26413), (268, 26395), (294, 26320), (305, 26296), (320, 26257), (321, 26254), (347, 26167), (387, 26053), (391, 26041), (462, 25858), (498, 25747), (521, 25696), (603, 25567), (607, 25558), (637, 25483), (639, 25477), (696, 25354), (714, 25315), (794, 25165), (805, 25150),

Gene: Noxious\_40 Start: 30907, Stop: 32409, Start Num: 187

Candidate Starts for Noxious\_40:

(Start: 98 @30826 has 29 MA's), (Start: 102 @30832 has 3 MA's), (Start: 107 @30838 has 10 MA's), (Start: 109 @30841 has 10 MA's), (Start: 119 @30856 has 12 MA's), (Start: 187 @30907 has 221 MA's), (Start: 195 @30922 has 10 MA's), (262, 31126), (264, 31132), (269, 31153), (323, 31270), (326, 31282), (329, 31291), (331, 31300), (362, 31396), (366, 31408), (379, 31429), (384, 31441), (391, 31465), (457, 31636), (480, 31696), (500, 31753), (512, 31780), (525, 31807), (533, 31822), (580, 31891), (608, 31930), (622, 31963), (655, 32044), (660, 32059), (710, 32164), (766, 32278), (828, 32377), (840, 32401),

Gene: Nyxis\_33 Start: 26572, Stop: 25076, Start Num: 187

Candidate Starts for Nyxis\_33:

(Start: 119 @26638 has 12 MA's), (Start: 187 @26572 has 221 MA's), (Start: 197 @26554 has 3 MA's), (211, 26500), (229, 26449), (Start: 234 @26437 has 1 MA's), (274, 26311), (283, 26290), (299, 26260), (322, 26221), (334, 26182), (363, 26092), (387, 26032), (405, 25978), (461, 25840), (569, 25609), (611, 25519), (629, 25483), (637, 25456), (663, 25393), (768, 25183), (776, 25165), (791, 25153), (796, 25144),

Gene: OKCentral2016\_33 Start: 26376, Stop: 24868, Start Num: 187

Candidate Starts for OKCentral2016\_33:

(Start: 187 @26376 has 221 MA's), (Start: 197 @26358 has 3 MA's), (198, 26352), (225, 26265), (Start: 234 @26241 has 1 MA's), (293, 26076), (362, 25899), (379, 25860), (384, 25848), (387, 25836), (389, 25833), (392, 25821), (479, 25575), (485, 25554), (546, 25425), (557, 25404), (615, 25311), (629, 25287), (633, 25272), (656, 25215), (664, 25194),

Gene: OKaNui\_34 Start: 26690, Stop: 25176, Start Num: 171

Candidate Starts for OKaNui\_34:

(Start: 134 @26732 has 1 MA's), (Start: 162 @26699 has 16 MA's), (Start: 171 @26690 has 112 MA's), (239, 26528), (262, 26462), (268, 26444), (294, 26369), (305, 26345), (320, 26306), (321, 26303), (347, 26216), (387, 26102), (391, 26090), (462, 25907), (498, 25796), (521, 25745), (603, 25616), (607, 25607), (637, 25532), (639, 25526), (696, 25403), (714, 25364), (794, 25214), (805, 25199),

Gene: ObiToo\_54 Start: 36249, Stop: 37667, Start Num: 180

Candidate Starts for ObiToo\_54:

(Start: 163 @36231 has 10 MA's), (177, 36246), (Start: 180 @36249 has 37 MA's), (Start: 187 @36258 has 221 MA's), (225, 36372), (Start: 234 @36396 has 1 MA's), (244, 36417), (264, 36480), (277, 36528), (317, 36591), (323, 36603), (358, 36711), (370, 36753), (391, 36804), (404, 36843), (603, 37248), (634, 37323), (638, 37335), (683, 37428), (729, 37506), (777, 37596),

Gene: Ohno789\_37 Start: 29422, Stop: 30924, Start Num: 187

Candidate Starts for Ohno789\_37:

(Start: 98 @29341 has 29 MA's), (Start: 102 @29347 has 3 MA's), (Start: 107 @29353 has 10 MA's), (Start: 109 @29356 has 10 MA's), (Start: 119 @29371 has 12 MA's), (Start: 187 @29422 has 221 MA's), (Start: 195 @29437 has 10 MA's), (262, 29641), (264, 29647), (326, 29797), (329, 29806), (331, 29815), (366, 29923), (379, 29944), (384, 29956), (391, 29980), (457, 30151), (480, 30211), (500, 30268), (525, 30322), (533, 30337), (606, 30439), (608, 30445), (622, 30478), (625, 30481), (655, 30559), (660, 30574), (710, 30679), (766, 30793), (828, 30892), (840, 30916),

Gene: OkiRoe\_38 Start: 31310, Stop: 32725, Start Num: 180

Candidate Starts for OkiRoe\_38:

(Start: 180 @31310 has 37 MA's), (Start: 188 @31319 has 36 MA's), (227, 31439), (288, 31616), (316, 31640), (328, 31691), (342, 31733), (364, 31802), (373, 31829), (379, 31838), (389, 31865), (396, 31886), (401, 31904), (411, 31931), (443, 31976), (454, 31982), (497, 32087), (533, 32153), (543, 32162), (555, 32183), (568, 32201), (581, 32222), (622, 32309), (627, 32318), (629, 32321), (672, 32429), (691, 32465), (727, 32537), (732, 32546), (755, 32597), (774, 32636), (780, 32648), (788, 32657), (813, 32687), (824, 32702),

Gene: Oliynyk\_50 Start: 34372, Stop: 35694, Start Num: 191

Candidate Starts for Oliynyk\_50:

(Start: 183 @34360 has 12 MA's), (Start: 191 @34372 has 17 MA's), (198, 34387), (Start: 222 @34474 has 1 MA's), (Start: 224 @34477 has 1 MA's), (237, 34501), (256, 34552), (268, 34594), (269, 34603), (271, 34615), (321, 34705), (322, 34714), (329, 34738), (369, 34858), (380, 34864), (426, 34954), (448, 34969), (452, 34978), (462, 35011), (511, 35122), (513, 35128), (543, 35176), (554, 35191), (563, 35206), (603, 35266), (608, 35275), (613, 35290), (649, 35368), (670, 35401), (688, 35431), (710, 35479), (749, 35557), (768, 35605), (774, 35614), (789, 35641), (816, 35680),

Gene: Omar\_55 Start: 36249, Stop: 37679, Start Num: 157

Candidate Starts for Omar\_55:

(Start: 86 @36147 has 1 MA's), (Start: 116 @36198 has 3 MA's), (Start: 157 @36249 has 5 MA's), (Start: 163 @36258 has 10 MA's), (253, 36468), (264, 36495), (326, 36633), (369, 36762), (395, 36810), (448, 36921), (452, 36930), (470, 36978), (471, 36981), (489, 37020), (494, 37035), (555, 37149), (578, 37179), (621, 37263), (674, 37380), (695, 37416), (741, 37506), (744, 37515), (768, 37572), (801, 37620), (807, 37629), (834, 37668),

Gene: Omnicron\_41 Start: 30937, Stop: 32343, Start Num: 188

Candidate Starts for Omnicron\_41:

(Start: 180 @30928 has 37 MA's), (Start: 188 @30937 has 36 MA's), (215, 31024), (227, 31057), (262, 31150), (290, 31237), (316, 31258), (328, 31309), (342, 31351), (358, 31399), (364, 31420), (373, 31447), (379, 31456), (387, 31480), (389, 31483), (396, 31504), (401, 31522), (443, 31594), (454, 31600), (533, 31771), (543, 31780), (555, 31801), (568, 31819), (611, 31903), (622, 31927), (629, 31939), (649, 31996), (664, 32035), (672, 32047), (691, 32083), (704, 32107), (727, 32155), (732, 32164), (774, 32254), (780, 32266), (788, 32275), (824, 32320),

Gene: Oogway\_36 Start: 28960, Stop: 30462, Start Num: 187

Candidate Starts for Oogway\_36:

(Start: 98 @28879 has 29 MA's), (Start: 102 @28885 has 3 MA's), (Start: 107 @28891 has 10 MA's), (Start: 109 @28894 has 10 MA's), (Start: 119 @28909 has 12 MA's), (Start: 187 @28960 has 221 MA's), (Start: 222 @29068 has 1 MA's), (264, 29185), (269, 29206), (326, 29335), (329, 29344), (331, 29353), (366, 29461), (379, 29482), (384, 29494), (391, 29518), (457, 29689), (480, 29749), (500, 29806), (512, 29833), (525, 29860), (526, 29863), (533, 29875), (580, 29944), (606, 29977), (608, 29983), (622, 30016), (655, 30097), (660, 30112), (710, 30217), (766, 30331), (828, 30430), (840, 30454),

Gene: Ozzie\_48 Start: 34171, Stop: 35505, Start Num: 183

Candidate Starts for Ozzie\_48:

(Start: 183 @34171 has 12 MA's), (Start: 191 @34183 has 17 MA's), (198, 34198), (Start: 222 @34285 has 1 MA's), (Start: 224 @34288 has 1 MA's), (237, 34312), (253, 34354), (256, 34363), (268, 34405), (269, 34414), (271, 34426), (321, 34516), (322, 34525), (329, 34549), (369, 34669), (380, 34675), (426, 34765), (448, 34780), (452, 34789), (462, 34822), (511, 34933), (513, 34939), (543, 34987), (554, 35002), (563, 35017), (603, 35077), (608, 35086), (613, 35101), (650, 35182), (670, 35212), (688, 35242), (710, 35290), (749, 35368), (768, 35416), (774, 35425), (789, 35452), (816, 35491),

Gene: OzzyJ\_51 Start: 36081, Stop: 37724, Start Num: 55

Candidate Starts for OzzyJ\_51:

(17, 35901), (Start: 55 @36081 has 7 MA's), (Start: 89 @36147 has 25 MA's), (Start: 197 @36267 has 3 MA's), (207, 36306), (227, 36366), (Start: 234 @36384 has 1 MA's), (255, 36435), (277, 36516), (278, 36519), (321, 36591), (322, 36600), (323, 36603), (373, 36756), (396, 36813), (398, 36816), (400, 36825), (525, 37119), (546, 37149), (611, 37248), (622, 37272), (628, 37281), (635, 37305), (664, 37377), (759, 37566), (774, 37605), (786, 37629), (793, 37644), (804, 37659),

Gene: PCoral7\_37 Start: 30351, Stop: 31742, Start Num: 188

Candidate Starts for PCoral7\_37:

(Start: 145 @30300 has 12 MA's), (Start: 147 @30303 has 1 MA's), (Start: 188 @30351 has 36 MA's), (198, 30375), (Start: 206 @30408 has 9 MA's), (227, 30471), (262, 30564), (288, 30648), (345, 30774), (362, 30828), (396, 30918), (404, 30945), (447, 31023), (470, 31086), (487, 31122), (497, 31149), (522, 31200), (543, 31227), (561, 31242), (615, 31332), (622, 31344), (624, 31347), (682, 31482), (735, 31578), (755, 31623), (759, 31629),

Gene: PP\_41 Start: 31804, Stop: 30374, Start Num: 175

Candidate Starts for PP\_41:

(Start: 175 @31804 has 3 MA's), (Start: 187 @31789 has 221 MA's), (217, 31696), (283, 31507), (387, 31252), (479, 31051), (498, 30994), (546, 30904), (555, 30889), (673, 30658), (680, 30643), (831, 30388),

Gene: PSullivan\_36 Start: 28595, Stop: 30097, Start Num: 187

Candidate Starts for PSullivan\_36:

(Start: 98 @28514 has 29 MA's), (Start: 102 @28520 has 3 MA's), (Start: 107 @28526 has 10 MA's), (Start: 109 @28529 has 10 MA's), (Start: 119 @28544 has 12 MA's), (Start: 187 @28595 has 221 MA's), (Start: 191 @28604 has 17 MA's), (Start: 195 @28610 has 10 MA's), (227, 28712), (Start: 234 @28730 has 1 MA's), (239, 28742), (262, 28814), (264, 28820), (268, 28832), (269, 28841), (323, 28958), (326, 28970), (329, 28979), (331, 28988), (364, 29090), (366, 29096), (379, 29117), (384, 29129), (404, 29195), (457, 29324), (480, 29384), (500, 29441), (525, 29495), (533, 29510), (606, 29612), (608, 29618), (622, 29651), (625, 29654), (649, 29717), (660, 29747), (710, 29852), (766, 29966), (828, 30065), (840, 30089),

Gene: Pablito\_52 Start: 36745, Stop: 38214, Start Num: 112

Candidate Starts for Pablito\_52:

(Start: 112 @36745 has 2 MA's), (Start: 116 @36751 has 3 MA's), (141, 36781), (Start: 163 @36811 has 10 MA's), (166, 36814), (Start: 220 @36940 has 1 MA's), (Start: 222 @36946 has 1 MA's), (227, 36955), (253, 37018), (270, 37075), (278, 37096), (303, 37126), (306, 37129), (326, 37183), (369, 37312), (395, 37360), (397, 37363), (404, 37390), (448, 37462), (452, 37471), (458, 37492), (471, 37522), (573, 37708), (576, 37711), (695, 37951), (721, 38008), (741, 38041), (744, 38050), (768, 38107), (782, 38131), (801, 38155), (807, 38164), (820, 38182), (834, 38203),

Gene: PacerPaul\_38 Start: 29421, Stop: 30920, Start Num: 187

Candidate Starts for PacerPaul\_38:

(Start: 98 @29340 has 29 MA's), (Start: 102 @29346 has 3 MA's), (Start: 107 @29352 has 10 MA's), (Start: 109 @29355 has 10 MA's), (Start: 119 @29370 has 12 MA's), (Start: 187 @29421 has 221 MA's), (Start: 195 @29436 has 10 MA's), (262, 29640), (264, 29646), (269, 29667), (326, 29796), (329, 29805), (331, 29814), (366, 29922), (379, 29943), (384, 29955), (391, 29979), (457, 30150), (480, 30210), (500, 30267), (512, 30294), (525, 30321), (526, 30324), (533, 30336), (606, 30435), (622, 30474), (625, 30477), (655, 30555), (660, 30570), (766, 30789), (828, 30888), (840, 30912),

Gene: Paedore\_54 Start: 37729, Stop: 39147, Start Num: 163

Candidate Starts for Paedore\_54:

(Start: 163 @37729 has 10 MA's), (166, 37732), (Start: 220 @37858 has 1 MA's), (Start: 222 @37864 has 1 MA's), (253, 37936), (255, 37942), (278, 38014), (303, 38044), (306, 38047), (326, 38101), (369, 38230), (381, 38239), (395, 38278), (432, 38353), (448, 38389), (452, 38398), (471, 38449), (621, 38731), (652, 38800), (695, 38884), (741, 38974), (744, 38983), (768, 39040), (807, 39097), (811, 39103), (834, 39136),

Gene: Palestino\_32 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for Palestino\_32:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Panamaxus\_33 Start: 27229, Stop: 25721, Start Num: 187

Candidate Starts for Panamaxus\_33:

(Start: 175 @27244 has 3 MA's), (Start: 187 @27229 has 221 MA's), (Start: 190 @27223 has 3 MA's), (Start: 191 @27220 has 17 MA's), (249, 27052), (252, 27046), (293, 26929), (325, 26869), (362, 26752), (379, 26713), (389, 26686), (392, 26674), (437, 26539), (492, 26386), (532, 26296), (557, 26257), (614, 26167), (633, 26125), (637, 26113), (656, 26068), (664, 26047), (771, 25834), (785, 25813),

Gene: PandaPo\_52 Start: 34525, Stop: 35946, Start Num: 177

Candidate Starts for PandaPo\_52:

(Start: 163 @34510 has 10 MA's), (177, 34525), (Start: 180 @34528 has 37 MA's), (Start: 187 @34537 has 221 MA's), (225, 34651), (264, 34759), (277, 34807), (317, 34870), (323, 34882), (358, 34990), (391, 35083), (396, 35095), (404, 35122), (414, 35149), (628, 35581), (634, 35602), (669, 35680), (729, 35785),

Gene: Paola\_38 Start: 31317, Stop: 32723, Start Num: 188

Candidate Starts for Paola\_38:

(Start: 180 @31308 has 37 MA's), (Start: 188 @31317 has 36 MA's), (227, 31437), (288, 31614), (316, 31638), (328, 31689), (342, 31731), (358, 31779), (364, 31800), (373, 31827), (379, 31836), (389, 31863), (396, 31884), (401, 31902), (411, 31929), (443, 31974), (454, 31980), (497, 32085), (533, 32151), (543, 32160), (555, 32181), (568, 32199), (622, 32307), (627, 32316), (629, 32319), (672, 32427), (691, 32463), (727, 32535), (732, 32544), (755, 32595), (774, 32634), (780, 32646), (788, 32655), (813, 32685), (824, 32700),

Gene: Paolo\_54 Start: 37643, Stop: 39124, Start Num: 116

Candidate Starts for Paolo\_54:

(Start: 116 @37643 has 3 MA's), (Start: 157 @37694 has 5 MA's), (Start: 163 @37703 has 10 MA's), (253, 37913), (264, 37940), (326, 38078), (369, 38207), (395, 38255), (448, 38366), (452, 38375), (460, 38402), (470, 38423), (471, 38426), (489, 38465), (578, 38624), (621, 38708), (674, 38825), (695, 38861), (741, 38951), (744, 38960), (768, 39017), (801, 39065), (807, 39074), (834, 39113),

Gene: PapayaSalad\_30 Start: 23309, Stop: 21576, Start Num: 145

Candidate Starts for PapayaSalad\_30:

(17, 23606), (Start: 145 @23309 has 12 MA's), (227, 23135), (325, 22898), (391, 22676), (415, 22607), (468, 22457), (559, 22229), (593, 22148), (594, 22145), (602, 22124), (720, 21857), (739, 21827), (741, 21824), (763, 21773), (766, 21761), (772, 21746), (774, 21743), (809, 21683),

Gene: Papez\_39 Start: 31106, Stop: 32608, Start Num: 187

Candidate Starts for Papez\_39:

(Start: 98 @31025 has 29 MA's), (Start: 102 @31031 has 3 MA's), (Start: 107 @31037 has 10 MA's), (Start: 109 @31040 has 10 MA's), (Start: 119 @31055 has 12 MA's), (Start: 187 @31106 has 221 MA's), (Start: 195 @31121 has 10 MA's), (262, 31325), (264, 31331), (269, 31352), (326, 31481), (329, 31490), (331, 31499), (366, 31607), (379, 31628), (384, 31640), (391, 31664), (404, 31706), (457, 31835), (480, 31895), (500, 31952), (512, 31979), (525, 32006), (526, 32009), (533, 32021), (580, 32090), (608, 32129), (622, 32162), (655, 32243), (660, 32258), (710, 32363), (766, 32477), (828, 32576), (840, 32600),

Gene: Paphu\_36 Start: 29268, Stop: 30851, Start Num: 98

Candidate Starts for Paphu\_36:

(Start: 98 @29268 has 29 MA's), (Start: 102 @29274 has 3 MA's), (Start: 107 @29280 has 10 MA's), (Start: 109 @29283 has 10 MA's), (Start: 119 @29298 has 12 MA's), (Start: 187 @29349 has 221 MA's), (Start: 195 @29364 has 10 MA's), (198, 29373), (262, 29568), (264, 29574), (269, 29595), (326, 29724), (329, 29733), (331, 29742), (366, 29850), (379, 29871), (384, 29883), (391, 29907), (404, 29949), (457, 30078), (480, 30138), (500, 30195), (512, 30222), (525, 30249), (533, 30264), (580, 30333), (608, 30372), (622, 30405), (655, 30486), (660, 30501), (710, 30606), (766, 30720), (771, 30732), (828, 30819), (840, 30843),

Gene: Paraselene\_36 Start: 29765, Stop: 31279, Start Num: 187

Candidate Starts for Paraselene\_36:

(Start: 98 @29684 has 29 MA's), (Start: 102 @29690 has 3 MA's), (Start: 107 @29696 has 10 MA's), (Start: 109 @29699 has 10 MA's), (Start: 119 @29714 has 12 MA's), (Start: 187 @29765 has 221 MA's), (262, 29984), (264, 29990), (268, 30002), (269, 30011), (323, 30128), (326, 30140), (329, 30149), (331, 30158), (366, 30266), (379, 30287), (384, 30299), (391, 30323), (404, 30365), (453, 30479), (457, 30494), (480, 30554), (500, 30611), (512, 30638), (525, 30665), (526, 30668), (533, 30680), (608, 30788), (622, 30821), (655, 30902), (660, 30917), (766, 31136),

Gene: Pari\_38 Start: 29191, Stop: 30693, Start Num: 187

Candidate Starts for Pari\_38:

(Start: 130 @29146 has 3 MA's), (Start: 187 @29191 has 221 MA's), (Start: 195 @29206 has 10 MA's), (198, 29215), (264, 29416), (279, 29470), (326, 29566), (329, 29575), (331, 29584), (366, 29692), (379, 29713), (384, 29725), (391, 29749), (404, 29791), (457, 29920), (480, 29980), (500, 30037), (525, 30091), (533, 30106), (606, 30208), (608, 30214), (622, 30247), (655, 30328), (660, 30343), (710, 30448), (766, 30562), (828, 30661), (840, 30685),

Gene: Parliament\_36 Start: 29511, Stop: 31013, Start Num: 187

Candidate Starts for Parliament\_36:

(Start: 98 @29430 has 29 MA's), (Start: 102 @29436 has 3 MA's), (Start: 107 @29442 has 10 MA's), (Start: 109 @29445 has 10 MA's), (Start: 119 @29460 has 12 MA's), (Start: 187 @29511 has 221 MA's), (264, 29736), (326, 29886), (329, 29895), (331, 29904), (362, 30000), (366, 30012), (379, 30033), (384, 30045), (391, 30069), (404, 30111), (457, 30240), (480, 30300), (500, 30357), (525, 30411), (533, 30426), (608, 30534), (622, 30567), (655, 30648), (660, 30663), (766, 30882), (828, 30981), (840, 31005),

Gene: Partridge\_29 Start: 23682, Stop: 22174, Start Num: 165

Candidate Starts for Partridge\_29:

(Start: 165 @23682 has 35 MA's), (Start: 187 @23661 has 221 MA's), (Start: 190 @23655 has 3 MA's), (Start: 234 @23526 has 1 MA's), (252, 23478), (329, 23286), (340, 23247), (364, 23175), (389, 23115), (392, 23103), (429, 23010), (443, 22977), (452, 22956), (457, 22938), (461, 22926), (469, 22911), (471, 22905), (485, 22857), (497, 22824), (521, 22767), (546, 22728), (548, 22722), (634, 22572), (702, 22431), (836, 22185),

Gene: PascalRango\_38 Start: 29461, Stop: 30963, Start Num: 187

Candidate Starts for PascalRango\_38:

(Start: 98 @29380 has 29 MA's), (Start: 102 @29386 has 3 MA's), (Start: 107 @29392 has 10 MA's), (Start: 109 @29395 has 10 MA's), (Start: 119 @29410 has 12 MA's), (Start: 187 @29461 has 221 MA's), (262, 29680), (264, 29686), (269, 29707), (326, 29836), (329, 29845), (331, 29854), (366, 29962), (379, 29983), (384, 29995), (391, 30019), (404, 30061), (457, 30190), (480, 30250), (500, 30307), (512, 30334), (525, 30361), (533, 30376), (608, 30484), (622, 30517), (655, 30598), (660, 30613), (766, 30832), (828, 30931), (840, 30955),

Gene: PattyP\_39 Start: 29688, Stop: 31190, Start Num: 187

Candidate Starts for PattyP\_39:

(Start: 98 @29607 has 29 MA's), (Start: 102 @29613 has 3 MA's), (Start: 107 @29619 has 10 MA's), (Start: 109 @29622 has 10 MA's), (Start: 119 @29637 has 12 MA's), (Start: 187 @29688 has 221 MA's), (Start: 193 @29700 has 3 MA's), (264, 29913), (268, 29925), (269, 29934), (279, 29967), (326, 30063), (329, 30072), (331, 30081), (366, 30189), (379, 30210), (384, 30222), (391, 30246), (404, 30288), (457, 30417), (480, 30477), (500, 30534), (525, 30588), (526, 30591), (533, 30603), (580, 30672), (606, 30705), (608, 30711), (622, 30744), (655, 30825), (660, 30840), (710, 30945), (766, 31059), (828, 31158), (840, 31182),

Gene: Pavo\_52 Start: 36851, Stop: 38260, Start Num: 181

Candidate Starts for Pavo\_52:

(85, 36722), (127, 36788), (149, 36815), (Start: 181 @36851 has 19 MA's), (198, 36881), (Start: 222 @36968 has 1 MA's), (227, 36977), (256, 37046), (268, 37088), (269, 37097), (271, 37109), (321, 37199), (322, 37208), (323, 37211), (326, 37223), (329, 37232), (401, 37421), (435, 37508), (452, 37541), (471, 37592), (497, 37652), (511, 37685), (543, 37739), (609, 37841), (629, 37883), (633, 37895), (681, 37991), (688, 37994), (718, 38060), (728, 38078), (734, 38087), (768, 38168), (777, 38186), (780, 38192), (794, 38213), (810, 38234), (823, 38252),

Gene: Payneful\_37 Start: 29028, Stop: 30608, Start Num: 109

Candidate Starts for Payneful\_37:

(Start: 98 @29013 has 29 MA's), (Start: 102 @29019 has 3 MA's), (Start: 107 @29025 has 10 MA's), (Start: 109 @29028 has 10 MA's), (Start: 119 @29043 has 12 MA's), (Start: 187 @29094 has 221 MA's), (262, 29313), (264, 29319), (269, 29340), (326, 29469), (329, 29478), (331, 29487), (362, 29583), (366, 29595), (384, 29628), (396, 29664), (457, 29823), (480, 29883), (500, 29940), (525, 29994), (533, 30009), (608, 30117), (637, 30189), (655, 30231), (660, 30246), (766, 30465),

Gene: PeaceMeal1\_32 Start: 23843, Stop: 25498, Start Num: 165

Candidate Starts for PeaceMeal1\_32:

(Start: 136 @23804 has 3 MA's), (Start: 165 @23843 has 35 MA's), (Start: 180 @23852 has 37 MA's), (Start: 191 @23870 has 17 MA's), (Start: 200 @23894 has 1 MA's), (Start: 222 @23969 has 1 MA's), (227, 23978), (Start: 234 @23996 has 1 MA's), (262, 24080), (263, 24083), (271, 24119), (322, 24221), (329, 24245), (331, 24254), (362, 24350), (392, 24425), (396, 24434), (398, 24437), (445, 24554), (453, 24575), (457, 24590), (461, 24602), (479, 24650), (493, 24695), (525, 24767), (543, 24791), (608, 24911), (614, 24929), (615, 24932), (617, 24935), (675, 25070), (766, 25259), (825, 25352), (840, 25382), (845, 25406), (850, 25454), (852, 25472),

Gene: Peaches\_33 Start: 26645, Stop: 25122, Start Num: 162

Candidate Starts for Peaches\_33:

(Start: 134 @26678 has 1 MA's), (Start: 162 @26645 has 16 MA's), (Start: 171 @26636 has 112 MA's), (239, 26474), (262, 26408), (268, 26390), (294, 26315), (305, 26291), (320, 26252), (321, 26249), (347, 26162), (387, 26048), (391, 26036), (462, 25853), (498, 25742), (521, 25691), (603, 25562), (607, 25553), (637, 25478), (639, 25472), (696, 25349), (714, 25310), (794, 25160), (805, 25145),

Gene: PegLeg\_134 Start: 69986, Stop: 68526, Start Num: 140

Candidate Starts for PegLeg\_134:

(Start: 107 @70028 has 10 MA's), (Start: 133 @69995 has 1 MA's), (Start: 140 @69986 has 21 MA's), (198, 69914), (225, 69833), (245, 69791), (253, 69767), (271, 69695), (322, 69578), (340, 69515), (375, 69431), (381, 69419), (396, 69377), (401, 69359), (485, 69197), (492, 69176), (513, 69125), (532, 69098), (551, 69071), (624, 68951), (695, 68801), (733, 68723), (753, 68678), (778, 68621),

Gene: Pelly\_37 Start: 29661, Stop: 31163, Start Num: 187

Candidate Starts for Pelly\_37:

(Start: 98 @29580 has 29 MA's), (Start: 102 @29586 has 3 MA's), (Start: 107 @29592 has 10 MA's), (Start: 109 @29595 has 10 MA's), (Start: 119 @29610 has 12 MA's), (Start: 187 @29661 has 221 MA's), (Start: 195 @29676 has 10 MA's), (198, 29685), (262, 29880), (264, 29886), (269, 29907), (326, 30036), (329, 30045), (331, 30054), (366, 30162), (379, 30183), (384, 30195), (391, 30219), (404, 30261), (457, 30390), (480, 30450), (500, 30507), (525, 30561), (526, 30564), (533, 30576), (608, 30684), (622, 30717), (655, 30798), (660, 30813), (710, 30918), (766, 31032), (828, 31131), (840, 31155),

Gene: Percival\_59 Start: 38819, Stop: 40306, Start Num: 183

Candidate Starts for Percival\_59:

(Start: 183 @38819 has 12 MA's), (Start: 206 @38882 has 9 MA's), (215, 38912), (253, 39011), (254, 39014), (264, 39050), (322, 39182), (325, 39194), (351, 39266), (369, 39323), (387, 39350), (421, 39428), (452, 39476), (532, 39653), (543, 39665), (607, 39785), (621, 39818), (648, 39878), (664, 39920), (672, 39932), (739, 40058), (745, 40073), (777, 40151), (789, 40169), (849, 40301),

Gene: Perplexer\_33 Start: 26653, Stop: 25130, Start Num: 162

Candidate Starts for Perplexer\_33:

(Start: 134 @26686 has 1 MA's), (Start: 162 @26653 has 16 MA's), (Start: 171 @26644 has 112 MA's), (239, 26482), (262, 26416), (268, 26398), (294, 26323), (320, 26260), (321, 26257), (347, 26170), (391, 26044), (462, 25861), (480, 25804), (498, 25750), (521, 25699), (603, 25570), (607, 25561), (637, 25486), (639, 25480), (692, 25366), (696, 25357), (714, 25318), (794, 25168), (805, 25153),

Gene: Perseus\_39 Start: 30449, Stop: 31951, Start Num: 187

Candidate Starts for Perseus\_39:

(Start: 91 @30359 has 1 MA's), (Start: 98 @30368 has 29 MA's), (Start: 102 @30374 has 3 MA's), (Start: 107 @30380 has 10 MA's), (Start: 109 @30383 has 10 MA's), (Start: 119 @30398 has 12 MA's), (Start: 187 @30449 has 221 MA's), (Start: 195 @30464 has 10 MA's), (262, 30668), (264, 30674), (323, 30812), (326, 30824), (329, 30833), (331, 30842), (366, 30950), (379, 30971), (384, 30983), (391, 31007), (404, 31049), (457, 31178), (480, 31238), (500, 31295), (512, 31322), (525, 31349), (526, 31352), (533, 31364), (608, 31472), (622, 31505), (655, 31586), (660, 31601), (766, 31820), (828, 31919), (840, 31943),

Gene: PeterPeter\_33 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for PeterPeter\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Peterson\_40 Start: 31280, Stop: 32779, Start Num: 187

Candidate Starts for Peterson\_40:

(Start: 187 @31280 has 221 MA's), (262, 31499), (264, 31505), (268, 31517), (269, 31526), (279, 31559), (293, 31589), (294, 31592), (326, 31655), (331, 31673), (362, 31769), (366, 31781), (384, 31814), (410, 31892), (414, 31907), (457, 32009), (480, 32069), (493, 32111), (500, 32126), (512, 32153), (520, 32168), (521, 32171), (525, 32180), (533, 32195), (606, 32294), (622, 32333), (637, 32372), (639, 32378), (655, 32414), (660, 32429), (668, 32444), (705, 32519), (766, 32648), (828, 32747), (840, 32771),

Gene: PetiteSangsue\_33 Start: 26647, Stop: 25133, Start Num: 171

Candidate Starts for PetiteSangsue\_33:

(Start: 134 @26689 has 1 MA's), (Start: 162 @26656 has 16 MA's), (Start: 171 @26647 has 112 MA's), (239, 26485), (262, 26419), (268, 26401), (294, 26326), (320, 26263), (321, 26260), (347, 26173), (391, 26047), (462, 25864), (480, 25807), (498, 25753), (521, 25702), (603, 25573), (607, 25564), (637, 25489), (639, 25483), (692, 25369), (696, 25360), (714, 25321), (794, 25171), (805, 25156),

Gene: Petp2012\_39 Start: 30278, Stop: 31861, Start Num: 98

Candidate Starts for Petp2012\_39:

(Start: 98 @30278 has 29 MA's), (Start: 102 @30284 has 3 MA's), (Start: 107 @30290 has 10 MA's), (Start: 109 @30293 has 10 MA's), (Start: 119 @30308 has 12 MA's), (Start: 187 @30359 has 221 MA's), (Start: 193 @30371 has 3 MA's), (264, 30584), (268, 30596), (269, 30605), (279, 30638), (326, 30734), (329, 30743), (331, 30752), (366, 30860), (379, 30881), (384, 30893), (391, 30917), (404, 30959), (457, 31088), (480, 31148), (500, 31205), (512, 31232), (525, 31259), (526, 31262), (533, 31274), (580, 31343), (606, 31376), (608, 31382), (622, 31415), (655, 31496), (660, 31511), (710, 31616), (766, 31730), (828, 31829), (840, 31853),

Gene: Petruccio\_38 Start: 29593, Stop: 31176, Start Num: 98

Candidate Starts for Petruccio\_38:

(Start: 98 @29593 has 29 MA's), (Start: 102 @29599 has 3 MA's), (Start: 107 @29605 has 10 MA's), (Start: 109 @29608 has 10 MA's), (Start: 119 @29623 has 12 MA's), (Start: 187 @29674 has 221 MA's), (Start: 195 @29689 has 10 MA's), (264, 29899), (326, 30049), (331, 30067), (366, 30175), (379, 30196), (384, 30208), (391, 30232), (404, 30274), (457, 30403), (480, 30463), (500, 30520), (512, 30547), (525, 30574), (526, 30577), (533, 30589), (597, 30667), (608, 30697), (622, 30730), (637, 30769), (655, 30811), (660, 30826), (710, 30931), (766, 31045), (828, 31144), (840, 31168),

Gene: PetterN\_32 Start: 25311, Stop: 23830, Start Num: 187

Candidate Starts for PetterN\_32:

(155, 25338), (Start: 187 @25311 has 221 MA's), (Start: 201 @25275 has 3 MA's), (Start: 234 @25176 has 1 MA's), (247, 25140), (264, 25092), (274, 25050), (285, 25026), (299, 24999), (322, 24960), (329, 24936), (379, 24792), (489, 24498), (507, 24453), (521, 24423), (533, 24399), (546, 24384), (590, 24324), (611, 24273), (614, 24264), (637, 24210), (652, 24177), (680, 24111), (714, 24048), (776, 23919), (836, 23841),

Gene: Phacado\_33 Start: 26636, Stop: 25122, Start Num: 171

Candidate Starts for Phacado\_33:

(Start: 134 @26678 has 1 MA's), (Start: 162 @26645 has 16 MA's), (Start: 171 @26636 has 112 MA's), (239, 26474), (262, 26408), (268, 26390), (294, 26315), (305, 26291), (320, 26252), (321,

26249), (347, 26162), (387, 26048), (391, 26036), (462, 25853), (498, 25742), (521, 25691), (603, 25562), (607, 25553), (637, 25478), (639, 25472), (696, 25349), (714, 25310), (794, 25160), (805, 25145),

Gene: PhailMary\_28 Start: 23958, Stop: 22462, Start Num: 165

Candidate Starts for PhailMary\_28:

(Start: 165 @23958 has 35 MA's), (Start: 187 @23937 has 221 MA's), (Start: 190 @23931 has 3 MA's), (Start: 234 @23802 has 1 MA's), (252, 23754), (278, 23667), (329, 23562), (364, 23451), (389, 23391), (392, 23379), (414, 23316), (429, 23286), (443, 23253), (452, 23232), (461, 23202), (471, 23181), (484, 23136), (485, 23133), (487, 23127), (521, 23043), (546, 23004), (548, 22998), (611, 22902), (628, 22869), (634, 22848), (637, 22839), (714, 22677),

Gene: PherrisBueller\_38 Start: 29250, Stop: 30752, Start Num: 187

Candidate Starts for PherrisBueller\_38:

(Start: 98 @29169 has 29 MA's), (Start: 102 @29175 has 3 MA's), (Start: 107 @29181 has 10 MA's), (Start: 119 @29199 has 12 MA's), (Start: 187 @29250 has 221 MA's), (264, 29475), (326, 29625), (329, 29634), (331, 29643), (379, 29772), (384, 29784), (391, 29808), (457, 29979), (480, 30039), (500, 30096), (525, 30150), (526, 30153), (533, 30165), (608, 30273), (622, 30306), (655, 30387), (660, 30402), (766, 30621), (828, 30720), (840, 30744),

Gene: Phettuccine\_49 Start: 34075, Stop: 35397, Start Num: 191

Candidate Starts for Phettuccine\_49:

(Start: 183 @34063 has 12 MA's), (Start: 191 @34075 has 17 MA's), (198, 34090), (Start: 222 @34177 has 1 MA's), (Start: 224 @34180 has 1 MA's), (237, 34204), (253, 34246), (256, 34255), (268, 34297), (269, 34306), (271, 34318), (321, 34408), (322, 34417), (329, 34441), (369, 34561), (380, 34567), (426, 34657), (448, 34672), (452, 34681), (462, 34714), (511, 34825), (513, 34831), (543, 34879), (554, 34894), (563, 34909), (603, 34969), (608, 34978), (613, 34993), (650, 35074), (670, 35104), (688, 35134), (710, 35182), (749, 35260), (768, 35308), (774, 35317), (789, 35344), (816, 35383),

Gene: Phighter1804\_33 Start: 26682, Stop: 25120, Start Num: 119

Candidate Starts for Phighter1804\_33:

(Start: 119 @26682 has 12 MA's), (Start: 187 @26616 has 221 MA's), (Start: 197 @26598 has 3 MA's), (212, 26541), (217, 26523), (229, 26493), (Start: 234 @26481 has 1 MA's), (274, 26355), (283, 26334), (299, 26304), (322, 26265), (334, 26226), (363, 26136), (387, 26076), (405, 26022), (461, 25884), (569, 25653), (611, 25563), (629, 25527), (637, 25500), (659, 25446), (663, 25437), (768, 25227), (776, 25209), (791, 25197), (796, 25188),

Gene: Phillis\_30 Start: 25078, Stop: 23576, Start Num: 171

Candidate Starts for Phillis\_30:

(Start: 109 @25147 has 10 MA's), (Start: 134 @25120 has 1 MA's), (139, 25114), (Start: 171 @25078 has 112 MA's), (Start: 234 @24928 has 1 MA's), (269, 24823), (294, 24757), (300, 24739), (320, 24697), (321, 24694), (347, 24607), (391, 24481), (423, 24388), (448, 24340), (462, 24298), (481, 24238), (521, 24136), (603, 24001), (633, 23929), (677, 23824), (696, 23788), (714, 23749), (728, 23725), (788, 23617),

Gene: PhineBark\_36 Start: 30329, Stop: 31828, Start Num: 195

Candidate Starts for PhineBark\_36:

(Start: 98 @30233 has 29 MA's), (Start: 102 @30239 has 3 MA's), (Start: 107 @30245 has 10 MA's), (Start: 109 @30248 has 10 MA's), (Start: 119 @30263 has 12 MA's), (Start: 187 @30314 has 221 MA's), (Start: 195 @30329 has 10 MA's), (262, 30533), (264, 30539), (269, 30560), (323, 30677), (326, 30689), (329, 30698), (331, 30707), (362, 30803), (366, 30815), (379, 30836), (384, 30848), (391, 30872), (457, 31043), (480, 31103), (500, 31160), (512, 31187), (525, 31214), (526, 31217), (533, 31229), (608, 31337), (655, 31451), (660, 31466), (766, 31685),

Gene: Phives\_54 Start: 37471, Stop: 38946, Start Num: 176

Candidate Starts for Phives\_54:

(Start: 168 @37462 has 2 MA's), (Start: 176 @37471 has 15 MA's), (309, 37792), (399, 38071), (461, 38245), (559, 38437), (669, 38674), (762, 38836),

Gene: Phlippers\_35 Start: 29975, Stop: 31474, Start Num: 187

Candidate Starts for Phlippers\_35:

(Start: 89 @29885 has 25 MA's), (Start: 130 @29930 has 3 MA's), (Start: 187 @29975 has 221 MA's), (Start: 195 @29990 has 10 MA's), (198, 29999), (264, 30200), (323, 30338), (326, 30350), (329, 30359), (331, 30368), (366, 30476), (379, 30497), (384, 30509), (391, 30533), (404, 30575), (457, 30704), (480, 30764), (500, 30821), (512, 30848), (525, 30875), (526, 30878), (533, 30890), (606, 30989), (622, 31028), (655, 31109), (660, 31124), (710, 31229), (766, 31343), (828, 31442), (840, 31466),

Gene: Phlorence\_30 Start: 25886, Stop: 24393, Start Num: 187

Candidate Starts for Phlorence\_30:

(Start: 187 @25886 has 221 MA's), (Start: 200 @25853 has 1 MA's), (Start: 201 @25850 has 3 MA's), (Start: 206 @25832 has 9 MA's), (Start: 234 @25751 has 1 MA's), (281, 25607), (294, 25580), (323, 25532), (379, 25367), (387, 25343), (389, 25340), (396, 25319), (471, 25130), (546, 24959), (614, 24824), (633, 24782), (637, 24770), (673, 24686), (680, 24671), (692, 24656), (776, 24479), (806, 24449), (829, 24416),

Gene: Phontbonne\_33 Start: 26573, Stop: 25077, Start Num: 187

Candidate Starts for Phontbonne\_33:

(Start: 119 @26639 has 12 MA's), (Start: 187 @26573 has 221 MA's), (Start: 197 @26555 has 3 MA's), (211, 26501), (229, 26450), (Start: 234 @26438 has 1 MA's), (274, 26312), (283, 26291), (299, 26261), (322, 26222), (334, 26183), (363, 26093), (387, 26033), (405, 25979), (461, 25841), (569, 25610), (611, 25520), (629, 25484), (637, 25457), (663, 25394), (768, 25184), (776, 25166), (791, 25154), (796, 25145),

Gene: Phoxy\_36 Start: 27306, Stop: 25738, Start Num: 171

Candidate Starts for Phoxy\_36:

(64, 27456), (70, 27441), (139, 27342), (Start: 171 @27306 has 112 MA's), (269, 27051), (276, 27027), (300, 26967), (320, 26919), (321, 26916), (347, 26829), (353, 26817), (358, 26796), (364, 26772), (391, 26703), (415, 26634), (417, 26625), (462, 26520), (471, 26475), (521, 26343), (567, 26259), (606, 26202), (696, 25995), (765, 25854),

Gene: Phrankenstein\_29 Start: 23582, Stop: 22086, Start Num: 165

Candidate Starts for Phrankenstein\_29:

(Start: 165 @23582 has 35 MA's), (Start: 187 @23561 has 221 MA's), (Start: 190 @23555 has 3 MA's), (Start: 234 @23426 has 1 MA's), (252, 23378), (329, 23186), (364, 23075), (389, 23015), (392, 23003), (414, 22940), (429, 22910), (443, 22877), (452, 22856), (461, 22826), (469, 22811), (471, 22805), (485, 22757), (497, 22724), (521, 22667), (546, 22628), (548, 22622), (611, 22526), (628, 22493), (634, 22472), (637, 22463), (714, 22301),

Gene: PhrostyMug\_38 Start: 29522, Stop: 31114, Start Num: 91

Candidate Starts for PhrostyMug\_38:

(Start: 91 @29522 has 1 MA's), (Start: 98 @29531 has 29 MA's), (Start: 102 @29537 has 3 MA's), (Start: 107 @29543 has 10 MA's), (Start: 109 @29546 has 10 MA's), (Start: 119 @29561 has 12 MA's), (Start: 187 @29612 has 221 MA's), (Start: 195 @29627 has 10 MA's), (262, 29831), (264, 29837), (326, 29987), (329, 29996), (331, 30005), (366, 30113), (379, 30134), (384, 30146), (391, 30170), (404, 30212), (457, 30341), (480, 30401), (500, 30458), (525, 30512), (533, 30527), (608,

30635), (622, 30668), (639, 30713), (655, 30749), (660, 30764), (766, 30983), (828, 31082), (840, 31106),

Gene: Picard\_30 Start: 23566, Stop: 21923, Start Num: 145

Candidate Starts for Picard\_30:

(Start: 145 @23566 has 12 MA's), (250, 23353), (330, 23146), (362, 23047), (387, 22954), (516, 22591), (556, 22513), (559, 22507), (593, 22426), (594, 22423), (647, 22288), (660, 22255), (667, 22240), (744, 22087), (763, 22045), (764, 22042), (772, 22018), (800, 21973), (816, 21949),

Gene: Piccadilly\_29 Start: 22936, Stop: 21356, Start Num: 176

Candidate Starts for Piccadilly\_29:

(Start: 176 @22936 has 15 MA's), (Start: 199 @22891 has 3 MA's), (250, 22756), (257, 22738), (438, 22225), (516, 21997), (577, 21868), (581, 21862), (594, 21832), (651, 21700), (667, 21661), (678, 21634), (707, 21577), (741, 21517), (744, 21508), (766, 21454), (771, 21442), (772, 21439), (799, 21409), (806, 21400), (816, 21385),

Gene: PickleBack\_30 Start: 25546, Stop: 24107, Start Num: 206

Candidate Starts for PickleBack\_30:

(Start: 187 @25600 has 221 MA's), (Start: 200 @25567 has 1 MA's), (Start: 201 @25564 has 3 MA's), (Start: 206 @25546 has 9 MA's), (Start: 234 @25465 has 1 MA's), (281, 25321), (294, 25294), (323, 25246), (379, 25081), (387, 25057), (389, 25054), (396, 25033), (471, 24844), (546, 24673), (614, 24538), (633, 24496), (637, 24484), (673, 24400), (680, 24385), (692, 24370), (776, 24193), (806, 24163), (829, 24130),

Gene: PinkPlastic\_36 Start: 29201, Stop: 30703, Start Num: 187

Candidate Starts for PinkPlastic\_36:

(Start: 98 @29120 has 29 MA's), (Start: 102 @29126 has 3 MA's), (Start: 107 @29132 has 10 MA's), (Start: 109 @29135 has 10 MA's), (Start: 119 @29150 has 12 MA's), (Start: 187 @29201 has 221 MA's), (Start: 195 @29216 has 10 MA's), (262, 29420), (264, 29426), (323, 29564), (326, 29576), (329, 29585), (331, 29594), (366, 29702), (379, 29723), (384, 29735), (404, 29801), (457, 29930), (480, 29990), (500, 30047), (512, 30074), (525, 30101), (533, 30116), (580, 30185), (606, 30218), (608, 30224), (622, 30257), (655, 30338), (660, 30353), (710, 30458), (766, 30572), (828, 30671), (840, 30695),

Gene: Pinto\_39 Start: 29632, Stop: 31134, Start Num: 187

Candidate Starts for Pinto\_39:

(79, 29530), (90, 29542), (Start: 98 @29551 has 29 MA's), (Start: 102 @29557 has 3 MA's), (Start: 107 @29563 has 10 MA's), (Start: 109 @29566 has 10 MA's), (Start: 119 @29581 has 12 MA's), (Start: 187 @29632 has 221 MA's), (Start: 191 @29641 has 17 MA's), (Start: 195 @29647 has 10 MA's), (198, 29656), (Start: 200 @29665 has 1 MA's), (262, 29851), (264, 29857), (268, 29869), (269, 29878), (323, 29995), (326, 30007), (329, 30016), (331, 30025), (362, 30121), (366, 30133), (384, 30166), (404, 30232), (457, 30361), (480, 30421), (500, 30478), (525, 30532), (533, 30547), (606, 30649), (608, 30655), (622, 30688), (625, 30691), (649, 30754), (660, 30784), (710, 30889), (766, 31003), (828, 31102), (840, 31126),

Gene: Pipcraft\_33 Start: 26646, Stop: 25123, Start Num: 162

Candidate Starts for Pipcraft\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Pippin\_39 Start: 29765, Stop: 31279, Start Num: 187

Candidate Starts for Pippin\_39:

(Start: 98 @29684 has 29 MA's), (Start: 102 @29690 has 3 MA's), (Start: 107 @29696 has 10 MA's), (Start: 109 @29699 has 10 MA's), (Start: 119 @29714 has 12 MA's), (Start: 187 @29765 has 221 MA's), (Start: 195 @29780 has 10 MA's), (262, 29984), (264, 29990), (269, 30011), (323, 30128), (326, 30140), (329, 30149), (331, 30158), (366, 30266), (379, 30287), (384, 30299), (391, 30323), (404, 30365), (457, 30494), (480, 30554), (500, 30611), (512, 30638), (525, 30665), (526, 30668), (533, 30680), (580, 30749), (606, 30782), (608, 30788), (622, 30821), (655, 30902), (660, 30917), (710, 31022), (766, 31136),

Gene: Pita2\_39 Start: 30092, Stop: 31594, Start Num: 187

Candidate Starts for Pita2\_39:

(Start: 98 @30011 has 29 MA's), (Start: 102 @30017 has 3 MA's), (Start: 107 @30023 has 10 MA's), (Start: 109 @30026 has 10 MA's), (Start: 119 @30041 has 12 MA's), (Start: 187 @30092 has 221 MA's), (Start: 191 @30101 has 17 MA's), (Start: 195 @30107 has 10 MA's), (227, 30209), (Start: 234 @30227 has 1 MA's), (239, 30239), (262, 30311), (264, 30317), (268, 30329), (269, 30338), (323, 30455), (326, 30467), (329, 30476), (331, 30485), (364, 30587), (366, 30593), (379, 30614), (384, 30626), (404, 30692), (457, 30821), (480, 30881), (500, 30938), (525, 30992), (533, 31007), (606, 31109), (608, 31115), (622, 31148), (625, 31151), (649, 31214), (660, 31244), (710, 31349), (766, 31463), (828, 31562), (840, 31586),

Gene: Pixelle\_52 Start: 38117, Stop: 39577, Start Num: 181

Candidate Starts for Pixelle\_52:

(Start: 120 @38054 has 1 MA's), (Start: 170 @38108 has 8 MA's), (Start: 181 @38117 has 19 MA's), (256, 38303), (265, 38336), (322, 38474), (325, 38486), (358, 38585), (376, 38636), (410, 38729), (556, 39062), (669, 39305), (817, 39563),

Gene: Pocahontas\_34 Start: 27226, Stop: 25718, Start Num: 187

Candidate Starts for Pocahontas\_34:

(Start: 175 @27241 has 3 MA's), (Start: 187 @27226 has 221 MA's), (Start: 190 @27220 has 3 MA's), (Start: 191 @27217 has 17 MA's), (249, 27049), (252, 27043), (293, 26926), (325, 26866), (362, 26749), (379, 26710), (389, 26683), (392, 26671), (437, 26536), (492, 26383), (532, 26293), (557, 26254), (614, 26164), (633, 26122), (637, 26110), (656, 26065), (664, 26044), (771, 25831), (785, 25810),

Gene: Ponzi\_7 Start: 4826, Stop: 6589, Start Num: 133

Candidate Starts for Ponzi\_7:

(125, 4817), (Start: 133 @4826 has 1 MA's), (203, 4943), (213, 4976), (229, 5024), (256, 5084), (284, 5180), (326, 5261), (374, 5423), (405, 5537), (418, 5576), (455, 5684), (474, 5741), (521, 5891), (546, 5930), (551, 5939), (560, 5957), (575, 5999), (588, 6023), (601, 6053), (613, 6086), (687, 6278), (767, 6452), (778, 6479), (785, 6491), (829, 6560), (836, 6572), (838, 6578), (839, 6581),

Gene: Poompha\_32 Start: 23841, Stop: 25496, Start Num: 165

Candidate Starts for Poompha\_32:

(Start: 136 @23802 has 3 MA's), (Start: 165 @23841 has 35 MA's), (Start: 180 @23850 has 37 MA's), (Start: 191 @23868 has 17 MA's), (Start: 200 @23892 has 1 MA's), (Start: 222 @23967 has 1 MA's), (227, 23976), (Start: 234 @23994 has 1 MA's), (262, 24078), (263, 24081), (271, 24117), (322, 24219), (329, 24243), (331, 24252), (362, 24348), (379, 24384), (392, 24423), (396, 24432), (398, 24435), (445, 24552), (453, 24573), (457, 24588), (461, 24600), (479, 24648), (493, 24693), (525, 24765), (543, 24789), (608, 24909), (614, 24927), (615, 24930), (617, 24933), (675, 25068), (766, 25257), (825, 25350), (840, 25380), (845, 25404), (850, 25452), (852, 25470),

Gene: Popcicle\_34 Start: 27226, Stop: 25718, Start Num: 187

Candidate Starts for Popcicle\_34:

(Start: 175 @27241 has 3 MA's), (Start: 187 @27226 has 221 MA's), (Start: 190 @27220 has 3 MA's), (Start: 191 @27217 has 17 MA's), (249, 27049), (252, 27043), (293, 26926), (325, 26866), (362, 26749), (379, 26710), (389, 26683), (392, 26671), (437, 26536), (492, 26383), (532, 26293), (557, 26254), (614, 26164), (633, 26122), (637, 26110), (656, 26065), (664, 26044), (771, 25831), (785, 25810),

Gene: PowerRanger\_38 Start: 30483, Stop: 31985, Start Num: 187

Candidate Starts for PowerRanger\_38:

(Start: 98 @30402 has 29 MA's), (Start: 102 @30408 has 3 MA's), (Start: 107 @30414 has 10 MA's), (Start: 109 @30417 has 10 MA's), (Start: 119 @30432 has 12 MA's), (Start: 187 @30483 has 221 MA's), (262, 30702), (264, 30708), (269, 30729), (326, 30858), (329, 30867), (331, 30876), (366, 30984), (379, 31005), (384, 31017), (391, 31041), (404, 31083), (457, 31212), (480, 31272), (500, 31329), (512, 31356), (525, 31383), (533, 31398), (608, 31506), (622, 31539), (655, 31620), (660, 31635), (710, 31740), (766, 31854), (828, 31953), (840, 31977),

Gene: Powerpuff\_52 Start: 36416, Stop: 37834, Start Num: 180

Candidate Starts for Powerpuff\_52:

(Start: 163 @36398 has 10 MA's), (177, 36413), (Start: 180 @36416 has 37 MA's), (Start: 187 @36425 has 221 MA's), (225, 36539), (Start: 234 @36563 has 1 MA's), (264, 36647), (317, 36758), (323, 36770), (325, 36779), (358, 36878), (391, 36971), (396, 36983), (404, 37010), (486, 37169), (634, 37490), (638, 37502), (655, 37535), (729, 37673),

Gene: Prin Ashe11\_31 Start: 25691, Stop: 24252, Start Num: 206

Candidate Starts for Prin Ashe11\_31:

(Start: 187 @25745 has 221 MA's), (Start: 200 @25712 has 1 MA's), (Start: 201 @25709 has 3 MA's), (Start: 206 @25691 has 9 MA's), (Start: 234 @25610 has 1 MA's), (281, 25466), (294, 25439), (323, 25391), (379, 25226), (387, 25202), (389, 25199), (396, 25178), (471, 24989), (525, 24848), (546, 24818), (633, 24641), (637, 24629), (673, 24545), (680, 24530), (692, 24515), (776, 24338), (806, 24308), (829, 24275),

Gene: PrincePatrick\_38 Start: 29413, Stop: 30801, Start Num: 188

Candidate Starts for PrincePatrick\_38:

(Start: 188 @29413 has 36 MA's), (202, 29455), (Start: 206 @29470 has 9 MA's), (262, 29626), (278, 29683), (334, 29803), (345, 29836), (362, 29890), (364, 29896), (373, 29923), (389, 29959), (448, 30091), (471, 30151), (487, 30184), (493, 30202), (532, 30277), (543, 30289), (561, 30304), (596, 30340), (615, 30394), (622, 30406), (656, 30487), (693, 30559), (704, 30580), (719, 30613), (723, 30622), (725, 30625), (732, 30637), (735, 30640), (740, 30649), (788, 30745), (804, 30766), (816, 30781),

Gene: ProMouse\_35 Start: 29463, Stop: 31043, Start Num: 98

Candidate Starts for ProMouse\_35:

(25, 29307), (28, 29310), (35, 29325), (52, 29388), (Start: 98 @29463 has 29 MA's), (Start: 102 @29469 has 3 MA's), (Start: 107 @29475 has 10 MA's), (Start: 109 @29478 has 10 MA's), (Start: 119 @29493 has 12 MA's), (Start: 187 @29544 has 221 MA's), (Start: 195 @29559 has 10 MA's), (262, 29763), (264, 29769), (269, 29790), (323, 29907), (326, 29919), (329, 29928), (331, 29937), (334, 29943), (362, 30033), (366, 30045), (384, 30078), (404, 30144), (457, 30273), (480, 30333), (500, 30390), (525, 30444), (533, 30459), (606, 30558), (622, 30597), (625, 30600), (655, 30678), (660, 30693), (766, 30912), (828, 31011), (840, 31035),

Gene: Provolone\_52 Start: 36671, Stop: 38251, Start Num: 114

Candidate Starts for Provolone\_52:

(Start: 86 @36623 has 1 MA's), (Start: 106 @36659 has 3 MA's), (Start: 114 @36671 has 1 MA's), (Start: 201 @36800 has 3 MA's), (202, 36806), (Start: 206 @36821 has 9 MA's), (253, 36950), (260, 36974), (264, 36989), (271, 37022), (278, 37040), (296, 37082), (326, 37151), (327, 37154), (339, 37196), (376, 37295), (393, 37343), (400, 37364), (434, 37445), (439, 37454), (441, 37457), (460, 37508), (532, 37655), (588, 37742), (603, 37775), (609, 37790), (611, 37796), (614, 37805), (627, 37829), (685, 37973), (694, 37988), (697, 37994), (747, 38093), (792, 38186),

Gene: Psycho\_39 Start: 31271, Stop: 32716, Start Num: 170

Candidate Starts for Psycho\_39:

(59, 31100), (76, 31136), (132, 31223), (Start: 170 @31271 has 8 MA's), (Start: 206 @31346 has 9 MA's), (210, 31358), (253, 31469), (254, 31472), (263, 31505), (269, 31529), (292, 31592), (329, 31667), (436, 31943), (543, 32165), (548, 32177), (591, 32225), (603, 32255), (611, 32276), (622, 32300), (693, 32453), (731, 32534), (736, 32540), (742, 32552), (755, 32588), (759, 32594), (767, 32612), (768, 32615), (775, 32630), (777, 32636), (808, 32684), (815, 32693),

Gene: Puginator\_54 Start: 37656, Stop: 39170, Start Num: 96

Candidate Starts for Puginator\_54:

(Start: 96 @37656 has 1 MA's), (Start: 102 @37668 has 3 MA's), (Start: 109 @37677 has 10 MA's), (Start: 116 @37689 has 3 MA's), (Start: 157 @37740 has 5 MA's), (Start: 163 @37749 has 10 MA's), (253, 37959), (264, 37986), (326, 38124), (369, 38253), (395, 38301), (448, 38412), (452, 38421), (460, 38448), (470, 38469), (471, 38472), (489, 38511), (494, 38526), (576, 38667), (578, 38670), (621, 38754), (674, 38871), (695, 38907), (720, 38961), (721, 38964), (741, 38997), (768, 39063), (807, 39120), (834, 39159),

Gene: Pumbaa\_33 Start: 26690, Stop: 25128, Start Num: 119

Candidate Starts for Pumbaa\_33:

(Start: 119 @26690 has 12 MA's), (Start: 187 @26624 has 221 MA's), (Start: 197 @26606 has 3 MA's), (212, 26549), (217, 26531), (229, 26501), (Start: 234 @26489 has 1 MA's), (274, 26363), (283, 26342), (299, 26312), (322, 26273), (363, 26144), (387, 26084), (405, 26030), (461, 25892), (569, 25661), (611, 25571), (629, 25535), (637, 25508), (659, 25454), (663, 25445), (768, 25235), (776, 25217), (791, 25205), (796, 25196),

Gene: Pumpkins\_48 Start: 35749, Stop: 37167, Start Num: 180

Candidate Starts for Pumpkins\_48:

(Start: 163 @35731 has 10 MA's), (177, 35746), (Start: 180 @35749 has 37 MA's), (Start: 187 @35758 has 221 MA's), (264, 35980), (317, 36091), (323, 36103), (325, 36112), (358, 36211), (370, 36253), (391, 36304), (445, 36400), (603, 36748), (628, 36802), (629, 36805), (634, 36823), (638, 36835),

Gene: Puppet\_37 Start: 29394, Stop: 30959, Start Num: 109

Candidate Starts for Puppet\_37:

(Start: 98 @29379 has 29 MA's), (Start: 102 @29385 has 3 MA's), (Start: 107 @29391 has 10 MA's), (Start: 109 @29394 has 10 MA's), (Start: 119 @29409 has 12 MA's), (Start: 187 @29460 has 221 MA's), (262, 29679), (264, 29685), (269, 29706), (326, 29835), (329, 29844), (331, 29853), (366, 29961), (379, 29982), (384, 29994), (391, 30018), (404, 30060), (457, 30189), (480, 30249), (500, 30306), (512, 30333), (525, 30360), (526, 30363), (533, 30375), (606, 30474), (622, 30513), (655, 30594), (660, 30609), (710, 30714), (766, 30828), (828, 30927), (840, 30951),

Gene: QTRlifeCrisis\_38 Start: 30185, Stop: 31672, Start Num: 195

Candidate Starts for QTRlifeCrisis\_38:

(Start: 98 @30089 has 29 MA's), (Start: 102 @30095 has 3 MA's), (Start: 107 @30101 has 10 MA's), (Start: 109 @30104 has 10 MA's), (Start: 119 @30119 has 12 MA's), (Start: 187 @30170 has 221 MA's), (Start: 195 @30185 has 10 MA's), (262, 30389), (264, 30395), (268, 30407), (269, 30416), (326, 30545), (329, 30554), (331, 30563), (366, 30671), (379, 30692), (384, 30704), (391, 30728), (404,

30770), (457, 30899), (466, 30917), (480, 30959), (500, 31016), (512, 31043), (525, 31070), (526, 31073), (533, 31085), (580, 31154), (606, 31187), (608, 31193), (622, 31226), (655, 31307), (660, 31322), (710, 31427), (766, 31541), (828, 31640), (840, 31664),

Gene: QuinnKiro\_33 Start: 27229, Stop: 25721, Start Num: 187

Candidate Starts for QuinnKiro\_33:

(Start: 175 @27244 has 3 MA's), (Start: 187 @27229 has 221 MA's), (Start: 190 @27223 has 3 MA's), (Start: 191 @27220 has 17 MA's), (249, 27052), (252, 27046), (293, 26929), (325, 26869), (362, 26752), (379, 26713), (389, 26686), (392, 26674), (437, 26539), (492, 26386), (532, 26296), (557, 26257), (614, 26167), (633, 26125), (637, 26113), (656, 26068), (664, 26047), (771, 25834), (785, 25813),

Gene: R4\_53 Start: 37594, Stop: 39006, Start Num: 163

Candidate Starts for R4\_53:

(Start: 163 @37594 has 10 MA's), (166, 37597), (Start: 220 @37723 has 1 MA's), (Start: 222 @37729 has 1 MA's), (227, 37738), (253, 37801), (278, 37879), (303, 37909), (306, 37912), (326, 37966), (369, 38095), (381, 38104), (395, 38143), (404, 38173), (432, 38218), (452, 38263), (471, 38314), (494, 38368), (533, 38452), (621, 38590), (695, 38743), (712, 38782), (721, 38800), (741, 38833), (744, 38842), (768, 38899), (777, 38914), (807, 38956), (811, 38962), (834, 38995),

Gene: REQ1\_22 Start: 7618, Stop: 9012, Start Num: 170

Candidate Starts for REQ1\_22:

(Start: 170 @7618 has 8 MA's), (198, 7663), (Start: 206 @7693 has 9 MA's), (223, 7747), (227, 7756), (236, 7774), (323, 7990), (342, 8050), (389, 8182), (392, 8194), (401, 8221), (452, 8305), (494, 8410), (561, 8509), (593, 8539), (603, 8566), (606, 8572), (611, 8587), (622, 8611), (664, 8719), (697, 8779), (717, 8821), (755, 8896), (768, 8923),

Gene: RER2\_22 Start: 20508, Stop: 19012, Start Num: 165

Candidate Starts for RER2\_22:

(Start: 165 @20508 has 35 MA's), (Start: 187 @20487 has 221 MA's), (Start: 190 @20481 has 3 MA's), (Start: 234 @20352 has 1 MA's), (252, 20304), (278, 20217), (329, 20112), (364, 20001), (389, 19941), (392, 19929), (414, 19866), (429, 19836), (443, 19803), (452, 19782), (461, 19752), (471, 19731), (484, 19686), (485, 19683), (487, 19677), (521, 19593), (546, 19554), (548, 19548), (611, 19452), (628, 19419), (634, 19398), (637, 19389), (714, 19227),

Gene: RGL3\_22 Start: 20966, Stop: 19488, Start Num: 187

Candidate Starts for RGL3\_22:

(123, 21038), (Start: 165 @20987 has 35 MA's), (Start: 187 @20966 has 221 MA's), (Start: 190 @20960 has 3 MA's), (Start: 234 @20831 has 1 MA's), (239, 20819), (279, 20690), (294, 20657), (322, 20612), (350, 20528), (364, 20477), (392, 20408), (405, 20369), (410, 20360), (422, 20324), (445, 20279), (462, 20228), (470, 20213), (471, 20210), (487, 20159), (493, 20141), (509, 20102), (521, 20078), (525, 20069), (527, 20063), (546, 20039), (556, 20021), (573, 20000), (610, 19946), (614, 19934), (710, 19727), (712, 19721), (714, 19718), (746, 19661), (764, 19622), (765, 19619), (774, 19595), (776, 19589),

Gene: Raid\_37 Start: 29509, Stop: 31092, Start Num: 98

Candidate Starts for Raid\_37:

(Start: 98 @29509 has 29 MA's), (Start: 102 @29515 has 3 MA's), (Start: 107 @29521 has 10 MA's), (Start: 109 @29524 has 10 MA's), (Start: 119 @29539 has 12 MA's), (Start: 187 @29590 has 221 MA's), (Start: 195 @29605 has 10 MA's), (198, 29614), (264, 29815), (268, 29827), (323, 29953), (326, 29965), (329, 29974), (331, 29983), (366, 30091), (379, 30112), (384, 30124), (391, 30148), (404, 30190), (457, 30319), (480, 30379), (500, 30436), (525, 30490), (533, 30505), (606, 30607), (608, 30613), (622, 30646), (655, 30727), (660, 30742), (766, 30961), (828, 31060), (840, 31084),

Gene: Rajelicia\_37 Start: 29587, Stop: 31089, Start Num: 187

Candidate Starts for Rajelicia\_37:

(Start: 98 @29506 has 29 MA's), (Start: 102 @29512 has 3 MA's), (Start: 107 @29518 has 10 MA's), (Start: 109 @29521 has 10 MA's), (Start: 119 @29536 has 12 MA's), (Start: 187 @29587 has 221 MA's), (Start: 195 @29602 has 10 MA's), (264, 29812), (268, 29824), (269, 29833), (326, 29962), (329, 29971), (331, 29980), (366, 30088), (379, 30109), (384, 30121), (391, 30145), (404, 30187), (457, 30316), (480, 30376), (500, 30433), (512, 30460), (525, 30487), (526, 30490), (533, 30502), (580, 30571), (606, 30604), (608, 30610), (622, 30643), (655, 30724), (660, 30739), (710, 30844), (766, 30958), (828, 31057), (840, 31081),

Gene: Raleigh\_29 Start: 25082, Stop: 23370, Start Num: 145

Candidate Starts for Raleigh\_29:

(Start: 145 @25082 has 12 MA's), (198, 25007), (250, 24866), (261, 24833), (265, 24818), (325, 24677), (327, 24671), (387, 24467), (413, 24389), (432, 24353), (532, 24074), (548, 24038), (559, 24020), (616, 23879), (647, 23807), (661, 23771), (667, 23759), (703, 23684), (707, 23675), (737, 23621), (752, 23588), (767, 23549), (772, 23537), (802, 23495), (809, 23483), (816, 23474),

Gene: Rana\_51 Start: 35146, Stop: 36723, Start Num: 89

Candidate Starts for Rana\_51:

(Start: 55 @35080 has 7 MA's), (Start: 89 @35146 has 25 MA's), (Start: 197 @35266 has 3 MA's), (Start: 234 @35383 has 1 MA's), (255, 35434), (277, 35515), (278, 35518), (321, 35590), (322, 35599), (323, 35602), (324, 35605), (329, 35623), (373, 35755), (396, 35812), (398, 35815), (400, 35824), (408, 35848), (448, 35917), (493, 36043), (497, 36052), (525, 36118), (546, 36148), (611, 36247), (622, 36271), (628, 36280), (635, 36304), (664, 36376), (759, 36565), (774, 36604), (786, 36628), (793, 36643), (804, 36658),

Gene: Rando14\_40 Start: 30508, Stop: 31914, Start Num: 188

Candidate Starts for Rando14\_40:

(Start: 180 @30499 has 37 MA's), (Start: 188 @30508 has 36 MA's), (215, 30595), (227, 30628), (262, 30721), (271, 30760), (288, 30805), (316, 30829), (328, 30880), (342, 30922), (358, 30970), (364, 30991), (373, 31018), (379, 31027), (387, 31051), (389, 31054), (396, 31075), (401, 31093), (443, 31165), (454, 31171), (533, 31342), (555, 31372), (568, 31390), (611, 31474), (622, 31498), (629, 31510), (649, 31567), (664, 31606), (672, 31618), (691, 31654), (704, 31678), (727, 31726), (732, 31735), (745, 31759), (774, 31825), (780, 31837), (788, 31846), (813, 31876), (824, 31891),

Gene: Rasputin\_29 Start: 23605, Stop: 22109, Start Num: 165

Candidate Starts for Rasputin\_29:

(Start: 165 @23605 has 35 MA's), (Start: 187 @23584 has 221 MA's), (Start: 190 @23578 has 3 MA's), (Start: 234 @23449 has 1 MA's), (252, 23401), (329, 23209), (340, 23170), (364, 23098), (389, 23038), (392, 23026), (429, 22933), (443, 22900), (452, 22879), (457, 22861), (461, 22849), (469, 22834), (471, 22828), (485, 22780), (497, 22747), (521, 22690), (546, 22651), (548, 22645), (611, 22549), (628, 22516), (634, 22495), (637, 22486), (714, 22324),

Gene: Rebeuca\_35 Start: 27045, Stop: 25537, Start Num: 187

Candidate Starts for Rebeuca\_35:

(Start: 187 @27045 has 221 MA's), (Start: 190 @27039 has 3 MA's), (Start: 197 @27027 has 3 MA's), (198, 27021), (225, 26934), (Start: 234 @26910 has 1 MA's), (293, 26745), (362, 26568), (379, 26529), (384, 26517), (387, 26505), (389, 26502), (392, 26490), (479, 26244), (485, 26223), (526, 26121), (557, 26073), (610, 25995), (615, 25980), (629, 25956), (633, 25941), (656, 25884), (664, 25863), (785, 25629),

Gene: RedBear\_51 Start: 36343, Stop: 37929, Start Num: 82

Candidate Starts for RedBear\_51:

(Start: 55 @36286 has 7 MA's), (Start: 82 @36343 has 5 MA's), (Start: 89 @36352 has 25 MA's), (Start: 197 @36472 has 3 MA's), (Start: 234 @36589 has 1 MA's), (255, 36640), (277, 36721), (278, 36724), (321, 36796), (322, 36805), (323, 36808), (373, 36961), (379, 36970), (396, 37018), (400, 37030), (408, 37054), (448, 37123), (449, 37126), (497, 37258), (525, 37324), (546, 37354), (611, 37453), (617, 37468), (622, 37477), (628, 37486), (635, 37510), (664, 37582), (759, 37771), (774, 37810), (781, 37825), (786, 37834), (793, 37849),

Gene: Reedo\_49 Start: 33722, Stop: 35224, Start Num: 136

Candidate Starts for Reedo\_49:

(Start: 136 @33722 has 3 MA's), (Start: 165 @33761 has 35 MA's), (Start: 181 @33779 has 19 MA's), (256, 33959), (262, 33983), (280, 34046), (309, 34082), (331, 34160), (424, 34430), (439, 34469), (447, 34481), (453, 34499), (461, 34526), (484, 34571), (692, 34985), (722, 35045), (743, 35078), (784, 35162),

Gene: RegnumDei\_42 Start: 32482, Stop: 33900, Start Num: 188

Candidate Starts for RegnumDei\_42:

(66, 32308), (94, 32356), (97, 32368), (185, 32479), (Start: 188 @32482 has 36 MA's), (Start: 206 @32539 has 9 MA's), (223, 32593), (227, 32602), (262, 32698), (269, 32725), (323, 32839), (358, 32947), (379, 33001), (443, 33151), (451, 33169), (452, 33172), (493, 33274), (497, 33283), (622, 33499), (646, 33559), (682, 33640), (732, 33733), (760, 33790), (770, 33814), (772, 33820), (791, 33850),

Gene: Reindeer\_133 Start: 71279, Stop: 69777, Start Num: 107

Candidate Starts for Reindeer\_133:

(Start: 107 @71279 has 10 MA's), (Start: 133 @71246 has 1 MA's), (Start: 140 @71237 has 21 MA's), (198, 71165), (245, 71042), (253, 71018), (271, 70946), (286, 70907), (322, 70829), (326, 70814), (340, 70766), (357, 70727), (381, 70670), (401, 70610), (485, 70448), (513, 70376), (551, 70322), (607, 70241), (621, 70208), (634, 70175), (662, 70109), (695, 70052), (733, 69974), (753, 69929), (778, 69872), (807, 69830),

Gene: Relief\_33 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for Relief\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: RemusLoopin\_55 Start: 38615, Stop: 40381, Start Num: 128

Candidate Starts for RemusLoopin\_55:

(111, 38591), (122, 38609), (Start: 128 @38615 has 3 MA's), (143, 38630), (174, 38669), (184, 38681), (226, 38789), (253, 38858), (260, 38882), (265, 38900), (284, 38963), (318, 39044), (372, 39230), (381, 39242), (382, 39245), (384, 39257), (404, 39317), (435, 39404), (440, 39422), (450, 39443), (456, 39464), (484, 39584), (525, 39689), (536, 39716), (558, 39758), (580, 39809), (599, 39851), (617, 39905), (635, 39950), (656, 40004), (670, 40037), (676, 40052), (721, 40154), (728, 40166), (746, 40199), (761, 40235), (768, 40256), (774, 40268),

Gene: ResDef\_34 Start: 27229, Stop: 25721, Start Num: 187

Candidate Starts for ResDef\_34:

(Start: 175 @27244 has 3 MA's), (Start: 187 @27229 has 221 MA's), (Start: 190 @27223 has 3 MA's), (Start: 191 @27220 has 17 MA's), (249, 27052), (252, 27046), (293, 26929), (325, 26869), (362, 26752), (379, 26713), (389, 26686), (392, 26674), (437, 26539), (492, 26386), (532, 26296), (557,

26257), (614, 26167), (633, 26125), (637, 26113), (656, 26068), (664, 26047), (771, 25834), (785, 25813),

Gene: RexFury\_29 Start: 23667, Stop: 22171, Start Num: 165

Candidate Starts for RexFury\_29:

(Start: 165 @23667 has 35 MA's), (Start: 187 @23646 has 221 MA's), (Start: 190 @23640 has 3 MA's), (Start: 234 @23511 has 1 MA's), (252, 23463), (278, 23376), (329, 23271), (364, 23160), (378, 23130), (389, 23100), (392, 23088), (414, 23025), (429, 22995), (443, 22962), (452, 22941), (461, 22911), (469, 22896), (471, 22890), (485, 22842), (497, 22809), (521, 22752), (546, 22713), (548, 22707), (611, 22611), (628, 22578), (634, 22557), (637, 22548), (714, 22386),

Gene: Rey\_148 Start: 70427, Stop: 68973, Start Num: 140

Candidate Starts for Rey\_148:

(95, 70490), (Start: 107 @70469 has 10 MA's), (Start: 133 @70436 has 1 MA's), (Start: 140 @70427 has 21 MA's), (Start: 190 @70373 has 3 MA's), (198, 70355), (271, 70136), (322, 70019), (340, 69956), (381, 69866), (396, 69824), (471, 69671), (497, 69611), (532, 69545), (551, 69518), (607, 69437), (618, 69407), (622, 69401), (624, 69398), (695, 69248), (706, 69227), (733, 69170), (778, 69068),

Gene: Rhodalysa\_29 Start: 23636, Stop: 22140, Start Num: 165

Candidate Starts for Rhodalysa\_29:

(Start: 165 @23636 has 35 MA's), (Start: 187 @23615 has 221 MA's), (Start: 190 @23609 has 3 MA's), (Start: 234 @23480 has 1 MA's), (252, 23432), (329, 23240), (364, 23129), (389, 23069), (392, 23057), (414, 22994), (429, 22964), (443, 22931), (452, 22910), (461, 22880), (469, 22865), (471, 22859), (485, 22811), (497, 22778), (521, 22721), (546, 22682), (548, 22676), (611, 22580), (628, 22547), (634, 22526), (637, 22517), (714, 22355),

Gene: RhynO\_35 Start: 27045, Stop: 25519, Start Num: 187

Candidate Starts for RhynO\_35:

(Start: 175 @27060 has 3 MA's), (Start: 187 @27045 has 221 MA's), (Start: 234 @26910 has 1 MA's), (379, 26529), (389, 26502), (392, 26490), (476, 26250), (485, 26223), (502, 26178), (513, 26151), (532, 26112), (557, 26073), (610, 25995), (629, 25956), (633, 25941), (656, 25884), (664, 25863), (710, 25776), (764, 25671), (771, 25650), (774, 25644), (819, 25575),

Gene: Rhynn\_37 Start: 29603, Stop: 31105, Start Num: 187

Candidate Starts for Rhynn\_37:

(Start: 98 @29522 has 29 MA's), (Start: 102 @29528 has 3 MA's), (Start: 107 @29534 has 10 MA's), (Start: 109 @29537 has 10 MA's), (Start: 119 @29552 has 12 MA's), (Start: 187 @29603 has 221 MA's), (Start: 195 @29618 has 10 MA's), (210, 29669), (264, 29828), (326, 29978), (329, 29987), (331, 29996), (366, 30104), (379, 30125), (384, 30137), (391, 30161), (404, 30203), (457, 30332), (480, 30392), (500, 30449), (512, 30476), (525, 30503), (533, 30518), (580, 30587), (608, 30626), (622, 30659), (655, 30740), (660, 30755), (710, 30860), (766, 30974), (828, 31073), (840, 31097),

Gene: RidgeCB\_37 Start: 29192, Stop: 30691, Start Num: 187

Candidate Starts for RidgeCB\_37:

(Start: 130 @29147 has 3 MA's), (Start: 187 @29192 has 221 MA's), (Start: 195 @29207 has 10 MA's), (198, 29216), (239, 29339), (262, 29411), (264, 29417), (269, 29438), (279, 29471), (326, 29567), (329, 29576), (331, 29585), (366, 29693), (379, 29714), (384, 29726), (391, 29750), (404, 29792), (457, 29921), (480, 29981), (500, 30038), (512, 30065), (525, 30092), (526, 30095), (533, 30107), (606, 30206), (622, 30245), (655, 30326), (660, 30341), (710, 30446), (766, 30560), (771, 30572), (828, 30659), (840, 30683),

Gene: Ringer\_38 Start: 30000, Stop: 31502, Start Num: 187

Candidate Starts for Ringer\_38:

(Start: 91 @29910 has 1 MA's), (Start: 98 @29919 has 29 MA's), (Start: 102 @29925 has 3 MA's), (Start: 107 @29931 has 10 MA's), (Start: 109 @29934 has 10 MA's), (Start: 119 @29949 has 12 MA's), (Start: 187 @30000 has 221 MA's), (Start: 195 @30015 has 10 MA's), (198, 30024), (262, 30219), (264, 30225), (326, 30375), (329, 30384), (331, 30393), (334, 30399), (362, 30489), (366, 30501), (384, 30534), (457, 30729), (480, 30789), (500, 30846), (525, 30900), (533, 30915), (606, 31017), (608, 31023), (622, 31056), (655, 31137), (660, 31152), (766, 31371), (828, 31470), (840, 31494),

Gene: Roary\_30 Start: 24978, Stop: 23476, Start Num: 171

Candidate Starts for Roary\_30:

(Start: 109 @25047 has 10 MA's), (Start: 134 @25020 has 1 MA's), (139, 25014), (Start: 171 @24978 has 112 MA's), (Start: 234 @24828 has 1 MA's), (269, 24723), (294, 24657), (300, 24639), (320, 24597), (321, 24594), (347, 24507), (387, 24393), (391, 24381), (423, 24288), (448, 24240), (462, 24198), (481, 24138), (521, 24036), (603, 23901), (633, 23829), (639, 23811), (677, 23724), (696, 23688), (714, 23649), (763, 23565), (788, 23517),

Gene: RockScotty\_42 Start: 31328, Stop: 32767, Start Num: 181

Candidate Starts for RockScotty\_42:

(Start: 181 @31328 has 19 MA's), (Start: 222 @31439 has 1 MA's), (227, 31448), (256, 31511), (262, 31535), (265, 31544), (323, 31694), (325, 31703), (376, 31859), (379, 31865), (389, 31892), (486, 32126), (491, 32141), (551, 32249), (681, 32519), (777, 32696), (785, 32711), (787, 32714),

Gene: RockieBear\_32 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for RockieBear\_32:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Rohr\_38 Start: 29540, Stop: 31123, Start Num: 98

Candidate Starts for Rohr\_38:

(Start: 98 @29540 has 29 MA's), (Start: 102 @29546 has 3 MA's), (Start: 107 @29552 has 10 MA's), (Start: 109 @29555 has 10 MA's), (Start: 119 @29570 has 12 MA's), (Start: 187 @29621 has 221 MA's), (Start: 191 @29630 has 17 MA's), (Start: 195 @29636 has 10 MA's), (198, 29645), (Start: 200 @29654 has 1 MA's), (264, 29846), (268, 29858), (269, 29867), (279, 29900), (326, 29996), (329, 30005), (331, 30014), (366, 30122), (379, 30143), (384, 30155), (391, 30179), (404, 30221), (457, 30350), (480, 30410), (500, 30467), (512, 30494), (525, 30521), (526, 30524), (533, 30536), (580, 30605), (606, 30638), (608, 30644), (622, 30677), (655, 30758), (660, 30773), (710, 30878), (766, 30992), (828, 31091), (840, 31115),

Gene: Romney\_33 Start: 26646, Stop: 25123, Start Num: 162

Candidate Starts for Romney\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (391, 26037), (396, 26025), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Roosevelt\_33 Start: 26639, Stop: 25125, Start Num: 171

Candidate Starts for Roosevelt\_33:

(Start: 134 @26681 has 1 MA's), (Start: 162 @26648 has 16 MA's), (Start: 171 @26639 has 112 MA's), (239, 26477), (262, 26411), (268, 26393), (294, 26318), (305, 26294), (320, 26255), (321, 26252), (347, 26165), (387, 26051), (391, 26039), (462, 25856), (498, 25745), (521, 25694), (603, 25565), (607, 25556), (637, 25481), (639, 25475), (696, 25352), (714, 25313), (794, 25163), (805, 25148),

Gene: Rosa24\_32 Start: 26548, Stop: 25127, Start Num: 212

Candidate Starts for Rosa24\_32:

(80, 26737), (Start: 119 @26689 has 12 MA's), (Start: 176 @26632 has 15 MA's), (Start: 187 @26623 has 221 MA's), (Start: 197 @26605 has 3 MA's), (212, 26548), (217, 26530), (229, 26500), (Start: 234 @26488 has 1 MA's), (274, 26362), (283, 26341), (299, 26311), (322, 26272), (334, 26233), (363, 26143), (387, 26083), (405, 26029), (461, 25891), (527, 25723), (569, 25660), (611, 25570), (629, 25534), (637, 25507), (659, 25453), (663, 25444), (768, 25234), (776, 25216), (791, 25204), (796, 25195),

Gene: RoseMarie\_140 Start: 73018, Stop: 71558, Start Num: 140

Candidate Starts for RoseMarie\_140:

(Start: 133 @73027 has 1 MA's), (Start: 140 @73018 has 21 MA's), (198, 72946), (205, 72928), (245, 72823), (253, 72799), (271, 72727), (322, 72610), (340, 72547), (375, 72463), (381, 72451), (396, 72409), (401, 72391), (440, 72328), (485, 72229), (487, 72223), (492, 72208), (513, 72157), (532, 72130), (551, 72103), (596, 72046), (607, 72022), (652, 71917), (654, 71911), (695, 71833), (733, 71755), (753, 71710), (778, 71653),

Gene: Rowa\_59 Start: 38872, Stop: 40587, Start Num: 137

Candidate Starts for Rowa\_59:

(115, 38845), (Start: 137 @38872 has 1 MA's), (Start: 187 @38932 has 221 MA's), (Start: 191 @38941 has 17 MA's), (204, 38983), (207, 38995), (215, 39022), (235, 39094), (241, 39109), (260, 39178), (265, 39196), (273, 39229), (295, 39283), (305, 39301), (322, 39328), (429, 39637), (452, 39694), (460, 39721), (461, 39724), (493, 39823), (537, 39943), (567, 40006), (597, 40063), (613, 40108), (631, 40159), (634, 40165), (714, 40357), (755, 40438), (766, 40465), (829, 40576),

Gene: Rowdy\_38 Start: 26956, Stop: 25430, Start Num: 187

Candidate Starts for Rowdy\_38:

(Start: 175 @26971 has 3 MA's), (Start: 187 @26956 has 221 MA's), (Start: 234 @26821 has 1 MA's), (379, 26440), (389, 26413), (392, 26401), (476, 26161), (485, 26134), (513, 26062), (532, 26023), (557, 25984), (610, 25906), (629, 25867), (633, 25852), (656, 25795), (664, 25774), (710, 25687), (764, 25582), (771, 25561), (774, 25555), (819, 25486),

Gene: Rufus\_39 Start: 29957, Stop: 31459, Start Num: 187

Candidate Starts for Rufus\_39:

(Start: 98 @29876 has 29 MA's), (Start: 102 @29882 has 3 MA's), (Start: 107 @29888 has 10 MA's), (Start: 109 @29891 has 10 MA's), (Start: 119 @29906 has 12 MA's), (Start: 187 @29957 has 221 MA's), (262, 30176), (264, 30182), (269, 30203), (323, 30320), (326, 30332), (329, 30341), (331, 30350), (366, 30458), (379, 30479), (384, 30491), (391, 30515), (404, 30557), (457, 30686), (480, 30746), (500, 30803), (512, 30830), (525, 30857), (533, 30872), (608, 30980), (622, 31013), (649, 31079), (660, 31109), (710, 31214), (766, 31328), (828, 31427), (840, 31451),

Gene: Ruin\_33 Start: 26633, Stop: 25119, Start Num: 171

Candidate Starts for Ruin\_33:

(Start: 134 @26675 has 1 MA's), (Start: 162 @26642 has 16 MA's), (Start: 171 @26633 has 112 MA's), (239, 26471), (262, 26405), (268, 26387), (294, 26312), (305, 26288), (320, 26249), (321, 26246), (347, 26159), (387, 26045), (391, 26033), (462, 25850), (498, 25739), (521, 25688), (603, 25559), (607, 25550), (637, 25475), (639, 25469), (696, 25346), (714, 25307), (794, 25157), (805,

25142),

Gene: Rummer\_36 Start: 27306, Stop: 25738, Start Num: 171

Candidate Starts for Rummer\_36:

(64, 27456), (70, 27441), (139, 27342), (Start: 171 @27306 has 112 MA's), (269, 27051), (276, 27027), (300, 26967), (320, 26919), (321, 26916), (347, 26829), (353, 26817), (358, 26796), (364, 26772), (391, 26703), (415, 26634), (417, 26625), (462, 26520), (471, 26475), (521, 26343), (567, 26259), (606, 26202), (696, 25995), (765, 25854),

Gene: Ruotula\_37 Start: 30065, Stop: 31648, Start Num: 98

Candidate Starts for Ruotula\_37:

(Start: 98 @30065 has 29 MA's), (Start: 102 @30071 has 3 MA's), (Start: 107 @30077 has 10 MA's), (Start: 109 @30080 has 10 MA's), (Start: 119 @30095 has 12 MA's), (Start: 187 @30146 has 221 MA's), (Start: 222 @30254 has 1 MA's), (264, 30371), (269, 30392), (326, 30521), (329, 30530), (331, 30539), (366, 30647), (379, 30668), (384, 30680), (391, 30704), (404, 30746), (457, 30875), (480, 30935), (500, 30992), (525, 31046), (533, 31061), (580, 31130), (608, 31169), (622, 31202), (655, 31283), (660, 31298), (766, 31517), (828, 31616), (840, 31640),

Gene: Rusticus\_50 Start: 34372, Stop: 35694, Start Num: 191

Candidate Starts for Rusticus\_50:

(Start: 183 @34360 has 12 MA's), (Start: 191 @34372 has 17 MA's), (198, 34387), (Start: 222 @34474 has 1 MA's), (Start: 224 @34477 has 1 MA's), (237, 34501), (256, 34552), (268, 34594), (269, 34603), (271, 34615), (321, 34705), (322, 34714), (329, 34738), (369, 34858), (380, 34864), (426, 34954), (448, 34969), (452, 34978), (462, 35011), (511, 35122), (513, 35128), (543, 35176), (554, 35191), (563, 35206), (603, 35266), (608, 35275), (613, 35290), (649, 35368), (670, 35401), (688, 35431), (710, 35479), (749, 35557), (768, 35605), (774, 35614), (789, 35641), (816, 35680),

Gene: Rutherferd\_39 Start: 30225, Stop: 31727, Start Num: 187

Candidate Starts for Rutherferd\_39:

(Start: 98 @30144 has 29 MA's), (Start: 102 @30150 has 3 MA's), (Start: 107 @30156 has 10 MA's), (Start: 109 @30159 has 10 MA's), (Start: 119 @30174 has 12 MA's), (Start: 187 @30225 has 221 MA's), (198, 30249), (262, 30444), (264, 30450), (268, 30462), (269, 30471), (326, 30600), (329, 30609), (331, 30618), (366, 30726), (379, 30747), (384, 30759), (391, 30783), (404, 30825), (457, 30954), (480, 31014), (500, 31071), (512, 31098), (525, 31125), (533, 31140), (606, 31242), (608, 31248), (622, 31281), (655, 31362), (660, 31377), (766, 31596), (828, 31695), (840, 31719),

Gene: SFuller\_50 Start: 35352, Stop: 36737, Start Num: 170

Candidate Starts for SFuller\_50:

(11, 34941), (12, 34944), (15, 34980), (21, 35058), (38, 35109), (44, 35139), (Start: 99 @35259 has 1 MA's), (115, 35283), (Start: 170 @35352 has 8 MA's), (198, 35397), (Start: 206 @35427 has 9 MA's), (215, 35457), (227, 35490), (236, 35508), (264, 35589), (316, 35691), (319, 35700), (323, 35724), (342, 35784), (389, 35916), (401, 35955), (452, 36039), (494, 36144), (523, 36204), (561, 36243), (592, 36270), (603, 36300), (606, 36306), (611, 36321), (615, 36333), (622, 36345), (664, 36450), (697, 36510), (705, 36525), (755, 36627), (764, 36639), (768, 36654), (772, 36663), (791, 36693),

Gene: STLscum\_38 Start: 30309, Stop: 31877, Start Num: 109

Candidate Starts for STLscum\_38:

(Start: 98 @30294 has 29 MA's), (Start: 102 @30300 has 3 MA's), (Start: 107 @30306 has 10 MA's), (Start: 109 @30309 has 10 MA's), (Start: 119 @30324 has 12 MA's), (Start: 187 @30375 has 221 MA's), (Start: 222 @30483 has 1 MA's), (262, 30594), (264, 30600), (269, 30621), (326, 30750), (329, 30759), (331, 30768), (366, 30876), (379, 30897), (384, 30909), (391, 30933), (404, 30975), (457, 31104), (480, 31164), (500, 31221), (512, 31248), (525, 31275), (526, 31278), (533, 31290), (608, 31398), (622, 31431), (655, 31512), (660, 31527), (710, 31632), (766, 31746), (828, 31845), (840,

31869),

Gene: SV1\_27 Start: 22294, Stop: 20651, Start Num: 145

Candidate Starts for SV1\_27:

(94, 22366), (Start: 145 @22294 has 12 MA's), (250, 22081), (362, 21775), (387, 21682), (516, 21319), (556, 21241), (559, 21235), (581, 21181), (593, 21154), (594, 21151), (647, 21016), (707, 20884), (744, 20815), (800, 20701), (816, 20677),

Gene: Sabertooth\_33 Start: 26636, Stop: 25122, Start Num: 171

Candidate Starts for Sabertooth\_33:

(Start: 134 @26678 has 1 MA's), (Start: 162 @26645 has 16 MA's), (Start: 171 @26636 has 112 MA's), (239, 26474), (262, 26408), (268, 26390), (294, 26315), (305, 26291), (320, 26252), (321, 26249), (347, 26162), (387, 26048), (391, 26036), (462, 25853), (498, 25742), (521, 25691), (603, 25562), (607, 25553), (637, 25478), (639, 25472), (696, 25349), (714, 25310), (794, 25160), (805, 25145),

Gene: Sabourin\_43 Start: 31408, Stop: 32847, Start Num: 181

Candidate Starts for Sabourin\_43:

(Start: 181 @31408 has 19 MA's), (Start: 222 @31519 has 1 MA's), (227, 31528), (256, 31591), (262, 31615), (265, 31624), (323, 31774), (325, 31783), (376, 31939), (379, 31945), (389, 31972), (410, 32032), (486, 32206), (491, 32221), (551, 32329), (640, 32512), (777, 32776), (785, 32791), (787, 32794),

Gene: Saftant\_50 Start: 36790, Stop: 38202, Start Num: 180

Candidate Starts for Saftant\_50:

(118, 36718), (125, 36727), (Start: 133 @36736 has 1 MA's), (143, 36748), (Start: 180 @36790 has 37 MA's), (198, 36820), (256, 36985), (268, 37027), (269, 37036), (271, 37048), (321, 37138), (322, 37147), (323, 37150), (329, 37171), (401, 37360), (452, 37480), (511, 37624), (513, 37630), (543, 37678), (609, 37780), (629, 37822), (633, 37834), (681, 37930), (688, 37933), (728, 38017), (734, 38026), (749, 38059), (768, 38107), (780, 38131), (794, 38152), (812, 38176), (823, 38191),

Gene: Sagefire\_39 Start: 30397, Stop: 31899, Start Num: 187

Candidate Starts for Sagefire\_39:

(Start: 98 @30316 has 29 MA's), (Start: 102 @30322 has 3 MA's), (Start: 107 @30328 has 10 MA's), (Start: 109 @30331 has 10 MA's), (Start: 119 @30346 has 12 MA's), (Start: 187 @30397 has 221 MA's), (Start: 191 @30406 has 17 MA's), (Start: 222 @30505 has 1 MA's), (227, 30514), (264, 30622), (269, 30643), (326, 30772), (329, 30781), (331, 30790), (366, 30898), (379, 30919), (384, 30931), (391, 30955), (404, 30997), (457, 31126), (480, 31186), (500, 31243), (512, 31270), (525, 31297), (526, 31300), (533, 31312), (606, 31414), (608, 31420), (655, 31534), (660, 31549), (710, 31654), (766, 31768), (828, 31867), (840, 31891),

Gene: Samba\_38 Start: 31981, Stop: 33372, Start Num: 188

Candidate Starts for Samba\_38:

(83, 31840), (97, 31867), (161, 31951), (Start: 180 @31972 has 37 MA's), (Start: 188 @31981 has 36 MA's), (Start: 206 @32038 has 9 MA's), (227, 32101), (262, 32194), (288, 32278), (290, 32281), (334, 32371), (336, 32377), (345, 32404), (362, 32458), (404, 32575), (447, 32653), (493, 32770), (497, 32779), (522, 32830), (543, 32857), (561, 32872), (607, 32938), (608, 32941), (615, 32962), (622, 32974), (624, 32977), (656, 33055), (682, 33112), (719, 33181), (723, 33190), (735, 33208), (759, 33259), (801, 33334),

Gene: Samora\_58 Start: 39277, Stop: 40836, Start Num: 199

Candidate Starts for Samora\_58:

(Start: 119 @39181 has 12 MA's), (Start: 164 @39226 has 4 MA's), (173, 39235), (Start: 187 @39247 has 221 MA's), (Start: 199 @39277 has 3 MA's), (263, 39463), (264, 39466), (271, 39499), (274, 39508), (291, 39547), (294, 39553), (313, 39583), (321, 39613), (323, 39625), (324, 39628), (339, 39682), (340, 39685), (348, 39703), (352, 39712), (373, 39781), (464, 40039), (466, 40051), (479, 40096), (493, 40141), (500, 40156), (522, 40213), (525, 40219), (546, 40249), (569, 40294), (630, 40408), (633, 40414), (664, 40492), (763, 40681), (764, 40684), (801, 40759), (808, 40771),

Gene: Samy\_94 Start: 56925, Stop: 58457, Start Num: 151

Candidate Starts for Samy\_94:

(Start: 99 @56856 has 1 MA's), (113, 56877), (Start: 151 @56925 has 2 MA's), (209, 57030), (212, 57042), (267, 57189), (284, 57246), (316, 57324), (329, 57369), (376, 57507), (380, 57516), (414, 57621), (447, 57654), (452, 57669), (458, 57690), (471, 57720), (500, 57789), (524, 57849), (557, 57912), (598, 57996), (603, 58011), (633, 58083), (652, 58122), (655, 58131), (664, 58155), (729, 58263), (731, 58266), (743, 58284), (831, 58434),

Gene: Sandaddy\_37 Start: 29421, Stop: 30989, Start Num: 109

Candidate Starts for Sandaddy\_37:

(Start: 98 @29406 has 29 MA's), (Start: 102 @29412 has 3 MA's), (Start: 107 @29418 has 10 MA's), (Start: 109 @29421 has 10 MA's), (Start: 119 @29436 has 12 MA's), (Start: 187 @29487 has 221 MA's), (262, 29706), (264, 29712), (269, 29733), (326, 29862), (329, 29871), (331, 29880), (366, 29988), (384, 30021), (391, 30045), (404, 30087), (457, 30216), (480, 30276), (500, 30333), (512, 30360), (525, 30387), (526, 30390), (533, 30402), (580, 30471), (608, 30510), (622, 30543), (655, 30624), (660, 30639), (710, 30744), (766, 30858), (828, 30957), (840, 30981),

Gene: Sanya\_36 Start: 30102, Stop: 31670, Start Num: 109

Candidate Starts for Sanya\_36:

(Start: 98 @30087 has 29 MA's), (Start: 102 @30093 has 3 MA's), (Start: 107 @30099 has 10 MA's), (Start: 109 @30102 has 10 MA's), (Start: 119 @30117 has 12 MA's), (Start: 187 @30168 has 221 MA's), (Start: 191 @30177 has 17 MA's), (Start: 195 @30183 has 10 MA's), (198, 30192), (262, 30387), (264, 30393), (326, 30543), (329, 30552), (331, 30561), (366, 30669), (379, 30690), (384, 30702), (391, 30726), (404, 30768), (457, 30897), (480, 30957), (500, 31014), (525, 31068), (533, 31083), (608, 31191), (622, 31224), (655, 31305), (660, 31320), (710, 31425), (766, 31539), (828, 31638), (840, 31662),

Gene: SarFire\_37 Start: 29648, Stop: 31210, Start Num: 119

Candidate Starts for SarFire\_37:

(Start: 98 @29618 has 29 MA's), (Start: 102 @29624 has 3 MA's), (Start: 107 @29630 has 10 MA's), (Start: 109 @29633 has 10 MA's), (Start: 119 @29648 has 12 MA's), (Start: 187 @29699 has 221 MA's), (262, 29918), (264, 29924), (268, 29936), (269, 29945), (326, 30074), (329, 30083), (331, 30092), (366, 30200), (379, 30221), (384, 30233), (391, 30257), (404, 30299), (457, 30428), (480, 30488), (500, 30545), (512, 30572), (525, 30599), (526, 30602), (533, 30614), (606, 30713), (622, 30752), (655, 30833), (660, 30848), (766, 31067),

Gene: SarahRose\_50 Start: 36181, Stop: 37794, Start Num: 89

Candidate Starts for SarahRose\_50:

(Start: 55 @36115 has 7 MA's), (Start: 82 @36172 has 5 MA's), (Start: 89 @36181 has 25 MA's), (Start: 197 @36328 has 3 MA's), (227, 36427), (Start: 234 @36445 has 1 MA's), (255, 36496), (277, 36577), (278, 36580), (321, 36652), (322, 36661), (323, 36664), (362, 36790), (373, 36817), (400, 36886), (415, 36931), (454, 37000), (462, 37027), (481, 37075), (497, 37123), (513, 37162), (525, 37189), (546, 37219), (622, 37342), (646, 37402), (664, 37447), (729, 37576), (754, 37627), (759, 37636), (774, 37675), (786, 37699), (793, 37714), (804, 37729), (815, 37744),

Gene: Scamp\_33 Start: 26639, Stop: 25125, Start Num: 171

Candidate Starts for Scamp\_33:

(Start: 134 @26681 has 1 MA's), (Start: 162 @26648 has 16 MA's), (Start: 171 @26639 has 112 MA's), (239, 26477), (262, 26411), (268, 26393), (294, 26318), (305, 26294), (320, 26255), (321, 26252), (347, 26165), (387, 26051), (391, 26039), (396, 26027), (462, 25856), (498, 25745), (521, 25694), (603, 25565), (607, 25556), (637, 25481), (639, 25475), (696, 25352), (714, 25313), (794, 25163), (805, 25148),

Gene: Schaffner\_49 Start: 35742, Stop: 37160, Start Num: 180

Candidate Starts for Schaffner\_49:

(Start: 163 @35724 has 10 MA's), (177, 35739), (Start: 180 @35742 has 37 MA's), (Start: 187 @35751 has 221 MA's), (264, 35973), (317, 36084), (323, 36096), (325, 36105), (359, 36207), (370, 36246), (391, 36297), (603, 36741), (629, 36798), (634, 36816), (638, 36828), (731, 37002),

Gene: Schlegelian\_31 Start: 23332, Stop: 21713, Start Num: 158

Candidate Starts for Schlegelian\_31:

(Start: 158 @23332 has 5 MA's), (250, 23128), (257, 23110), (335, 22906), (388, 22723), (405, 22672), (435, 22606), (438, 22597), (485, 22456), (493, 22432), (516, 22378), (545, 22312), (593, 22207), (607, 22171), (645, 22084), (667, 22030), (713, 21928), (752, 21859), (763, 21835), (766, 21823), (809, 21772),

Gene: Scorpia\_32 Start: 25388, Stop: 23907, Start Num: 187

Candidate Starts for Scorpia\_32:

(155, 25415), (Start: 187 @25388 has 221 MA's), (Start: 201 @25352 has 3 MA's), (Start: 234 @25253 has 1 MA's), (264, 25169), (274, 25127), (285, 25103), (299, 25076), (322, 25037), (329, 25013), (379, 24869), (489, 24575), (495, 24557), (507, 24530), (521, 24500), (533, 24476), (546, 24461), (590, 24401), (611, 24350), (614, 24341), (637, 24287), (652, 24254), (680, 24188), (776, 23996), (836, 23918),

Gene: Scowl\_37 Start: 29862, Stop: 31430, Start Num: 107

Candidate Starts for Scowl\_37:

(Start: 98 @29850 has 29 MA's), (Start: 102 @29856 has 3 MA's), (Start: 107 @29862 has 10 MA's), (Start: 109 @29865 has 10 MA's), (Start: 119 @29880 has 12 MA's), (Start: 187 @29931 has 221 MA's), (262, 30150), (264, 30156), (269, 30177), (326, 30306), (329, 30315), (331, 30324), (366, 30432), (379, 30453), (384, 30465), (391, 30489), (404, 30531), (457, 30660), (480, 30720), (500, 30777), (525, 30831), (526, 30834), (533, 30846), (622, 30984), (655, 31065), (660, 31080), (710, 31185), (766, 31299), (771, 31311), (828, 31398), (840, 31422),

Gene: Seabiscuit\_39 Start: 29433, Stop: 30935, Start Num: 187

Candidate Starts for Seabiscuit\_39:

(Start: 98 @29352 has 29 MA's), (Start: 102 @29358 has 3 MA's), (Start: 107 @29364 has 10 MA's), (Start: 109 @29367 has 10 MA's), (Start: 119 @29382 has 12 MA's), (Start: 187 @29433 has 221 MA's), (262, 29652), (264, 29658), (323, 29796), (326, 29808), (329, 29817), (331, 29826), (334, 29832), (362, 29922), (366, 29934), (384, 29967), (448, 30135), (457, 30162), (480, 30222), (500, 30279), (512, 30306), (525, 30333), (533, 30348), (580, 30417), (608, 30456), (622, 30489), (649, 30555), (660, 30585), (689, 30648), (710, 30690), (718, 30705), (766, 30804), (828, 30903), (840, 30927),

Gene: Seanderson\_38 Start: 30061, Stop: 31563, Start Num: 187

Candidate Starts for Seanderson\_38:

(Start: 98 @29980 has 29 MA's), (Start: 102 @29986 has 3 MA's), (Start: 107 @29992 has 10 MA's), (Start: 109 @29995 has 10 MA's), (Start: 119 @30010 has 12 MA's), (Start: 187 @30061 has 221 MA's), (264, 30286), (269, 30307), (326, 30436), (329, 30445), (331, 30454), (366, 30562), (379, 30583), (384, 30595), (391, 30619), (457, 30790), (480, 30850), (500, 30907), (512, 30934), (525,

30961), (526, 30964), (533, 30976), (580, 31045), (606, 31078), (608, 31084), (622, 31117), (655, 31198), (660, 31213), (710, 31318), (766, 31432), (828, 31531), (840, 31555),

Gene: Sebastisaurus\_51 Start: 38899, Stop: 40668, Start Num: 128

Candidate Starts for Sebastisaurus\_51:

(111, 38875), (122, 38893), (Start: 128 @38899 has 3 MA's), (143, 38914), (174, 38953), (184, 38965), (253, 39142), (254, 39145), (262, 39175), (284, 39247), (290, 39262), (302, 39289), (304, 39292), (318, 39328), (356, 39454), (372, 39514), (381, 39526), (404, 39601), (435, 39688), (450, 39727), (477, 39838), (480, 39853), (482, 39859), (525, 39973), (536, 40000), (580, 40093), (599, 40135), (617, 40189), (635, 40234), (642, 40255), (676, 40336), (721, 40438), (728, 40450), (746, 40483), (761, 40519), (768, 40540), (774, 40552),

Gene: SenorClean\_33 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for SenorClean\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Severus\_32 Start: 23850, Stop: 25496, Start Num: 180

Candidate Starts for Severus\_32:

(Start: 136 @23802 has 3 MA's), (Start: 165 @23841 has 35 MA's), (Start: 180 @23850 has 37 MA's), (Start: 191 @23868 has 17 MA's), (Start: 200 @23892 has 1 MA's), (Start: 222 @23967 has 1 MA's), (227, 23976), (Start: 234 @23994 has 1 MA's), (262, 24078), (263, 24081), (271, 24117), (322, 24219), (329, 24243), (331, 24252), (362, 24348), (379, 24384), (392, 24423), (396, 24432), (398, 24435), (445, 24552), (453, 24573), (457, 24588), (461, 24600), (479, 24648), (493, 24693), (525, 24765), (543, 24789), (608, 24909), (614, 24927), (615, 24930), (617, 24933), (675, 25068), (766, 25257), (825, 25350), (840, 25380), (845, 25404), (850, 25452), (852, 25470),

Gene: Shagrat\_42 Start: 32662, Stop: 34170, Start Num: 112

Candidate Starts for Shagrat\_42:

(24, 32476), (32, 32485), (46, 32533), (51, 32554), (63, 32575), (65, 32578), (71, 32593), (77, 32605), (79, 32608), (Start: 112 @32662 has 2 MA's), (Start: 188 @32755 has 36 MA's), (198, 32779), (Start: 206 @32812 has 9 MA's), (227, 32875), (278, 33028), (288, 33055), (358, 33220), (392, 33316), (396, 33325), (443, 33427), (448, 33439), (452, 33448), (454, 33454), (494, 33553), (614, 33754), (622, 33769), (629, 33781), (636, 33805), (646, 33829), (682, 33910), (719, 33979), (770, 34084), (791, 34120),

Gene: Shaka\_33 Start: 26646, Stop: 25123, Start Num: 162

Candidate Starts for Shaka\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Shapes\_38 Start: 26956, Stop: 25430, Start Num: 187

Candidate Starts for Shapes\_38:

(Start: 175 @26971 has 3 MA's), (Start: 187 @26956 has 221 MA's), (Start: 234 @26821 has 1 MA's), (379, 26440), (389, 26413), (392, 26401), (476, 26161), (485, 26134), (513, 26062), (532, 26023), (557, 25984), (610, 25906), (629, 25867), (633, 25852), (656, 25795), (664, 25774), (710, 25687), (764, 25582), (771, 25561), (774, 25555), (819, 25486),

Gene: Shawty\_54 Start: 37457, Stop: 39295, Start Num: 164

Candidate Starts for Shawty\_54:

(125, 37409), (Start: 145 @37433 has 12 MA's), (Start: 164 @37457 has 4 MA's), (261, 37703), (262, 37709), (298, 37811), (311, 37844), (314, 37850), (318, 37865), (354, 37994), (355, 37997), (442, 38294), (474, 38399), (476, 38405), (515, 38531), (517, 38537), (540, 38600), (585, 38699), (599, 38735), (629, 38822), (653, 38888), (676, 38945), (697, 38993), (707, 39014), (710, 39023), (724, 39047), (736, 39065), (780, 39170), (816, 39230),

Gene: SheaKeira\_35 Start: 26656, Stop: 25103, Start Num: 187

Candidate Starts for SheaKeira\_35:

(100, 26761), (104, 26755), (Start: 187 @26656 has 221 MA's), (214, 26575), (Start: 234 @26521 has 1 MA's), (294, 26350), (387, 26116), (396, 26092), (461, 25924), (485, 25858), (521, 25771), (525, 25762), (535, 25741), (569, 25681), (637, 25531), (680, 25432), (684, 25423), (768, 25258), (776, 25240), (816, 25192), (822, 25183),

Gene: Sheen\_34 Start: 28925, Stop: 27417, Start Num: 187

Candidate Starts for Sheen\_34:

(Start: 175 @28940 has 3 MA's), (Start: 187 @28925 has 221 MA's), (239, 28778), (293, 28625), (325, 28565), (362, 28448), (379, 28409), (387, 28385), (389, 28382), (392, 28370), (437, 28235), (479, 28124), (485, 28103), (492, 28082), (532, 27992), (556, 27956), (557, 27953), (605, 27887), (614, 27863), (629, 27836), (633, 27821), (637, 27809), (652, 27776), (664, 27743), (764, 27551), (771, 27530), (785, 27509), (819, 27455),

Gene: Shuman\_29 Start: 23649, Stop: 22141, Start Num: 165

Candidate Starts for Shuman\_29:

(Start: 165 @23649 has 35 MA's), (Start: 187 @23628 has 221 MA's), (Start: 190 @23622 has 3 MA's), (Start: 234 @23493 has 1 MA's), (252, 23445), (278, 23358), (329, 23253), (364, 23142), (389, 23082), (392, 23070), (414, 23007), (429, 22977), (443, 22944), (452, 22923), (461, 22893), (469, 22878), (471, 22872), (485, 22824), (497, 22791), (521, 22734), (546, 22695), (548, 22689), (634, 22539), (714, 22368), (836, 22152),

Gene: Shygu2\_33 Start: 26631, Stop: 25117, Start Num: 171

Candidate Starts for Shygu2\_33:

(Start: 134 @26673 has 1 MA's), (Start: 162 @26640 has 16 MA's), (Start: 171 @26631 has 112 MA's), (Start: 200 @26586 has 1 MA's), (239, 26469), (262, 26403), (268, 26385), (294, 26310), (305, 26286), (320, 26247), (321, 26244), (347, 26157), (387, 26043), (391, 26031), (462, 25848), (480, 25791), (498, 25737), (521, 25686), (603, 25557), (607, 25548), (637, 25473), (639, 25467), (692, 25353), (696, 25344), (714, 25305), (794, 25155), (805, 25140),

Gene: Sibs6\_38 Start: 28591, Stop: 30105, Start Num: 187

Candidate Starts for Sibs6\_38:

(Start: 98 @28510 has 29 MA's), (Start: 102 @28516 has 3 MA's), (Start: 107 @28522 has 10 MA's), (Start: 109 @28525 has 10 MA's), (Start: 119 @28540 has 12 MA's), (Start: 187 @28591 has 221 MA's), (Start: 195 @28606 has 10 MA's), (262, 28810), (264, 28816), (269, 28837), (326, 28966), (329, 28975), (331, 28984), (362, 29080), (366, 29092), (384, 29125), (396, 29161), (457, 29320), (480, 29380), (500, 29437), (525, 29491), (533, 29506), (608, 29614), (622, 29647), (625, 29650), (655, 29728), (660, 29743), (766, 29962),

Gene: Simpson\_52 Start: 35322, Stop: 36740, Start Num: 180

Candidate Starts for Simpson\_52:

(Start: 163 @35304 has 10 MA's), (177, 35319), (Start: 180 @35322 has 37 MA's), (Start: 187 @35331 has 221 MA's), (225, 35445), (Start: 234 @35469 has 1 MA's), (264, 35553), (317, 35664), (323, 35676), (325, 35685), (358, 35784), (391, 35877), (396, 35889), (404, 35916), (461, 36021), (486,

36075), (634, 36396), (638, 36408), (655, 36441), (729, 36579),

Gene: Skelbel\_49 Start: 35962, Stop: 37383, Start Num: 180

Candidate Starts for Skelbel\_49:

(Start: 163 @35944 has 10 MA's), (177, 35959), (Start: 180 @35962 has 37 MA's), (Start: 187 @35971 has 221 MA's), (225, 36085), (Start: 234 @36109 has 1 MA's), (264, 36193), (271, 36226), (277, 36241), (317, 36304), (323, 36316), (325, 36325), (358, 36424), (370, 36466), (391, 36517), (404, 36556), (453, 36634), (461, 36661), (486, 36715), (629, 37021), (630, 37030), (634, 37039), (638, 37051), (729, 37222), (776, 37309),

Gene: SkiPole\_40 Start: 29928, Stop: 31442, Start Num: 187

Candidate Starts for SkiPole\_40:

(79, 29826), (90, 29838), (Start: 98 @29847 has 29 MA's), (Start: 102 @29853 has 3 MA's), (Start: 107 @29859 has 10 MA's), (Start: 109 @29862 has 10 MA's), (Start: 119 @29877 has 12 MA's), (Start: 187 @29928 has 221 MA's), (Start: 195 @29943 has 10 MA's), (198, 29952), (264, 30153), (268, 30165), (269, 30174), (326, 30303), (329, 30312), (331, 30321), (366, 30429), (379, 30450), (384, 30462), (391, 30486), (404, 30528), (457, 30657), (480, 30717), (500, 30774), (512, 30801), (525, 30828), (533, 30843), (580, 30912), (608, 30951), (622, 30984), (655, 31065), (660, 31080), (710, 31185), (766, 31299),

Gene: Skinny\_137 Start: 71103, Stop: 69643, Start Num: 140

Candidate Starts for Skinny\_137:

(Start: 107 @71145 has 10 MA's), (Start: 133 @71112 has 1 MA's), (Start: 140 @71103 has 21 MA's), (198, 71031), (225, 70950), (245, 70908), (253, 70884), (271, 70812), (322, 70695), (340, 70632), (375, 70548), (381, 70536), (396, 70494), (401, 70476), (485, 70314), (492, 70293), (513, 70242), (532, 70215), (551, 70188), (624, 70068), (695, 69918), (733, 69840), (753, 69795), (778, 69738),

Gene: Skipitt\_33 Start: 26634, Stop: 25120, Start Num: 171

Candidate Starts for Skipitt\_33:

(Start: 134 @26676 has 1 MA's), (Start: 162 @26643 has 16 MA's), (Start: 171 @26634 has 112 MA's), (239, 26472), (262, 26406), (268, 26388), (294, 26313), (305, 26289), (320, 26250), (321, 26247), (347, 26160), (387, 26046), (391, 26034), (462, 25851), (498, 25740), (521, 25689), (603, 25560), (607, 25551), (637, 25476), (639, 25470), (696, 25347), (714, 25308), (794, 25158), (805, 25143),

Gene: Slagathor\_38 Start: 29511, Stop: 31013, Start Num: 187

Candidate Starts for Slagathor\_38:

(Start: 98 @29430 has 29 MA's), (Start: 102 @29436 has 3 MA's), (Start: 107 @29442 has 10 MA's), (Start: 109 @29445 has 10 MA's), (Start: 119 @29460 has 12 MA's), (Start: 187 @29511 has 221 MA's), (Start: 195 @29526 has 10 MA's), (264, 29736), (268, 29748), (269, 29757), (326, 29886), (329, 29895), (331, 29904), (366, 30012), (379, 30033), (384, 30045), (391, 30069), (404, 30111), (457, 30240), (480, 30300), (500, 30357), (512, 30384), (525, 30411), (526, 30414), (533, 30426), (580, 30495), (606, 30528), (608, 30534), (622, 30567), (655, 30648), (660, 30663), (710, 30768), (766, 30882), (828, 30981), (840, 31005),

Gene: SlimJimmy\_130 Start: 69812, Stop: 68352, Start Num: 140

Candidate Starts for SlimJimmy\_130:

(Start: 107 @69854 has 10 MA's), (Start: 133 @69821 has 1 MA's), (Start: 140 @69812 has 21 MA's), (198, 69740), (225, 69659), (245, 69617), (253, 69593), (271, 69521), (322, 69404), (340, 69341), (375, 69257), (381, 69245), (396, 69203), (401, 69185), (485, 69023), (492, 69002), (513, 68951), (532, 68924), (551, 68897), (624, 68777), (695, 68627), (733, 68549), (753, 68504), (778, 68447),

Gene: Smairt\_38 Start: 29608, Stop: 31107, Start Num: 187

Candidate Starts for Smairt\_38:

(Start: 89 @29518 has 25 MA's), (Start: 130 @29563 has 3 MA's), (Start: 187 @29608 has 221 MA's), (Start: 195 @29623 has 10 MA's), (198, 29632), (239, 29755), (262, 29827), (264, 29833), (269, 29854), (326, 29983), (329, 29992), (331, 30001), (366, 30109), (379, 30130), (384, 30142), (391, 30166), (404, 30208), (457, 30337), (480, 30397), (500, 30454), (512, 30481), (525, 30508), (526, 30511), (533, 30523), (606, 30622), (622, 30661), (625, 30664), (655, 30742), (660, 30757), (766, 30976), (828, 31075), (840, 31099),

Gene: Smeadley\_30 Start: 25011, Stop: 23509, Start Num: 171

Candidate Starts for Smeadley\_30:

(Start: 109 @25080 has 10 MA's), (Start: 134 @25053 has 1 MA's), (139, 25047), (Start: 171 @25011 has 112 MA's), (Start: 234 @24861 has 1 MA's), (269, 24756), (294, 24690), (300, 24672), (320, 24630), (321, 24627), (347, 24540), (358, 24507), (391, 24414), (423, 24321), (448, 24273), (462, 24231), (481, 24171), (521, 24069), (633, 23862), (677, 23757), (696, 23721), (714, 23682), (763, 23598), (788, 23550),

Gene: Smeagol\_39 Start: 30836, Stop: 32335, Start Num: 187

Candidate Starts for Smeagol\_39:

(Start: 187 @30836 has 221 MA's), (Start: 195 @30851 has 10 MA's), (Start: 222 @30944 has 1 MA's), (Start: 234 @30971 has 1 MA's), (239, 30983), (262, 31055), (264, 31061), (268, 31073), (269, 31082), (279, 31115), (293, 31145), (294, 31148), (326, 31211), (331, 31229), (362, 31325), (366, 31337), (384, 31370), (391, 31394), (410, 31448), (414, 31463), (429, 31493), (457, 31565), (480, 31625), (493, 31667), (500, 31682), (512, 31709), (520, 31724), (521, 31727), (525, 31736), (533, 31751), (606, 31850), (622, 31889), (637, 31928), (639, 31934), (655, 31970), (660, 31985), (668, 32000), (710, 32090), (766, 32204), (768, 32210), (828, 32303), (840, 32327),

Gene: Snazzy\_36 Start: 29422, Stop: 30936, Start Num: 187

Candidate Starts for Snazzy\_36:

(Start: 98 @29341 has 29 MA's), (Start: 102 @29347 has 3 MA's), (Start: 107 @29353 has 10 MA's), (Start: 109 @29356 has 10 MA's), (Start: 119 @29371 has 12 MA's), (Start: 187 @29422 has 221 MA's), (Start: 195 @29437 has 10 MA's), (262, 29641), (264, 29647), (323, 29785), (326, 29797), (329, 29806), (331, 29815), (362, 29911), (366, 29923), (384, 29956), (396, 29992), (457, 30151), (480, 30211), (500, 30268), (512, 30295), (525, 30322), (533, 30337), (606, 30439), (608, 30445), (622, 30478), (625, 30481), (637, 30517), (655, 30559), (660, 30574), (710, 30679), (766, 30793),

Gene: Snek\_51 Start: 34577, Stop: 36082, Start Num: 136

Candidate Starts for Snek\_51:

(Start: 136 @34577 has 3 MA's), (Start: 165 @34616 has 35 MA's), (Start: 181 @34634 has 19 MA's), (256, 34820), (331, 35021), (359, 35102), (461, 35387), (529, 35516), (615, 35681), (692, 35843), (780, 36014), (784, 36020),

Gene: Snorlax\_50 Start: 36206, Stop: 37819, Start Num: 89

Candidate Starts for Snorlax\_50:

(Start: 55 @36140 has 7 MA's), (Start: 82 @36197 has 5 MA's), (Start: 89 @36206 has 25 MA's), (Start: 197 @36353 has 3 MA's), (227, 36452), (Start: 234 @36470 has 1 MA's), (255, 36521), (277, 36602), (278, 36605), (321, 36677), (322, 36686), (323, 36689), (362, 36815), (373, 36842), (400, 36911), (415, 36956), (454, 37025), (462, 37052), (481, 37100), (497, 37148), (513, 37187), (525, 37214), (546, 37244), (615, 37355), (622, 37367), (646, 37427), (664, 37472), (710, 37562), (729, 37601), (754, 37652), (759, 37661), (774, 37700), (786, 37724), (793, 37739), (804, 37754), (815, 37769),

Gene: SoJo\_29 Start: 24703, Stop: 23048, Start Num: 145

Candidate Starts for SoJo\_29:

(Start: 145 @24703 has 12 MA's), (250, 24484), (330, 24277), (353, 24217), (403, 24037), (460, 23893), (468, 23854), (469, 23851), (516, 23722), (559, 23638), (577, 23590), (581, 23584), (660, 23386), (667, 23371), (707, 23287), (744, 23218), (763, 23176), (772, 23149), (800, 23104), (816, 23080),

Gene: SoSeph\_38 Start: 31463, Stop: 32869, Start Num: 188

Candidate Starts for SoSeph\_38:

(Start: 180 @31454 has 37 MA's), (Start: 188 @31463 has 36 MA's), (227, 31583), (288, 31760), (316, 31784), (328, 31835), (342, 31877), (358, 31925), (364, 31946), (373, 31973), (379, 31982), (389, 32009), (396, 32030), (401, 32048), (411, 32075), (443, 32120), (454, 32126), (497, 32231), (533, 32297), (543, 32306), (555, 32327), (568, 32345), (622, 32453), (627, 32462), (629, 32465), (664, 32561), (672, 32573), (691, 32609), (727, 32681), (732, 32690), (755, 32741), (774, 32780), (780, 32792), (788, 32801), (813, 32831), (824, 32846),

Gene: Soilmate\_42 Start: 33367, Stop: 34767, Start Num: 180

Candidate Starts for Soilmate\_42:

(161, 33346), (Start: 180 @33367 has 37 MA's), (Start: 188 @33376 has 36 MA's), (227, 33496), (288, 33673), (334, 33766), (336, 33772), (345, 33799), (362, 33853), (404, 33970), (447, 34048), (487, 34147), (493, 34165), (497, 34174), (522, 34225), (543, 34252), (561, 34267), (607, 34333), (608, 34336), (615, 34357), (622, 34369), (624, 34372), (656, 34450), (682, 34507), (723, 34585), (735, 34603), (755, 34648), (759, 34654), (768, 34675), (801, 34729),

Gene: Solon\_37 Start: 29718, Stop: 31220, Start Num: 187

Candidate Starts for Solon\_37:

(Start: 98 @29637 has 29 MA's), (Start: 102 @29643 has 3 MA's), (Start: 107 @29649 has 10 MA's), (Start: 109 @29652 has 10 MA's), (Start: 119 @29667 has 12 MA's), (Start: 187 @29718 has 221 MA's), (Start: 222 @29826 has 1 MA's), (262, 29937), (264, 29943), (269, 29964), (326, 30093), (329, 30102), (331, 30111), (366, 30219), (379, 30240), (384, 30252), (391, 30276), (404, 30318), (457, 30447), (480, 30507), (500, 30564), (512, 30591), (525, 30618), (533, 30633), (580, 30702), (608, 30741), (622, 30774), (655, 30855), (660, 30870), (710, 30975), (766, 31089), (771, 31101), (828, 31188), (840, 31212),

Gene: Soondubu\_46 Start: 37732, Stop: 39171, Start Num: 180

Candidate Starts for Soondubu\_46:

(169, 37720), (Start: 180 @37732 has 37 MA's), (185, 37738), (194, 37756), (223, 37852), (253, 37924), (266, 37969), (268, 37975), (292, 38035), (325, 38095), (391, 38263), (469, 38422), (557, 38590), (609, 38644), (649, 38737), (664, 38776), (694, 38824), (753, 38947), (763, 38959), (765, 38965), (771, 38983), (844, 39103),

Gene: Sooty\_43 Start: 31423, Stop: 32862, Start Num: 181

Candidate Starts for Sooty\_43:

(Start: 181 @31423 has 19 MA's), (Start: 222 @31534 has 1 MA's), (227, 31543), (256, 31606), (262, 31630), (265, 31639), (323, 31789), (325, 31798), (376, 31954), (379, 31960), (389, 31987), (410, 32047), (486, 32221), (491, 32236), (551, 32344), (640, 32527), (777, 32791), (785, 32806), (787, 32809),

Gene: SororFago\_38 Start: 28571, Stop: 26961, Start Num: 171

Candidate Starts for SororFago\_38:

(57, 28712), (68, 28688), (Start: 91 @28649 has 1 MA's), (Start: 162 @28580 has 16 MA's), (Start: 171 @28571 has 112 MA's), (Start: 234 @28421 has 1 MA's), (269, 28316), (294, 28250), (297, 28244), (321, 28178), (322, 28169), (328, 28148), (387, 27977), (396, 27953), (402, 27932), (404, 27926), (415, 27896), (447, 27830), (448, 27824), (462, 27782), (471, 27764), (479, 27740), (498, 27683), (542, 27593), (615, 27479), (621, 27470), (637, 27428), (655, 27386), (672, 27347), (696, 27299),

(731, 27230), (763, 27167), (770, 27146), (774, 27137), (788, 27113), (832, 27050), (846, 27011),

Gene: Sorpresa\_37 Start: 29408, Stop: 30991, Start Num: 98

Candidate Starts for Sorpresa\_37:

(Start: 98 @29408 has 29 MA's), (Start: 102 @29414 has 3 MA's), (Start: 107 @29420 has 10 MA's), (Start: 109 @29423 has 10 MA's), (Start: 119 @29438 has 12 MA's), (Start: 187 @29489 has 221 MA's), (262, 29708), (264, 29714), (269, 29735), (326, 29864), (329, 29873), (331, 29882), (366, 29990), (384, 30023), (391, 30047), (404, 30089), (457, 30218), (480, 30278), (500, 30335), (512, 30362), (525, 30389), (526, 30392), (533, 30404), (580, 30473), (608, 30512), (622, 30545), (655, 30626), (660, 30641), (710, 30746), (766, 30860), (828, 30959), (840, 30983),

Gene: Soshari\_38 Start: 27305, Stop: 25737, Start Num: 171

Candidate Starts for Soshari\_38:

(64, 27455), (70, 27440), (139, 27341), (Start: 171 @27305 has 112 MA's), (269, 27050), (276, 27026), (300, 26966), (320, 26918), (321, 26915), (347, 26828), (353, 26816), (358, 26795), (364, 26771), (391, 26702), (415, 26633), (417, 26624), (462, 26519), (471, 26474), (521, 26342), (567, 26258), (606, 26201), (696, 25994), (765, 25853),

Gene: South40\_50 Start: 36352, Stop: 37929, Start Num: 89

Candidate Starts for South40\_50:

(Start: 55 @36286 has 7 MA's), (Start: 82 @36343 has 5 MA's), (Start: 89 @36352 has 25 MA's), (Start: 197 @36472 has 3 MA's), (Start: 234 @36589 has 1 MA's), (255, 36640), (277, 36721), (278, 36724), (321, 36796), (322, 36805), (323, 36808), (373, 36961), (379, 36970), (396, 37018), (400, 37030), (408, 37054), (448, 37123), (449, 37126), (497, 37258), (525, 37324), (546, 37354), (611, 37453), (617, 37468), (622, 37477), (628, 37486), (635, 37510), (664, 37582), (759, 37771), (774, 37810), (781, 37825), (786, 37834), (793, 37849),

Gene: SpecialK\_43 Start: 31407, Stop: 32846, Start Num: 181

Candidate Starts for SpecialK\_43:

(Start: 181 @31407 has 19 MA's), (Start: 222 @31518 has 1 MA's), (227, 31527), (256, 31590), (262, 31614), (265, 31623), (323, 31773), (325, 31782), (376, 31938), (379, 31944), (389, 31971), (486, 32205), (551, 32328), (777, 32775), (785, 32790), (787, 32793),

Gene: Speedwell\_55 Start: 37976, Stop: 39418, Start Num: 172

Candidate Starts for Speedwell\_55:

(Start: 172 @37976 has 1 MA's), (Start: 206 @38051 has 9 MA's), (223, 38105), (253, 38186), (307, 38321), (325, 38372), (339, 38420), (346, 38435), (369, 38501), (371, 38504), (380, 38507), (407, 38582), (448, 38651), (460, 38687), (487, 38744), (489, 38750), (508, 38801), (547, 38867), (582, 38921), (609, 38972), (622, 39002), (648, 39062), (688, 39152), (742, 39260), (744, 39266), (798, 39383), (816, 39407),

Gene: Spike509\_36 Start: 27306, Stop: 25738, Start Num: 171

Candidate Starts for Spike509\_36:

(64, 27456), (70, 27441), (139, 27342), (Start: 171 @27306 has 112 MA's), (269, 27051), (276, 27027), (300, 26967), (320, 26919), (321, 26916), (347, 26829), (353, 26817), (358, 26796), (364, 26772), (391, 26703), (415, 26634), (417, 26625), (462, 26520), (471, 26475), (521, 26343), (567, 26259), (606, 26202), (696, 25995), (765, 25854),

Gene: SpikeBT\_39 Start: 30421, Stop: 31968, Start Num: 130

Candidate Starts for SpikeBT\_39:

(Start: 130 @30421 has 3 MA's), (Start: 187 @30466 has 221 MA's), (Start: 200 @30499 has 1 MA's), (262, 30685), (264, 30691), (269, 30712), (326, 30841), (329, 30850), (331, 30859), (366, 30967), (379, 30988), (384, 31000), (391, 31024), (404, 31066), (457, 31195), (480, 31255), (500, 31312),

(512, 31339), (525, 31366), (526, 31369), (533, 31381), (580, 31450), (608, 31489), (622, 31522), (655, 31603), (660, 31618), (766, 31837), (771, 31849), (828, 31936), (840, 31960),

Gene: Spino\_33 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for Spino\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Squee\_38 Start: 30273, Stop: 31787, Start Num: 187

Candidate Starts for Squee\_38:

(Start: 98 @30192 has 29 MA's), (Start: 102 @30198 has 3 MA's), (Start: 107 @30204 has 10 MA's), (Start: 109 @30207 has 10 MA's), (Start: 119 @30222 has 12 MA's), (Start: 187 @30273 has 221 MA's), (264, 30498), (269, 30519), (323, 30636), (326, 30648), (329, 30657), (331, 30666), (366, 30774), (379, 30795), (384, 30807), (391, 30831), (404, 30873), (457, 31002), (480, 31062), (500, 31119), (525, 31173), (533, 31188), (608, 31296), (622, 31329), (625, 31332), (655, 31410), (660, 31425), (663, 31431), (766, 31644), (771, 31656),

Gene: StCroix\_29 Start: 23649, Stop: 22141, Start Num: 165

Candidate Starts for StCroix\_29:

(Start: 165 @23649 has 35 MA's), (Start: 187 @23628 has 221 MA's), (Start: 190 @23622 has 3 MA's), (Start: 234 @23493 has 1 MA's), (252, 23445), (278, 23358), (329, 23253), (364, 23142), (389, 23082), (392, 23070), (414, 23007), (429, 22977), (443, 22944), (452, 22923), (461, 22893), (469, 22878), (471, 22872), (485, 22824), (497, 22791), (521, 22734), (546, 22695), (548, 22689), (634, 22539), (714, 22368), (836, 22152),

Gene: Stasia\_34 Start: 27079, Stop: 25547, Start Num: 171

Candidate Starts for Stasia\_34:

(108, 27148), (Start: 134 @27121 has 1 MA's), (Start: 162 @27088 has 16 MA's), (Start: 171 @27079 has 112 MA's), (239, 26917), (262, 26851), (268, 26833), (294, 26758), (320, 26695), (321, 26692), (360, 26563), (391, 26479), (415, 26410), (445, 26347), (448, 26338), (462, 26296), (480, 26239), (498, 26185), (521, 26134), (564, 26053), (566, 26041), (603, 25987), (607, 25978), (637, 25903), (639, 25897), (696, 25774), (714, 25735), (794, 25585),

Gene: SteMason\_33 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for SteMason\_33:

(Start: 134 @26679 has 1 MA's), (139, 26673), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Stephig9\_30 Start: 24993, Stop: 23491, Start Num: 171

Candidate Starts for Stephig9\_30:

(Start: 109 @25062 has 10 MA's), (Start: 134 @25035 has 1 MA's), (139, 25029), (Start: 171 @24993 has 112 MA's), (Start: 234 @24843 has 1 MA's), (269, 24738), (294, 24672), (300, 24654), (320, 24612), (321, 24609), (347, 24522), (391, 24396), (423, 24303), (448, 24255), (462, 24213), (481, 24153), (521, 24051), (633, 23844), (677, 23739), (696, 23703), (714, 23664), (763, 23580), (788, 23532),

Gene: Stink\_34 Start: 27306, Stop: 25744, Start Num: 119

Candidate Starts for Stink\_34:

(Start: 119 @27306 has 12 MA's), (Start: 176 @27249 has 15 MA's), (Start: 187 @27240 has 221 MA's), (Start: 197 @27222 has 3 MA's), (212, 27165), (229, 27117), (Start: 234 @27105 has 1 MA's), (274, 26979), (283, 26958), (285, 26955), (299, 26928), (322, 26889), (363, 26760), (387, 26700), (461, 26508), (525, 26346), (629, 26151), (637, 26124), (659, 26070), (663, 26061), (768, 25851), (776, 25833), (791, 25821), (796, 25812), (809, 25794),

Gene: StrongArm\_36 Start: 30501, Stop: 32003, Start Num: 187

Candidate Starts for StrongArm\_36:

(Start: 98 @30420 has 29 MA's), (Start: 102 @30426 has 3 MA's), (Start: 107 @30432 has 10 MA's), (Start: 109 @30435 has 10 MA's), (Start: 119 @30450 has 12 MA's), (Start: 187 @30501 has 221 MA's), (264, 30726), (323, 30864), (326, 30876), (329, 30885), (331, 30894), (366, 31002), (379, 31023), (384, 31035), (391, 31059), (404, 31101), (453, 31215), (457, 31230), (480, 31290), (500, 31347), (512, 31374), (525, 31401), (526, 31404), (533, 31416), (608, 31524), (622, 31557), (655, 31638), (660, 31653), (766, 31872), (828, 31971), (840, 31995),

Gene: Stuu\_43 Start: 31520, Stop: 32959, Start Num: 181

Candidate Starts for Stuu\_43:

(Start: 181 @31520 has 19 MA's), (Start: 222 @31631 has 1 MA's), (227, 31640), (256, 31703), (262, 31727), (265, 31736), (323, 31886), (325, 31895), (379, 32057), (389, 32084), (486, 32318), (491, 32333), (551, 32441), (681, 32711), (777, 32888), (785, 32903), (787, 32906),

Gene: SuMoo\_64 Start: 40543, Stop: 42009, Start Num: 183

Candidate Starts for SuMoo\_64:

(Start: 183 @40543 has 12 MA's), (253, 40735), (322, 40906), (325, 40918), (448, 41191), (452, 41200), (621, 41539), (672, 41653), (748, 41803), (820, 41917),

Gene: Subaru\_49 Start: 35958, Stop: 37379, Start Num: 180

Candidate Starts for Subaru\_49:

(Start: 163 @35940 has 10 MA's), (177, 35955), (Start: 180 @35958 has 37 MA's), (Start: 187 @35967 has 221 MA's), (225, 36081), (Start: 234 @36105 has 1 MA's), (264, 36189), (271, 36222), (277, 36237), (317, 36300), (323, 36312), (325, 36321), (358, 36420), (370, 36462), (391, 36513), (404, 36552), (453, 36630), (461, 36657), (629, 37017), (630, 37026), (634, 37035), (638, 37047), (729, 37218), (776, 37305),

Gene: Sudan\_51 Start: 36704, Stop: 38122, Start Num: 179

Candidate Starts for Sudan\_51:

(156, 36680), (Start: 179 @36704 has 5 MA's), (198, 36734), (Start: 220 @36815 has 1 MA's), (256, 36899), (261, 36917), (268, 36941), (269, 36950), (271, 36962), (281, 36989), (307, 37022), (322, 37061), (323, 37064), (329, 37085), (380, 37211), (401, 37274), (454, 37400), (471, 37445), (511, 37538), (563, 37622), (602, 37679), (608, 37691), (613, 37706), (652, 37790), (659, 37811), (688, 37847), (705, 37880), (744, 37958), (768, 38021), (777, 38039), (801, 38075),

Gene: Sujidade\_50 Start: 35406, Stop: 36983, Start Num: 89

Candidate Starts for Sujidade\_50:

(Start: 55 @35340 has 7 MA's), (Start: 89 @35406 has 25 MA's), (Start: 197 @35526 has 3 MA's), (227, 35625), (Start: 234 @35643 has 1 MA's), (255, 35694), (277, 35775), (278, 35778), (321, 35850), (322, 35859), (323, 35862), (373, 36015), (396, 36072), (398, 36075), (400, 36084), (497, 36312), (525, 36378), (546, 36408), (611, 36507), (622, 36531), (628, 36540), (635, 36564), (664, 36636), (759, 36825), (774, 36864), (786, 36888), (793, 36903), (804, 36918),

Gene: Sultana\_33 Start: 26638, Stop: 25124, Start Num: 171

Candidate Starts for Sultana\_33:

(Start: 134 @26680 has 1 MA's), (Start: 162 @26647 has 16 MA's), (Start: 171 @26638 has 112 MA's), (239, 26476), (262, 26410), (268, 26392), (294, 26317), (305, 26293), (320, 26254), (321, 26251), (347, 26164), (387, 26050), (391, 26038), (462, 25855), (498, 25744), (521, 25693), (603, 25564), (607, 25555), (637, 25480), (639, 25474), (696, 25351), (714, 25312), (794, 25162), (805, 25147),

Gene: Sumter\_36 Start: 29449, Stop: 30951, Start Num: 187

Candidate Starts for Sumter\_36:

(Start: 98 @29368 has 29 MA's), (Start: 102 @29374 has 3 MA's), (Start: 107 @29380 has 10 MA's), (Start: 109 @29383 has 10 MA's), (Start: 119 @29398 has 12 MA's), (Start: 187 @29449 has 221 MA's), (262, 29668), (264, 29674), (326, 29824), (329, 29833), (331, 29842), (366, 29950), (379, 29971), (384, 29983), (391, 30007), (404, 30049), (457, 30178), (480, 30238), (500, 30295), (512, 30322), (525, 30349), (526, 30352), (533, 30364), (608, 30472), (622, 30505), (655, 30586), (660, 30601), (710, 30706), (766, 30820), (828, 30919), (840, 30943),

Gene: SunkenRoot\_52 Start: 37385, Stop: 38797, Start Num: 179

Candidate Starts for SunkenRoot\_52:

(Start: 179 @37385 has 5 MA's), (198, 37415), (Start: 224 @37505 has 1 MA's), (253, 37571), (256, 37580), (261, 37598), (263, 37607), (268, 37622), (269, 37631), (271, 37643), (281, 37670), (301, 37694), (307, 37703), (322, 37742), (323, 37745), (329, 37766), (380, 37892), (381, 37895), (401, 37955), (448, 38066), (454, 38081), (471, 38126), (511, 38219), (543, 38273), (554, 38288), (563, 38303), (608, 38372), (613, 38387), (641, 38450), (688, 38528), (705, 38561), (710, 38576), (768, 38702), (777, 38720), (801, 38756), (816, 38777),

Gene: SunsetPointe\_48 Start: 34190, Stop: 35512, Start Num: 191

Candidate Starts for SunsetPointe\_48:

(Start: 183 @34178 has 12 MA's), (Start: 191 @34190 has 17 MA's), (198, 34205), (Start: 222 @34292 has 1 MA's), (Start: 224 @34295 has 1 MA's), (237, 34319), (253, 34361), (256, 34370), (268, 34412), (269, 34421), (271, 34433), (321, 34523), (322, 34532), (329, 34556), (369, 34676), (380, 34682), (426, 34772), (448, 34787), (452, 34796), (462, 34829), (511, 34940), (513, 34946), (543, 34994), (554, 35009), (563, 35024), (603, 35084), (608, 35093), (613, 35108), (650, 35189), (670, 35219), (688, 35249), (710, 35297), (749, 35375), (768, 35423), (774, 35432), (789, 35459), (816, 35498),

Gene: Sunshine924\_39 Start: 29417, Stop: 30931, Start Num: 187

Candidate Starts for Sunshine924\_39:

(Start: 130 @29372 has 3 MA's), (Start: 187 @29417 has 221 MA's), (Start: 195 @29432 has 10 MA's), (198, 29441), (227, 29534), (262, 29636), (264, 29642), (269, 29663), (278, 29693), (323, 29780), (326, 29792), (329, 29801), (331, 29810), (366, 29918), (379, 29939), (384, 29951), (391, 29975), (404, 30017), (457, 30146), (480, 30206), (500, 30263), (525, 30317), (526, 30320), (533, 30332), (606, 30434), (608, 30440), (622, 30473), (639, 30518), (655, 30554), (660, 30569), (766, 30788),

Gene: SuperHands\_58 Start: 39474, Stop: 40961, Start Num: 183

Candidate Starts for SuperHands\_58:

(62, 39306), (Start: 183 @39474 has 12 MA's), (Start: 206 @39537 has 9 MA's), (215, 39567), (253, 39666), (254, 39669), (264, 39705), (322, 39837), (325, 39849), (329, 39861), (369, 39978), (396, 40029), (405, 40059), (452, 40131), (500, 40248), (532, 40308), (543, 40320), (621, 40473), (648, 40533), (664, 40575), (672, 40587), (745, 40728), (758, 40758), (761, 40764), (777, 40806), (789, 40824), (849, 40956),

Gene: Swann\_29 Start: 23636, Stop: 22140, Start Num: 165

Candidate Starts for Swann\_29:

(Start: 165 @23636 has 35 MA's), (Start: 187 @23615 has 221 MA's), (Start: 190 @23609 has 3 MA's), (Start: 234 @23480 has 1 MA's), (252, 23432), (329, 23240), (364, 23129), (389, 23069), (392, 23057), (414, 22994), (429, 22964), (443, 22931), (452, 22910), (461, 22880), (469, 22865), (471, 22859), (485, 22811), (497, 22778), (521, 22721), (546, 22682), (548, 22676), (611, 22580), (628, 22547), (634, 22526), (637, 22517), (714, 22355),

Gene: Swirley\_30 Start: 25753, Stop: 24260, Start Num: 187

Candidate Starts for Swirley\_30:

(Start: 187 @25753 has 221 MA's), (Start: 200 @25720 has 1 MA's), (Start: 201 @25717 has 3 MA's), (Start: 206 @25699 has 9 MA's), (Start: 234 @25618 has 1 MA's), (281, 25474), (294, 25447), (323, 25399), (379, 25234), (387, 25210), (389, 25207), (396, 25186), (471, 24997), (525, 24856), (546, 24826), (633, 24649), (637, 24637), (673, 24553), (680, 24538), (692, 24523), (776, 24346), (806, 24316), (829, 24283),

Gene: SwissCheese\_39 Start: 30120, Stop: 31622, Start Num: 187

Candidate Starts for SwissCheese\_39:

(Start: 98 @30039 has 29 MA's), (Start: 102 @30045 has 3 MA's), (Start: 107 @30051 has 10 MA's), (Start: 109 @30054 has 10 MA's), (Start: 119 @30069 has 12 MA's), (Start: 187 @30120 has 221 MA's), (Start: 195 @30135 has 10 MA's), (198, 30144), (262, 30339), (264, 30345), (268, 30357), (269, 30366), (326, 30495), (329, 30504), (331, 30513), (366, 30621), (379, 30642), (384, 30654), (391, 30678), (457, 30849), (480, 30909), (500, 30966), (525, 31020), (526, 31023), (533, 31035), (608, 31143), (622, 31176), (637, 31215), (655, 31257), (660, 31272), (766, 31491), (828, 31590), (840, 31614),

Gene: Switzer\_38 Start: 29527, Stop: 31029, Start Num: 187

Candidate Starts for Switzer\_38:

(Start: 98 @29446 has 29 MA's), (Start: 102 @29452 has 3 MA's), (Start: 107 @29458 has 10 MA's), (Start: 109 @29461 has 10 MA's), (Start: 119 @29476 has 12 MA's), (Start: 187 @29527 has 221 MA's), (264, 29752), (326, 29902), (329, 29911), (331, 29920), (366, 30028), (379, 30049), (384, 30061), (391, 30085), (404, 30127), (457, 30256), (480, 30316), (500, 30373), (512, 30400), (525, 30427), (533, 30442), (608, 30550), (622, 30583), (655, 30664), (660, 30679), (710, 30784), (766, 30898), (828, 30997), (840, 31021),

Gene: Swole\_39 Start: 29499, Stop: 31001, Start Num: 187

Candidate Starts for Swole\_39:

(Start: 98 @29418 has 29 MA's), (Start: 102 @29424 has 3 MA's), (Start: 107 @29430 has 10 MA's), (Start: 109 @29433 has 10 MA's), (Start: 119 @29448 has 12 MA's), (Start: 187 @29499 has 221 MA's), (Start: 195 @29514 has 10 MA's), (262, 29718), (264, 29724), (269, 29745), (279, 29778), (326, 29874), (329, 29883), (331, 29892), (364, 29994), (366, 30000), (379, 30021), (384, 30033), (391, 30057), (404, 30099), (457, 30228), (480, 30288), (500, 30345), (512, 30372), (525, 30399), (526, 30402), (533, 30414), (606, 30516), (608, 30522), (622, 30555), (625, 30558), (655, 30636), (660, 30651), (668, 30666), (710, 30756), (766, 30870), (828, 30969), (840, 30993),

Gene: SydNat\_30 Start: 26035, Stop: 24545, Start Num: 187

Candidate Starts for SydNat\_30:

(Start: 187 @26035 has 221 MA's), (Start: 200 @26002 has 1 MA's), (Start: 201 @25999 has 3 MA's), (Start: 206 @25981 has 9 MA's), (Start: 234 @25900 has 1 MA's), (273, 25780), (281, 25756), (294, 25729), (323, 25681), (379, 25519), (387, 25495), (389, 25492), (396, 25471), (415, 25414), (471, 25282), (525, 25141), (546, 25111), (614, 24976), (633, 24934), (637, 24922), (673, 24838), (680, 24823), (692, 24808), (776, 24631), (806, 24601),

Gene: TG1\_51 Start: 37133, Stop: 39013, Start Num: 147

Candidate Starts for TG1\_51:

(Start: 147 @37133 has 1 MA's), (152, 37139), (Start: 164 @37154 has 4 MA's), (226, 37295), (254, 37376), (256, 37382), (261, 37400), (262, 37406), (284, 37478), (290, 37493), (298, 37508), (310, 37538), (311, 37541), (318, 37562), (328, 37610), (333, 37628), (354, 37691), (365, 37742), (414, 37913), (438, 37976), (459, 38036), (476, 38099), (515, 38228), (540, 38297), (585, 38396), (615, 38498), (635, 38546), (643, 38570), (653, 38591), (676, 38648), (697, 38696), (722, 38747), (774, 38858), (780, 38873), (816, 38933),

Gene: TWAMP\_29 Start: 23636, Stop: 22140, Start Num: 165

Candidate Starts for TWAMP\_29:

(Start: 165 @23636 has 35 MA's), (Start: 187 @23615 has 221 MA's), (Start: 190 @23609 has 3 MA's), (Start: 234 @23480 has 1 MA's), (252, 23432), (329, 23240), (364, 23129), (389, 23069), (392, 23057), (414, 22994), (429, 22964), (443, 22931), (452, 22910), (461, 22880), (469, 22865), (471, 22859), (485, 22811), (497, 22778), (521, 22721), (546, 22682), (548, 22676), (611, 22580), (628, 22547), (634, 22526), (637, 22517), (714, 22355),

Gene: TagePighter\_52 Start: 36182, Stop: 37795, Start Num: 89

Candidate Starts for TagePighter\_52:

(Start: 55 @36116 has 7 MA's), (Start: 82 @36173 has 5 MA's), (Start: 89 @36182 has 25 MA's), (Start: 197 @36329 has 3 MA's), (227, 36428), (Start: 234 @36446 has 1 MA's), (255, 36497), (277, 36578), (278, 36581), (321, 36653), (322, 36662), (323, 36665), (362, 36791), (373, 36818), (400, 36887), (415, 36932), (454, 37001), (462, 37028), (481, 37076), (497, 37124), (513, 37163), (525, 37190), (546, 37220), (622, 37343), (646, 37403), (664, 37448), (729, 37577), (754, 37628), (759, 37637), (774, 37676), (786, 37700), (793, 37715), (804, 37730), (815, 37745),

Gene: Tailonex\_27 Start: 24965, Stop: 23526, Start Num: 187

Candidate Starts for Tailonex\_27:

(Start: 187 @24965 has 221 MA's), (225, 24854), (258, 24767), (322, 24614), (457, 24260), (489, 24170), (521, 24098), (546, 24059), (562, 24038), (570, 24026), (572, 24023), (614, 23951), (615, 23948), (634, 23906), (731, 23711), (746, 23684), (764, 23645), (811, 23570), (836, 23534),

Gene: Takoda\_29 Start: 23587, Stop: 22100, Start Num: 187

Candidate Starts for Takoda\_29:

(Start: 165 @23608 has 35 MA's), (Start: 187 @23587 has 221 MA's), (Start: 190 @23581 has 3 MA's), (Start: 234 @23452 has 1 MA's), (252, 23404), (278, 23317), (329, 23212), (364, 23101), (389, 23041), (392, 23029), (429, 22936), (443, 22903), (452, 22882), (461, 22852), (469, 22837), (471, 22831), (485, 22783), (497, 22750), (521, 22693), (546, 22654), (548, 22648), (634, 22498), (702, 22357), (714, 22327), (775, 22201), (819, 22135),

Gene: Tallboi\_49 Start: 36309, Stop: 37727, Start Num: 180

Candidate Starts for Tallboi\_49:

(Start: 163 @36291 has 10 MA's), (177, 36306), (Start: 180 @36309 has 37 MA's), (Start: 187 @36318 has 221 MA's), (225, 36432), (264, 36540), (271, 36573), (277, 36588), (317, 36651), (323, 36663), (325, 36672), (354, 36750), (358, 36771), (370, 36813), (389, 36855), (391, 36864), (404, 36903), (453, 36981), (493, 37083), (629, 37365), (634, 37383), (638, 37395), (729, 37566),

Gene: Taquarus\_33 Start: 26640, Stop: 25126, Start Num: 171

Candidate Starts for Taquarus\_33:

(Start: 134 @26682 has 1 MA's), (Start: 162 @26649 has 16 MA's), (Start: 171 @26640 has 112 MA's), (239, 26478), (262, 26412), (268, 26394), (294, 26319), (305, 26295), (320, 26256), (321, 26253), (347, 26166), (387, 26052), (391, 26040), (462, 25857), (498, 25746), (521, 25695), (603, 25566), (607, 25557), (637, 25482), (639, 25476), (696, 25353), (714, 25314), (794, 25164), (805, 25149),

Gene: Tarynearal\_29 Start: 25775, Stop: 24282, Start Num: 187

Candidate Starts for Tarynearal\_29:

(Start: 187 @25775 has 221 MA's), (Start: 200 @25742 has 1 MA's), (Start: 201 @25739 has 3 MA's), (Start: 206 @25721 has 9 MA's), (Start: 234 @25640 has 1 MA's), (281, 25496), (294, 25469), (323, 25421), (379, 25256), (387, 25232), (389, 25229), (396, 25208), (471, 25019), (525, 24878), (546, 24848), (633, 24671), (637, 24659), (673, 24575), (680, 24560), (692, 24545), (776, 24368), (806, 24338), (829, 24305),

Gene: Tasp14\_38 Start: 29595, Stop: 31166, Start Num: 107

Candidate Starts for Tasp14\_38:

(Start: 98 @29583 has 29 MA's), (Start: 102 @29589 has 3 MA's), (Start: 107 @29595 has 10 MA's), (Start: 109 @29598 has 10 MA's), (Start: 119 @29613 has 12 MA's), (Start: 187 @29664 has 221 MA's), (Start: 195 @29679 has 10 MA's), (198, 29688), (264, 29889), (326, 30039), (329, 30048), (331, 30057), (362, 30153), (366, 30165), (379, 30186), (384, 30198), (391, 30222), (404, 30264), (457, 30393), (480, 30453), (500, 30510), (525, 30564), (533, 30579), (608, 30687), (622, 30720), (655, 30801), (660, 30816), (710, 30921), (766, 31035), (828, 31134), (840, 31158),

Gene: Tbone\_50 Start: 35812, Stop: 37287, Start Num: 176

Candidate Starts for Tbone\_50:

(Start: 168 @35803 has 2 MA's), (Start: 176 @35812 has 15 MA's), (229, 35941), (309, 36133), (339, 36238), (359, 36298), (414, 36457), (461, 36586), (486, 36637), (559, 36778), (669, 37015),

Gene: Teodoridan\_35 Start: 28860, Stop: 30437, Start Num: 109

Candidate Starts for Teodoridan\_35:

(Start: 98 @28845 has 29 MA's), (Start: 102 @28851 has 3 MA's), (Start: 107 @28857 has 10 MA's), (Start: 109 @28860 has 10 MA's), (Start: 119 @28875 has 12 MA's), (Start: 187 @28926 has 221 MA's), (262, 29145), (264, 29151), (269, 29172), (326, 29301), (329, 29310), (331, 29319), (366, 29427), (379, 29448), (384, 29460), (391, 29484), (404, 29526), (457, 29655), (480, 29715), (500, 29772), (525, 29826), (533, 29841), (606, 29940), (655, 30060), (660, 30075), (710, 30180), (766, 30294),

Gene: Texage\_33 Start: 27224, Stop: 25722, Start Num: 190

Candidate Starts for Texage\_33:

(Start: 175 @27245 has 3 MA's), (Start: 187 @27230 has 221 MA's), (Start: 190 @27224 has 3 MA's), (Start: 191 @27221 has 17 MA's), (249, 27053), (252, 27047), (293, 26930), (325, 26870), (362, 26753), (379, 26714), (389, 26687), (392, 26675), (437, 26540), (492, 26387), (532, 26297), (557, 26258), (614, 26168), (633, 26126), (637, 26114), (656, 26069), (664, 26048), (771, 25835), (785, 25814),

Gene: TforTroy\_50 Start: 35647, Stop: 37065, Start Num: 180

Candidate Starts for TforTroy\_50:

(Start: 163 @35629 has 10 MA's), (177, 35644), (Start: 180 @35647 has 37 MA's), (Start: 187 @35656 has 221 MA's), (Start: 234 @35794 has 1 MA's), (264, 35878), (317, 35989), (323, 36001), (325, 36010), (354, 36088), (358, 36109), (370, 36151), (391, 36202), (404, 36241), (603, 36646), (629, 36703), (634, 36721), (638, 36733), (731, 36907),

Gene: Thanksgivukkah\_33 Start: 26638, Stop: 25124, Start Num: 171

Candidate Starts for Thanksgivukkah\_33:

(Start: 134 @26680 has 1 MA's), (Start: 162 @26647 has 16 MA's), (Start: 171 @26638 has 112 MA's), (239, 26476), (262, 26410), (268, 26392), (294, 26317), (305, 26293), (320, 26254), (321, 26251), (347, 26164), (387, 26050), (391, 26038), (462, 25855), (498, 25744), (521, 25693), (603, 25564), (607, 25555), (637, 25480), (639, 25474), (696, 25351), (714, 25312), (794, 25162), (805, 25147),

Gene: Theia\_28 Start: 25799, Stop: 24306, Start Num: 187

Candidate Starts for Theia\_28:

(Start: 187 @25799 has 221 MA's), (Start: 200 @25766 has 1 MA's), (Start: 201 @25763 has 3 MA's), (Start: 206 @25745 has 9 MA's), (Start: 234 @25664 has 1 MA's), (281, 25520), (294, 25493), (323, 25445), (379, 25280), (387, 25256), (389, 25253), (396, 25232), (471, 25043), (525, 24902), (546, 24872), (633, 24695), (637, 24683), (673, 24599), (680, 24584), (692, 24569), (776, 24392), (806, 24362), (829, 24329),

Gene: TheloniousMonk\_39 Start: 31068, Stop: 32570, Start Num: 187

Candidate Starts for TheloniousMonk\_39:

(Start: 98 @30987 has 29 MA's), (Start: 102 @30993 has 3 MA's), (Start: 107 @30999 has 10 MA's), (Start: 109 @31002 has 10 MA's), (Start: 119 @31017 has 12 MA's), (Start: 187 @31068 has 221 MA's), (Start: 195 @31083 has 10 MA's), (264, 31293), (326, 31443), (329, 31452), (331, 31461), (366, 31569), (379, 31590), (384, 31602), (391, 31626), (404, 31668), (457, 31797), (480, 31857), (500, 31914), (512, 31941), (525, 31968), (533, 31983), (580, 32052), (608, 32091), (622, 32124), (655, 32205), (660, 32220), (766, 32439), (828, 32538), (840, 32562),

Gene: Thestral\_55 Start: 38547, Stop: 39968, Start Num: 163

Candidate Starts for Thestral\_55:

(Start: 102 @38466 has 3 MA's), (Start: 109 @38475 has 10 MA's), (Start: 116 @38487 has 3 MA's), (Start: 157 @38538 has 5 MA's), (Start: 163 @38547 has 10 MA's), (264, 38784), (326, 38922), (369, 39051), (395, 39099), (448, 39210), (452, 39219), (460, 39246), (470, 39267), (471, 39270), (489, 39309), (494, 39324), (578, 39468), (609, 39525), (621, 39552), (674, 39669), (695, 39705), (720, 39759), (721, 39762), (741, 39795), (768, 39861), (807, 39918), (834, 39957),

Gene: Thor\_37 Start: 28976, Stop: 30568, Start Num: 98

Candidate Starts for Thor\_37:

(Start: 98 @28976 has 29 MA's), (Start: 102 @28982 has 3 MA's), (Start: 107 @28988 has 10 MA's), (Start: 109 @28991 has 10 MA's), (Start: 119 @29006 has 12 MA's), (Start: 187 @29057 has 221 MA's), (262, 29276), (264, 29282), (268, 29294), (269, 29303), (326, 29432), (329, 29441), (331, 29450), (366, 29558), (379, 29579), (384, 29591), (391, 29615), (404, 29657), (457, 29786), (480, 29846), (500, 29903), (512, 29930), (525, 29957), (526, 29960), (533, 29972), (606, 30071), (622, 30110), (655, 30191), (660, 30206), (766, 30425),

Gene: ThursdayNight\_52 Start: 36511, Stop: 37926, Start Num: 185

Candidate Starts for ThursdayNight\_52:

(185, 36511), (196, 36526), (253, 36691), (325, 36862), (391, 37030), (452, 37144), (454, 37150), (461, 37174), (475, 37210), (523, 37309), (552, 37348), (557, 37357), (614, 37426), (694, 37591), (742, 37687), (765, 37732), (771, 37750),

Gene: Thyatira\_40 Start: 33664, Stop: 35070, Start Num: 188

Candidate Starts for Thyatira\_40:

(Start: 180 @33655 has 37 MA's), (Start: 188 @33664 has 36 MA's), (227, 33784), (288, 33961), (316, 33985), (328, 34036), (342, 34078), (358, 34126), (364, 34147), (373, 34174), (379, 34183), (389, 34210), (396, 34231), (401, 34249), (411, 34276), (443, 34321), (454, 34327), (497, 34432), (533, 34498), (543, 34507), (555, 34528), (568, 34546), (622, 34654), (627, 34663), (629, 34666), (664, 34762), (672, 34774), (691, 34810), (727, 34882), (732, 34891), (755, 34942), (774, 34981), (780, 34993), (788, 35002), (813, 35032), (824, 35047),

Gene: Tian\_50 Start: 37772, Stop: 39232, Start Num: 181

Candidate Starts for Tian\_50:

(Start: 170 @37763 has 8 MA's), (Start: 181 @37772 has 19 MA's), (256, 37958), (265, 37991), (322, 38129), (325, 38141), (358, 38240), (376, 38291), (410, 38384), (556, 38717), (669, 38960), (817, 39218),

Gene: Tiger\_30 Start: 25677, Stop: 24184, Start Num: 187

Candidate Starts for Tiger\_30:

(Start: 187 @25677 has 221 MA's), (Start: 200 @25644 has 1 MA's), (Start: 201 @25641 has 3 MA's), (Start: 206 @25623 has 9 MA's), (Start: 234 @25542 has 1 MA's), (281, 25398), (294, 25371), (323, 25323), (379, 25158), (387, 25134), (389, 25131), (396, 25110), (471, 24921), (546, 24750), (614, 24615), (633, 24573), (637, 24561), (673, 24477), (680, 24462), (692, 24447), (776, 24270), (806, 24240), (829, 24207),

Gene: Timshel\_34 Start: 29292, Stop: 27832, Start Num: 187

Candidate Starts for Timshel\_34:

(14, 29691), (31, 29562), (73, 29445), (146, 29340), (159, 29325), (Start: 187 @29292 has 221 MA's), (Start: 190 @29286 has 3 MA's), (Start: 197 @29274 has 3 MA's), (198, 29268), (231, 29163), (Start: 234 @29157 has 1 MA's), (247, 29121), (279, 29019), (294, 28986), (321, 28950), (329, 28917), (392, 28737), (453, 28587), (470, 28542), (525, 28398), (556, 28350), (614, 28269), (621, 28257), (625, 28251), (637, 28215), (659, 28161), (673, 28131), (836, 27843),

Gene: TinaBelcher\_53 Start: 38486, Stop: 39916, Start Num: 157

Candidate Starts for TinaBelcher\_53:

(Start: 102 @38414 has 3 MA's), (Start: 109 @38423 has 10 MA's), (Start: 116 @38435 has 3 MA's), (Start: 157 @38486 has 5 MA's), (Start: 163 @38495 has 10 MA's), (264, 38732), (326, 38870), (369, 38999), (395, 39047), (448, 39158), (452, 39167), (460, 39194), (470, 39215), (471, 39218), (489, 39257), (494, 39272), (578, 39416), (609, 39473), (621, 39500), (674, 39617), (695, 39653), (720, 39707), (721, 39710), (741, 39743), (768, 39809), (807, 39866), (834, 39905),

Gene: TingHuaYa\_41 Start: 31113, Stop: 32525, Start Num: 178

Candidate Starts for TingHuaYa\_41:

(Start: 170 @31104 has 8 MA's), (Start: 178 @31113 has 1 MA's), (Start: 191 @31134 has 17 MA's), (213, 31206), (236, 31263), (253, 31305), (254, 31308), (262, 31338), (264, 31344), (287, 31416), (340, 31539), (369, 31617), (387, 31644), (389, 31647), (404, 31695), (421, 31722), (448, 31764), (452, 31773), (460, 31800), (485, 31848), (499, 31884), (503, 31893), (510, 31911), (544, 31965), (549, 31977), (572, 32007), (603, 32067), (613, 32094), (615, 32100), (621, 32109), (622, 32112), (629, 32124), (634, 32142), (700, 32274), (707, 32289), (755, 32391), (777, 32436), (778, 32439), (814, 32490), (831, 32514), (833, 32520),

Gene: TinyDot\_31 Start: 24778, Stop: 26145, Start Num: 188

Candidate Starts for TinyDot\_31:

(Start: 188 @24778 has 36 MA's), (215, 24865), (288, 25075), (414, 25399), (543, 25633), (561, 25648), (750, 26017),

Gene: TinyPebbles\_36 Start: 27311, Stop: 25743, Start Num: 171

Candidate Starts for TinyPebbles\_36:

(64, 27461), (70, 27446), (139, 27347), (Start: 171 @27311 has 112 MA's), (269, 27056), (276, 27032), (300, 26972), (320, 26924), (321, 26921), (347, 26834), (353, 26822), (358, 26801), (364, 26777), (391, 26708), (415, 26639), (417, 26630), (462, 26525), (471, 26480), (521, 26348), (567, 26264), (606, 26207), (696, 26000), (765, 25859),

Gene: Tinybot\_32 Start: 26607, Stop: 25129, Start Num: 197

Candidate Starts for Tinybot\_32:

(80, 26739), (Start: 119 @26691 has 12 MA's), (Start: 176 @26634 has 15 MA's), (Start: 187 @26625 has 221 MA's), (Start: 197 @26607 has 3 MA's), (212, 26550), (217, 26532), (229, 26502), (Start: 234 @26490 has 1 MA's), (274, 26364), (283, 26343), (299, 26313), (322, 26274), (363, 26145), (387, 26085), (405, 26031), (461, 25893), (479, 25848), (569, 25662), (629, 25536), (637, 25509), (659, 25455), (663, 25446), (768, 25236), (776, 25218), (791, 25206), (796, 25197),

Gene: TiroTheta9\_33 Start: 26634, Stop: 25120, Start Num: 171

Candidate Starts for TiroTheta9\_33:

(Start: 134 @26676 has 1 MA's), (Start: 162 @26643 has 16 MA's), (Start: 171 @26634 has 112 MA's), (239, 26472), (262, 26406), (268, 26388), (294, 26313), (305, 26289), (320, 26250), (321, 26247), (347, 26160), (387, 26046), (391, 26034), (462, 25851), (498, 25740), (521, 25689), (603, 25560), (607, 25551), (637, 25476), (639, 25470), (696, 25347), (714, 25308), (794, 25158), (805, 25143),

Gene: Toast\_37 Start: 30300, Stop: 31742, Start Num: 145

Candidate Starts for Toast\_37:

(Start: 145 @30300 has 12 MA's), (Start: 147 @30303 has 1 MA's), (Start: 188 @30351 has 36 MA's), (198, 30375), (Start: 206 @30408 has 9 MA's), (227, 30471), (262, 30564), (288, 30648), (345, 30774), (362, 30828), (396, 30918), (404, 30945), (447, 31023), (470, 31086), (487, 31122), (497, 31149), (522, 31200), (543, 31227), (561, 31242), (615, 31332), (622, 31344), (624, 31347), (682, 31482), (735, 31578), (755, 31623), (759, 31629),

Gene: ToastyFinz\_28 Start: 24644, Stop: 22878, Start Num: 145

Candidate Starts for ToastyFinz\_28:

(Start: 120 @24662 has 1 MA's), (Start: 145 @24644 has 12 MA's), (227, 24473), (250, 24425), (325, 24236), (362, 24119), (391, 24014), (413, 23942), (438, 23885), (468, 23783), (483, 23738), (514, 23654), (532, 23624), (559, 23570), (593, 23489), (667, 23309), (683, 23270), (707, 23225), (720, 23198), (763, 23114), (767, 23099), (795, 23051), (802, 23045), (816, 23024),

Gene: Todacoro\_34 Start: 27223, Stop: 25721, Start Num: 190

Candidate Starts for Todacoro\_34:

(Start: 175 @27244 has 3 MA's), (Start: 187 @27229 has 221 MA's), (Start: 190 @27223 has 3 MA's), (Start: 191 @27220 has 17 MA's), (249, 27052), (252, 27046), (293, 26929), (325, 26869), (362, 26752), (379, 26713), (389, 26686), (392, 26674), (437, 26539), (492, 26386), (532, 26296), (557, 26257), (614, 26167), (633, 26125), (637, 26113), (656, 26068), (664, 26047), (771, 25834), (785, 25813),

Gene: Toma\_50 Start: 35070, Stop: 36713, Start Num: 55

Candidate Starts for Toma\_50:

(Start: 55 @35070 has 7 MA's), (Start: 89 @35136 has 25 MA's), (Start: 197 @35256 has 3 MA's), (227, 35355), (Start: 234 @35373 has 1 MA's), (255, 35424), (277, 35505), (278, 35508), (321, 35580), (322, 35589), (323, 35592), (396, 35802), (398, 35805), (400, 35814), (497, 36042), (525, 36108), (546, 36138), (611, 36237), (622, 36261), (628, 36270), (635, 36294), (664, 36366), (759, 36555), (770, 36585), (774, 36594), (786, 36618), (793, 36633), (804, 36648),

Gene: Topanga\_34 Start: 26894, Stop: 25461, Start Num: 176

Candidate Starts for Topanga\_34:

(Start: 176 @26894 has 15 MA's), (217, 26792), (Start: 234 @26750 has 1 MA's), (278, 26615), (283, 26603), (285, 26600), (323, 26531), (329, 26510), (358, 26423), (359, 26420), (365, 26399), (392, 26330), (479, 26144), (611, 25901), (614, 25892), (637, 25838), (680, 25739), (774, 25553),

Gene: Topgun\_36 Start: 28914, Stop: 30413, Start Num: 187

Candidate Starts for Topgun\_36:

(74, 28800), (84, 28818), (Start: 98 @28833 has 29 MA's), (Start: 102 @28839 has 3 MA's), (Start: 107 @28845 has 10 MA's), (Start: 109 @28848 has 10 MA's), (Start: 119 @28863 has 12 MA's), (Start: 187 @28914 has 221 MA's), (Start: 191 @28923 has 17 MA's), (Start: 195 @28929 has 10 MA's), (198, 28938), (262, 29133), (264, 29139), (269, 29160), (326, 29289), (329, 29298), (331, 29307), (366, 29415), (379, 29436), (384, 29448), (391, 29472), (404, 29514), (457, 29643), (480, 29703), (500, 29760), (512, 29787), (525, 29814), (526, 29817), (533, 29829), (606, 29928), (622, 29967), (625, 29970), (655, 30048), (660, 30063), (766, 30282), (828, 30381), (840, 30405),

Gene: Toro\_35 Start: 28870, Stop: 27362, Start Num: 187

Candidate Starts for Toro\_35:

(Start: 175 @28885 has 3 MA's), (Start: 187 @28870 has 221 MA's), (239, 28723), (293, 28570), (325, 28510), (362, 28393), (379, 28354), (387, 28330), (389, 28327), (392, 28315), (437, 28180), (479, 28069), (485, 28048), (492, 28027), (532, 27937), (556, 27901), (557, 27898), (605, 27832), (614, 27808), (629, 27781), (633, 27766), (637, 27754), (652, 27721), (664, 27688), (764, 27496), (771, 27475), (785, 27454), (819, 27400),

Gene: TpudiCK\_132 Start: 69077, Stop: 67617, Start Num: 140

Candidate Starts for TpudiCK\_132:

(Start: 107 @69119 has 10 MA's), (Start: 133 @69086 has 1 MA's), (Start: 140 @69077 has 21 MA's), (198, 69005), (225, 68924), (245, 68882), (253, 68858), (271, 68786), (322, 68669), (340, 68606), (375, 68522), (381, 68510), (396, 68468), (401, 68450), (485, 68288), (492, 68267), (513, 68216), (532, 68189), (551, 68162), (624, 68042), (695, 67892), (733, 67814), (753, 67769), (778, 67712),

Gene: Traft412\_39 Start: 30521, Stop: 32023, Start Num: 187

Candidate Starts for Traft412\_39:

(Start: 98 @30440 has 29 MA's), (Start: 102 @30446 has 3 MA's), (Start: 107 @30452 has 10 MA's), (Start: 109 @30455 has 10 MA's), (Start: 119 @30470 has 12 MA's), (Start: 187 @30521 has 221 MA's), (Start: 195 @30536 has 10 MA's), (198, 30545), (264, 30746), (269, 30767), (326, 30896), (329, 30905), (331, 30914), (366, 31022), (379, 31043), (384, 31055), (391, 31079), (457, 31250), (480, 31310), (500, 31367), (525, 31421), (526, 31424), (533, 31436), (580, 31505), (608, 31544), (622, 31577), (655, 31658), (660, 31673), (710, 31778), (766, 31892), (828, 31991), (840, 32015),

Gene: Treddle\_39 Start: 30758, Stop: 32260, Start Num: 187

Candidate Starts for Treddle\_39:

(Start: 98 @30677 has 29 MA's), (Start: 102 @30683 has 3 MA's), (Start: 107 @30689 has 10 MA's), (Start: 109 @30692 has 10 MA's), (Start: 119 @30707 has 12 MA's), (Start: 187 @30758 has 221 MA's), (Start: 195 @30773 has 10 MA's), (262, 30977), (264, 30983), (269, 31004), (326, 31133), (329, 31142), (331, 31151), (366, 31259), (379, 31280), (384, 31292), (391, 31316), (404, 31358), (457, 31487), (480, 31547), (500, 31604), (512, 31631), (525, 31658), (533, 31673), (580, 31742), (608, 31781), (622, 31814), (655, 31895), (660, 31910), (710, 32015), (766, 32129), (771, 32141), (828, 32228), (840, 32252),

Gene: Trike\_31 Start: 25248, Stop: 23752, Start Num: 187

Candidate Starts for Trike\_31:

(80, 25362), (Start: 119 @25314 has 12 MA's), (174, 25260), (Start: 187 @25248 has 221 MA's), (212, 25173), (Start: 234 @25113 has 1 MA's), (274, 24987), (283, 24966), (299, 24936), (322, 24897), (378, 24735), (387, 24708), (405, 24654), (461, 24516), (546, 24324), (629, 24159), (637, 24132), (639, 24126), (764, 23874), (771, 23853), (774, 23847), (776, 23841), (791, 23829), (796, 23820), (806, 23808),

Gene: Tripl3t\_38 Start: 30269, Stop: 31771, Start Num: 187

Candidate Starts for Tripl3t\_38:

(Start: 98 @30188 has 29 MA's), (Start: 102 @30194 has 3 MA's), (Start: 107 @30200 has 10 MA's), (Start: 109 @30203 has 10 MA's), (Start: 119 @30218 has 12 MA's), (Start: 187 @30269 has 221 MA's), (Start: 193 @30281 has 3 MA's), (264, 30494), (268, 30506), (269, 30515), (279, 30548), (326, 30644), (329, 30653), (331, 30662), (366, 30770), (379, 30791), (384, 30803), (391, 30827), (404, 30869), (457, 30998), (480, 31058), (500, 31115), (512, 31142), (525, 31169), (533, 31184), (608, 31292), (622, 31325), (655, 31406), (660, 31421), (710, 31526), (766, 31640), (828, 31739), (840, 31763),

Gene: Triste\_51 Start: 36115, Stop: 37794, Start Num: 55

Candidate Starts for Triste\_51:

(Start: 55 @36115 has 7 MA's), (Start: 82 @36172 has 5 MA's), (Start: 89 @36181 has 25 MA's), (Start: 197 @36328 has 3 MA's), (227, 36427), (Start: 234 @36445 has 1 MA's), (255, 36496), (277, 36577), (278, 36580), (321, 36652), (322, 36661), (323, 36664), (362, 36790), (373, 36817), (400, 36886), (415, 36931), (454, 37000), (462, 37027), (481, 37075), (497, 37123), (513, 37162), (525, 37189), (546, 37219), (622, 37342), (646, 37402), (664, 37447), (729, 37576), (754, 37627), (759, 37636), (774, 37675), (786, 37699), (793, 37714), (804, 37729), (815, 37744),

Gene: Trouble\_38 Start: 30371, Stop: 31873, Start Num: 187

Candidate Starts for Trouble\_38:

(Start: 98 @30290 has 29 MA's), (Start: 102 @30296 has 3 MA's), (Start: 107 @30302 has 10 MA's), (Start: 109 @30305 has 10 MA's), (Start: 119 @30320 has 12 MA's), (Start: 187 @30371 has 221 MA's), (262, 30590), (264, 30596), (269, 30617), (323, 30734), (326, 30746), (329, 30755), (331, 30764), (366, 30872), (379, 30893), (384, 30905), (457, 31100), (480, 31160), (500, 31217), (512, 31244), (525, 31271), (526, 31274), (533, 31286), (608, 31394), (622, 31427), (655, 31508), (660, 31523), (710, 31628), (766, 31742), (828, 31841), (840, 31865),

Gene: TrvxScott\_52 Start: 38541, Stop: 39962, Start Num: 163

Candidate Starts for TrvxScott\_52:

(Start: 102 @38460 has 3 MA's), (Start: 109 @38469 has 10 MA's), (Start: 116 @38481 has 3 MA's), (Start: 157 @38532 has 5 MA's), (Start: 163 @38541 has 10 MA's), (264, 38778), (326, 38916), (369, 39045), (395, 39093), (448, 39204), (452, 39213), (460, 39240), (470, 39261), (471, 39264), (489, 39303), (494, 39318), (578, 39462), (621, 39546), (674, 39663), (695, 39699), (720, 39753), (721, 39756), (741, 39789), (768, 39855), (807, 39912), (834, 39951),

Gene: TuanPN\_49 Start: 36125, Stop: 37747, Start Num: 82

Candidate Starts for TuanPN\_49:

(Start: 55 @36068 has 7 MA's), (Start: 82 @36125 has 5 MA's), (Start: 89 @36134 has 25 MA's), (Start: 197 @36281 has 3 MA's), (227, 36380), (Start: 234 @36398 has 1 MA's), (255, 36449), (277, 36530), (278, 36533), (321, 36605), (322, 36614), (323, 36617), (362, 36743), (373, 36770), (400, 36839), (415, 36884), (454, 36953), (462, 36980), (481, 37028), (497, 37076), (513, 37115), (546, 37172), (622, 37295), (646, 37355), (664, 37400), (729, 37529), (754, 37580), (759, 37589), (774, 37628), (786, 37652), (793, 37667), (804, 37682), (815, 37697),

Gene: Tubberson\_29 Start: 24708, Stop: 23053, Start Num: 145

Candidate Starts for Tubberson\_29:

(Start: 145 @24708 has 12 MA's), (250, 24489), (330, 24282), (353, 24222), (403, 24042), (460, 23898), (468, 23859), (469, 23856), (516, 23727), (559, 23643), (577, 23595), (581, 23589), (660, 23391), (667, 23376), (707, 23292), (744, 23223), (763, 23181), (764, 23178), (772, 23154), (800, 23109), (816, 23085),

Gene: Tuck\_53 Start: 37345, Stop: 38829, Start Num: 168

Candidate Starts for Tuck\_53:

(Start: 168 @37345 has 2 MA's), (Start: 176 @37354 has 15 MA's), (309, 37675), (399, 37954), (461, 38128), (559, 38320), (669, 38557), (762, 38719),

Gene: Turab\_47 Start: 34417, Stop: 35835, Start Num: 180

Candidate Starts for Turab\_47:

(Start: 163 @34399 has 10 MA's), (177, 34414), (Start: 180 @34417 has 37 MA's), (Start: 187 @34426 has 221 MA's), (225, 34540), (264, 34648), (271, 34681), (277, 34696), (317, 34759), (323, 34771), (325, 34780), (358, 34879), (370, 34921), (391, 34972), (404, 35011), (461, 35116), (629, 35473), (634, 35491), (638, 35503), (729, 35674),

Gene: Turj99\_36 Start: 29282, Stop: 30865, Start Num: 98

Candidate Starts for Turj99\_36:

(Start: 98 @29282 has 29 MA's), (Start: 102 @29288 has 3 MA's), (Start: 107 @29294 has 10 MA's), (Start: 109 @29297 has 10 MA's), (Start: 119 @29312 has 12 MA's), (Start: 187 @29363 has 221 MA's), (262, 29582), (264, 29588), (269, 29609), (326, 29738), (329, 29747), (331, 29756), (366, 29864), (379, 29885), (384, 29897), (391, 29921), (404, 29963), (457, 30092), (480, 30152), (500, 30209), (525, 30263), (526, 30266), (533, 30278), (608, 30386), (622, 30419), (625, 30422), (655, 30500), (660, 30515), (710, 30620), (718, 30635), (766, 30734), (828, 30833), (840, 30857),

Gene: Tutumahutu\_51 Start: 35299, Stop: 36717, Start Num: 180

Candidate Starts for Tutumahutu\_51:

(Start: 163 @35281 has 10 MA's), (177, 35296), (Start: 180 @35299 has 37 MA's), (Start: 187 @35308 has 221 MA's), (225, 35422), (Start: 234 @35446 has 1 MA's), (264, 35530), (317, 35641), (323, 35653), (325, 35662), (358, 35761), (391, 35854), (396, 35866), (404, 35893), (486, 36052), (634, 36373), (638, 36385), (655, 36418), (729, 36556),

Gene: Tweety19\_52 Start: 34578, Stop: 36083, Start Num: 136

Candidate Starts for Tweety19\_52:

(Start: 136 @34578 has 3 MA's), (Start: 165 @34617 has 35 MA's), (Start: 181 @34635 has 19 MA's), (256, 34821), (331, 35022), (359, 35103), (461, 35388), (529, 35517), (615, 35682), (692, 35844), (780, 36015), (784, 36021),

Gene: Twigg\_30 Start: 25748, Stop: 24255, Start Num: 187

Candidate Starts for Twigg\_30:

(Start: 187 @25748 has 221 MA's), (Start: 200 @25715 has 1 MA's), (Start: 201 @25712 has 3 MA's), (Start: 206 @25694 has 9 MA's), (Start: 234 @25613 has 1 MA's), (281, 25469), (294, 25442), (323, 25394), (379, 25229), (387, 25205), (389, 25202), (396, 25181), (471, 24992), (525, 24851), (546, 24821), (633, 24644), (637, 24632), (673, 24548), (680, 24533), (692, 24518), (776, 24341), (806, 24311), (829, 24278),

Gene: Twister\_34 Start: 26802, Stop: 25369, Start Num: 176

Candidate Starts for Twister\_34:

(Start: 176 @26802 has 15 MA's), (217, 26700), (Start: 234 @26658 has 1 MA's), (278, 26523), (283, 26511), (285, 26508), (323, 26439), (329, 26418), (358, 26331), (359, 26328), (365, 26307), (392, 26238), (479, 26052), (611, 25809), (614, 25800), (637, 25746), (680, 25647), (774, 25461),

Gene: TwoPeat\_38 Start: 29780, Stop: 31363, Start Num: 98

Candidate Starts for TwoPeat\_38:

(Start: 98 @29780 has 29 MA's), (Start: 102 @29786 has 3 MA's), (Start: 107 @29792 has 10 MA's), (Start: 109 @29795 has 10 MA's), (Start: 119 @29810 has 12 MA's), (Start: 187 @29861 has 221 MA's), (Start: 195 @29876 has 10 MA's), (Start: 222 @29969 has 1 MA's), (262, 30080), (264, 30086), (326, 30236), (329, 30245), (331, 30254), (366, 30362), (379, 30383), (384, 30395), (391, 30419), (404, 30461), (457, 30590), (480, 30650), (500, 30707), (512, 30734), (525, 30761), (533, 30776),

(608, 30884), (622, 30917), (655, 30998), (660, 31013), (710, 31118), (766, 31232), (828, 31331), (840, 31355),

Gene: TyDawg\_126 Start: 69259, Stop: 67799, Start Num: 140

Candidate Starts for TyDawg\_126:

(Start: 107 @69301 has 10 MA's), (Start: 133 @69268 has 1 MA's), (Start: 140 @69259 has 21 MA's), (198, 69187), (225, 69106), (245, 69064), (253, 69040), (271, 68968), (322, 68851), (340, 68788), (375, 68704), (381, 68692), (396, 68650), (401, 68632), (485, 68470), (492, 68449), (513, 68398), (532, 68371), (551, 68344), (624, 68224), (695, 68074), (733, 67996), (753, 67951), (778, 67894),

Gene: TygerBlood\_33 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for TygerBlood\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: U2\_37 Start: 29511, Stop: 31013, Start Num: 187

Candidate Starts for U2\_37:

(Start: 89 @29421 has 25 MA's), (Start: 130 @29466 has 3 MA's), (Start: 187 @29511 has 221 MA's), (Start: 195 @29526 has 10 MA's), (198, 29535), (227, 29628), (262, 29730), (264, 29736), (269, 29757), (326, 29886), (329, 29895), (331, 29904), (334, 29910), (366, 30012), (379, 30033), (384, 30045), (391, 30069), (457, 30240), (480, 30300), (500, 30357), (525, 30411), (526, 30414), (533, 30426), (608, 30534), (622, 30567), (655, 30648), (660, 30663), (710, 30768), (766, 30882), (828, 30981), (840, 31005),

Gene: UhSalsa\_29 Start: 23636, Stop: 22140, Start Num: 165

Candidate Starts for UhSalsa\_29:

(Start: 165 @23636 has 35 MA's), (Start: 187 @23615 has 221 MA's), (Start: 190 @23609 has 3 MA's), (Start: 234 @23480 has 1 MA's), (252, 23432), (278, 23345), (329, 23240), (364, 23129), (378, 23099), (389, 23069), (392, 23057), (414, 22994), (429, 22964), (443, 22931), (452, 22910), (461, 22880), (469, 22865), (471, 22859), (485, 22811), (497, 22778), (521, 22721), (546, 22682), (548, 22676), (611, 22580), (628, 22547), (634, 22526), (637, 22517), (714, 22355),

Gene: Ulysses\_32 Start: 26359, Stop: 24863, Start Num: 187

Candidate Starts for Ulysses\_32:

(Start: 119 @26425 has 12 MA's), (Start: 187 @26359 has 221 MA's), (Start: 197 @26341 has 3 MA's), (212, 26284), (217, 26266), (229, 26236), (Start: 234 @26224 has 1 MA's), (274, 26098), (283, 26077), (299, 26047), (322, 26008), (363, 25879), (387, 25819), (405, 25765), (461, 25627), (569, 25396), (611, 25306), (629, 25270), (637, 25243), (659, 25189), (663, 25180), (768, 24970), (776, 24952), (791, 24940), (796, 24931),

Gene: UnionJack\_31 Start: 25014, Stop: 23569, Start Num: 201

Candidate Starts for UnionJack\_31:

(155, 25077), (Start: 187 @25050 has 221 MA's), (Start: 201 @25014 has 3 MA's), (Start: 234 @24915 has 1 MA's), (264, 24831), (274, 24789), (285, 24765), (299, 24738), (322, 24699), (329, 24675), (379, 24531), (458, 24324), (489, 24237), (507, 24192), (521, 24162), (533, 24138), (546, 24123), (611, 24012), (614, 24003), (637, 23949), (652, 23916), (680, 23850), (714, 23787), (776, 23658), (836, 23580),

Gene: Unstoppable\_49 Start: 34070, Stop: 35392, Start Num: 191

Candidate Starts for Unstoppable\_49:

(Start: 183 @34058 has 12 MA's), (Start: 191 @34070 has 17 MA's), (198, 34085), (Start: 222 @34172 has 1 MA's), (Start: 224 @34175 has 1 MA's), (237, 34199), (253, 34241), (256, 34250), (268, 34292), (269, 34301), (271, 34313), (321, 34403), (322, 34412), (329, 34436), (369, 34556), (380, 34562), (426, 34652), (448, 34667), (452, 34676), (462, 34709), (511, 34820), (513, 34826), (543, 34874), (554, 34889), (563, 34904), (603, 34964), (613, 34988), (650, 35069), (670, 35099), (688, 35129), (710, 35177), (749, 35255), (768, 35303), (774, 35312), (789, 35339), (816, 35378),

Gene: Urza\_50 Start: 33266, Stop: 34684, Start Num: 193

Candidate Starts for Urza\_50:

(105, 33152), (Start: 109 @33158 has 10 MA's), (Start: 180 @33245 has 37 MA's), (Start: 193 @33266 has 3 MA's), (306, 33578), (325, 33632), (326, 33635), (339, 33680), (346, 33695), (369, 33761), (409, 33845), (433, 33878), (461, 33950), (470, 33968), (493, 34022), (528, 34103), (547, 34127), (550, 34133), (589, 34184), (603, 34217), (633, 34286), (653, 34331), (688, 34412), (705, 34445), (706, 34448), (816, 34667),

Gene: Utz\_33 Start: 30671, Stop: 32062, Start Num: 188

Candidate Starts for Utz\_33:

(83, 30530), (97, 30557), (161, 30641), (Start: 180 @30662 has 37 MA's), (Start: 188 @30671 has 36 MA's), (227, 30791), (288, 30968), (334, 31061), (336, 31067), (345, 31094), (362, 31148), (404, 31265), (447, 31343), (522, 31520), (543, 31547), (561, 31562), (607, 31628), (608, 31631), (615, 31652), (622, 31664), (624, 31667), (656, 31745), (682, 31802), (719, 31871), (735, 31898), (759, 31949), (768, 31970),

Gene: UtzChips\_59 Start: 38303, Stop: 39808, Start Num: 183

Candidate Starts for UtzChips\_59:

(18, 37964), (143, 38255), (Start: 183 @38303 has 12 MA's), (253, 38495), (322, 38666), (396, 38858), (421, 38912), (452, 38960), (493, 39062), (621, 39299), (694, 39449), (743, 39548), (851, 39803),

Gene: VResidence\_50 Start: 34666, Stop: 36156, Start Num: 164

Candidate Starts for VResidence\_50:

(Start: 164 @34666 has 4 MA's), (229, 34810), (309, 35002), (329, 35071), (376, 35215), (461, 35455), (486, 35506), (559, 35647), (669, 35884), (721, 35974),

Gene: Vanseggelen\_57 Start: 36594, Stop: 38177, Start Num: 89

Candidate Starts for Vanseggelen\_57:

(51, 36522), (56, 36531), (58, 36537), (Start: 89 @36594 has 25 MA's), (Start: 220 @36804 has 1 MA's), (Start: 222 @36810 has 1 MA's), (225, 36813), (227, 36819), (Start: 234 @36837 has 1 MA's), (271, 36954), (278, 36972), (322, 37053), (323, 37056), (380, 37218), (415, 37320), (454, 37386), (471, 37428), (481, 37458), (525, 37572), (546, 37602), (611, 37701), (617, 37716), (622, 37725), (633, 37752), (634, 37755), (652, 37797), (664, 37830), (702, 37899), (733, 37965), (741, 37977), (759, 38019), (770, 38049), (774, 38058), (786, 38082), (793, 38097),

Gene: Vash\_53 Start: 39034, Stop: 40593, Start Num: 199

Candidate Starts for Vash\_53:

(Start: 119 @38938 has 12 MA's), (Start: 164 @38983 has 4 MA's), (173, 38992), (Start: 187 @39004 has 221 MA's), (Start: 199 @39034 has 3 MA's), (263, 39220), (264, 39223), (271, 39256), (274, 39265), (291, 39304), (313, 39340), (321, 39370), (323, 39382), (339, 39439), (340, 39442), (348, 39460), (352, 39469), (373, 39538), (398, 39598), (464, 39796), (466, 39808), (471, 39826), (479, 39853), (493, 39898), (522, 39970), (527, 39982), (546, 40006), (569, 40051), (606, 40105), (630, 40165), (664, 40249), (726, 40366), (730, 40372), (763, 40438), (764, 40441), (808, 40528),

Gene: Verabelle\_54 Start: 36387, Stop: 37772, Start Num: 167

Candidate Starts for Verabelle\_54:

(167, 36387), (270, 36657), (278, 36678), (303, 36708), (354, 36840), (444, 37026), (454, 37047), (462, 37074), (523, 37206), (551, 37245), (609, 37341), (622, 37371), (657, 37452), (695, 37521), (697, 37524), (724, 37584), (736, 37602), (751, 37638), (755, 37650), (767, 37674), (773, 37686), (778, 37698), (801, 37728),

Gene: Veracruz\_33 Start: 27223, Stop: 25721, Start Num: 190

Candidate Starts for Veracruz\_33:

(Start: 175 @27244 has 3 MA's), (Start: 187 @27229 has 221 MA's), (Start: 190 @27223 has 3 MA's), (Start: 191 @27220 has 17 MA's), (249, 27052), (252, 27046), (293, 26929), (325, 26869), (362, 26752), (379, 26713), (389, 26686), (392, 26674), (437, 26539), (492, 26386), (532, 26296), (557, 26257), (614, 26167), (633, 26125), (637, 26113), (656, 26068), (664, 26047), (771, 25834), (785, 25813),

Gene: Verse\_51 Start: 37557, Stop: 38969, Start Num: 179

Candidate Starts for Verse\_51:

(Start: 179 @37557 has 5 MA's), (198, 37587), (Start: 224 @37677 has 1 MA's), (253, 37743), (256, 37752), (261, 37770), (263, 37779), (268, 37794), (269, 37803), (271, 37815), (281, 37842), (301, 37866), (307, 37875), (322, 37914), (323, 37917), (329, 37938), (380, 38064), (381, 38067), (401, 38127), (448, 38238), (454, 38253), (471, 38298), (493, 38349), (511, 38391), (543, 38445), (554, 38460), (563, 38475), (608, 38544), (613, 38559), (641, 38622), (688, 38700), (705, 38733), (710, 38748), (768, 38874), (777, 38892), (801, 38928), (816, 38949),

Gene: VieEnRose\_50 Start: 33329, Stop: 34747, Start Num: 193

Candidate Starts for VieEnRose\_50:

(105, 33215), (Start: 109 @33221 has 10 MA's), (Start: 180 @33308 has 37 MA's), (Start: 193 @33329 has 3 MA's), (306, 33641), (325, 33695), (326, 33698), (339, 33743), (346, 33758), (369, 33824), (409, 33908), (433, 33941), (461, 34013), (470, 34031), (493, 34085), (508, 34124), (528, 34166), (547, 34190), (550, 34196), (589, 34247), (603, 34280), (633, 34349), (653, 34394), (688, 34475), (705, 34508), (763, 34634), (816, 34730),

Gene: Violet\_36 Start: 29937, Stop: 31439, Start Num: 187

Candidate Starts for Violet\_36:

(Start: 98 @29856 has 29 MA's), (Start: 102 @29862 has 3 MA's), (Start: 107 @29868 has 10 MA's), (Start: 109 @29871 has 10 MA's), (Start: 119 @29886 has 12 MA's), (Start: 187 @29937 has 221 MA's), (Start: 195 @29952 has 10 MA's), (262, 30156), (264, 30162), (269, 30183), (326, 30312), (329, 30321), (331, 30330), (334, 30336), (362, 30426), (366, 30438), (384, 30471), (396, 30507), (457, 30666), (480, 30726), (500, 30783), (512, 30810), (525, 30837), (533, 30852), (606, 30954), (608, 30960), (622, 30993), (625, 30996), (655, 31074), (660, 31089), (766, 31308), (828, 31407), (840, 31431),

Gene: ViviJ\_38 Start: 31256, Stop: 32626, Start Num: 206

Candidate Starts for ViviJ\_38:

(33, 30929), (50, 30992), (76, 31046), (132, 31133), (Start: 170 @31181 has 8 MA's), (Start: 206 @31256 has 9 MA's), (210, 31268), (253, 31379), (254, 31382), (263, 31415), (269, 31439), (292, 31502), (329, 31577), (436, 31853), (543, 32075), (548, 32087), (591, 32135), (603, 32165), (611, 32186), (622, 32210), (693, 32363), (731, 32444), (736, 32450), (742, 32462), (755, 32498), (759, 32504), (768, 32525), (775, 32540), (777, 32546), (808, 32594), (815, 32603),

Gene: Vondra\_28 Start: 22771, Stop: 21152, Start Num: 158

Candidate Starts for Vondra\_28:

(Start: 158 @22771 has 5 MA's), (250, 22567), (257, 22549), (335, 22345), (388, 22162), (405, 22111), (435, 22045), (438, 22036), (485, 21895), (493, 21871), (516, 21817), (545, 21751), (593, 21646), (607, 21610), (645, 21523), (667, 21469), (713, 21367), (752, 21298), (763, 21274), (766, 21262),

(809, 21211),

Gene: WalterMcMickey\_34 Start: 26802, Stop: 25369, Start Num: 176

Candidate Starts for WalterMcMickey\_34:

(Start: 176 @26802 has 15 MA's), (217, 26700), (Start: 234 @26658 has 1 MA's), (278, 26523), (283, 26511), (285, 26508), (323, 26439), (329, 26418), (358, 26331), (359, 26328), (365, 26307), (392, 26238), (479, 26052), (611, 25809), (614, 25800), (637, 25746), (680, 25647), (774, 25461),

Gene: Wander\_33 Start: 26637, Stop: 25123, Start Num: 171

Candidate Starts for Wander\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (387, 26049), (391, 26037), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Warda\_50 Start: 35363, Stop: 36781, Start Num: 180

Candidate Starts for Warda\_50:

(Start: 163 @35345 has 10 MA's), (177, 35360), (Start: 180 @35363 has 37 MA's), (Start: 187 @35372 has 221 MA's), (225, 35486), (264, 35594), (277, 35642), (317, 35705), (323, 35717), (325, 35726), (358, 35825), (391, 35918), (396, 35930), (414, 35984), (486, 36116), (611, 36383), (629, 36419), (634, 36437), (638, 36449), (655, 36482), (729, 36620),

Gene: Waterfoul\_39 Start: 31558, Stop: 32964, Start Num: 188

Candidate Starts for Waterfoul\_39:

(Start: 180 @31549 has 37 MA's), (Start: 188 @31558 has 36 MA's), (227, 31678), (288, 31855), (316, 31879), (328, 31930), (342, 31972), (358, 32020), (364, 32041), (373, 32068), (379, 32077), (389, 32104), (396, 32125), (401, 32143), (411, 32170), (443, 32215), (454, 32221), (497, 32326), (533, 32392), (543, 32401), (555, 32422), (568, 32440), (622, 32548), (627, 32557), (629, 32560), (664, 32656), (672, 32668), (691, 32704), (727, 32776), (732, 32785), (755, 32836), (774, 32875), (780, 32887), (788, 32896), (813, 32926), (824, 32941),

Gene: Watermelon\_39 Start: 30238, Stop: 31821, Start Num: 98

Candidate Starts for Watermelon\_39:

(Start: 98 @30238 has 29 MA's), (Start: 102 @30244 has 3 MA's), (Start: 107 @30250 has 10 MA's), (Start: 109 @30253 has 10 MA's), (Start: 119 @30268 has 12 MA's), (Start: 187 @30319 has 221 MA's), (Start: 195 @30334 has 10 MA's), (262, 30538), (264, 30544), (326, 30694), (329, 30703), (331, 30712), (366, 30820), (379, 30841), (384, 30853), (391, 30877), (404, 30919), (457, 31048), (480, 31108), (500, 31165), (512, 31192), (525, 31219), (526, 31222), (533, 31234), (608, 31342), (622, 31375), (655, 31456), (660, 31471), (710, 31576), (766, 31690), (828, 31789), (840, 31813),

Gene: Werner\_50 Start: 36179, Stop: 37792, Start Num: 89

Candidate Starts for Werner\_50:

(Start: 55 @36113 has 7 MA's), (Start: 82 @36170 has 5 MA's), (Start: 89 @36179 has 25 MA's), (Start: 197 @36326 has 3 MA's), (227, 36425), (Start: 234 @36443 has 1 MA's), (255, 36494), (277, 36575), (278, 36578), (321, 36650), (322, 36659), (323, 36662), (362, 36788), (373, 36815), (400, 36884), (415, 36929), (454, 36998), (462, 37025), (481, 37073), (497, 37121), (513, 37160), (525, 37187), (546, 37217), (622, 37340), (646, 37400), (664, 37445), (729, 37574), (754, 37625), (759, 37634), (774, 37673), (786, 37697), (793, 37712), (804, 37727), (815, 37742),

Gene: Whatever\_50 Start: 36205, Stop: 37818, Start Num: 89

Candidate Starts for Whatever\_50:

(Start: 55 @36139 has 7 MA's), (Start: 82 @36196 has 5 MA's), (Start: 89 @36205 has 25 MA's), (Start: 197 @36352 has 3 MA's), (227, 36451), (Start: 234 @36469 has 1 MA's), (255, 36520), (277,

36601), (278, 36604), (321, 36676), (322, 36685), (323, 36688), (362, 36814), (373, 36841), (400, 36910), (415, 36955), (454, 37024), (462, 37051), (481, 37099), (497, 37147), (513, 37186), (525, 37213), (546, 37243), (622, 37366), (646, 37426), (664, 37471), (729, 37600), (754, 37651), (759, 37660), (774, 37699), (786, 37723), (793, 37738), (804, 37753), (815, 37768),

Gene: Wheeler\_38 Start: 29849, Stop: 31351, Start Num: 187

Candidate Starts for Wheeler\_38:

(Start: 130 @29804 has 3 MA's), (Start: 187 @29849 has 221 MA's), (Start: 195 @29864 has 10 MA's), (239, 29996), (262, 30068), (264, 30074), (268, 30086), (269, 30095), (326, 30224), (329, 30233), (331, 30242), (366, 30350), (379, 30371), (384, 30383), (391, 30407), (404, 30449), (457, 30578), (480, 30638), (500, 30695), (512, 30722), (525, 30749), (533, 30764), (580, 30833), (608, 30872), (622, 30905), (655, 30986), (660, 31001), (710, 31106), (766, 31220), (828, 31319), (840, 31343),

Gene: Wilbur\_33 Start: 26646, Stop: 25123, Start Num: 162

Candidate Starts for Wilbur\_33:

(Start: 134 @26679 has 1 MA's), (Start: 162 @26646 has 16 MA's), (Start: 171 @26637 has 112 MA's), (239, 26475), (262, 26409), (268, 26391), (294, 26316), (305, 26292), (320, 26253), (321, 26250), (347, 26163), (391, 26037), (396, 26025), (462, 25854), (498, 25743), (521, 25692), (603, 25563), (607, 25554), (637, 25479), (639, 25473), (696, 25350), (714, 25311), (794, 25161), (805, 25146),

Gene: Wildwest\_49 Start: 35283, Stop: 36758, Start Num: 176

Candidate Starts for Wildwest\_49:

(Start: 168 @35274 has 2 MA's), (Start: 176 @35283 has 15 MA's), (309, 35604), (376, 35817), (461, 36057), (486, 36108), (559, 36249), (611, 36345), (669, 36486), (671, 36489), (780, 36690),

Gene: Wile\_33 Start: 26657, Stop: 25143, Start Num: 171

Candidate Starts for Wile\_33:

(Start: 134 @26699 has 1 MA's), (Start: 162 @26666 has 16 MA's), (Start: 171 @26657 has 112 MA's), (239, 26495), (262, 26429), (268, 26411), (294, 26336), (320, 26273), (321, 26270), (347, 26183), (391, 26057), (462, 25874), (480, 25817), (498, 25763), (521, 25712), (603, 25583), (607, 25574), (637, 25499), (639, 25493), (692, 25379), (696, 25370), (714, 25331), (794, 25181), (805, 25166),

Gene: Wilkins\_36 Start: 28845, Stop: 30344, Start Num: 187

Candidate Starts for Wilkins\_36:

(74, 28731), (84, 28749), (Start: 98 @28764 has 29 MA's), (Start: 102 @28770 has 3 MA's), (Start: 107 @28776 has 10 MA's), (Start: 109 @28779 has 10 MA's), (Start: 119 @28794 has 12 MA's), (Start: 187 @28845 has 221 MA's), (262, 29064), (264, 29070), (269, 29091), (326, 29220), (329, 29229), (331, 29238), (366, 29346), (379, 29367), (384, 29379), (391, 29403), (404, 29445), (457, 29574), (480, 29634), (500, 29691), (512, 29718), (525, 29745), (526, 29748), (533, 29760), (606, 29859), (622, 29898), (655, 29979), (660, 29994), (710, 30099), (766, 30213), (828, 30312), (840, 30336),

Gene: William\_40 Start: 31099, Stop: 32487, Start Num: 188

Candidate Starts for William\_40:

(Start: 188 @31099 has 36 MA's), (202, 31141), (Start: 206 @31156 has 9 MA's), (262, 31312), (278, 31369), (334, 31489), (345, 31522), (362, 31576), (364, 31582), (373, 31609), (389, 31645), (448, 31777), (471, 31837), (487, 31870), (493, 31888), (532, 31963), (543, 31975), (561, 31990), (596, 32026), (615, 32080), (622, 32092), (656, 32173), (682, 32230), (693, 32245), (704, 32266), (719, 32299), (723, 32308), (725, 32311), (732, 32323), (735, 32326), (740, 32335), (788, 32431), (804, 32452), (816, 32467),

Gene: Wisp\_35 Start: 29114, Stop: 30505, Start Num: 188

Candidate Starts for Wisp\_35:

(83, 28973), (97, 29000), (161, 29084), (Start: 180 @29105 has 37 MA's), (Start: 188 @29114 has 36 MA's), (Start: 206 @29171 has 9 MA's), (227, 29234), (262, 29327), (288, 29411), (334, 29504), (336, 29510), (345, 29537), (362, 29591), (404, 29708), (447, 29786), (493, 29903), (497, 29912), (522, 29963), (543, 29990), (561, 30005), (607, 30071), (608, 30074), (615, 30095), (622, 30107), (624, 30110), (656, 30188), (682, 30245), (719, 30314), (723, 30323), (735, 30341), (759, 30392), (801, 30467),

Gene: Wizard007\_33 Start: 26642, Stop: 25128, Start Num: 171

Candidate Starts for Wizard007\_33:

(Start: 134 @26684 has 1 MA's), (Start: 162 @26651 has 16 MA's), (Start: 171 @26642 has 112 MA's), (239, 26480), (262, 26414), (268, 26396), (294, 26321), (305, 26297), (320, 26258), (321, 26255), (347, 26168), (387, 26054), (391, 26042), (462, 25859), (498, 25748), (521, 25697), (603, 25568), (607, 25559), (637, 25484), (639, 25478), (696, 25355), (714, 25316), (794, 25166), (805, 25151),

Gene: Wocket\_39 Start: 29863, Stop: 31254, Start Num: 188

Candidate Starts for Wocket\_39:

(Start: 188 @29863 has 36 MA's), (288, 30160), (345, 30286), (362, 30340), (404, 30457), (470, 30598), (487, 30634), (493, 30652), (522, 30712), (543, 30739), (561, 30754), (596, 30790), (607, 30820), (622, 30856), (624, 30859), (656, 30937), (719, 31063), (759, 31141), (768, 31162), (801, 31216),

Gene: Xena\_33 Start: 26644, Stop: 25130, Start Num: 171

Candidate Starts for Xena\_33:

(Start: 134 @26686 has 1 MA's), (Start: 162 @26653 has 16 MA's), (Start: 171 @26644 has 112 MA's), (239, 26482), (262, 26416), (268, 26398), (294, 26323), (320, 26260), (321, 26257), (347, 26170), (391, 26044), (462, 25861), (480, 25804), (498, 25750), (521, 25699), (603, 25570), (607, 25561), (637, 25486), (639, 25480), (692, 25366), (696, 25357), (714, 25318), (794, 25168), (805, 25153),

Gene: Yang\_49 Start: 35473, Stop: 36891, Start Num: 180

Candidate Starts for Yang\_49:

(Start: 163 @35455 has 10 MA's), (177, 35470), (Start: 180 @35473 has 37 MA's), (Start: 187 @35482 has 221 MA's), (264, 35704), (317, 35815), (323, 35827), (325, 35836), (358, 35935), (370, 35977), (391, 36028), (404, 36067), (603, 36472), (629, 36529), (634, 36547), (638, 36559),

Gene: Yasdniil\_50 Start: 36231, Stop: 37844, Start Num: 89

Candidate Starts for Yasdniil\_50:

(Start: 55 @36165 has 7 MA's), (Start: 82 @36222 has 5 MA's), (Start: 89 @36231 has 25 MA's), (Start: 197 @36378 has 3 MA's), (227, 36477), (Start: 234 @36495 has 1 MA's), (255, 36546), (277, 36627), (278, 36630), (321, 36702), (322, 36711), (323, 36714), (362, 36840), (373, 36867), (400, 36936), (415, 36981), (454, 37050), (462, 37077), (481, 37125), (497, 37173), (513, 37212), (525, 37239), (546, 37269), (622, 37392), (646, 37452), (664, 37497), (729, 37626), (754, 37677), (759, 37686), (774, 37725), (786, 37749), (793, 37764), (804, 37779), (815, 37794),

Gene: YesChef\_50 Start: 35275, Stop: 36693, Start Num: 180

Candidate Starts for YesChef\_50:

(Start: 163 @35257 has 10 MA's), (177, 35272), (Start: 180 @35275 has 37 MA's), (Start: 187 @35284 has 221 MA's), (225, 35398), (Start: 234 @35422 has 1 MA's), (264, 35506), (317, 35617), (323, 35629), (325, 35638), (358, 35737), (391, 35830), (396, 35842), (404, 35869), (486, 36028), (634, 36349), (638, 36361), (655, 36394), (729, 36532),

Gene: YoSam321\_33 Start: 26634, Stop: 25120, Start Num: 171

Candidate Starts for YoSam321\_33:

(Start: 134 @26676 has 1 MA's), (Start: 162 @26643 has 16 MA's), (Start: 171 @26634 has 112 MA's), (239, 26472), (262, 26406), (268, 26388), (294, 26313), (305, 26289), (320, 26250), (321, 26247), (347, 26160), (387, 26046), (391, 26034), (462, 25851), (498, 25740), (521, 25689), (603, 25560), (607, 25551), (637, 25476), (639, 25470), (696, 25347), (714, 25308), (794, 25158), (805, 25143),

Gene: Yogi\_29 Start: 23610, Stop: 22114, Start Num: 165

Candidate Starts for Yogi\_29:

(Start: 165 @23610 has 35 MA's), (Start: 187 @23589 has 221 MA's), (Start: 190 @23583 has 3 MA's), (Start: 234 @23454 has 1 MA's), (252, 23406), (278, 23319), (329, 23214), (364, 23103), (389, 23043), (392, 23031), (429, 22938), (443, 22905), (452, 22884), (461, 22854), (469, 22839), (471, 22833), (485, 22785), (521, 22695), (546, 22656), (548, 22650), (611, 22554), (628, 22521), (634, 22500), (637, 22491), (714, 22329),

Gene: Yoncess\_29 Start: 23611, Stop: 22115, Start Num: 165

Candidate Starts for Yoncess\_29:

(Start: 165 @23611 has 35 MA's), (Start: 187 @23590 has 221 MA's), (Start: 190 @23584 has 3 MA's), (Start: 234 @23455 has 1 MA's), (252, 23407), (278, 23320), (329, 23215), (364, 23104), (389, 23044), (392, 23032), (414, 22969), (429, 22939), (443, 22906), (452, 22885), (461, 22855), (471, 22834), (484, 22789), (485, 22786), (487, 22780), (521, 22696), (546, 22657), (548, 22651), (628, 22522), (634, 22501), (637, 22492), (714, 22330),

Gene: Yosif\_54 Start: 37465, Stop: 39051, Start Num: 106

Candidate Starts for Yosif\_54:

(49, 37357), (Start: 86 @37429 has 1 MA's), (100, 37456), (Start: 106 @37465 has 3 MA's), (202, 37606), (211, 37639), (253, 37750), (260, 37774), (271, 37822), (278, 37840), (296, 37882), (326, 37951), (339, 37996), (367, 38074), (400, 38158), (405, 38176), (434, 38239), (441, 38251), (460, 38302), (532, 38452), (580, 38527), (603, 38575), (614, 38605), (624, 38623), (627, 38629), (663, 38728), (697, 38794), (733, 38863), (769, 38941), (792, 38986),

Gene: Zainub\_54 Start: 37669, Stop: 39099, Start Num: 157

Candidate Starts for Zainub\_54:

(Start: 116 @37618 has 3 MA's), (Start: 157 @37669 has 5 MA's), (Start: 163 @37678 has 10 MA's), (253, 37888), (264, 37915), (326, 38053), (369, 38182), (395, 38230), (445, 38332), (448, 38341), (452, 38350), (460, 38377), (470, 38398), (471, 38401), (489, 38440), (494, 38455), (578, 38599), (621, 38683), (674, 38800), (695, 38836), (741, 38926), (744, 38935), (768, 38992), (801, 39040), (807, 39049), (834, 39088),

Gene: ZamZam\_52 Start: 36968, Stop: 38557, Start Num: 89

Candidate Starts for ZamZam\_52:

(13, 36689), (Start: 55 @36902 has 7 MA's), (Start: 89 @36968 has 25 MA's), (Start: 171 @37058 has 112 MA's), (Start: 197 @37094 has 3 MA's), (Start: 220 @37178 has 1 MA's), (Start: 222 @37184 has 1 MA's), (Start: 234 @37211 has 1 MA's), (259, 37274), (268, 37307), (271, 37328), (278, 37346), (322, 37427), (323, 37430), (324, 37433), (400, 37652), (414, 37694), (415, 37697), (432, 37715), (454, 37766), (462, 37790), (471, 37808), (525, 37952), (526, 37955), (527, 37958), (546, 37982), (611, 38081), (630, 38126), (633, 38132), (664, 38210), (754, 38390), (759, 38399), (766, 38420), (774, 38438), (786, 38462), (793, 38477), (815, 38507),

Gene: Zeeculate\_37 Start: 30186, Stop: 31673, Start Num: 195

Candidate Starts for Zeeculate\_37:

(Start: 98 @30090 has 29 MA's), (Start: 102 @30096 has 3 MA's), (Start: 107 @30102 has 10 MA's), (Start: 109 @30105 has 10 MA's), (Start: 119 @30120 has 12 MA's), (Start: 187 @30171 has 221 MA's), (Start: 195 @30186 has 10 MA's), (262, 30390), (264, 30396), (323, 30534), (326, 30546), (329, 30555), (331, 30564), (366, 30672), (379, 30693), (384, 30705), (391, 30729), (404, 30771), (453, 30885), (457, 30900), (480, 30960), (490, 30993), (500, 31017), (512, 31044), (525, 31071), (533, 31086), (580, 31155), (606, 31188), (608, 31194), (622, 31227), (655, 31308), (660, 31323), (710, 31428), (766, 31542), (828, 31641), (840, 31665),

Gene: Zemlya\_51 Start: 35100, Stop: 36743, Start Num: 55

Candidate Starts for Zemlya\_51:

(Start: 55 @35100 has 7 MA's), (Start: 89 @35166 has 25 MA's), (Start: 197 @35286 has 3 MA's), (Start: 222 @35376 has 1 MA's), (Start: 234 @35403 has 1 MA's), (255, 35454), (277, 35535), (278, 35538), (321, 35610), (322, 35619), (323, 35622), (373, 35775), (396, 35832), (398, 35835), (400, 35844), (408, 35868), (448, 35937), (497, 36072), (525, 36138), (546, 36168), (611, 36267), (622, 36291), (628, 36300), (635, 36324), (664, 36396), (759, 36585), (770, 36615), (774, 36624), (786, 36648), (793, 36663), (804, 36678),

Gene: Zephyr\_38 Start: 29921, Stop: 31423, Start Num: 187

Candidate Starts for Zephyr\_38:

(Start: 98 @29840 has 29 MA's), (Start: 102 @29846 has 3 MA's), (Start: 107 @29852 has 10 MA's), (Start: 109 @29855 has 10 MA's), (Start: 119 @29870 has 12 MA's), (Start: 187 @29921 has 221 MA's), (Start: 191 @29930 has 17 MA's), (262, 30140), (264, 30146), (268, 30158), (326, 30296), (329, 30305), (331, 30314), (334, 30320), (362, 30410), (366, 30422), (379, 30443), (384, 30455), (391, 30479), (404, 30521), (457, 30650), (480, 30710), (500, 30767), (525, 30821), (526, 30824), (533, 30836), (606, 30938), (608, 30944), (622, 30977), (655, 31058), (660, 31073), (766, 31292), (828, 31391), (840, 31415),

Gene: Zeta1847\_52 Start: 36962, Stop: 38524, Start Num: 142

Candidate Starts for Zeta1847\_52:

(Start: 142 @36962 has 1 MA's), (160, 36986), (Start: 165 @36992 has 35 MA's), (Start: 191 @37022 has 17 MA's), (256, 37193), (265, 37226), (331, 37394), (357, 37469), (376, 37523), (379, 37529), (473, 37790), (497, 37856), (543, 37946), (640, 38147), (743, 38342), (809, 38483),

Gene: Zeuska\_38 Start: 30100, Stop: 31602, Start Num: 187

Candidate Starts for Zeuska\_38:

(Start: 91 @30010 has 1 MA's), (Start: 98 @30019 has 29 MA's), (Start: 102 @30025 has 3 MA's), (Start: 107 @30031 has 10 MA's), (Start: 109 @30034 has 10 MA's), (Start: 119 @30049 has 12 MA's), (Start: 187 @30100 has 221 MA's), (Start: 195 @30115 has 10 MA's), (262, 30319), (264, 30325), (326, 30475), (329, 30484), (331, 30493), (366, 30601), (379, 30622), (384, 30634), (391, 30658), (404, 30700), (457, 30829), (480, 30889), (500, 30946), (512, 30973), (520, 30988), (521, 30991), (525, 31000), (526, 31003), (533, 31015), (608, 31123), (622, 31156), (655, 31237), (660, 31252), (766, 31471), (828, 31570), (840, 31594),

Gene: ZiggyZoo\_38 Start: 30330, Stop: 31721, Start Num: 188

Candidate Starts for ZiggyZoo\_38:

(122, 30252), (Start: 147 @30282 has 1 MA's), (161, 30300), (Start: 188 @30330 has 36 MA's), (227, 30450), (262, 30543), (281, 30609), (334, 30720), (345, 30753), (362, 30807), (404, 30924), (447, 31002), (522, 31179), (543, 31206), (561, 31221), (607, 31287), (608, 31290), (615, 31311), (617, 31314), (622, 31323), (624, 31326), (656, 31404), (682, 31461), (704, 31497), (719, 31530), (723, 31539), (735, 31557), (759, 31608), (768, 31629), (801, 31683),

Gene: Zolita\_29 Start: 26039, Stop: 24546, Start Num: 187

Candidate Starts for Zolita\_29:

(Start: 187 @26039 has 221 MA's), (Start: 200 @26006 has 1 MA's), (Start: 201 @26003 has 3 MA's), (Start: 206 @25985 has 9 MA's), (Start: 234 @25904 has 1 MA's), (273, 25784), (281, 25760), (294, 25733), (323, 25685), (379, 25520), (387, 25496), (389, 25493), (396, 25472), (415, 25415), (471, 25283), (525, 25142), (546, 25112), (614, 24977), (633, 24935), (637, 24923), (673, 24839), (680, 24824), (692, 24809), (776, 24632), (806, 24602),

Gene: phiBT1\_int Start: 38804, Stop: 40588, Start Num: 149

Candidate Starts for phiBT1\_int:

(57, 38654), (77, 38699), (94, 38723), (Start: 135 @38786 has 2 MA's), (149, 38804), (205, 38906), (215, 38942), (228, 38984), (232, 38999), (245, 39032), (253, 39056), (254, 39059), (265, 39098), (284, 39161), (290, 39176), (295, 39185), (361, 39359), (364, 39368), (370, 39392), (391, 39452), (394, 39461), (399, 39476), (416, 39533), (439, 39611), (463, 39680), (534, 39896), (560, 39953), (575, 39983), (597, 40028), (607, 40055), (633, 40130), (652, 40172), (686, 40259), (716, 40322), (755, 40406), (774, 40451), (806, 40508),

Gene: phiCAM\_49 Start: 38659, Stop: 40071, Start Num: 167

Candidate Starts for phiCAM\_49:

(167, 38659), (Start: 206 @38737 has 9 MA's), (265, 38902), (303, 38980), (354, 39112), (454, 39319), (485, 39391), (523, 39478), (551, 39517), (609, 39613), (652, 39709), (656, 39721), (659, 39730), (695, 39793), (720, 39847), (773, 39958), (829, 40036), (841, 40063),