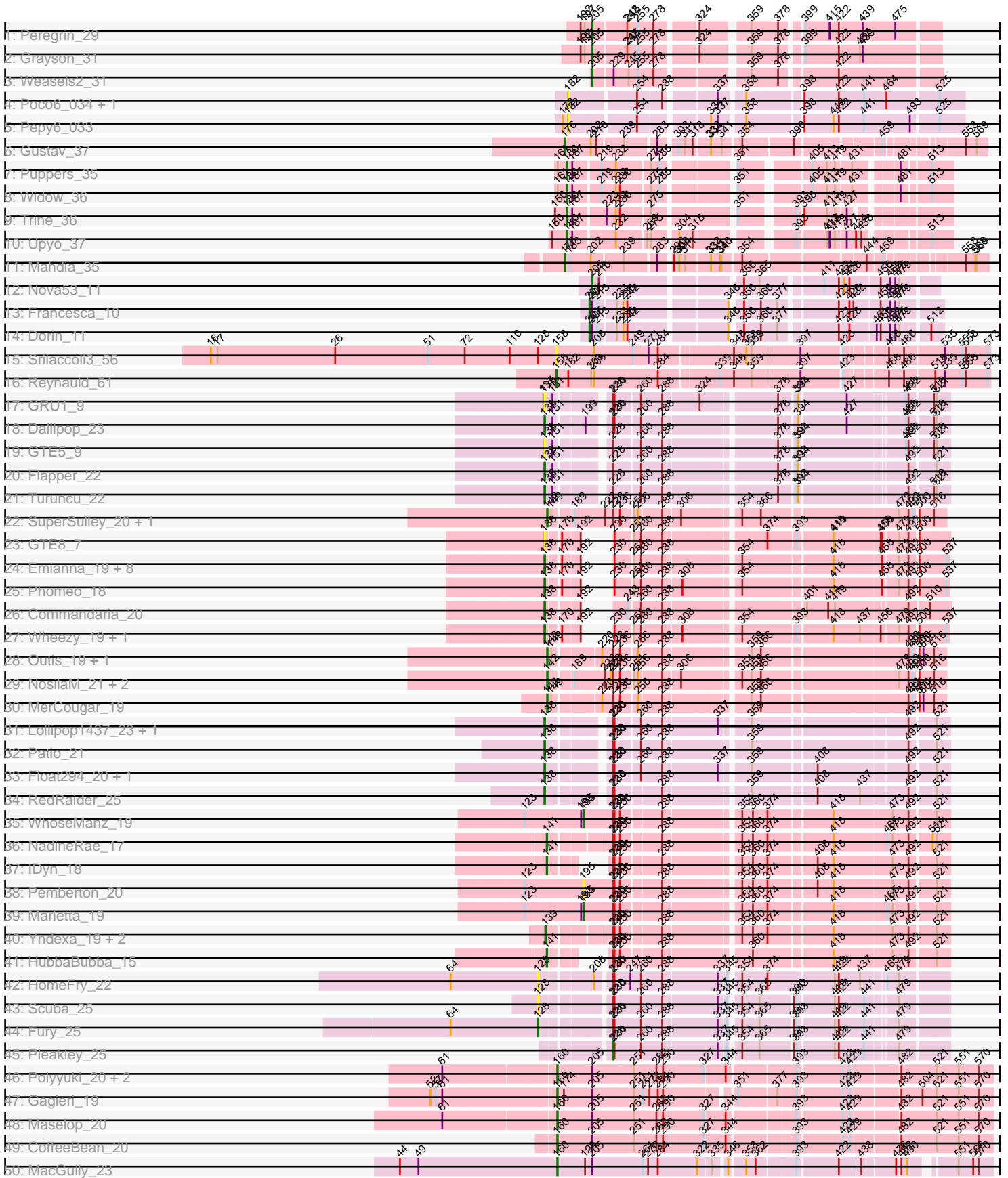
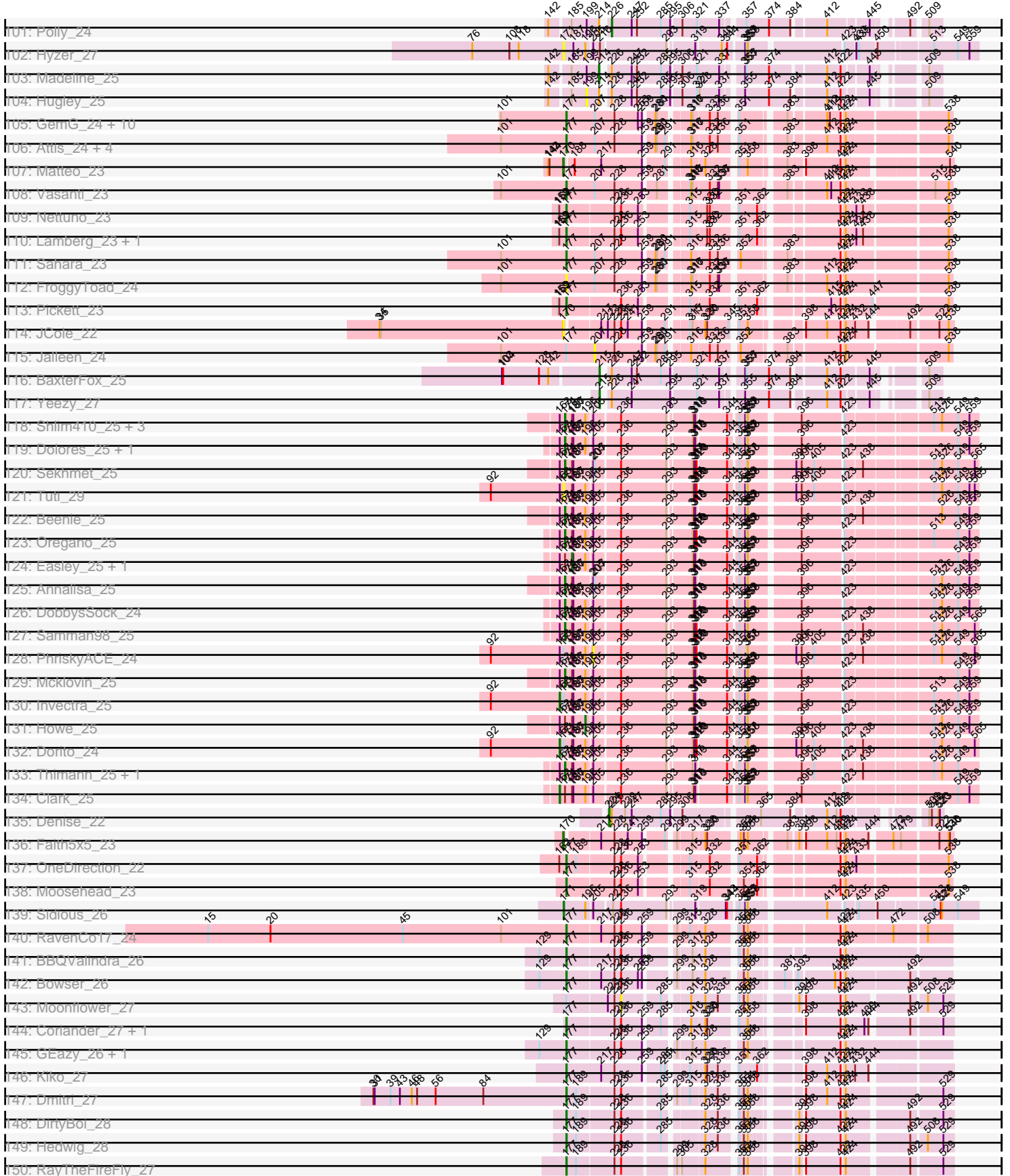


# Zoomed Pham 294306

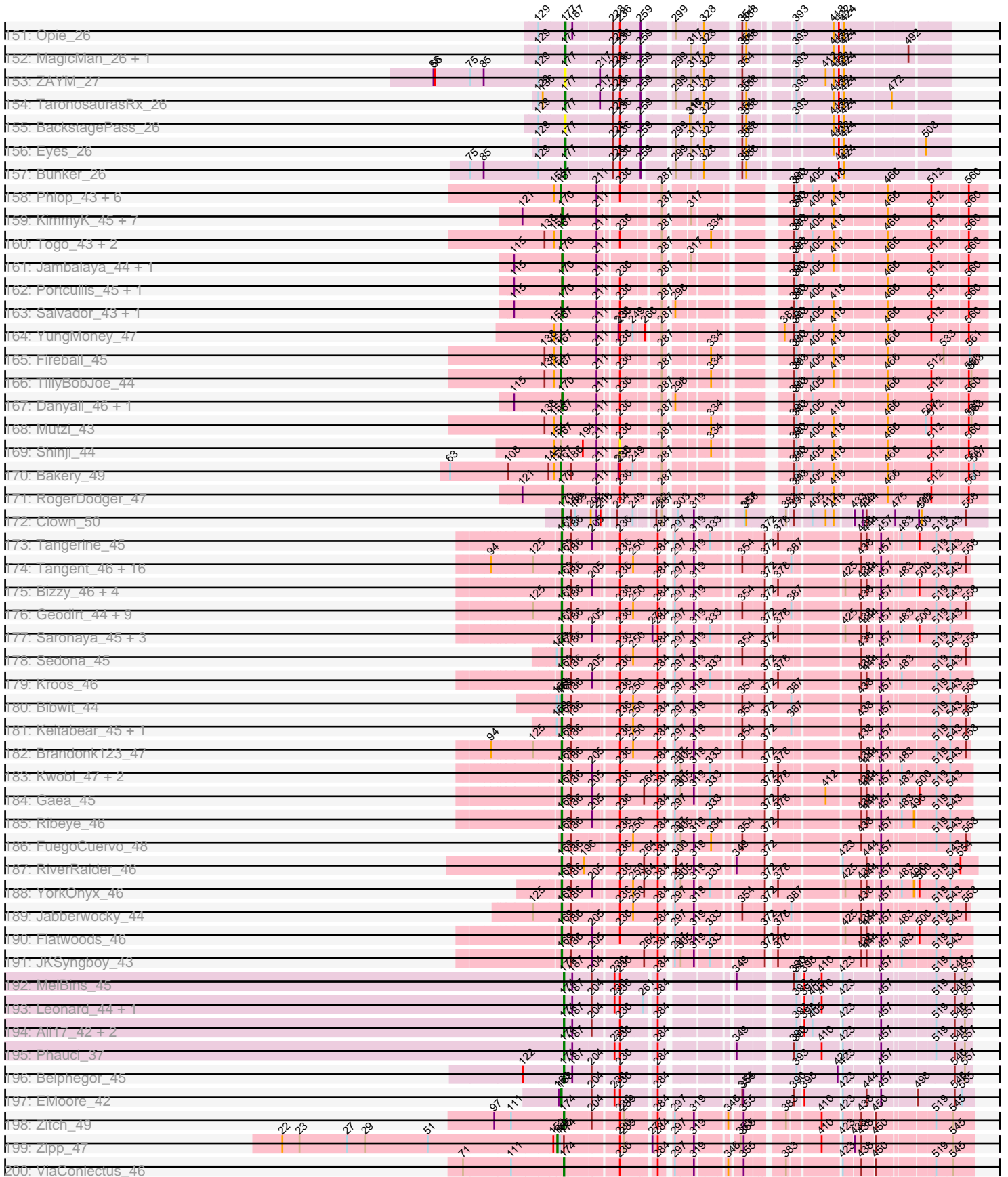




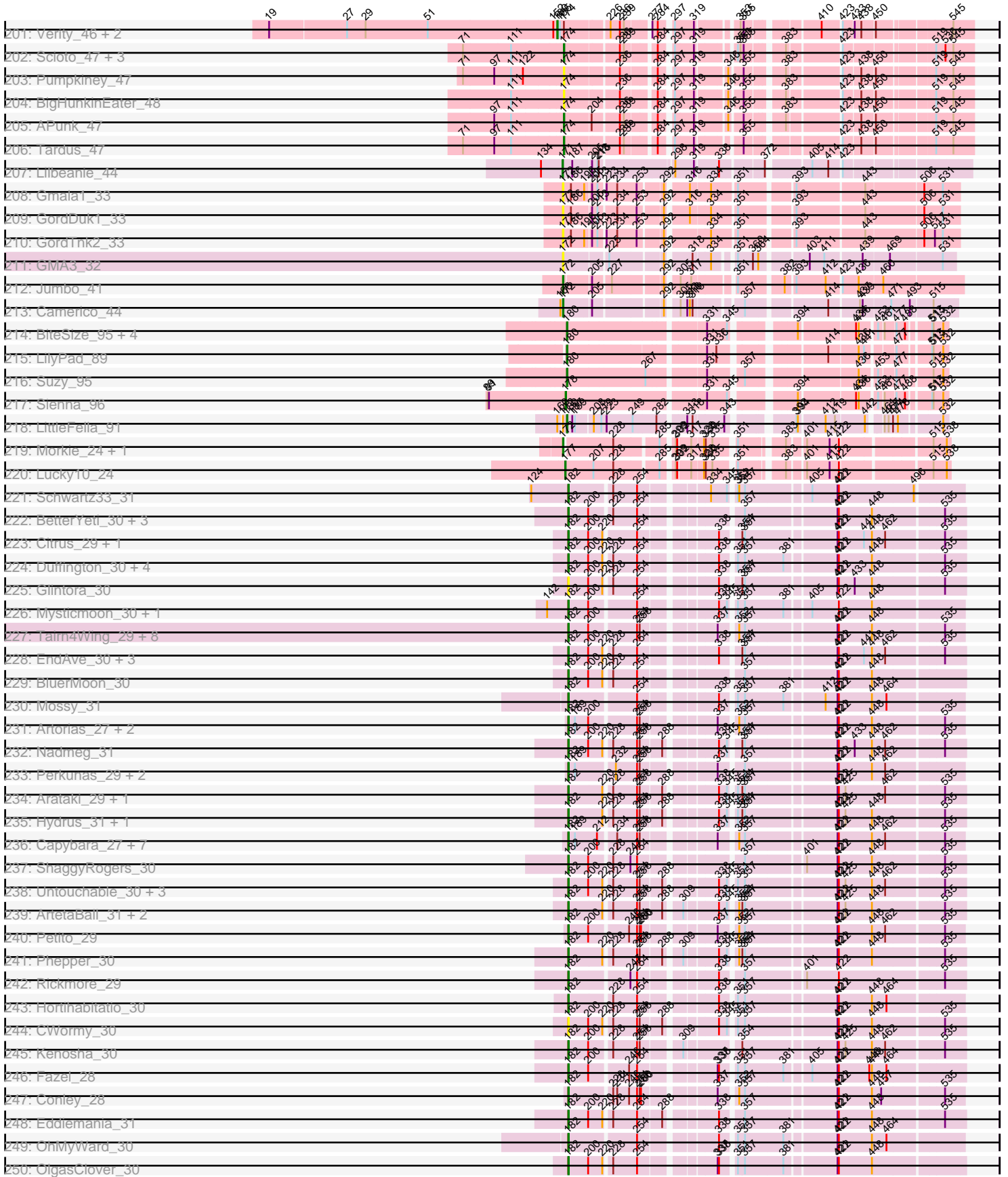
# Zoomed Pham 294306



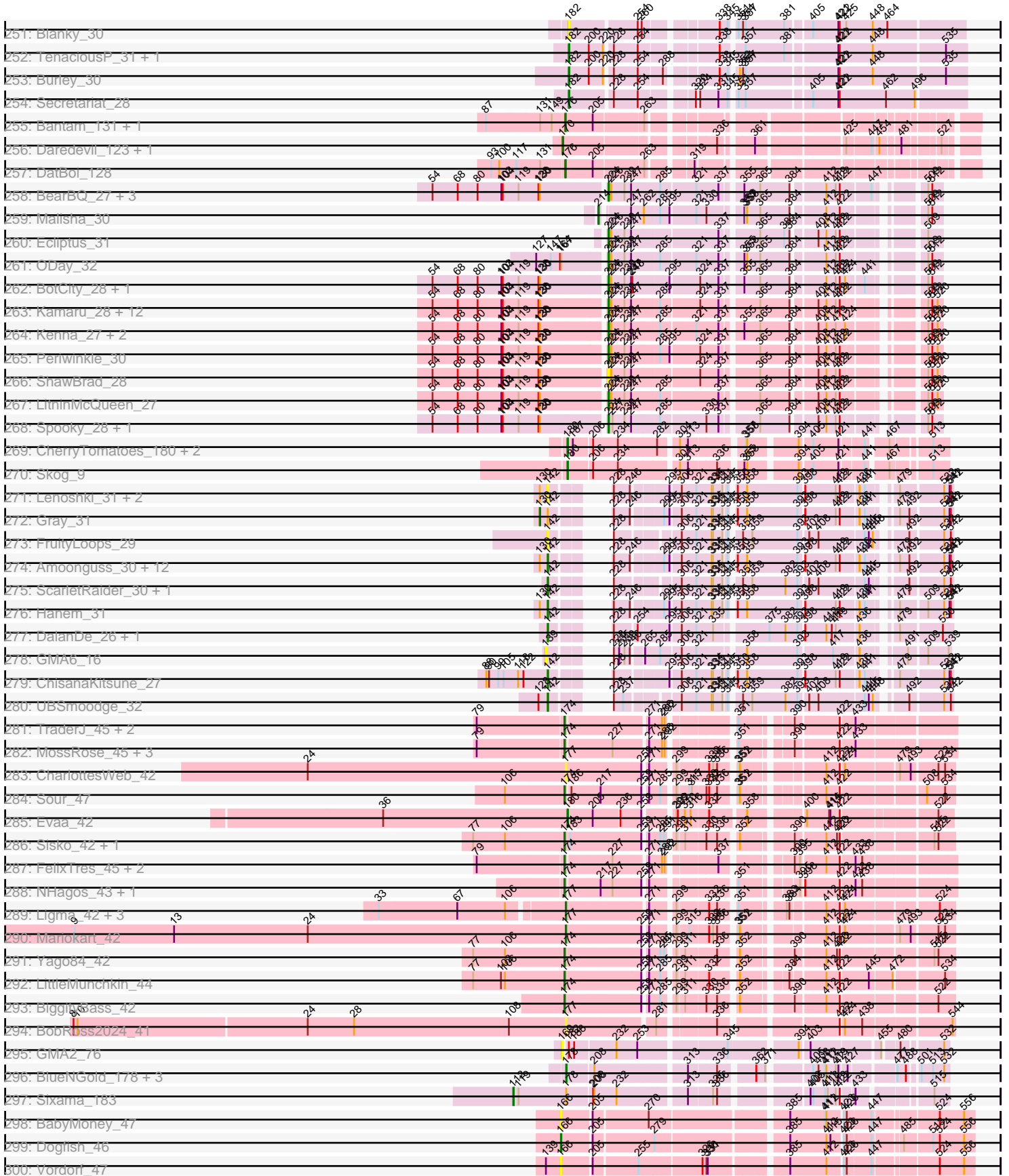
# Zoomed Pham 294306



# Zoomed Pham 294306



# Zoomed Pham 294306







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 294306 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294306 has 644 members, 100 are drafts.

Phages represented in each track:

- Track 1 : Peregrin\_29
- Track 2 : Grayson\_31
- Track 3 : Weasels2\_31
- Track 4 : Poco6\_034, PerroGrande22\_37
- Track 5 : Pepy6\_033
- Track 6 : Gustav\_37
- Track 7 : Puppies\_35
- Track 8 : Widow\_36
- Track 9 : Trine\_36
- Track 10 : Upyo\_37
- Track 11 : Mahdia\_35
- Track 12 : Nova53\_11
- Track 13 : Francesca\_10
- Track 14 : Dorin\_11
- Track 15 : Srilaccoli3\_56
- Track 16 : Reynauld\_61
- Track 17 : GRU1\_9
- Track 18 : Dalilpop\_23
- Track 19 : GTE5\_9
- Track 20 : Flapper\_22
- Track 21 : Turuncu\_22
- Track 22 : SuperSulley\_20, Buggaboo\_20
- Track 23 : GTE8\_7
- Track 24 : Emianna\_19, NatB6\_19, Foxboro\_20, Kurt\_19, Jifall16\_18, Arti\_19, KidneyBean\_19, GrootJr\_21, NovumRegina\_19
- Track 25 : Phomeo\_18
- Track 26 : Commandaria\_20
- Track 27 : Wheezy\_19, Tracker\_19
- Track 28 : Outis\_19, StarStruck\_19
- Track 29 : NosilaM\_21, Kabluna\_21, Bonum\_21
- Track 30 : MerCougar\_19
- Track 31 : Lollipop1437\_23, Ennea\_24
- Track 32 : Patio\_21
- Track 33 : Float294\_20, Skysand\_20
- Track 34 : RedRaider\_25
- Track 35 : WhoseManz\_19
- Track 36 : NadineRae\_17

- Track 37 : IDyn\_18
- Track 38 : Pemberton\_20
- Track 39 : Marietta\_19
- Track 40 : Yndexa\_19, Sukkupi\_19, BiPauneto\_20
- Track 41 : HubbaBubba\_15
- Track 42 : HomeFry\_22
- Track 43 : Scuba\_25
- Track 44 : Fury\_25
- Track 45 : Pleakley\_25
- Track 46 : Polyuyuki\_20, Braxoaddie\_20, Apiary\_20
- Track 47 : Gagieri\_19
- Track 48 : Maselep\_20
- Track 49 : CoffeeBean\_20
- Track 50 : MacGully\_23
- Track 51 : KayGee\_48, Elinal\_50
- Track 52 : CherryonLim\_48
- Track 53 : McDazzle\_49, ElJefes\_48
- Track 54 : Balloona\_46
- Track 55 : KappaFarmDelta\_27
- Track 56 : William\_26
- Track 57 : Pipp\_25, Utz\_25
- Track 58 : Jalammah\_27
- Track 59 : JasperJr\_25, Guacamole\_25, MintFen\_25, Malachai\_26, CaptainKirk2\_25, Begonia\_26, Melba\_25, Zilla\_25, Delian\_25, Zarbodnamra\_25, Wisp\_24, PhrostedPhlake\_27, BlingBling\_25, Barco\_25
- Track 60 : Samba\_25, Hitter\_25
- Track 61 : Fenry\_24
- Track 62 : Wocket\_27
- Track 63 : Frokostdame\_25
- Track 64 : Fairfaxidum\_25
- Track 65 : PrincePatrick\_25
- Track 66 : CheeseSpider\_29
- Track 67 : Obliviate\_25, ZiggyZoo\_25
- Track 68 : Archis\_26
- Track 69 : Lysidious\_26
- Track 70 : JuJu\_26
- Track 71 : Murp\_26
- Track 72 : Gambino\_27
- Track 73 : Petra\_27
- Track 74 : CarolAnn\_26, Blino\_26
- Track 75 : UmaThurman\_25
- Track 76 : MissRona\_27, Azula\_27, Blueberry\_27
- Track 77 : Toast\_26, PCoral7\_26
- Track 78 : Mellie\_24
- Track 79 : Walrus\_27
- Track 80 : Orchid\_39, Kampe\_40, PatrickStar\_40
- Track 81 : Gibbles\_38, RobinSparkles\_42
- Track 82 : Angelique\_28
- Track 83 : Lilas\_27
- Track 84 : EMSquaredA\_27, Pollux\_27, Bradissa\_27, EnalisNailo\_27, Marteena\_27, Floral\_27
- Track 85 : Confidence\_26, BeeGee\_26
- Track 86 : BritBrat\_27

- Track 87 : Wrigley\_28, Jablanski\_28, Posh\_28, Pytheas\_28
- Track 88 : Cashline\_26
- Track 89 : LonelyBoi\_27
- Track 90 : Bunnybear\_24
- Track 91 : Lton\_23
- Track 92 : Pepperoni\_24
- Track 93 : Ohgeesy\_25
- Track 94 : BoyNamedSue\_26, AlumE\_26, PantheRoc\_26, Agueybana\_26
- Track 95 : WelcomeAyanna\_24, ThankyouJordi\_24
- Track 96 : Neobush\_27, Manasvini\_27, Suscepit\_27, Zameen\_27, Eudoria\_27, Antonio\_27, Kita\_27, Trumpet\_27, Maridalia\_26, Tayonia\_27
- Track 97 : Bialota\_25, Zirinka\_25
- Track 98 : Nymphadora\_25
- Track 99 : Madavieve\_25
- Track 100 : Eviarto\_25, BatStarr\_25, TimTam\_25, Bosnia\_25, Herod\_25
- Track 101 : Polly\_24
- Track 102 : Hyzer\_27
- Track 103 : Madeline\_25
- Track 104 : Hugley\_25
- Track 105 : GemG\_24, Ebert\_24, Gizermo\_24, Cynthia\_24, Whiteclaw\_24, Savage\_24, Sproutie\_24, Mocha12\_24, Clap\_24, Haley23\_24, TueritoX\_24
- Track 106 : Attis\_24, Yeet412\_24, LordFarquaad\_24, SoilAssassin\_24, Bjanes7\_24
- Track 107 : Matteo\_23
- Track 108 : Vasanti\_23
- Track 109 : Nettuno\_23
- Track 110 : Lamberg\_23, EdnaMode\_23
- Track 111 : Sahara\_23
- Track 112 : FroggyToad\_24
- Track 113 : Pickett\_23
- Track 114 : JCole\_22
- Track 115 : Jalleen\_24
- Track 116 : BaxterFox\_25
- Track 117 : Yeezy\_27
- Track 118 : Shlim410\_25, Adora\_25, Hortense\_25, Twinkle\_25
- Track 119 : Dolores\_25, MichaelScott\_25
- Track 120 : Sekhmet\_25
- Track 121 : Tuti\_29
- Track 122 : Beenie\_25
- Track 123 : Oregano\_25
- Track 124 : Easley\_25, WinkNick\_25
- Track 125 : Annalisa\_25
- Track 126 : DobbysSock\_24
- Track 127 : Samman98\_25
- Track 128 : PhriskyACE\_24
- Track 129 : Mcklovin\_25
- Track 130 : Invectra\_25
- Track 131 : Howe\_25
- Track 132 : Dorito\_24
- Track 133 : Thimann\_25, Suerte\_23
- Track 134 : Clark\_25
- Track 135 : Denise\_22
- Track 136 : Faith5x5\_23
- Track 137 : OneDirection\_22

- Track 138 : Moosehead\_23
- Track 139 : Sidious\_26
- Track 140 : RavenCo17\_24
- Track 141 : BBQValindra\_26
- Track 142 : Bowser\_26
- Track 143 : Moonflower\_27
- Track 144 : Coriander\_27, Doggs\_26
- Track 145 : GEazy\_26, HannahD\_26
- Track 146 : Kiko\_27
- Track 147 : Dmitri\_27
- Track 148 : DirtyBoi\_28
- Track 149 : Hedwig\_28
- Track 150 : RayTheFireFly\_27
- Track 151 : Opie\_26
- Track 152 : MagicMan\_26, Schnabeltier\_26
- Track 153 : ZAYM\_27
- Track 154 : TaronosaurusRx\_26
- Track 155 : BackstagePass\_26
- Track 156 : Eyes\_26
- Track 157 : Bunker\_26
- Track 158 : Phlop\_43, Fugax\_47, Egi03\_44, Barb\_46, PullumCavea\_43, ClamChowder\_46, PinkCoffee\_46
- Track 159 : KimmyK\_45, VanDeWege\_47, Wizard\_43, CoveyB\_47, Valary\_46, Arri\_47, Gezellig\_43, CherryCola\_46
- Track 160 : Togo\_43, SmokingBunny\_44, Nubi\_44
- Track 161 : Jambalaya\_44, Savbucketdawg\_44
- Track 162 : Portcullis\_45, Halo3\_44
- Track 163 : Salvador\_43, Evamon\_43
- Track 164 : YungMoney\_47
- Track 165 : Fireball\_45
- Track 166 : TillyBobJoe\_44
- Track 167 : Danyall\_46, Twister6\_46
- Track 168 : Mutzi\_43
- Track 169 : Shinji\_44
- Track 170 : Bakery\_49
- Track 171 : RogerDodger\_47
- Track 172 : Clown\_50
- Track 173 : Tangerine\_45
- Track 174 : Tangent\_46, ChadMasterC\_46, Paries\_48, McCrothy\_45, Vivi2\_48, Sanjuju\_44, MoontowerMania\_45, Fitzgerald\_44, McKinley\_47, Charming\_46, Barsten\_46, BobBob\_43, Rofo\_46, Shivanishola\_45, Galadriel\_45, Love\_49, Nordenberg\_40
- Track 175 : Bizzy\_46, Derg\_41, SchottB\_44, Baumdotcom\_44, LilHam\_43
- Track 176 : Geodirt\_44, Fosterous\_43, Kamashten\_43, Affeca\_43, Kewpiedoll\_45, Lennon\_45, Angelicage\_43, Sitar\_45, Thing3\_43, Stultus\_44
- Track 177 : Saronaya\_45, Baddon\_45, Ashertheman\_46, Gustavo\_45
- Track 178 : Sedona\_45
- Track 179 : Kroos\_46
- Track 180 : Bibwit\_44
- Track 181 : Keitabear\_45, Ailee\_42
- Track 182 : Brandonk123\_47
- Track 183 : Kwobi\_47, StorminNorm\_45, Tycho\_45
- Track 184 : Gaea\_45

- Track 185 : Ribeye\_46
- Track 186 : FuegoCuervo\_48
- Track 187 : RiverRaider\_46
- Track 188 : YorkOnyx\_46
- Track 189 : Jabberwocky\_44
- Track 190 : Flatwoods\_46
- Track 191 : JKSyngboy\_43
- Track 192 : MelBins\_45
- Track 193 : Leonard\_44, Phinally\_44
- Track 194 : Ali17\_42, Hans\_46, Inspectinfecti\_45
- Track 195 : Phauci\_37
- Track 196 : Belphegor\_45
- Track 197 : EMoore\_42
- Track 198 : Zitch\_49
- Track 199 : Zipp\_47
- Track 200 : ViaConlectus\_46
- Track 201 : Verity\_46, Delrey21\_46, DoctorFroggo\_46
- Track 202 : Scioto\_47, Sampson\_46, Natkenzie\_46, Abblin\_46
- Track 203 : Pumpkiney\_47
- Track 204 : BigHunkinEater\_48
- Track 205 : APunk\_47
- Track 206 : Tardus\_47
- Track 207 : Lilbeanie\_44
- Track 208 : Gmala1\_33
- Track 209 : GordDuk1\_33
- Track 210 : GordTnk2\_33
- Track 211 : GMA3\_32
- Track 212 : Jumbo\_41
- Track 213 : Camerico\_44
- Track 214 : BiteSize\_95, Madi\_94, Beyoncage\_95, Djokovic\_95, Terapin\_96
- Track 215 : LilyPad\_89
- Track 216 : Suzy\_95
- Track 217 : Sienna\_96
- Track 218 : LittleFella\_91
- Track 219 : Morkie\_24, PhorbesPhlower\_24
- Track 220 : Lucky10\_24
- Track 221 : Schwartz33\_31
- Track 222 : BetterYeti\_30, PestoPenguin\_33, Aloe25\_33, Gusicorn\_30
- Track 223 : Citrus\_29, Luthien\_31
- Track 224 : Duffington\_30, Tonaltzin\_32, MajinBuu\_30, Figliar\_30, Aflac\_30
- Track 225 : Glintora\_30
- Track 226 : Mysticmoon\_30, Pherobrine\_29
- Track 227 : Tairn4Wing\_29, ChickyNuggy\_28, JulesRay\_27, Football\_28, Bugg\_28, Trufflozitus\_30, Dancer\_27, NoPickles\_27, Captrips\_27
- Track 228 : EndAve\_30, AlainaMarie\_30, Chikenjars\_30, Nithya\_30
- Track 229 : BluerMoon\_30
- Track 230 : Mossy\_31
- Track 231 : Artorias\_27, Avazak\_27, FortCran\_27
- Track 232 : Nadmeg\_31
- Track 233 : Perkunas\_29, SweetCrkHerbs\_29, Talon44\_28
- Track 234 : Arataki\_29, Demure\_29
- Track 235 : Hydrus\_31, Zeph\_31

- Track 236 : Capybara\_27, Roney\_27, Gill\_27, Odesza\_27, Kerry\_27, Tanis\_27, Gravy\_27, Magel\_27
- Track 237 : ShaggyRogers\_30
- Track 238 : Untouchable\_30, Madvan\_30, Crocheter\_30, Dialga\_31
- Track 239 : ArtetaBall\_31, Runhaar\_30, Vardy\_30
- Track 240 : Petito\_29
- Track 241 : Phepper\_30
- Track 242 : Rickmore\_29
- Track 243 : Hortihabitatio\_30
- Track 244 : CWormy\_30
- Track 245 : Kenosha\_30
- Track 246 : Fazel\_28
- Track 247 : Conley\_28
- Track 248 : Eddiemania\_31
- Track 249 : OhMyWard\_30
- Track 250 : OlgasClover\_30
- Track 251 : Blanky\_30
- Track 252 : TenaciousP\_31, Jodelie19\_31
- Track 253 : Burley\_30
- Track 254 : Secretariat\_28
- Track 255 : Bantam\_131, SpeedDemon\_1340
- Track 256 : Daredevil\_123, Towmatter\_121
- Track 257 : DatBoi\_128
- Track 258 : BearBQ\_27, Kuwabara\_27, MortyNRick\_27, Birdsong\_27
- Track 259 : Malisha\_30
- Track 260 : Ecliptus\_31
- Track 261 : ODay\_32
- Track 262 : BotCity\_28, BENtherdunthat\_28
- Track 263 : Kamaru\_28, Getalong\_29, Horus\_28, Budski\_28, CheeseTouch\_28, Holliday\_28, Leroy\_28, Crater\_26, Phistory\_29, Phabuloso\_27, Frickyeah\_27, Apricot\_27, Whitney\_29
- Track 264 : Kenna\_27, Lutum\_28, Asapag\_28
- Track 265 : Periwinkle\_30
- Track 266 : ShawBrad\_28
- Track 267 : LitninMcQueen\_27
- Track 268 : Spooky\_28, Squiddly\_30
- Track 269 : CherryTomatoes\_180, Pupper\_177, SCentae\_176
- Track 270 : Skog\_9
- Track 271 : Lenoshki\_31, Beted\_31, Oogie\_31
- Track 272 : Gray\_31
- Track 273 : FruityLoops\_29
- Track 274 : Amoonguss\_30, Schomber\_30, Twin\_30, Chidiebere\_31, Toneprano\_30, EmoNemo\_30, Argena\_30, Kabocha\_32, Alok\_30, Pakusa\_30, Mikronejon\_30, Farrylious\_29, MintFritos\_30
- Track 275 : ScarletRaider\_30, FlyingTortilla\_30
- Track 276 : Hanem\_31
- Track 277 : DalanDe\_26, Thales\_26
- Track 278 : GMA6\_16
- Track 279 : ChisanaKitsune\_27
- Track 280 : UBSmoodge\_32
- Track 281 : TraderJ\_45, Yeshua\_45, Wooper\_45
- Track 282 : MossRose\_45, MakoManhole\_45, CaiB\_45, AnarQue\_45
- Track 283 : CharlottesWeb\_42

- Track 284 : Sour\_47
- Track 285 : Evaa\_42
- Track 286 : Sisko\_42, AnClar\_43
- Track 287 : FelixTres\_45, CloverMinnie\_45, Blackpen\_45
- Track 288 : NHagos\_43, AksarBAT\_43
- Track 289 : Ligma\_42, Fresco\_42, Axumite\_42, Shatter\_42
- Track 290 : Mariokart\_42
- Track 291 : Yago84\_42
- Track 292 : LittleMunchkin\_44
- Track 293 : BiggityBass\_42
- Track 294 : BobRoss2024\_41
- Track 295 : GMA2\_76
- Track 296 : BlueNGold\_178, Forza\_182, Mareelih\_179, Boopy\_181
- Track 297 : Sixama\_183
- Track 298 : BabyMoney\_47
- Track 299 : Dogfish\_46
- Track 300 : Vordorf\_47
- Track 301 : Meyran\_46
- Track 302 : Phishy\_50
- Track 303 : Nyceirae\_51
- Track 304 : Manilisa\_49
- Track 305 : Ewald\_46
- Track 306 : Kudefre\_120
- Track 307 : Octobien14\_115
- Track 308 : Sephiroth\_116
- Track 309 : Syleon\_121
- Track 310 : Neville\_115
- Track 311 : Trax\_117
- Track 312 : Rabbitrun\_118
- Track 313 : LilJank\_113
- Track 314 : LuckyLeo\_84, Apeppi\_82
- Track 315 : Erutan\_86, Gretellyn\_86
- Track 316 : Jalebi\_86, MoiGyank\_89, Sampudon\_88, Gibbin\_88
- Track 317 : Stormer\_86
- Track 318 : Patos\_91, NorManre\_91
- Track 319 : Riduram\_85
- Track 320 : DaviePasture\_87, LavAbarElk\_86
- Track 321 : RazorC\_84, Avian\_82
- Track 322 : Rukungu\_87, GOATification\_85, Fulcrum\_85
- Track 323 : Xenia2\_89
- Track 324 : DoobyDoo\_86
- Track 325 : Alyssamiracle\_87, Genamy16\_87, NovaSharks\_86, Astralis\_84
- Track 326 : Sadboi\_86
- Track 327 : Ranch\_90
- Track 328 : Tillicus\_80
- Track 329 : Zany\_85
- Track 330 : DumpTruck\_89
- Track 331 : Lila22\_87
- Track 332 : OtterstedtS21\_87
- Track 333 : BirthdayBoy\_89
- Track 334 : Rumi\_85
- Track 335 : Charminar\_85
- Track 336 : Lambo\_86

- Track 337 : ParvusTarda\_86
- Track 338 : Wojtek\_79
- Track 339 : Alephilan\_88
- Track 340 : Rota\_85
- Track 341 : Yikes\_87
- Track 342 : Jamemuya19\_82
- Track 343 : Mima20\_85
- Track 344 : Malibo\_27
- Track 345 : Zodiariah\_29
- Track 346 : DumpsterDude\_29
- Track 347 : Ruthy\_29
- Track 348 : ArchiDore\_29
- Track 349 : MakCheese\_31
- Track 350 : Sprinklemunch\_29
- Track 351 : DonkeyMan\_50, Tarzan\_50
- Track 352 : Hibiscus\_50, Heinz\_49
- Track 353 : Reyja\_51
- Track 354 : Jojo24\_48
- Track 355 : Santhid\_48
- Track 356 : ObLaDi\_33, ModicumRichard\_33, Aleemily\_32, Cafasso\_33
- Track 357 : Morgana\_33
- Track 358 : VanLee\_104
- Track 359 : Colossa\_101
- Track 360 : TPA4\_30
- Track 361 : GAL1\_26
- Track 362 : Mbo4\_54
- Track 363 : E3\_gp85
- Track 364 : Gudmit\_24
- Track 365 : JeanGrey\_131
- Track 366 : Mbo2\_63
- Track 367 : TinyDot\_25
- Track 368 : Eyre\_23
- Track 369 : Jace\_72
- Track 370 : E3\_gp167

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

The start number called the most often in the published annotations is 182, it was called in 57 of the 544 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Aflac\_30, AlainaMarie\_30, Aloe25\_33, Arataki\_29, ArtetaBall\_31, Artorias\_27, Avazak\_27, BetterYeti\_30, Blanky\_30, BluerMoon\_30, Bugg\_28, Burley\_30, CWormy\_30, Captrips\_27, Copybara\_27, ChickyNuggy\_28, Chikenjars\_30, Citrus\_29, Conley\_28, Crocheter\_30, Dancer\_27, Demure\_29, Dialga\_31, Duffington\_30, Eddiemania\_31, EndAve\_30, Fazel\_28, Figliar\_30, Football\_28, FortCran\_27, Gill\_27, Glintora\_30, Gravy\_27, Gusicorn\_30, Hortihabitatio\_30, Hydrus\_31, JeanGrey\_131, Jodelie19\_31, JulesRay\_27, Kenosha\_30, Kerry\_27, Luthien\_31, Madvan\_30, Magel\_27, MajinBuu\_30, Mossy\_31, Mysticmoon\_30, Nadmeg\_31, Nithya\_30, NoPickles\_27, Odesza\_27, OhMyWard\_30,

OlgasClover\_30, Pepy6\_033, Perunas\_29, PerroGrande22\_37, PestoPenguin\_33, Petite\_29, Phepper\_30, Pherobrine\_29, Poco6\_034, Rickmore\_29, Roney\_27, Runhaar\_30, Schwartz33\_31, Secretariat\_28, ShaggyRogers\_30, SweetCrkHerbs\_29, Tairn4Wing\_29, Talon44\_28, Tanis\_27, TenaciousP\_31, Tonaltzin\_32, Trufflozitus\_30, Untouchable\_30, Vardy\_30, Zeph\_31,

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

- GMA2\_76, Gibbles\_38, Reynauld\_61, RobinSparkles\_42,

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

- APunk\_47, Abblin\_46, Adora\_25, Affeca\_43, Agueybana\_26, Ailee\_42, AksarBAT\_43, Aleemily\_32, Alephilan\_88, Ali17\_42, Alok\_30, AlumE\_26, Alyssamiracle\_87, Amoonguss\_30, AnClar\_43, AnarQue\_45, Angelicage\_43, Angelique\_28, Annalisa\_25, Antonio\_27, Apeppi\_82, Apiary\_20, Apricot\_27, ArchiDore\_29, Archis\_26, Argena\_30, Arri\_47, Arti\_19, Asapag\_28, Ashertheman\_46, Astralis\_84, Attis\_24, Avian\_82, Axumite\_42, Azula\_27, BBQValindra\_26, BENtherdunthat\_28, BabyMoney\_47, BackstagePass\_26, Baddon\_45, Bakery\_49, Balloona\_46, Bantam\_131, Barb\_46, Barco\_25, Barsten\_46, BatStarr\_25, Baumdotcom\_44, BaxterFox\_25, BearBQ\_27, BeeGee\_26, Beenie\_25, Begonia\_26, Belphegor\_45, Beted\_31, Beyoncage\_95, BiPauneto\_20, Bialota\_25, Bibwit\_44, BigHunkinEater\_48, BiggityBass\_42, Birdsong\_27, BirthdayBoy\_89, BiteSize\_95, Bizzy\_46, Bjanes7\_24, Blackpen\_45, BlingBling\_25, Blino\_26, BlueNGold\_178, Blueberry\_27, BobBob\_43, BobRoss2024\_41, Bonum\_21, Boopy\_181, Bosnia\_25, BotCity\_28, Bowser\_26, BoyNamedSue\_26, Bradissa\_27, Brandonk123\_47, Braxoaddie\_20, BritBrat\_27, Budski\_28, Buggaboo\_20, Bunker\_26, Bunnybear\_24, Cafasso\_33, CaiB\_45, Camerico\_44, CaptainKirk2\_25, CarolAnn\_26, Cashline\_26, ChadMasterC\_46, CharlottesWeb\_42, Charminar\_85, Charming\_46, CheeseSpider\_29, CheeseTouch\_28, CherryCola\_46, CherryTomatoes\_180, CherryonLim\_48, Chidiebere\_31, ChisanaKitsune\_27, ClamChowder\_46, Clap\_24, Clark\_25, CloverMinnie\_45, Clown\_50, CoffeeBean\_20, Colossa\_101, Commandaria\_20, Confidence\_26, Coriander\_27, CoveyB\_47, Crater\_26, Cynthia\_24, DalanDe\_26, Dalilpop\_23, Danyall\_46, Daredevil\_123, DatBoi\_128, DaviePasture\_87, Delian\_25, Delrey21\_46, Denise\_22, Derg\_41, DirtyBoi\_28, Djokovic\_95, Dmitri\_27, DobbysSock\_24, DoctorFroggo\_46, Dogfish\_46, Doggs\_26, Dolores\_25, DonkeyMan\_50, DoobyDoo\_86, Dorin\_11, Dorito\_24, DumpTruck\_89, DumpsterDude\_29, E3\_gp167, E3\_gp85, EMoore\_42, EMSquaredA\_27, Easley\_25, Ebert\_24, Ecliptus\_31, EdnaMode\_23, Egi03\_44, ElJefes\_48, Elinal\_50, Emianna\_19, EmoNemo\_30, EnalisNailo\_27, Ennea\_24, Erutan\_86, Eudoria\_27, Evaa\_42, Evamon\_43, Eviarto\_25, Ewald\_46, Eyes\_26, Eyre\_23, Fairfaxidum\_25, Faith5x5\_23, Farrylious\_29, FelixTres\_45, Fenry\_24, Fireball\_45, Fitzgerald\_44, Flapper\_22, Flatwoods\_46, Float294\_20, Floral\_27, FlyingTortilla\_30, Forza\_182, Fosterous\_43, Foxboro\_20, Francesca\_10, Fresco\_42, Frickyeah\_27, FroggyToad\_24, Frokostdame\_25, FruityLoops\_29, FuegoCuervo\_48, Fugax\_47, Fulcrum\_85, Fury\_25, GAL1\_26, GEazy\_26, GMA3\_32, GMA6\_16, GOATification\_85, GRU1\_9, GTE5\_9, GTE8\_7, Gaea\_45, Gagieri\_19, Galadriel\_45, Gambino\_27, GemG\_24, Genamy16\_87, Geodirt\_44, Getalong\_29, Gezellig\_43, Gibbin\_88, Gizermo\_24, Gmala1\_33, GordDuk1\_33, GordTnk2\_33, Gray\_31, Grayson\_31, Gretellyn\_86, GrootJr\_21, Guacamole\_25, Gudmit\_24, Gustav\_37, Gustavo\_45, Haley23\_24, Halo3\_44, Hanem\_31, HannahD\_26, Hans\_46, Hedwig\_28, Heinz\_49, Herod\_25, Hibiscus\_50, Hitter\_25, Holliday\_28, HomeFry\_22, Hortense\_25, Horus\_28, Howe\_25, HubbaBubba\_15, Hugley\_25, Hyzer\_27, IDyn\_18, Inspectinfecti\_45, Invectra\_25, JCole\_22, JKSyngboy\_43, Jabberwocky\_44, Jablanski\_28, Jace\_72, Jalammah\_27, Jalebi\_86, Jalleen\_24, Jambalaya\_44,

Jamemuya19\_82, JasperJr\_25, Jifall16\_18, Jojo24\_48, JuJu\_26, Jumbo\_41, Kabluna\_21, Kabocha\_32, Kamaru\_28, Kamashten\_43, Kampe\_40, KappaFarmDelta\_27, KayGee\_48, Keitabear\_45, Kenna\_27, Kewpiedoll\_45, KidneyBean\_19, Kiko\_27, KimmyK\_45, Kita\_27, Kroos\_46, Kudrefre\_120, Kurt\_19, Kuwabara\_27, Kwobi\_47, Lamberg\_23, Lambo\_86, LavAbarElk\_86, Lennon\_45, Lenoshki\_31, Leonard\_44, Leroy\_28, Ligma\_42, LilHam\_43, LilJank\_113, Lila22\_87, Lilas\_27, Lilbeanie\_44, LilyPad\_89, LitninMcQueen\_27, LittleFella\_91, LittleMunchkin\_44, Lollipop1437\_23, LonelyBoi\_27, LordFarquaad\_24, Love\_49, Lton\_23, Lucky10\_24, LuckyLeo\_84, Lutum\_28, Lysidious\_26, MacGully\_23, Madavieve\_25, Madeline\_25, Madi\_94, MagicMan\_26, Mahdia\_35, MakCheese\_31, MakoManhole\_45, Malachai\_26, Malibo\_27, Malisha\_30, Manasvini\_27, Manilisa\_49, Mareelih\_179, Maridalia\_26, Marietta\_19, Mariokart\_42, Marteena\_27, Maselop\_20, Matteo\_23, Mbo2\_63, Mbo4\_54, McCrothy\_45, McDazzle\_49, McKinley\_47, Mcklovin\_25, MelBins\_45, Melba\_25, Mellie\_24, MerCougar\_19, Meyran\_46, MichaelScott\_25, Mikronejon\_30, Mima20\_85, MintFen\_25, MintFritos\_30, MissRona\_27, Mocha12\_24, ModicumRichard\_33, MoiGyank\_89, Moonflower\_27, MoontowerMania\_45, Moosehead\_23, Morgana\_33, Morkie\_24, MortyNRick\_27, MossRose\_45, Murp\_26, Mutzi\_43, NHagos\_43, NadineRae\_17, NatB6\_19, Natkenzie\_46, Neobush\_27, Nettuno\_23, Neville\_115, NorManre\_91, Nordenberg\_40, NosilaM\_21, Nova53\_11, NovaSharks\_86, NovumRegina\_19, Nubi\_44, Nyceirae\_51, Nymphadora\_25, ODay\_32, ObLaDi\_33, Obliviate\_25, Octobien14\_115, Ohgeesy\_25, OneDirection\_22, Oogie\_31, Opie\_26, Orchid\_39, Oregano\_25, OtterstedtS21\_87, Outis\_19, PCoral7\_26, Pakusa\_30, PantheRoc\_26, Paries\_48, ParvusTarda\_86, Patio\_21, Patos\_91, PatrickStar\_40, Pemberton\_20, Pepperoni\_24, Peregrin\_29, Periwinkle\_30, Petra\_27, Phabuloso\_27, Phauci\_37, Phinally\_44, Phishy\_50, Phistory\_29, Phlop\_43, Phomeo\_18, PhorbesPhlower\_24, PhriskyACE\_24, PhrostedPhlake\_27, Pickett\_23, PinkCoffee\_46, Pipp\_25, Pleakley\_25, Pollux\_27, Polly\_24, Polykyu\_20, Portcullis\_45, Posh\_28, PrincePatrick\_25, PullumCavea\_43, Pumpkiney\_47, Pupper\_177, Puppies\_35, Pytheas\_28, Rabbitrun\_118, Ranch\_90, RavenCo17\_24, RayTheFireFly\_27, RazorC\_84, RedRaider\_25, Reyja\_51, Ribeye\_46, Riduram\_85, RiverRaider\_46, Rofo\_46, RogerDodger\_47, Rota\_85, Rukungu\_87, Rumi\_85, Ruthy\_29, SCentae\_176, Sadboi\_86, Sahara\_23, Salvador\_43, Samba\_25, Samman98\_25, Sampson\_46, Sampudon\_88, Sanjuju\_44, Santhid\_48, Saronaya\_45, Savage\_24, Savbucketdawg\_44, ScarletRaider\_30, Schnabeltier\_26, Schomber\_30, SchottB\_44, Scioto\_47, Scuba\_25, Sedona\_45, Sekhmet\_25, Sephiroth\_116, Shatter\_42, ShawBrad\_28, Shinji\_44, Shivanishola\_45, Shlim410\_25, Sidious\_26, Sienna\_96, Sisko\_42, Sitar\_45, Sixama\_183, Skog\_9, Skysand\_20, SmokingBunny\_44, SoilAssassin\_24, Sour\_47, SpeedDemon\_1340, Spooky\_28, Sprinklemunch\_29, Sproutie\_24, Squiddly\_30, Srilaccoli3\_56, StarStruck\_19, Stormer\_86, StorminNorm\_45, Stultus\_44, Suerte\_23, Sukkupi\_19, SuperSulley\_20, Suscepit\_27, Suzy\_95, Syleon\_121, TPA4\_30, Tangent\_46, Tangerine\_45, Tardus\_47, TaronosaurusRx\_26, Tarzan\_50, Tayonia\_27, Terapin\_96, Thales\_26, ThankyouJordi\_24, Thimann\_25, Thing3\_43, Tillicus\_80, TillyBobJoe\_44, TimTam\_25, TinyDot\_25, Toast\_26, Togo\_43, Toneprano\_30, Towmatter\_121, Tracker\_19, TraderJ\_45, Trax\_117, Trine\_36, Trumpet\_27, TuertoX\_24, Turuncu\_22, Tuti\_29, Twin\_30, Twinkle\_25, Twister6\_46, Tycho\_45, UBSmoodge\_32, UmaThurman\_25, Upyo\_37, Utz\_25, Valary\_46, VanDeWege\_47, VanLee\_104, Vasanti\_23, Verity\_46, ViaConlectus\_46, Vivi2\_48, Vordorf\_47, Walrus\_27, Weasels2\_31, WelcomeAyanna\_24, Wheezy\_19, Whiteclaw\_24, Whitney\_29, WhoseManz\_19, Widow\_36, William\_26, WinkNick\_25, Wisp\_24, Wizard\_43, Wocket\_27, Wojtek\_79, Wooper\_45, Wrigley\_28, Xenia2\_89, Yago84\_42, Yeet412\_24, Yeezy\_27, Yeshua\_45, Yikes\_87, Yndexa\_19, YorkOnyx\_46,

YungMoney\_47, ZAYM\_27, Zameen\_27, Zany\_85, Zarbodnamra\_25, ZiggyZoo\_25, Zilla\_25, Zipp\_47, Zirinka\_25, Zitch\_49, Zodiariah\_29,

### Summary by start number:

#### Start 112:

- Found in 1 of 644 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 544
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sixama\_183 (DS),

#### Start 127:

- Found in 2 of 644 ( 0.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: E3\_gp85 (singleton),

#### Start 128:

- Found in 51 of 644 ( 7.9% ) of genes in pham
- Manual Annotations of this start: 1 of 544
- Called 5.9% of time when present
- Phage (with cluster) where this start called: Fury\_25 (CR5), HomeFry\_22 (CR5), Scuba\_25 (CR5),

#### Start 130:

- Found in 51 of 644 ( 7.9% ) of genes in pham
- Manual Annotations of this start: 1 of 544
- Called 2.0% of time when present
- Phage (with cluster) where this start called: Gray\_31 (DQ),

#### Start 138:

- Found in 31 of 644 ( 4.8% ) of genes in pham
- Manual Annotations of this start: 22 of 544
- Called 80.6% of time when present
- Phage (with cluster) where this start called: Arti\_19 (CR2), Commandaria\_20 (CR2), Dalilpop\_23 (CR1), Emianna\_19 (CR2), Ennea\_24 (CR3), Flapper\_22 (CR1), Float294\_20 (CR3), Foxboro\_20 (CR2), GRU1\_9 (CR1), GTE5\_9 (CR1), GTE8\_7 (CR2), GrootJr\_21 (CR2), Jifall16\_18 (CR2), KidneyBean\_19 (CR2), Kurt\_19 (CR2), Lollipop1437\_23 (CR3), NatB6\_19 (CR2), NovumRegina\_19 (CR2), Patio\_21 (CR3), Phomeo\_18 (CR2), RedRaider\_25 (CR3), Skysand\_20 (CR3), Tracker\_19 (CR2), Turuncu\_22 (CR1), Wheezy\_19 (CR2),

#### Start 139:

- Found in 6 of 644 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 3 of 544
- Called 83.3% of time when present
- Phage (with cluster) where this start called: BiPauneto\_20 (CR4), GMA6\_16 (DQ), Mbo2\_63 (singleton), Sukkupi\_19 (CR4), Yndexa\_19 (CR4),

#### Start 141:

- Found in 5 of 644 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 4 of 544
- Called 80.0% of time when present

- Phage (with cluster) where this start called: HubbaBubba\_15 (CR4), IDyn\_18 (CR4), NadineRae\_17 (CR4), Xenia2\_89 (DV),

#### Start 142:

- Found in 75 of 644 ( 11.6% ) of genes in pham
- Manual Annotations of this start: 18 of 544
- Called 44.0% of time when present
- Phage (with cluster) where this start called: Alok\_i\_30 (DQ), Amoonguss\_30 (DQ), Argena\_30 (DQ), Beted\_31 (DQ), Bonum\_21 (CR2), BritBrat\_27 (CY2), Buggaboo\_20 (CR2), Chidiebere\_31 (DQ), ChisanaKitsune\_27 (DQ), DalanDe\_26 (DQ), EmoNemo\_30 (DQ), Farrylious\_29 (DQ), FlyingTortilla\_30 (DQ), FruityLoops\_29 (DQ), Hanem\_31 (DQ), Kabluna\_21 (CR2), Kabocha\_32 (DQ), Lenoshki\_31 (DQ), MerCougar\_19 (CR2), Mikronejon\_30 (DQ), MintFritos\_30 (DQ), NosilaM\_21 (CR2), Oogie\_31 (DQ), Outis\_19 (CR2), Pakusa\_30 (DQ), ScarletRaider\_30 (DQ), Schomber\_30 (DQ), StarStruck\_19 (CR2), SuperSulley\_20 (CR2), Thales\_26 (DQ), Toneprano\_30 (DQ), Twin\_30 (DQ), UBSmoodge\_32 (DQ),

#### Start 144:

- Found in 11 of 644 ( 1.7% ) of genes in pham
- Manual Annotations of this start: 1 of 544
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Lilas\_27 (CY1),

#### Start 150:

- Found in 4 of 644 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 1 of 544
- Called 25.0% of time when present
- Phage (with cluster) where this start called: DumpTruck\_89 (DV),

#### Start 157:

- Found in 6 of 644 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 1 of 544
- Called 16.7% of time when present
- Phage (with cluster) where this start called: DumpsterDude\_29 (DW),

#### Start 158:

- Found in 9 of 644 ( 1.4% ) of genes in pham
- Manual Annotations of this start: 8 of 544
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DonkeyMan\_50 (DY), Heinz\_49 (DY), Hibiscus\_50 (DY), Jojo24\_48 (DY), Reyja\_51 (DY), Reynauld\_61 (CH), Santhid\_48 (DY), Srilaccoli3\_56 (CH), Tarzan\_50 (DY),

#### Start 160:

- Found in 18 of 644 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 17 of 544
- Called 94.4% of time when present
- Phage (with cluster) where this start called: Apiary\_20 (CR6), Blino\_26 (CV), Braxoaddie\_20 (CR6), CarolAnn\_26 (CV), CoffeeBean\_20 (CR6), Delrey21\_46 (DE4), DoctorFroggo\_46 (DE4), Gagieri\_19 (CR6), JuJu\_26 (CV), KappaFarmDelta\_27 (CV), MacGully\_23 (CR7), Maselop\_20 (CR6), Obliviate\_25 (CV), Polyuyuki\_20 (CR6), Verity\_46 (DE4), ZiggyZoo\_25 (CV), Zipp\_47 (DE4),

#### Start 163:

- Found in 57 of 644 ( 8.9% ) of genes in pham
- Manual Annotations of this start: 32 of 544
- Called 61.4% of time when present
- Phage (with cluster) where this start called: Archis\_26 (CV), Azula\_27 (CV), Barco\_25 (CV), Begonia\_26 (CV), BlingBling\_25 (CV), Blueberry\_27 (CV), Bunnybear\_24 (CZ), CaptainKirk2\_25 (CV), CheeseSpider\_29 (CV), Clark\_25 (CZ4), Delian\_25 (CV), Dorito\_24 (CZ4), Fenry\_24 (CV), Frokostdame\_25 (CV), Guacamole\_25 (CV), Hitter\_25 (CV), Invectra\_25 (CZ4), Jalammah\_27 (CV), JasperJr\_25 (CV), Lysidious\_26 (CV), Malachai\_26 (CV), Melba\_25 (CV), Mellie\_24 (CV), MintFen\_25 (CV), MissRona\_27 (CV), Murp\_26 (CV), PhrostedPhlake\_27 (CV), Pipp\_25 (CV), Samba\_25 (CV), UmaThurman\_25 (CV), Utz\_25 (CV), Walrus\_27 (CV), Wisp\_24 (CV), Zarbodnamra\_25 (CV), Zilla\_25 (CV),

#### Start 164:

- Found in 3 of 644 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 544
- Called 33.3% of time when present
- Phage (with cluster) where this start called: ArchiDore\_29 (DW),

#### Start 165:

- Found in 12 of 644 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 2 of 544
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Sprinklemunch\_29 (DW), Wocket\_27 (CV), Zodiariah\_29 (DW),

#### Start 166:

- Found in 50 of 644 ( 7.8% ) of genes in pham
- Manual Annotations of this start: 38 of 544
- Called 92.0% of time when present
- Phage (with cluster) where this start called: Alephilan\_88 (DV), Alyssamiracle\_87 (DV), Astralis\_84 (DV), Avian\_82 (DV), BabyMoney\_47 (DT), BirthdayBoy\_89 (DV), Charminar\_85 (DV), DaviePasture\_87 (DV), Dogfish\_46 (DT), DoobyDoo\_86 (DV), Erutan\_86 (DV), Ewald\_46 (DT), Fulcrum\_85 (DV), GOATification\_85 (DV), Genamy16\_87 (DV), Gibbin\_88 (DV), GretelLyn\_86 (DV), Jalebi\_86 (DV), Jamemuya19\_82 (DV), Lambo\_86 (DV), LavAbarElk\_86 (DV), Lila22\_87 (DV), Manilisa\_49 (DT), Meyran\_46 (DT), Mima20\_85 (DV), MoiGyank\_89 (DV), NorManre\_91 (DV), NovaSharks\_86 (DV), Nyceirae\_51 (DT), OtterstedtS21\_87 (DV), ParvusTarda\_86 (DV), Patos\_91 (DV), Phishy\_50 (DT), Ranch\_90 (DV), RazorC\_84 (DV), Riduram\_85 (DV), Rota\_85 (DV), Rukungu\_87 (DV), Rumi\_85 (DV), Sadboi\_86 (DV), Sampudon\_88 (DV), Tillicus\_80 (DV), Vordorf\_47 (DT), Wojtek\_79 (DV), Yikes\_87 (DV), Zany\_85 (DV),

#### Start 167:

- Found in 17 of 644 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 15 of 544
- Called 88.2% of time when present
- Phage (with cluster) where this start called: Bakery\_49 (DC1), Barb\_46 (DC1), ClamChowder\_46 (DC1), Egi03\_44 (DC1), Fireball\_45 (DC1), Fugax\_47 (DC1), Mutzi\_43 (DC1), Nubi\_44 (DC1), Phlop\_43 (DC1), PinkCoffee\_46 (DC1), PullumCavea\_43 (DC1), SmokingBunny\_44 (DC1), TillyBobJoe\_44 (DC1), Togo\_43 (DC1), YungMoney\_47 (DC1),

Start 168:

- Found in 1 of 644 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 544
- Called 100.0% of time when present
- Phage (with cluster) where this start called: EMoore\_42 (DE2),

Start 169:

- Found in 56 of 644 ( 8.7% ) of genes in pham
- Manual Annotations of this start: 53 of 544
- Called 98.2% of time when present
- Phage (with cluster) where this start called: Affeca\_43 (DE1), Ailee\_42 (DE1), Angelicage\_43 (DE1), Ashertheman\_46 (DE1), Baddon\_45 (DE1), Barsten\_46 (DE1), Baumdotcom\_44 (DE1), Bibwit\_44 (DE1), Bizzy\_46 (DE1), BobBob\_43 (DE1), Brandonk123\_47 (DE1), ChadMasterC\_46 (DE1), Charming\_46 (DE1), Derg\_41 (DE1), Fitzgerald\_44 (DE1), Flatwoods\_46 (DE1), Fosterous\_43 (DE1), FuegoCuervo\_48 (DE1), GMA2\_76 (DS), Gaea\_45 (DE1), Galadriel\_45 (DE1), Geodirt\_44 (DE1), Gustavo\_45 (DE1), JKSyngboy\_43 (DE1), Jabberwocky\_44 (DE1), Kamashten\_43 (DE1), Keitabear\_45 (DE1), Kewpiedoll\_45 (DE1), Kroos\_46 (DE1), Kwobi\_47 (DE1), Lennon\_45 (DE1), LilHam\_43 (DE1), Love\_49 (DE1), McCrothy\_45 (DE1), McKinley\_47 (DE1), MoontowerMania\_45 (DE1), Nordenberg\_40 (DE1), Paries\_48 (DE1), Ribeye\_46 (DE1), RiverRaider\_46 (DE1), Rofo\_46 (DE1), Sanjuju\_44 (DE1), Saronaya\_45 (DE1), SchottB\_44 (DE1), Sedona\_45 (DE1), Shivanishola\_45 (DE1), Sitar\_45 (DE1), StorminNorm\_45 (DE1), Stultus\_44 (DE1), Tangent\_46 (DE1), Tangerine\_45 (DE1), Thing3\_43 (DE1), Tycho\_45 (DE1), Vivi2\_48 (DE1), YorkOnyx\_46 (DE1),

Start 170:

- Found in 55 of 644 ( 8.5% ) of genes in pham
- Manual Annotations of this start: 35 of 544
- Called 72.7% of time when present
- Phage (with cluster) where this start called: Arri\_47 (DC1), Bradissa\_27 (CY1), CherryCola\_46 (DC1), Clown\_50 (DC2), Colossa\_101 (KA), CoveyB\_47 (DC1), Danyall\_46 (DC1), Daredevil\_123 (DL), EMSquaredA\_27 (CY1), EnalisNailo\_27 (CY1), Evamon\_43 (DC1), Eyre\_23 (singleton), Fairfaxidum\_25 (CV), Faith5x5\_23 (CZ6), Floral\_27 (CY1), GAL1\_26 (singleton), Gezellig\_43 (DC1), Gudmit\_24 (singleton), Halo3\_44 (DC1), JCole\_22 (CZ2), Jambalaya\_44 (DC1), KimmyK\_45 (DC1), Marteena\_27 (CY1), Matteo\_23 (CZ2), PCoral7\_26 (CV), Pepperoni\_24 (CZ), Pollux\_27 (CY1), Portcullis\_45 (DC1), PrincePatrick\_25 (CV), RogerDodger\_47 (DC1), Salvador\_43 (DC1), Savbucketdawg\_44 (DC1), TPA4\_30 (singleton), Toast\_26 (CV), Towmatter\_121 (DL), Twister6\_46 (DC1), Valary\_46 (DC1), VanDeWege\_47 (DC1), William\_26 (CV), Wizard\_43 (DC1),

Start 171:

- Found in 9 of 644 ( 1.4% ) of genes in pham
- Manual Annotations of this start: 3 of 544
- Called 55.6% of time when present
- Phage (with cluster) where this start called: Hyzer\_27 (CZ1), Lilbeanie\_44 (DE5), Petra\_27 (CV), Sidious\_26 (CZ7), Tuti\_29 (CZ4),

Start 172:

- Found in 10 of 644 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 4 of 544

- Called 80.0% of time when present
- Phage (with cluster) where this start called: Camerico\_44 (DF4), GMA3\_32 (DF2), Gmala1\_33 (DF1), GordDuk1\_33 (DF1), GordTnk2\_33 (DF1), Jumbo\_41 (DF3), Morkie\_24 (DH), PhorbesPhlower\_24 (DH),

#### Start 173:

- Found in 1 of 644 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 544
- Called 100.0% of time when present
- Phage (with cluster) where this start called: VanLee\_104 (KA),

#### Start 174:

- Found in 63 of 644 ( 9.8% ) of genes in pham
- Manual Annotations of this start: 42 of 544
- Called 81.0% of time when present
- Phage (with cluster) where this start called: APunk\_47 (DE4), Abblin\_46 (DE4), Adora\_25 (CZ4), AksarBAT\_43 (DR), Ali17\_42 (DE2), AnClar\_43 (DR), AnarQue\_45 (DR), Annalisa\_25 (CZ4), Beenie\_25 (CZ4), Belphegor\_45 (DE2), BigHunkinEater\_48 (DE4), BiggityBass\_42 (DR), Blackpen\_45 (DR), CaiB\_45 (DR), CloverMinnie\_45 (DR), DobbysSock\_24 (CZ4), Dolores\_25 (CZ4), FelixTres\_45 (DR), Hans\_46 (DE2), Hortense\_25 (CZ4), Inspectinfecti\_45 (DE2), Leonard\_44 (DE2), LittleMunchkin\_44 (DR), MakoManhole\_45 (DR), Mcklovin\_25 (CZ4), MelBins\_45 (DE2), MichaelScott\_25 (CZ4), MossRose\_45 (DR), NHagos\_43 (DR), Natkenzie\_46 (DE4), Oregano\_25 (CZ4), Phauci\_37 (DE2), Phinally\_44 (DE2), Pumpkiney\_47 (DE4), Samman98\_25 (CZ4), Sampson\_46 (DE4), Scioto\_47 (DE4), Sekhmet\_25 (CZ4), Shlim410\_25 (CZ4), Sisko\_42 (DR), Sour\_47 (DR), Suerte\_23 (CZ4), Tardus\_47 (DE4), Thimann\_25 (CZ4), TraderJ\_45 (DR), Twinkle\_25 (CZ4), ViaConlectus\_46 (DE4), Wooper\_45 (DR), Yago84\_42 (DR), Yeshua\_45 (DR), Zitch\_49 (DE4),

#### Start 176:

- Found in 14 of 644 ( 2.2% ) of genes in pham
- Manual Annotations of this start: 13 of 544
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aleemily\_32 (DZ), Bantam\_131 (DL), Cafasso\_33 (DZ), DatBoi\_128 (DL), Gustav\_37 (CD), LilJank\_113 (DU2), Mahdia\_35 (CD), ModicumRichard\_33 (DZ), Morgana\_33 (DZ), Neville\_115 (DU2), ObLaDi\_33 (DZ), Rabbitrun\_118 (DU2), SpeedDemon\_1340 (DL), Trax\_117 (DU2),

#### Start 177:

- Found in 58 of 644 ( 9.0% ) of genes in pham
- Manual Annotations of this start: 50 of 544
- Called 94.8% of time when present
- Phage (with cluster) where this start called: Attis\_24 (CZ2), Axumite\_42 (DR), BBQValindra\_26 (DB), BackstagePass\_26 (DB), Bjaner7\_24 (CZ2), BobRoss2024\_41 (DR), Bowser\_26 (DB), Bunker\_26 (DB), CharlottesWeb\_42 (DR), Clap\_24 (CZ2), Coriander\_27 (DB), Cynthia\_24 (CZ2), DirtyBoi\_28 (DB), Dmitri\_27 (DB), Doggs\_26 (DB), Ebert\_24 (CZ2), EdnaMode\_23 (CZ2), Eyes\_26 (DB), Fresco\_42 (DR), FroggyToad\_24 (CZ2), GEazy\_26 (DB), GemG\_24 (CZ2), Gizermo\_24 (CZ2), Haley23\_24 (CZ2), HannahD\_26 (DB), Hedwig\_28 (DB), Kiko\_27 (DB), Lamberg\_23 (CZ2), Ligma\_42 (DR), LordFarquaad\_24 (CZ2), Lton\_23 (CZ), Lucky10\_24 (DH), MagicMan\_26 (DB), Mariokart\_42 (DR), Mocha12\_24 (CZ2), Moosehead\_23 (CZ6), Nettuno\_23 (CZ2), OneDirection\_22 (CZ6), Opie\_26 (DB), Pickett\_23 (CZ2), RavenCo17\_24 (CZ8), RayTheFireFly\_27 (DB), Sahara\_23 (CZ2),

Savage\_24 (CZ2), Schnabeltier\_26 (DB), Shatter\_42 (DR), SoilAssassin\_24 (CZ2), Sproutie\_24 (CZ2), TaronosaurusRx\_26 (DB), TinyDot\_25 (singleton), TuertoX\_24 (CZ2), Vasanti\_23 (CZ2), Whiteclaw\_24 (CZ2), Yeet412\_24 (CZ2), ZAYM\_27 (DB),

Start 178:

- Found in 17 of 644 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 13 of 544
- Called 94.1% of time when present
- Phage (with cluster) where this start called: Balloona\_46 (CT), BlueNGold\_178 (DS), Boopy\_181 (DS), CherryonLim\_48 (CT), ElJefes\_48 (CT), Elinal\_50 (CT), Forza\_182 (DS), Gibbles\_38 (CX), Kampe\_40 (CX), KayGee\_48 (CT), Mareelih\_179 (DS), McDazzle\_49 (CT), Orchid\_39 (CX), PatrickStar\_40 (CX), RobinSparkles\_42 (CX), Sienna\_96 (DG1),

Start 179:

- Found in 1 of 644 ( 0.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mbo4\_54 (singleton),

Start 180:

- Found in 17 of 644 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 17 of 544
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beyoncage\_95 (DG1), BiteSize\_95 (DG1), CherryTomatoes\_180 (DO), Djokovic\_95 (DG1), Evaa\_42 (DR), LilyPad\_89 (DG1), LittleFella\_91 (DG2), Madi\_94 (DG1), Pupper\_177 (DO), Puppies\_35 (CD), SCentae\_176 (DO), Skog\_9 (DO), Suzy\_95 (DG1), Terapin\_96 (DG1), Trine\_36 (CD), Upyo\_37 (CD), Widow\_36 (CD),

Start 181:

- Found in 5 of 644 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 5 of 544
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jace\_72 (singleton), Kudrefre\_120 (DU1), Octobien14\_115 (DU1), Sephiroth\_116 (DU1), Syleon\_121 (DU1),

Start 182:

- Found in 81 of 644 ( 12.6% ) of genes in pham
- Manual Annotations of this start: 57 of 544
- Called 95.1% of time when present
- Phage (with cluster) where this start called: Aflac\_30 (DJ), AlainaMarie\_30 (DJ), Aloe25\_33 (DJ), Arataki\_29 (DJ), ArtetaBall\_31 (DJ), Artorias\_27 (DJ), Avazak\_27 (DJ), BetterYeti\_30 (DJ), Blanky\_30 (DJ), BluerMoon\_30 (DJ), Bugg\_28 (DJ), Burley\_30 (DJ), CWormy\_30 (DJ), Captrips\_27 (DJ), Capybara\_27 (DJ), ChickyNuggy\_28 (DJ), Chikenjars\_30 (DJ), Citrus\_29 (DJ), Conley\_28 (DJ), Crocheter\_30 (DJ), Dancer\_27 (DJ), Demure\_29 (DJ), Dialga\_31 (DJ), Duffington\_30 (DJ), Eddiemania\_31 (DJ), EndAve\_30 (DJ), Fazel\_28 (DJ), Figliar\_30 (DJ), Football\_28 (DJ), FortCran\_27 (DJ), Gill\_27 (DJ), Glintora\_30 (DJ), Gravy\_27 (DJ), Gusicorn\_30 (DJ), Hortihabitatio\_30 (DJ), Hydrus\_31 (DJ), JeanGrey\_131 (singleton), Jodelie19\_31 (DJ), JulesRay\_27 (DJ), Kenosha\_30 (DJ), Kerry\_27 (DJ), Luthien\_31 (DJ), Madvan\_30 (DJ), Magel\_27 (DJ), MajinBuu\_30 (DJ), Mossy\_31 (DJ), Mysticmoon\_30 (DJ), Nadmeg\_31 (DJ), Nithya\_30 (DJ), NoPickles\_27 (DJ),

Odesza\_27 (DJ), OhMyWard\_30 (DJ), OlgasClover\_30 (DJ), Pepy6\_033 (CC), Perkunas\_29 (DJ), PerroGrande22\_37 (CC), PestoPenguin\_33 (DJ), Petito\_29 (DJ), Phepper\_30 (DJ), Pherobrine\_29 (DJ), Poco6\_034 (CC), Rickmore\_29 (DJ), Roney\_27 (DJ), Runhaar\_30 (DJ), Schwartz33\_31 (DJ), Secretariat\_28 (DJ), ShaggyRogers\_30 (DJ), SweetCrkHerbs\_29 (DJ), Tairn4Wing\_29 (DJ), Talon44\_28 (DJ), Tanis\_27 (DJ), TenaciousP\_31 (DJ), Tonaltzin\_32 (DJ), Trufflozitus\_30 (DJ), Untouchable\_30 (DJ), Vardy\_30 (DJ), Zeph\_31 (DJ),

Start 183:

- Found in 23 of 644 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 2 of 544
- Called 13.0% of time when present
- Phage (with cluster) where this start called: Apeppi\_82 (DV), LuckyLeo\_84 (DV), Stormer\_86 (DV),

Start 186:

- Found in 96 of 644 ( 14.9% ) of genes in pham
- Manual Annotations of this start: 3 of 544
- Called 3.1% of time when present
- Phage (with cluster) where this start called: Easley\_25 (CZ4), Ruthy\_29 (DW), WinkNick\_25 (CZ4),

Start 195:

- Found in 3 of 644 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 2 of 544
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Marietta\_19 (CR4), Pemberton\_20 (CR4), WhoseManz\_19 (CR4),

Start 196:

- Found in 78 of 644 ( 12.1% ) of genes in pham
- Manual Annotations of this start: 1 of 544
- Called 2.6% of time when present
- Phage (with cluster) where this start called: Howe\_25 (CZ4), MakCheese\_31 (DW),

Start 199:

- Found in 16 of 644 ( 2.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 6.2% of time when present
- Phage (with cluster) where this start called: Hugley\_25 (CZ1),

Start 201:

- Found in 2 of 644 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 2 of 544
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dorin\_11 (CG), Francesca\_10 (CG),

Start 205:

- Found in 134 of 644 ( 20.8% ) of genes in pham
- Manual Annotations of this start: 5 of 544
- Called 4.5% of time when present
- Phage (with cluster) where this start called: Gambino\_27 (CV), Grayson\_31 (CB), Nova53\_11 (CG), Peregrin\_29 (CB), PhriskyACE\_24 (CZ4), Weasels2\_31 (CB),

Start 207:

- Found in 27 of 644 ( 4.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 3.7% of time when present
- Phage (with cluster) where this start called: Jalleen\_24 (CZ2),

Start 214:

- Found in 24 of 644 ( 3.7% ) of genes in pham
- Manual Annotations of this start: 20 of 544
- Called 83.3% of time when present
- Phage (with cluster) where this start called: BatStarr\_25 (CZ1), BeeGee\_26 (CY5), Bialota\_25 (CZ1), Bosnia\_25 (CZ1), Cashline\_26 (CY6), Confidence\_26 (CY1), Eviarto\_25 (CZ1), Herod\_25 (CZ1), Jablanski\_28 (CY3), Madeline\_25 (CZ1), Malibo\_27 (DW), Malisha\_30 (DN), Ohgeesy\_25 (CZ), Posh\_28 (CY4), Pytheas\_28 (CY3), ThankyouJordi\_24 (CZ1), TimTam\_25 (CZ1), WelcomeAyanna\_24 (CZ1), Wrigley\_28 (CY4), Zirinka\_25 (CZ1),

Start 215:

- Found in 16 of 644 ( 2.5% ) of genes in pham
- Manual Annotations of this start: 16 of 544
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agueybana\_26 (CZ1), AlumE\_26 (CZ1), Antonio\_27 (CZ1), BaxterFox\_25 (CZ3), BoyNamedSue\_26 (CZ1), Eudoria\_27 (CZ1), Kita\_27 (CZ1), Manasvini\_27 (CZ1), Maridalia\_26 (CZ1), Neobush\_27 (CZ1), PantheRoc\_26 (CZ3), Susceptit\_27 (CZ1), Tayonia\_27 (CZ1), Trumpet\_27 (CZ1), Yeezy\_27 (CZ3), Zameen\_27 (CZ1),

Start 218:

- Found in 2 of 644 ( 0.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: E3\_gp167 (singleton),

Start 224:

- Found in 32 of 644 ( 5.0% ) of genes in pham
- Manual Annotations of this start: 30 of 544
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Angelique\_28 (CY1), Apricot\_27 (DN3), Asapag\_28 (DN1), BENTherdunthat\_28 (DN1), BearBQ\_27 (DN), Birdsong\_27 (DN), BotCity\_28 (DN), Budski\_28 (DN), CheeseTouch\_28 (DN1), Crater\_26 (DN3), Denise\_22 (CZ5), Ecliptus\_31 (DN), Frickyeah\_27 (DN1), Getalong\_29 (DN1), Holliday\_28 (DN1), Horus\_28 (DN1), Kamaru\_28 (DN1), Kenna\_27 (DN1), Kuwabara\_27 (DN4), Leroy\_28 (DN1), LitninMcQueen\_27 (DN1), LonelyBoi\_27 (CY7), Lutum\_28 (DN1), MortyNRick\_27 (DN), ODay\_32 (DN), Periwinkle\_30 (DN1), Phabuloso\_27 (DN1), Phistory\_29 (DN1), ShawBrad\_28 (DN1), Spooky\_28 (DN2), Squiddly\_30 (DN2), Whitney\_29 (DN1),

Start 226:

- Found in 67 of 644 ( 10.4% ) of genes in pham
- Manual Annotations of this start: 2 of 544
- Called 3.0% of time when present
- Phage (with cluster) where this start called: Nymphadora\_25 (CZ1), Polly\_24 (CZ1),

Start 228:

- Found in 152 of 644 ( 23.6% ) of genes in pham
- Manual Annotations of this start: 1 of 544
- Called 0.7% of time when present
- Phage (with cluster) where this start called: Pleakley\_25 (CR5),

Start 236:

- Found in 216 of 644 ( 33.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 0.9% of time when present
- Phage (with cluster) where this start called: Moonflower\_27 (DB), Shinji\_44 (DC1),

Start 247:

- Found in 75 of 644 ( 11.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 1.3% of time when present
- Phage (with cluster) where this start called: Madavieve\_25 (CZ1),

**Summary by clusters:**

There are 65 clusters represented in this pham: DN, DO, DL, DJ, DH, CZ2, CZ3, CZ1, DB, singleton, CZ4, CZ5, DZ, CZ8, DY, DV, DW, DT, DR, DS, DQ, CZ7, DF4, DF1, DF3, DF2, DN4, DN1, DN3, CB, DU1, DU2, CT, CY3, CY2, CY1, CH, CY7, CY6, CY5, CY4, CC, CZ6, DN2, CG, CD, DG2, CZ, CX, DC2, CV, DC1, CR2, CR3, KA, CR1, CR6, CR7, CR4, CR5, DE1, DE2, DE4, DE5, DG1,

Info for manual annotations of cluster CB:

- Start number 205 was manually annotated 3 times for cluster CB.

Info for manual annotations of cluster CD:

- Start number 176 was manually annotated 2 times for cluster CD.
- Start number 180 was manually annotated 4 times for cluster CD.

Info for manual annotations of cluster CG:

- Start number 201 was manually annotated 2 times for cluster CG.
- Start number 205 was manually annotated 1 time for cluster CG.

Info for manual annotations of cluster CH:

- Start number 158 was manually annotated 1 time for cluster CH.

Info for manual annotations of cluster CR1:

- Start number 138 was manually annotated 3 times for cluster CR1.

Info for manual annotations of cluster CR2:

- Start number 138 was manually annotated 13 times for cluster CR2.
- Start number 142 was manually annotated 8 times for cluster CR2.

Info for manual annotations of cluster CR3:

- Start number 138 was manually annotated 6 times for cluster CR3.

Info for manual annotations of cluster CR4:

- Start number 139 was manually annotated 3 times for cluster CR4.
- Start number 141 was manually annotated 3 times for cluster CR4.
- Start number 195 was manually annotated 2 times for cluster CR4.

Info for manual annotations of cluster CR5:

- Start number 128 was manually annotated 1 time for cluster CR5.
- Start number 228 was manually annotated 1 time for cluster CR5.

Info for manual annotations of cluster CR6:

- Start number 160 was manually annotated 6 times for cluster CR6.

Info for manual annotations of cluster CR7:

- Start number 160 was manually annotated 1 time for cluster CR7.

Info for manual annotations of cluster CT:

- Start number 178 was manually annotated 3 times for cluster CT.

Info for manual annotations of cluster CV:

- Start number 160 was manually annotated 6 times for cluster CV.
- Start number 163 was manually annotated 28 times for cluster CV.
- Start number 165 was manually annotated 1 time for cluster CV.
- Start number 170 was manually annotated 5 times for cluster CV.
- Start number 171 was manually annotated 1 time for cluster CV.
- Start number 205 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster CX:

- Start number 178 was manually annotated 5 times for cluster CX.

Info for manual annotations of cluster CY1:

- Start number 144 was manually annotated 1 time for cluster CY1.
- Start number 170 was manually annotated 6 times for cluster CY1.
- Start number 214 was manually annotated 1 time for cluster CY1.
- Start number 224 was manually annotated 1 time for cluster CY1.

Info for manual annotations of cluster CY2:

- Start number 142 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CY3:

- Start number 214 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CY4:

- Start number 214 was manually annotated 2 times for cluster CY4.

Info for manual annotations of cluster CY5:

- Start number 214 was manually annotated 1 time for cluster CY5.

Info for manual annotations of cluster CY6:

- Start number 214 was manually annotated 1 time for cluster CY6.

Info for manual annotations of cluster CY7:

- Start number 224 was manually annotated 1 time for cluster CY7.

Info for manual annotations of cluster CZ:

- Start number 163 was manually annotated 1 time for cluster CZ.
- Start number 177 was manually annotated 1 time for cluster CZ.
- Start number 214 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:

- Start number 214 was manually annotated 10 times for cluster CZ1.
- Start number 215 was manually annotated 13 times for cluster CZ1.
- Start number 226 was manually annotated 2 times for cluster CZ1.

Info for manual annotations of cluster CZ2:

- Start number 170 was manually annotated 1 time for cluster CZ2.
- Start number 177 was manually annotated 22 times for cluster CZ2.

Info for manual annotations of cluster CZ3:

- Start number 215 was manually annotated 3 times for cluster CZ3.

Info for manual annotations of cluster CZ4:

- Start number 163 was manually annotated 3 times for cluster CZ4.
- Start number 174 was manually annotated 15 times for cluster CZ4.
- Start number 186 was manually annotated 2 times for cluster CZ4.
- Start number 196 was manually annotated 1 time for cluster CZ4.

Info for manual annotations of cluster CZ5:

- Start number 224 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ6:

- Start number 170 was manually annotated 1 time for cluster CZ6.
- Start number 177 was manually annotated 2 times for cluster CZ6.

Info for manual annotations of cluster CZ7:

- Start number 171 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster CZ8:

- Start number 177 was manually annotated 1 time for cluster CZ8.

Info for manual annotations of cluster DB:

- Start number 177 was manually annotated 17 times for cluster DB.

Info for manual annotations of cluster DC1:

- Start number 167 was manually annotated 15 times for cluster DC1.
- Start number 170 was manually annotated 17 times for cluster DC1.

Info for manual annotations of cluster DC2:

- Start number 170 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DE1:

- Start number 169 was manually annotated 53 times for cluster DE1.

Info for manual annotations of cluster DE2:

- Start number 168 was manually annotated 1 time for cluster DE2.
- Start number 174 was manually annotated 8 times for cluster DE2.

Info for manual annotations of cluster DE4:

- Start number 160 was manually annotated 4 times for cluster DE4.
- Start number 174 was manually annotated 5 times for cluster DE4.

Info for manual annotations of cluster DE5:

- Start number 171 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster DF3:

- Start number 172 was manually annotated 1 time for cluster DF3.

Info for manual annotations of cluster DF4:

- Start number 172 was manually annotated 1 time for cluster DF4.

Info for manual annotations of cluster DG1:

- Start number 178 was manually annotated 1 time for cluster DG1.
- Start number 180 was manually annotated 7 times for cluster DG1.

Info for manual annotations of cluster DG2:

- Start number 180 was manually annotated 1 time for cluster DG2.

Info for manual annotations of cluster DH:

- Start number 172 was manually annotated 2 times for cluster DH.
- Start number 177 was manually annotated 1 time for cluster DH.

Info for manual annotations of cluster DJ:

- Start number 182 was manually annotated 56 times for cluster DJ.

Info for manual annotations of cluster DL:

- Start number 170 was manually annotated 2 times for cluster DL.
- Start number 176 was manually annotated 3 times for cluster DL.

Info for manual annotations of cluster DN:

- Start number 214 was manually annotated 1 time for cluster DN.
- Start number 224 was manually annotated 7 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 224 was manually annotated 15 times for cluster DN1.

Info for manual annotations of cluster DN2:

- Start number 224 was manually annotated 2 times for cluster DN2.

Info for manual annotations of cluster DN3:

- Start number 224 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DN4:

- Start number 224 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster DO:

- Start number 180 was manually annotated 4 times for cluster DO.

Info for manual annotations of cluster DQ:

- Start number 130 was manually annotated 1 time for cluster DQ.

- Start number 142 was manually annotated 9 times for cluster DQ.

Info for manual annotations of cluster DR:

- Start number 174 was manually annotated 14 times for cluster DR.
- Start number 177 was manually annotated 5 times for cluster DR.
- Start number 180 was manually annotated 1 time for cluster DR.

Info for manual annotations of cluster DS:

- Start number 112 was manually annotated 1 time for cluster DS.
- Start number 178 was manually annotated 4 times for cluster DS.

Info for manual annotations of cluster DT:

- Start number 166 was manually annotated 5 times for cluster DT.

Info for manual annotations of cluster DU1:

- Start number 181 was manually annotated 4 times for cluster DU1.

Info for manual annotations of cluster DU2:

- Start number 176 was manually annotated 3 times for cluster DU2.

Info for manual annotations of cluster DV:

- Start number 141 was manually annotated 1 time for cluster DV.
- Start number 150 was manually annotated 1 time for cluster DV.
- Start number 166 was manually annotated 33 times for cluster DV.
- Start number 183 was manually annotated 2 times for cluster DV.

Info for manual annotations of cluster DW:

- Start number 157 was manually annotated 1 time for cluster DW.
- Start number 164 was manually annotated 1 time for cluster DW.
- Start number 165 was manually annotated 1 time for cluster DW.
- Start number 186 was manually annotated 1 time for cluster DW.
- Start number 214 was manually annotated 1 time for cluster DW.

Info for manual annotations of cluster DY:

- Start number 158 was manually annotated 7 times for cluster DY.

Info for manual annotations of cluster DZ:

- Start number 176 was manually annotated 5 times for cluster DZ.

Info for manual annotations of cluster KA:

- Start number 173 was manually annotated 1 time for cluster KA.

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

Gene: APunk\_47 Start: 40146, Stop: 40871, Start Num: 174

Candidate Starts for APunk\_47:

(97, 39999), (111, 40035), (Start: 174 @40146 has 42 MA's), (204, 40200), (236, 40251), (239, 40260), (284, 40311), (297, 40329), (319, 40371), (346, 40428), (355, 40452), (383, 40518), (423, 40617), (438, 40653), (450, 40680), (519, 40791), (545, 40827),

Gene: Abblin\_46 Start: 40683, Stop: 41405, Start Num: 174

Candidate Starts for Abblin\_46:

(71, 40467), (111, 40572), (Start: 174 @40683 has 42 MA's), (236, 40788), (239, 40797), (284, 40848), (297, 40866), (319, 40908), (351, 40974), (353, 40980), (355, 40986), (383, 41052), (423, 41151), (519, 41325), (536, 41346), (545, 41361),

Gene: Adora\_25 Start: 21784, Stop: 22572, Start Num: 174

Candidate Starts for Adora\_25:

(Start: 163 @21772 has 32 MA's), (Start: 174 @21784 has 42 MA's), (Start: 186 @21796 has 3 MA's), (187, 21799), (Start: 196 @21826 has 1 MA's), (Start: 205 @21838 has 5 MA's), (236, 21889), (293, 21982), (317, 22027), (318, 22030), (319, 22033), (344, 22093), (351, 22111), (355, 22123), (357, 22126), (358, 22129), (396, 22219), (423, 22306), (513, 22474), (526, 22492), (549, 22528), (559, 22552),

Gene: Affeca\_43 Start: 39450, Stop: 40184, Start Num: 169

Candidate Starts for Affeca\_43:

(125, 39393), (Start: 169 @39450 has 53 MA's), (Start: 186 @39468 has 3 MA's), (236, 39555), (250, 39582), (284, 39630), (297, 39648), (319, 39690), (354, 39768), (372, 39810), (387, 39843), (438, 39978), (457, 40017), (519, 40116), (543, 40143), (558, 40176),

Gene: Aflac\_30 Start: 22320, Stop: 23108, Start Num: 182

Candidate Starts for Aflac\_30:

(Start: 182 @22320 has 57 MA's), (200, 22365), (220, 22395), (Start: 228 @22407 has 1 MA's), (254, 22461), (338, 22608), (351, 22635), (357, 22650), (381, 22734), (421, 22839), (422, 22842), (448, 22917), (535, 23064),

Gene: Agueybana\_26 Start: 22183, Stop: 22803, Start Num: 215

Candidate Starts for Agueybana\_26:

(50, 21808), (103, 21979), (104, 21982), (Start: 128 @22063 has 1 MA's), (Start: 142 @22084 has 18 MA's), (Start: 215 @22183 has 16 MA's), (Start: 226 @22192 has 2 MA's), (247, 22237), (295, 22318), (321, 22372), (337, 22417), (355, 22453), (374, 22504), (384, 22552), (412, 22615), (422, 22645), (445, 22696), (509, 22774),

Gene: Ailee\_42 Start: 39043, Stop: 39777, Start Num: 169

Candidate Starts for Ailee\_42:

(159, 39037), (Start: 169 @39043 has 53 MA's), (Start: 186 @39061 has 3 MA's), (236, 39148), (250, 39175), (284, 39223), (297, 39241), (319, 39283), (354, 39361), (372, 39403), (387, 39436), (438, 39571), (457, 39610), (519, 39709), (543, 39736), (558, 39769),

Gene: AksarBAT\_43 Start: 36158, Stop: 36880, Start Num: 174

Candidate Starts for AksarBAT\_43:

(Start: 174 @36158 has 42 MA's), (217, 36227), (227, 36251), (259, 36314), (271, 36320), (351, 36467), (395, 36563), (398, 36566), (422, 36644), (433, 36674), (438, 36689),

Gene: AlainaMarie\_30 Start: 22307, Stop: 23095, Start Num: 182

Candidate Starts for AlainaMarie\_30:

(Start: 182 @22307 has 57 MA's), (200, 22352), (220, 22382), (Start: 228 @22394 has 1 MA's), (254, 22448), (338, 22595), (354, 22631), (357, 22637), (421, 22826), (422, 22829), (441, 22886), (448, 22904), (462, 22931), (535, 23051),

Gene: Aleemily\_32 Start: 27271, Stop: 28023, Start Num: 176

Candidate Starts for Aleemily\_32:

(Start: 176 @27271 has 13 MA's), (Start: 205 @27322 has 5 MA's), (319, 27499), (361, 27598), (398, 27658), (423, 27736), (450, 27799), (491, 27862), (504, 27889), (563, 27991),

Gene: Alephilan\_88 Start: 59241, Stop: 60092, Start Num: 166

Candidate Starts for Alephilan\_88:

(83, 59064), (96, 59091), (99, 59100), (106, 59115), (108, 59124), (146, 59217), (148, 59220), (Start: 166 @59241 has 38 MA's), (175, 59250), (188, 59271), (209, 59313), (213, 59319), (240, 59364), (303, 59469), (319, 59505), (324, 59517), (337, 59556), (405, 59736), (428, 59811), (439, 59841), (463, 59889), (465, 59892), (494, 59946), (517, 59991), (562, 60069),

Gene: Ali17\_42 Start: 38338, Stop: 39057, Start Num: 174

Candidate Starts for Ali17\_42:

(Start: 174 @38338 has 42 MA's), (187, 38353), (204, 38392), (236, 38443), (284, 38503), (393, 38722), (398, 38731), (405, 38749), (423, 38809), (457, 38884), (519, 38983), (546, 39022), (557, 39043),

Gene: Aloe25\_33 Start: 22097, Stop: 22885, Start Num: 182

Candidate Starts for Aloe25\_33:

(Start: 182 @22097 has 57 MA's), (200, 22142), (Start: 228 @22184 has 1 MA's), (254, 22238), (357, 22427), (421, 22616), (422, 22619), (448, 22694), (535, 22841),

Gene: Alok\_i\_30 Start: 21568, Stop: 22266, Start Num: 142

Candidate Starts for Alok\_i\_30:

(Start: 130 @21550 has 1 MA's), (Start: 142 @21568 has 18 MA's), (Start: 228 @21631 has 1 MA's), (246, 21667), (291, 21727), (295, 21739), (306, 21760), (321, 21793), (334, 21823), (335, 21826), (341, 21847), (345, 21853), (350, 21859), (358, 21880), (393, 21985), (398, 21994), (419, 22063), (422, 22069), (436, 22105), (441, 22117), (479, 22156), (492, 22177), (532, 22246), (541, 22258), (542, 22261),

Gene: AlumE\_26 Start: 22182, Stop: 22802, Start Num: 215

Candidate Starts for AlumE\_26:

(50, 21807), (103, 21978), (104, 21981), (Start: 128 @22062 has 1 MA's), (Start: 142 @22083 has 18 MA's), (Start: 215 @22182 has 16 MA's), (Start: 226 @22191 has 2 MA's), (247, 22236), (295, 22317), (321, 22371), (337, 22416), (355, 22452), (374, 22503), (384, 22551), (412, 22614), (422, 22644), (445, 22695), (509, 22773),

Gene: Alyssamiracle\_87 Start: 57197, Stop: 58048, Start Num: 166

Candidate Starts for Alyssamiracle\_87:

(146, 57173), (148, 57176), (Start: 166 @57197 has 38 MA's), (Start: 183 @57218 has 2 MA's), (188, 57227), (209, 57269), (213, 57275), (240, 57320), (301, 57422), (303, 57425), (319, 57461), (324, 57473), (337, 57512), (349, 57542), (351, 57545), (355, 57557), (357, 57560), (405, 57692), (425, 57758), (428, 57767), (439, 57797), (451, 57824), (463, 57845), (494, 57902), (517, 57947), (562, 58025),

Gene: Amoonguss\_30 Start: 21571, Stop: 22269, Start Num: 142

Candidate Starts for Amoonguss\_30:

(Start: 130 @21553 has 1 MA's), (Start: 142 @21571 has 18 MA's), (Start: 228 @21634 has 1 MA's), (246, 21670), (291, 21730), (295, 21742), (306, 21763), (321, 21796), (334, 21826), (335, 21829), (341, 21850), (345, 21856), (350, 21862), (358, 21883), (393, 21988), (398, 21997), (419, 22066), (422, 22072), (436, 22108), (441, 22120), (479, 22159), (492, 22180), (532, 22249), (541, 22261), (542, 22264),

Gene: AnClar\_43 Start: 38069, Stop: 38794, Start Num: 174

Candidate Starts for AnClar\_43:

(77, 37871), (106, 37943), (Start: 174 @38069 has 42 MA's), (Start: 183 @38078 has 2 MA's), (259, 38228), (271, 38234), (285, 38258), (291, 38267), (299, 38279), (311, 38294), (330, 38336), (336, 38360), (352, 38390), (390, 38474), (412, 38537), (420, 38561), (422, 38567), (515, 38750), (522, 38759),

Gene: AnarQue\_45 Start: 37567, Stop: 38289, Start Num: 174

Candidate Starts for AnarQue\_45:

(79, 37381), (Start: 174 @37567 has 42 MA's), (227, 37660), (271, 37729), (286, 37756), (292, 37762), (351, 37876), (390, 37960), (422, 38053), (433, 38083),

Gene: Angelicage\_43 Start: 39868, Stop: 40602, Start Num: 169

Candidate Starts for Angelicage\_43:

(125, 39811), (Start: 169 @39868 has 53 MA's), (Start: 186 @39886 has 3 MA's), (236, 39973), (250, 40000), (284, 40048), (297, 40066), (319, 40108), (354, 40186), (372, 40228), (387, 40261), (438, 40396), (457, 40435), (519, 40534), (543, 40561), (558, 40594),

Gene: Angelique\_28 Start: 22797, Stop: 23417, Start Num: 224

Candidate Starts for Angelique\_28:

(190, 22740), (Start: 224 @22797 has 30 MA's), (247, 22848), (295, 22929), (306, 22950), (337, 23028), (355, 23064), (365, 23100), (374, 23115), (384, 23163), (412, 23226), (445, 23307), (509, 23385), (512, 23394), (514, 23397),

Gene: Annalisa\_25 Start: 21246, Stop: 22034, Start Num: 174

Candidate Starts for Annalisa\_25:

(Start: 163 @21234 has 32 MA's), (Start: 174 @21246 has 42 MA's), (Start: 186 @21258 has 3 MA's), (187, 21261), (Start: 205 @21300 has 5 MA's), (207, 21303), (236, 21351), (293, 21444), (317, 21489), (318, 21492), (319, 21495), (344, 21555), (351, 21573), (355, 21585), (357, 21588), (358, 21591), (396, 21681), (423, 21768), (513, 21936), (526, 21954), (549, 21990), (559, 22014),

Gene: Antonio\_27 Start: 22303, Stop: 22923, Start Num: 215

Candidate Starts for Antonio\_27:

(50, 21928), (103, 22099), (104, 22102), (Start: 128 @22183 has 1 MA's), (Start: 142 @22204 has 18 MA's), (Start: 215 @22303 has 16 MA's), (Start: 226 @22312 has 2 MA's), (247, 22357), (295, 22438), (337, 22537), (355, 22573), (374, 22624), (384, 22672), (412, 22735), (422, 22765), (445, 22816), (492, 22867), (509, 22894),

Gene: Apeppi\_82 Start: 58457, Stop: 59287, Start Num: 183

Candidate Starts for Apeppi\_82:

(146, 58415), (148, 58418), (155, 58427), (Start: 166 @58439 has 38 MA's), (Start: 183 @58457 has 2 MA's), (188, 58466), (Start: 196 @58490 has 1 MA's), (209, 58508), (243, 58565), (319, 58700), (335, 58739), (337, 58751), (351, 58784), (355, 58796), (360, 58817), (393, 58904), (405, 58931), (430, 59009), (439, 59036), (443, 59042), (448, 59057), (451, 59063), (494, 59141), (511, 59177), (563, 59267),

Gene: Apiary\_20 Start: 9988, Stop: 10884, Start Num: 160

Candidate Starts for Apiary\_20:

(61, 9751), (Start: 160 @9988 has 17 MA's), (Start: 205 @10066 has 5 MA's), (251, 10153), (282, 10201), (290, 10216), (327, 10294), (344, 10339), (393, 10471), (423, 10564), (429, 10579), (482, 10678), (521, 10759), (551, 10807), (570, 10852),

Gene: Apricot\_27 Start: 21059, Stop: 21682, Start Num: 224

Candidate Starts for Apricot\_27:

(54, 20684), (68, 20741), (80, 20786), (103, 20840), (104, 20843), (119, 20879), (Start: 128 @20924 has 1 MA's), (Start: 130 @20927 has 1 MA's), (Start: 224 @21059 has 30 MA's), (Start: 226 @21065 has 2 MA's), (239, 21095), (247, 21110), (285, 21170), (324, 21251), (337, 21290), (365, 21362), (384, 21425), (408, 21470), (412, 21488), (419, 21509), (422, 21518), (509, 21650), (512, 21659), (520, 21671),

Gene: Arataki\_29 Start: 21413, Stop: 22201, Start Num: 182

Candidate Starts for Arataki\_29:

(Start: 182 @21413 has 57 MA's), (220, 21488), (Start: 228 @21500 has 1 MA's), (254, 21554), (258, 21560), (288, 21605), (338, 21701), (345, 21719), (351, 21728), (354, 21737), (357, 21743), (421, 21932), (422, 21935), (425, 21950), (462, 22037), (535, 22157),

Gene: ArchiDore\_29 Start: 24523, Stop: 25320, Start Num: 164

Candidate Starts for ArchiDore\_29:

(58, 24259), (65, 24286), (72, 24316), (86, 24361), (92, 24373), (132, 24484), (Start: 157 @24514 has 1 MA's), (Start: 164 @24523 has 1 MA's), (Start: 186 @24538 has 3 MA's), (187, 24541), (Start: 196 @24568 has 1 MA's), (Start: 205 @24580 has 5 MA's), (216, 24595), (236, 24631), (293, 24724), (340, 24823), (344, 24835), (351, 24853), (355, 24865), (357, 24868), (358, 24871), (368, 24904), (423, 25048), (433, 25069), (513, 25216), (549, 25267), (559, 25291),

Gene: Archis\_26 Start: 21363, Stop: 22166, Start Num: 163

Candidate Starts for Archis\_26:

(Start: 163 @21363 has 32 MA's), (Start: 196 @21411 has 1 MA's), (Start: 205 @21423 has 5 MA's), (216, 21438), (236, 21474), (293, 21567), (319, 21618), (340, 21666), (344, 21678), (351, 21696), (355, 21708), (357, 21711), (358, 21714), (402, 21822), (423, 21891), (433, 21912), (435, 21918), (524, 22074), (549, 22110), (559, 22134), (569, 22155),

Gene: Argena\_30 Start: 21568, Stop: 22266, Start Num: 142

Candidate Starts for Argena\_30:

(Start: 130 @21550 has 1 MA's), (Start: 142 @21568 has 18 MA's), (Start: 228 @21631 has 1 MA's), (246, 21667), (291, 21727), (295, 21739), (306, 21760), (321, 21793), (334, 21823), (335, 21826), (341, 21847), (345, 21853), (350, 21859), (358, 21880), (393, 21985), (398, 21994), (419, 22063), (422, 22069), (436, 22105), (441, 22117), (479, 22156), (492, 22177), (532, 22246), (541, 22258), (542, 22261),

Gene: Arri\_47 Start: 36352, Stop: 37107, Start Num: 170

Candidate Starts for Arri\_47:

(121, 36274), (Start: 170 @36352 has 35 MA's), (211, 36424), (287, 36532), (317, 36577), (390, 36727), (393, 36733), (405, 36760), (418, 36808), (466, 36910), (512, 36994), (560, 37066),

Gene: ArtetaBall\_31 Start: 22450, Stop: 23238, Start Num: 182

Candidate Starts for ArtetaBall\_31:

(Start: 182 @22450 has 57 MA's), (220, 22525), (Start: 228 @22537 has 1 MA's), (254, 22591), (258, 22597), (288, 22642), (309, 22672), (338, 22738), (345, 22756), (352, 22768), (354, 22774), (357, 22780), (421, 22969), (422, 22972), (425, 22987), (448, 23047), (535, 23194),

Gene: Arti\_19 Start: 9412, Stop: 10137, Start Num: 138

Candidate Starts for Arti\_19:

(Start: 138 @9412 has 22 MA's), (Start: 170 @9436 has 35 MA's), (192, 9469), (230, 9472), (251, 9508), (260, 9523), (288, 9565), (354, 9712), (418, 9904), (458, 10006), (479, 10036), (492, 10057), (500, 10072), (537, 10132),

Gene: Artorias\_27 Start: 19318, Stop: 20103, Start Num: 182

Candidate Starts for Artorias\_27:

(Start: 182 @19318 has 57 MA's), (189, 19333), (200, 19363), (254, 19459), (258, 19465), (337, 19603), (352, 19636), (357, 19648), (421, 19837), (422, 19840), (448, 19915), (535, 20062),

Gene: Asapag\_28 Start: 21501, Stop: 22124, Start Num: 224

Candidate Starts for Asapag\_28:

(54, 21126), (68, 21183), (80, 21228), (103, 21282), (104, 21285), (119, 21321), (Start: 128 @21366 has 1 MA's), (Start: 130 @21369 has 1 MA's), (Start: 224 @21501 has 30 MA's), (Start: 226 @21507 has 2 MA's), (239, 21537), (247, 21552), (285, 21612), (321, 21687), (337, 21732), (355, 21768), (365, 21804), (384, 21867), (408, 21912), (412, 21930), (419, 21951), (424, 21972), (509, 22092), (512, 22101), (520, 22113),

Gene: Ashertheman\_46 Start: 39868, Stop: 40611, Start Num: 169

Candidate Starts for Ashertheman\_46:

(Start: 169 @39868 has 53 MA's), (Start: 186 @39886 has 3 MA's), (Start: 205 @39931 has 5 MA's), (236, 39976), (277, 40039), (284, 40051), (297, 40069), (319, 40111), (333, 40138), (372, 40231), (378, 40243), (425, 40363), (438, 40399), (444, 40411), (457, 40438), (483, 40471), (500, 40504), (519, 40537), (543, 40564),

Gene: Astralis\_84 Start: 56776, Stop: 57627, Start Num: 166

Candidate Starts for Astralis\_84:

(146, 56752), (148, 56755), (Start: 166 @56776 has 38 MA's), (Start: 183 @56797 has 2 MA's), (188, 56806), (209, 56848), (213, 56854), (240, 56899), (301, 57001), (303, 57004), (319, 57040), (324, 57052), (337, 57091), (349, 57121), (351, 57124), (355, 57136), (357, 57139), (405, 57271), (425, 57337), (428, 57346), (439, 57376), (451, 57403), (463, 57424), (494, 57481), (517, 57526), (562, 57604),

Gene: Attis\_24 Start: 19791, Stop: 20498, Start Num: 177

Candidate Starts for Attis\_24:

(101, 19647), (Start: 177 @19791 has 50 MA's), (207, 19848), (Start: 228 @19887 has 1 MA's), (259, 19947), (280, 19965), (281, 19968), (291, 19986), (316, 20022), (317, 20025), (332, 20058), (336, 20076), (351, 20103), (383, 20181), (412, 20250), (422, 20280), (424, 20286), (538, 20490),

Gene: Avazak\_27 Start: 19325, Stop: 20110, Start Num: 182

Candidate Starts for Avazak\_27:

(Start: 182 @19325 has 57 MA's), (189, 19340), (200, 19370), (254, 19466), (258, 19472), (337, 19610), (352, 19643), (357, 19655), (421, 19844), (422, 19847), (448, 19922), (535, 20069),

Gene: Avian\_82 Start: 56928, Stop: 57779, Start Num: 166

Candidate Starts for Avian\_82:

(96, 56778), (99, 56787), (106, 56802), (108, 56811), (146, 56904), (148, 56907), (Start: 166 @56928 has 38 MA's), (Start: 183 @56949 has 2 MA's), (188, 56958), (209, 57000), (213, 57006), (240, 57051), (301, 57153), (303, 57156), (319, 57192), (324, 57204), (337, 57243), (349, 57273), (351, 57276), (355, 57288), (357, 57291), (405, 57423), (425, 57489), (428, 57498), (439, 57528), (451, 57555), (463, 57576), (494, 57633), (517, 57678), (562, 57756),

Gene: Axumite\_42 Start: 35273, Stop: 35995, Start Num: 177

Candidate Starts for Axumite\_42:

(33, 34883), (67, 35060), (106, 35168), (Start: 177 @35273 has 50 MA's), (271, 35435), (299, 35480), (332, 35543), (336, 35561), (351, 35588), (383, 35666), (384, 35669), (412, 35738), (422, 35768), (424, 35774), (524, 35963),

Gene: Azula\_27 Start: 21464, Stop: 22264, Start Num: 163

Candidate Starts for Azula\_27:

(88, 21314), (Start: 163 @21464 has 32 MA's), (Start: 196 @21512 has 1 MA's), (Start: 205 @21524 has 5 MA's), (236, 21575), (293, 21668), (319, 21719), (343, 21776), (344, 21779), (351, 21797), (355, 21809), (357, 21812), (358, 21815), (423, 21992), (433, 22013), (435, 22019), (450, 22055), (513, 22160), (524, 22175), (526, 22178), (549, 22211), (559, 22235),

Gene: BBQValindra\_26 Start: 21429, Stop: 22148, Start Num: 177

Candidate Starts for BBQValindra\_26:

(129, 21372), (Start: 177 @21429 has 50 MA's), (Start: 228 @21522 has 1 MA's), (236, 21537), (259, 21582), (299, 21633), (317, 21660), (328, 21684), (351, 21738), (354, 21747), (358, 21756), (422, 21918), (424, 21924),

Gene: BENtherdunthat\_28 Start: 21498, Stop: 22121, Start Num: 224

Candidate Starts for BENtherdunthat\_28:

(54, 21123), (68, 21180), (80, 21225), (103, 21279), (104, 21282), (119, 21318), (Start: 128 @21363 has 1 MA's), (Start: 130 @21366 has 1 MA's), (Start: 224 @21498 has 30 MA's), (Start: 226 @21504 has 2 MA's), (239, 21534), (247, 21549), (248, 21552), (295, 21630), (324, 21690), (337, 21729), (355, 21765), (365, 21801), (384, 21864), (412, 21927), (419, 21948), (422, 21957), (424, 21969), (441, 22002), (509, 22089), (512, 22098),

Gene: BabyMoney\_47 Start: 35952, Stop: 36758, Start Num: 166

Candidate Starts for BabyMoney\_47:

(Start: 166 @35952 has 38 MA's), (Start: 205 @36015 has 5 MA's), (270, 36126), (385, 36393), (411, 36471), (412, 36474), (423, 36504), (426, 36510), (447, 36561), (524, 36687), (556, 36735),

Gene: BackstagePass\_26 Start: 21561, Stop: 22274, Start Num: 177

Candidate Starts for BackstagePass\_26:

(129, 21504), (Start: 177 @21561 has 50 MA's), (Start: 228 @21654 has 1 MA's), (236, 21669), (259, 21714), (316, 21789), (317, 21792), (328, 21816), (354, 21879), (358, 21888), (393, 21963), (418, 22038), (422, 22050), (424, 22056),

Gene: Baddon\_45 Start: 40406, Stop: 41149, Start Num: 169

Candidate Starts for Baddon\_45:

(Start: 169 @40406 has 53 MA's), (Start: 186 @40424 has 3 MA's), (Start: 205 @40469 has 5 MA's), (236, 40514), (277, 40577), (284, 40589), (297, 40607), (319, 40649), (333, 40676), (372, 40769), (378, 40781), (425, 40901), (438, 40937), (444, 40949), (457, 40976), (483, 41009), (500, 41042), (519, 41075), (543, 41102),

Gene: Bakery\_49 Start: 37499, Stop: 38254, Start Num: 167

Candidate Starts for Bakery\_49:

(63, 37256), (108, 37388), (Start: 144 @37472 has 1 MA's), (154, 37484), (Start: 167 @37499 has 15 MA's), (Start: 186 @37517 has 3 MA's), (211, 37571), (235, 37604), (236, 37607), (249, 37634), (287, 37679), (390, 37874), (393, 37880), (405, 37907), (418, 37955), (466, 38057), (512, 38141), (560, 38213), (567, 38225),

Gene: Balloona\_46 Start: 35119, Stop: 34316, Start Num: 178

Candidate Starts for Balloona\_46:

(Start: 130 @35179 has 1 MA's), (Start: 178 @35119 has 13 MA's), (284, 34912), (315, 34858), (325, 34837), (332, 34819), (335, 34810), (337, 34798), (343, 34783), (384, 34672), (393, 34654), (406, 34621), (440, 34519), (472, 34459), (485, 34438), (523, 34369), (547, 34330), (552, 34321),

Gene: Bantam\_131 Start: 78134, Stop: 78856, Start Num: 176

Candidate Starts for Bantam\_131:

(87, 77963), (131, 78083), (149, 78107), (Start: 176 @78134 has 13 MA's), (Start: 205 @78191 has 5 MA's), (263, 78287),

Gene: Barb\_46 Start: 36471, Stop: 37226, Start Num: 167

Candidate Starts for Barb\_46:

(154, 36456), (Start: 167 @36471 has 15 MA's), (211, 36543), (236, 36579), (287, 36651), (390, 36846), (393, 36852), (405, 36879), (418, 36927), (466, 37029), (512, 37113), (560, 37185),

Gene: Barco\_25 Start: 21152, Stop: 21955, Start Num: 163

Candidate Starts for Barco\_25:

(Start: 163 @21152 has 32 MA's), (Start: 196 @21200 has 1 MA's), (Start: 205 @21212 has 5 MA's), (216, 21227), (236, 21263), (293, 21356), (319, 21407), (343, 21464), (344, 21467), (351, 21485), (355, 21497), (357, 21500), (358, 21503), (423, 21680), (433, 21701), (435, 21707), (524, 21863), (549, 21899), (559, 21923), (569, 21944),

Gene: Barsten\_46 Start: 40023, Stop: 40757, Start Num: 169

Candidate Starts for Barsten\_46:

(94, 39876), (125, 39966), (Start: 169 @40023 has 53 MA's), (Start: 186 @40041 has 3 MA's), (236, 40128), (250, 40155), (284, 40203), (297, 40221), (319, 40263), (354, 40341), (372, 40383), (387, 40416), (438, 40551), (457, 40590), (519, 40689), (543, 40716), (558, 40749),

Gene: BatStarr\_25 Start: 22309, Stop: 22926, Start Num: 214

Candidate Starts for BatStarr\_25:

(Start: 142 @22210 has 18 MA's), (185, 22249), (199, 22282), (Start: 214 @22309 has 20 MA's), (Start: 226 @22318 has 2 MA's), (247, 22360), (252, 22372), (285, 22420), (295, 22441), (306, 22462), (321, 22495), (323, 22498), (337, 22540), (355, 22576), (374, 22627), (384, 22675), (412, 22738), (422, 22768), (445, 22819), (509, 22897),

Gene: Baumdotcom\_44 Start: 39257, Stop: 40000, Start Num: 169

Candidate Starts for Baumdotcom\_44:

(Start: 169 @39257 has 53 MA's), (Start: 186 @39275 has 3 MA's), (Start: 205 @39320 has 5 MA's), (236, 39365), (284, 39440), (297, 39458), (319, 39500), (372, 39620), (378, 39632), (425, 39752), (438, 39788), (444, 39800), (457, 39827), (483, 39860), (500, 39893), (519, 39926), (543, 39953),

Gene: BaxterFox\_25 Start: 21503, Stop: 22126, Start Num: 215

Candidate Starts for BaxterFox\_25:

(103, 21299), (104, 21302), (Start: 128 @21383 has 1 MA's), (Start: 142 @21404 has 18 MA's), (Start: 215 @21503 has 16 MA's), (Start: 226 @21512 has 2 MA's), (247, 21557), (252, 21569), (285, 21617), (295, 21638), (321, 21692), (337, 21737), (355, 21773), (357, 21776), (374, 21824), (384, 21872), (412, 21935), (422, 21965), (445, 22019), (509, 22097),

Gene: BearBQ\_27 Start: 22338, Stop: 22961, Start Num: 224

Candidate Starts for BearBQ\_27:

(54, 21963), (68, 22020), (80, 22065), (103, 22119), (104, 22122), (119, 22158), (Start: 128 @22203 has 1 MA's), (Start: 130 @22206 has 1 MA's), (Start: 224 @22338 has 30 MA's), (Start: 226 @22344 has 2 MA's), (239, 22374), (247, 22389), (285, 22449), (321, 22524), (337, 22569), (355, 22605), (365, 22641), (384, 22704), (412, 22767), (419, 22788), (422, 22797), (447, 22854), (509, 22929), (512, 22938),

Gene: BeeGee\_26 Start: 21791, Stop: 22411, Start Num: 214

Candidate Starts for BeeGee\_26:

(Start: 214 @21791 has 20 MA's), (Start: 226 @21797 has 2 MA's), (247, 21842), (269, 21878), (295, 21923), (321, 21977), (337, 22022), (365, 22094), (384, 22157), (412, 22220), (445, 22301), (509,

22379), (512, 22388), (514, 22391),

Gene: Beenie\_25 Start: 21603, Stop: 22391, Start Num: 174

Candidate Starts for Beenie\_25:

(Start: 163 @21591 has 32 MA's), (Start: 174 @21603 has 42 MA's), (Start: 186 @21615 has 3 MA's), (187, 21618), (Start: 196 @21645 has 1 MA's), (Start: 205 @21657 has 5 MA's), (236, 21708), (293, 21801), (317, 21846), (318, 21849), (319, 21852), (344, 21912), (351, 21930), (355, 21942), (357, 21945), (358, 21948), (396, 22038), (423, 22125), (438, 22161), (526, 22311), (549, 22347), (559, 22371),

Gene: Begonia\_26 Start: 21633, Stop: 22436, Start Num: 163

Candidate Starts for Begonia\_26:

(Start: 163 @21633 has 32 MA's), (Start: 196 @21681 has 1 MA's), (Start: 205 @21693 has 5 MA's), (216, 21708), (236, 21744), (293, 21837), (319, 21888), (343, 21945), (344, 21948), (351, 21966), (355, 21978), (357, 21981), (358, 21984), (423, 22161), (433, 22182), (435, 22188), (524, 22344), (549, 22380), (559, 22404), (569, 22425),

Gene: Belphegor\_45 Start: 40390, Stop: 41112, Start Num: 174

Candidate Starts for Belphegor\_45:

(122, 40306), (Start: 174 @40390 has 42 MA's), (187, 40405), (204, 40444), (236, 40495), (284, 40558), (393, 40777), (421, 40861), (423, 40864), (457, 40939), (546, 41077), (557, 41098),

Gene: Beted\_31 Start: 23245, Stop: 23943, Start Num: 142

Candidate Starts for Beted\_31:

(Start: 130 @23227 has 1 MA's), (Start: 142 @23245 has 18 MA's), (Start: 228 @23308 has 1 MA's), (246, 23344), (295, 23416), (306, 23437), (321, 23470), (334, 23500), (335, 23503), (341, 23524), (345, 23530), (350, 23536), (358, 23557), (393, 23662), (398, 23671), (419, 23740), (422, 23746), (436, 23782), (441, 23794), (479, 23833), (532, 23923), (541, 23935), (542, 23938),

Gene: BetterYeti\_30 Start: 22097, Stop: 22885, Start Num: 182

Candidate Starts for BetterYeti\_30:

(Start: 182 @22097 has 57 MA's), (200, 22142), (Start: 228 @22184 has 1 MA's), (254, 22238), (357, 22427), (421, 22616), (422, 22619), (448, 22694), (535, 22841),

Gene: Beyoncage\_95 Start: 65472, Stop: 66188, Start Num: 180

Candidate Starts for Beyoncage\_95:

(Start: 180 @65472 has 17 MA's), (331, 65754), (345, 65799), (394, 65910), (434, 66027), (436, 66033), (453, 66066), (461, 66075), (477, 66096), (488, 66114), (513, 66153), (515, 66156), (532, 66177),

Gene: BiPauneto\_20 Start: 7795, Stop: 8589, Start Num: 139

Candidate Starts for BiPauneto\_20:

(Start: 139 @7795 has 3 MA's), (Start: 228 @7909 has 1 MA's), (230, 7912), (236, 7924), (288, 8005), (354, 8155), (360, 8179), (374, 8212), (418, 8344), (473, 8470), (492, 8506), (521, 8560),

Gene: Bialota\_25 Start: 22321, Stop: 22938, Start Num: 214

Candidate Starts for Bialota\_25:

(Start: 142 @22222 has 18 MA's), (185, 22261), (199, 22294), (Start: 214 @22321 has 20 MA's), (Start: 226 @22330 has 2 MA's), (247, 22372), (252, 22384), (285, 22432), (295, 22453), (306, 22474), (321, 22507), (337, 22552), (355, 22588), (374, 22639), (412, 22750), (422, 22780), (445, 22831), (509, 22909),

Gene: Bibwit\_44 Start: 38980, Stop: 39714, Start Num: 169

Candidate Starts for Bibwit\_44:

(159, 38971), (Start: 165 @38977 has 2 MA's), (Start: 169 @38980 has 53 MA's), (Start: 186 @38998 has 3 MA's), (236, 39085), (250, 39112), (284, 39160), (297, 39178), (319, 39220), (354, 39298), (372, 39340), (387, 39373), (438, 39508), (457, 39547), (519, 39646), (543, 39673), (558, 39706),

Gene: BigHunkinEater\_48 Start: 39924, Stop: 40649, Start Num: 174

Candidate Starts for BigHunkinEater\_48:

(111, 39813), (Start: 174 @39924 has 42 MA's), (236, 40029), (284, 40089), (297, 40107), (319, 40149), (346, 40206), (355, 40230), (383, 40296), (423, 40395), (438, 40431), (450, 40458), (519, 40569), (545, 40605),

Gene: BiggityBass\_42 Start: 37537, Stop: 38262, Start Num: 174

Candidate Starts for BiggityBass\_42:

(Start: 174 @37537 has 42 MA's), (259, 37696), (271, 37702), (285, 37726), (299, 37747), (311, 37762), (330, 37804), (336, 37828), (352, 37858), (390, 37942), (412, 38005), (422, 38035), (522, 38227),

Gene: Birdsong\_27 Start: 21231, Stop: 21854, Start Num: 224

Candidate Starts for Birdsong\_27:

(54, 20856), (68, 20913), (80, 20958), (103, 21012), (104, 21015), (119, 21051), (Start: 128 @21096 has 1 MA's), (Start: 130 @21099 has 1 MA's), (Start: 224 @21231 has 30 MA's), (Start: 226 @21237 has 2 MA's), (239, 21267), (247, 21282), (285, 21342), (321, 21417), (337, 21462), (355, 21498), (365, 21534), (384, 21597), (412, 21660), (419, 21681), (422, 21690), (447, 21747), (509, 21822), (512, 21831),

Gene: BirthdayBoy\_89 Start: 59230, Stop: 60081, Start Num: 166

Candidate Starts for BirthdayBoy\_89:

(146, 59206), (148, 59209), (155, 59218), (Start: 166 @59230 has 38 MA's), (175, 59239), (188, 59260), (209, 59302), (213, 59308), (240, 59353), (303, 59458), (307, 59467), (319, 59494), (324, 59506), (337, 59545), (405, 59725), (428, 59800), (439, 59830), (463, 59878), (465, 59881), (494, 59935), (517, 59980), (562, 60058),

Gene: BiteSize\_95 Start: 65558, Stop: 66274, Start Num: 180

Candidate Starts for BiteSize\_95:

(Start: 180 @65558 has 17 MA's), (331, 65840), (345, 65885), (394, 65996), (434, 66113), (436, 66119), (453, 66152), (461, 66161), (477, 66182), (488, 66200), (513, 66239), (515, 66242), (532, 66263),

Gene: Bizzy\_46 Start: 39563, Stop: 40306, Start Num: 169

Candidate Starts for Bizzy\_46:

(Start: 169 @39563 has 53 MA's), (Start: 186 @39581 has 3 MA's), (Start: 205 @39626 has 5 MA's), (236, 39671), (284, 39746), (297, 39764), (319, 39806), (372, 39926), (378, 39938), (425, 40058), (438, 40094), (444, 40106), (457, 40133), (483, 40166), (500, 40199), (519, 40232), (543, 40259),

Gene: Bjanes7\_24 Start: 19791, Stop: 20498, Start Num: 177

Candidate Starts for Bjanes7\_24:

(101, 19647), (Start: 177 @19791 has 50 MA's), (207, 19848), (Start: 228 @19887 has 1 MA's), (259, 19947), (280, 19965), (281, 19968), (291, 19986), (316, 20022), (317, 20025), (332, 20058), (336, 20076), (351, 20103), (383, 20181), (412, 20250), (422, 20280), (424, 20286), (538, 20490),

Gene: Blackpen\_45 Start: 36985, Stop: 37707, Start Num: 174

Candidate Starts for Blackpen\_45:

(79, 36799), (Start: 174 @36985 has 42 MA's), (227, 37078), (271, 37147), (286, 37174), (292, 37180), (337, 37270), (390, 37378), (395, 37390), (412, 37441), (422, 37471), (433, 37501), (438, 37516),

Gene: Blanky\_30 Start: 23303, Stop: 24088, Start Num: 182

Candidate Starts for Blanky\_30:

(Start: 182 @23303 has 57 MA's), (254, 23444), (260, 23453), (338, 23591), (345, 23609), (351, 23618), (354, 23627), (357, 23633), (381, 23717), (405, 23765), (421, 23822), (422, 23825), (425, 23840), (448, 23900), (464, 23930),

Gene: BlingBling\_25 Start: 21152, Stop: 21955, Start Num: 163

Candidate Starts for BlingBling\_25:

(Start: 163 @21152 has 32 MA's), (Start: 196 @21200 has 1 MA's), (Start: 205 @21212 has 5 MA's), (216, 21227), (236, 21263), (293, 21356), (319, 21407), (343, 21464), (344, 21467), (351, 21485), (355, 21497), (357, 21500), (358, 21503), (423, 21680), (433, 21701), (435, 21707), (524, 21863), (549, 21899), (559, 21923), (569, 21944),

Gene: Blino\_26 Start: 21252, Stop: 22046, Start Num: 160

Candidate Starts for Blino\_26:

(32, 20859), (53, 20988), (82, 21099), (95, 21126), (109, 21162), (Start: 160 @21252 has 17 MA's), (Start: 196 @21294 has 1 MA's), (Start: 205 @21306 has 5 MA's), (236, 21357), (293, 21450), (301, 21462), (318, 21498), (319, 21501), (340, 21549), (343, 21558), (344, 21561), (351, 21579), (355, 21591), (357, 21594), (358, 21597), (423, 21774), (433, 21795), (435, 21801), (450, 21837), (549, 21993), (559, 22017), (569, 22035),

Gene: BlueNGold\_178 Start: 105490, Stop: 104774, Start Num: 178

Candidate Starts for BlueNGold\_178:

(Start: 178 @105490 has 13 MA's), (208, 105433), (313, 105250), (336, 105190), (362, 105121), (371, 105103), (405, 105028), (408, 105016), (411, 105001), (412, 104998), (419, 104977), (421, 104971), (427, 104956), (477, 104869), (488, 104851), (501, 104833), (513, 104809), (532, 104785),

Gene: Blueberry\_27 Start: 21464, Stop: 22264, Start Num: 163

Candidate Starts for Blueberry\_27:

(88, 21314), (Start: 163 @21464 has 32 MA's), (Start: 196 @21512 has 1 MA's), (Start: 205 @21524 has 5 MA's), (236, 21575), (293, 21668), (319, 21719), (343, 21776), (344, 21779), (351, 21797), (355, 21809), (357, 21812), (358, 21815), (423, 21992), (433, 22013), (435, 22019), (450, 22055), (513, 22160), (524, 22175), (526, 22178), (549, 22211), (559, 22235),

Gene: BluerMoon\_30 Start: 22314, Stop: 23105, Start Num: 182

Candidate Starts for BluerMoon\_30:

(Start: 182 @22314 has 57 MA's), (200, 22359), (220, 22389), (Start: 228 @22401 has 1 MA's), (254, 22455), (357, 22644), (421, 22833), (422, 22836), (448, 22911),

Gene: BobBob\_43 Start: 39142, Stop: 39876, Start Num: 169

Candidate Starts for BobBob\_43:

(94, 38995), (125, 39085), (Start: 169 @39142 has 53 MA's), (Start: 186 @39160 has 3 MA's), (236, 39247), (250, 39274), (284, 39322), (297, 39340), (319, 39382), (354, 39460), (372, 39502), (387, 39535), (438, 39670), (457, 39709), (519, 39808), (543, 39835), (558, 39868),

Gene: BobRoss2024\_41 Start: 35281, Stop: 36009, Start Num: 177

Candidate Starts for BobRoss2024\_41:

(8, 34177), (10, 34186), (24, 34699), (28, 34804), (108, 35155), (Start: 177 @35281 has 50 MA's), (281, 35455), (336, 35560), (422, 35779), (424, 35785), (438, 35824), (544, 36004),

Gene: Bonum\_21 Start: 9448, Stop: 10239, Start Num: 142

Candidate Starts for Bonum\_21:

(Start: 142 @9448 has 18 MA's), (189, 9493), (222, 9556), (Start: 226 @9568 has 2 MA's), (Start: 228 @9574 has 1 MA's), (236, 9589), (251, 9613), (256, 9622), (288, 9670), (306, 9706), (354, 9817), (359, 9838), (366, 9859), (479, 10144), (492, 10165), (495, 10174), (500, 10180), (516, 10213),

Gene: Boopy\_181 Start: 105501, Stop: 104785, Start Num: 178

Candidate Starts for Boopy\_181:

(Start: 178 @105501 has 13 MA's), (208, 105444), (313, 105261), (336, 105201), (362, 105132), (371, 105114), (405, 105039), (408, 105027), (411, 105012), (412, 105009), (419, 104988), (421, 104982), (427, 104967), (477, 104880), (488, 104862), (501, 104844), (513, 104820), (532, 104796),

Gene: Bosnia\_25 Start: 22309, Stop: 22926, Start Num: 214

Candidate Starts for Bosnia\_25:

(Start: 142 @22210 has 18 MA's), (185, 22249), (199, 22282), (Start: 214 @22309 has 20 MA's), (Start: 226 @22318 has 2 MA's), (247, 22360), (252, 22372), (285, 22420), (295, 22441), (306, 22462), (321, 22495), (323, 22498), (337, 22540), (355, 22576), (374, 22627), (384, 22675), (412, 22738), (422, 22768), (445, 22819), (509, 22897),

Gene: BotCity\_28 Start: 21499, Stop: 22122, Start Num: 224

Candidate Starts for BotCity\_28:

(54, 21124), (68, 21181), (80, 21226), (103, 21280), (104, 21283), (119, 21319), (Start: 128 @21364 has 1 MA's), (Start: 130 @21367 has 1 MA's), (Start: 224 @21499 has 30 MA's), (Start: 226 @21505 has 2 MA's), (239, 21535), (247, 21550), (248, 21553), (295, 21631), (324, 21691), (337, 21730), (355, 21766), (365, 21802), (384, 21865), (412, 21928), (419, 21949), (422, 21958), (424, 21970), (441, 22003), (509, 22090), (512, 22099),

Gene: Bowser\_26 Start: 21340, Stop: 22053, Start Num: 177

Candidate Starts for Bowser\_26:

(129, 21283), (Start: 177 @21340 has 50 MA's), (217, 21406), (Start: 228 @21433 has 1 MA's), (236, 21448), (253, 21484), (259, 21493), (299, 21544), (317, 21571), (328, 21595), (354, 21658), (358, 21667), (381, 21724), (393, 21742), (418, 21817), (422, 21829), (424, 21835), (492, 21970),

Gene: BoyNamedSue\_26 Start: 22182, Stop: 22802, Start Num: 215

Candidate Starts for BoyNamedSue\_26:

(50, 21807), (103, 21978), (104, 21981), (Start: 128 @22062 has 1 MA's), (Start: 142 @22083 has 18 MA's), (Start: 215 @22182 has 16 MA's), (Start: 226 @22191 has 2 MA's), (247, 22236), (295, 22317), (321, 22371), (337, 22416), (355, 22452), (374, 22503), (384, 22551), (412, 22614), (422, 22644), (445, 22695), (509, 22773),

Gene: Bradissa\_27 Start: 22057, Stop: 22773, Start Num: 170

Candidate Starts for Bradissa\_27:

(Start: 142 @22030 has 18 MA's), (Start: 144 @22033 has 1 MA's), (Start: 170 @22057 has 35 MA's), (188, 22075), (217, 22129), (259, 22213), (291, 22252), (316, 22288), (328, 22315), (351, 22369), (358, 22387), (398, 22480), (422, 22558), (424, 22564), (522, 22741), (536, 22759),

Gene: Brandonk123\_47 Start: 40277, Stop: 41011, Start Num: 169

Candidate Starts for Brandonk123\_47:

(94, 40130), (125, 40220), (Start: 169 @40277 has 53 MA's), (Start: 186 @40295 has 3 MA's), (236, 40382), (250, 40409), (284, 40457), (297, 40475), (319, 40517), (354, 40595), (372, 40637), (438, 40805), (457, 40844), (519, 40943), (543, 40970), (558, 41003),

Gene: Braxoaddie\_20 Start: 9976, Stop: 10872, Start Num: 160

Candidate Starts for Braxoaddie\_20:

(61, 9739), (Start: 160 @9976 has 17 MA's), (Start: 205 @10054 has 5 MA's), (251, 10141), (282, 10189), (290, 10204), (327, 10282), (344, 10327), (393, 10459), (423, 10552), (429, 10567), (482, 10666), (521, 10747), (551, 10795), (570, 10840),

Gene: BritBrat\_27 Start: 21883, Stop: 22626, Start Num: 142

Candidate Starts for BritBrat\_27:

(Start: 142 @21883 has 18 MA's), (Start: 144 @21886 has 1 MA's), (Start: 170 @21910 has 35 MA's), (188, 21928), (217, 21982), (259, 22066), (291, 22105), (316, 22141), (328, 22168), (351, 22222), (358, 22240), (398, 22333), (422, 22411), (424, 22417), (522, 22594), (536, 22612),

Gene: Budski\_28 Start: 21606, Stop: 22229, Start Num: 224

Candidate Starts for Budski\_28:

(54, 21231), (68, 21288), (80, 21333), (103, 21387), (104, 21390), (119, 21426), (Start: 128 @21471 has 1 MA's), (Start: 130 @21474 has 1 MA's), (Start: 224 @21606 has 30 MA's), (Start: 226 @21612 has 2 MA's), (239, 21642), (247, 21657), (285, 21717), (324, 21798), (337, 21837), (365, 21909), (384, 21972), (408, 22017), (412, 22035), (419, 22056), (422, 22065), (509, 22197), (512, 22206), (520, 22218),

Gene: Bugg\_28 Start: 19361, Stop: 20146, Start Num: 182

Candidate Starts for Bugg\_28:

(Start: 182 @19361 has 57 MA's), (200, 19406), (254, 19502), (258, 19508), (337, 19646), (352, 19679), (357, 19691), (421, 19880), (422, 19883), (448, 19958), (535, 20105),

Gene: Buggaboo\_20 Start: 8964, Stop: 9755, Start Num: 142

Candidate Starts for Buggaboo\_20:

(Start: 142 @8964 has 18 MA's), (149, 8973), (189, 9009), (222, 9072), (Start: 228 @9090 has 1 MA's), (236, 9105), (251, 9129), (256, 9138), (288, 9186), (306, 9222), (354, 9333), (366, 9375), (479, 9660), (492, 9681), (495, 9690), (500, 9696), (516, 9729),

Gene: Bunker\_26 Start: 21542, Stop: 22261, Start Num: 177

Candidate Starts for Bunker\_26:

(75, 21332), (85, 21362), (129, 21485), (Start: 177 @21542 has 50 MA's), (Start: 228 @21635 has 1 MA's), (236, 21650), (259, 21695), (299, 21746), (317, 21773), (328, 21797), (354, 21860), (358, 21869), (422, 22031), (424, 22037),

Gene: Bunnybear\_24 Start: 22229, Stop: 23020, Start Num: 163

Candidate Starts for Bunnybear\_24:

(Start: 163 @22229 has 32 MA's), (Start: 196 @22277 has 1 MA's), (Start: 205 @22289 has 5 MA's), (236, 22340), (293, 22433), (319, 22484), (338, 22529), (340, 22532), (344, 22544), (358, 22580), (423, 22757), (433, 22778), (450, 22820), (549, 22976),

Gene: Burley\_30 Start: 22058, Stop: 22846, Start Num: 182

Candidate Starts for Burley\_30:

(Start: 182 @22058 has 57 MA's), (200, 22103), (220, 22133), (Start: 228 @22145 has 1 MA's), (254, 22199), (288, 22250), (338, 22346), (345, 22364), (352, 22376), (354, 22382), (357, 22388), (421, 22577), (422, 22580), (448, 22655), (535, 22802),

Gene: CWormy\_30 Start: 21758, Stop: 22546, Start Num: 182

Candidate Starts for CWormy\_30:

(Start: 182 @21758 has 57 MA's), (200, 21803), (220, 21833), (Start: 228 @21845 has 1 MA's), (254, 21899), (258, 21905), (288, 21950), (338, 22046), (345, 22064), (351, 22073), (357, 22088), (421, 22277), (422, 22280), (448, 22355), (535, 22502),

Gene: Cafasso\_33 Start: 27845, Stop: 28597, Start Num: 176

Candidate Starts for Cafasso\_33:

(Start: 176 @27845 has 13 MA's), (Start: 205 @27896 has 5 MA's), (319, 28073), (361, 28172), (398, 28232), (423, 28310), (450, 28373), (491, 28436), (504, 28463), (563, 28565),

Gene: CaiB\_45 Start: 37553, Stop: 38275, Start Num: 174

Candidate Starts for CaiB\_45:

(79, 37367), (Start: 174 @37553 has 42 MA's), (227, 37646), (271, 37715), (286, 37742), (292, 37748), (351, 37862), (390, 37946), (422, 38039), (433, 38069),

Gene: Camerico\_44 Start: 44895, Stop: 45653, Start Num: 172

Candidate Starts for Camerico\_44:

(Start: 166 @44889 has 38 MA's), (Start: 172 @44895 has 4 MA's), (Start: 205 @44952 has 5 MA's), (292, 45090), (305, 45111), (313, 45126), (316, 45132), (318, 45138), (357, 45228), (414, 45387), (437, 45450), (439, 45456), (471, 45513), (493, 45555), (515, 45603),

Gene: CaptainKirk2\_25 Start: 21173, Stop: 21976, Start Num: 163

Candidate Starts for CaptainKirk2\_25:

(Start: 163 @21173 has 32 MA's), (Start: 196 @21221 has 1 MA's), (Start: 205 @21233 has 5 MA's), (216, 21248), (236, 21284), (293, 21377), (319, 21428), (343, 21485), (344, 21488), (351, 21506), (355, 21518), (357, 21521), (358, 21524), (423, 21701), (433, 21722), (435, 21728), (524, 21884), (549, 21920), (559, 21944), (569, 21965),

Gene: Captrips\_27 Start: 19354, Stop: 20139, Start Num: 182

Candidate Starts for Captrips\_27:

(Start: 182 @19354 has 57 MA's), (200, 19399), (254, 19495), (258, 19501), (337, 19639), (352, 19672), (357, 19684), (421, 19873), (422, 19876), (448, 19951), (535, 20098),

Gene: Capybara\_27 Start: 19428, Stop: 20213, Start Num: 182

Candidate Starts for Capybara\_27:

(Start: 182 @19428 has 57 MA's), (189, 19443), (212, 19491), (234, 19524), (254, 19569), (258, 19575), (337, 19713), (352, 19746), (357, 19758), (421, 19947), (422, 19950), (448, 20025), (462, 20052), (535, 20172),

Gene: CarolAnn\_26 Start: 21251, Stop: 22045, Start Num: 160

Candidate Starts for CarolAnn\_26:

(32, 20858), (53, 20987), (82, 21098), (95, 21125), (109, 21161), (Start: 160 @21251 has 17 MA's), (Start: 196 @21293 has 1 MA's), (Start: 205 @21305 has 5 MA's), (236, 21356), (293, 21449), (301, 21461), (318, 21497), (319, 21500), (340, 21548), (343, 21557), (344, 21560), (351, 21578), (355, 21590), (357, 21593), (358, 21596), (423, 21773), (433, 21794), (435, 21800), (450, 21836), (549, 21992), (559, 22016), (569, 22034),

Gene: Cashline\_26 Start: 21658, Stop: 22278, Start Num: 214

Candidate Starts for Cashline\_26:

(Start: 214 @21658 has 20 MA's), (Start: 226 @21664 has 2 MA's), (239, 21694), (247, 21709), (269, 21745), (295, 21790), (321, 21844), (337, 21889), (365, 21961), (374, 21976), (384, 22024), (401, 22045), (412, 22087), (445, 22168), (509, 22246), (512, 22255), (514, 22258),

Gene: ChadMasterC\_46 Start: 41422, Stop: 42156, Start Num: 169

Candidate Starts for ChadMasterC\_46:

(94, 41275), (125, 41365), (Start: 169 @41422 has 53 MA's), (Start: 186 @41440 has 3 MA's), (236, 41527), (250, 41554), (284, 41602), (297, 41620), (319, 41662), (354, 41740), (372, 41782), (387,

41815), (438, 41950), (457, 41989), (519, 42088), (543, 42115), (558, 42148),

Gene: CharlottesWeb\_42 Start: 35092, Stop: 35814, Start Num: 177

Candidate Starts for CharlottesWeb\_42:

(24, 34510), (Start: 177 @35092 has 50 MA's), (259, 35248), (271, 35254), (299, 35299), (332, 35362), (335, 35371), (336, 35380), (351, 35407), (352, 35410), (412, 35557), (422, 35587), (424, 35593), (479, 35704), (493, 35728), (522, 35779), (534, 35794),

Gene: Charminar\_85 Start: 56436, Stop: 57287, Start Num: 166

Candidate Starts for Charminar\_85:

(83, 56259), (96, 56286), (99, 56295), (106, 56310), (108, 56319), (146, 56412), (148, 56415), (155, 56424), (Start: 166 @56436 has 38 MA's), (175, 56445), (Start: 183 @56457 has 2 MA's), (188, 56466), (209, 56508), (213, 56514), (240, 56559), (301, 56661), (303, 56664), (319, 56700), (324, 56712), (337, 56751), (349, 56781), (351, 56784), (355, 56796), (357, 56799), (405, 56931), (425, 56997), (428, 57006), (439, 57036), (451, 57063), (463, 57084), (494, 57141), (517, 57186), (562, 57264),

Gene: Charming\_46 Start: 39778, Stop: 40512, Start Num: 169

Candidate Starts for Charming\_46:

(94, 39631), (125, 39721), (Start: 169 @39778 has 53 MA's), (Start: 186 @39796 has 3 MA's), (236, 39883), (250, 39910), (284, 39958), (297, 39976), (319, 40018), (354, 40096), (372, 40138), (387, 40171), (438, 40306), (457, 40345), (519, 40444), (543, 40471), (558, 40504),

Gene: CheeseSpider\_29 Start: 21718, Stop: 22512, Start Num: 163

Candidate Starts for CheeseSpider\_29:

(Start: 163 @21718 has 32 MA's), (Start: 196 @21766 has 1 MA's), (Start: 205 @21778 has 5 MA's), (236, 21829), (293, 21922), (319, 21973), (343, 22030), (344, 22033), (351, 22051), (355, 22063), (357, 22066), (358, 22069), (423, 22246), (433, 22267), (549, 22465), (559, 22489),

Gene: CheeseTouch\_28 Start: 21492, Stop: 22115, Start Num: 224

Candidate Starts for CheeseTouch\_28:

(54, 21117), (68, 21174), (80, 21219), (103, 21273), (104, 21276), (119, 21312), (Start: 128 @21357 has 1 MA's), (Start: 130 @21360 has 1 MA's), (Start: 224 @21492 has 30 MA's), (Start: 226 @21498 has 2 MA's), (239, 21528), (247, 21543), (285, 21603), (324, 21684), (337, 21723), (365, 21795), (384, 21858), (408, 21903), (412, 21921), (419, 21942), (422, 21951), (509, 22083), (512, 22092), (520, 22104),

Gene: CherryCola\_46 Start: 37125, Stop: 37880, Start Num: 170

Candidate Starts for CherryCola\_46:

(121, 37047), (Start: 170 @37125 has 35 MA's), (211, 37197), (287, 37305), (317, 37350), (390, 37500), (393, 37506), (405, 37533), (418, 37581), (466, 37683), (512, 37767), (560, 37839),

Gene: CherryTomatoes\_180 Start: 130016, Stop: 130726, Start Num: 180

Candidate Starts for CherryTomatoes\_180:

(Start: 180 @130016 has 17 MA's), (187, 130028), (206, 130067), (234, 130118), (282, 130202), (304, 130235), (313, 130253), (357, 130358), (358, 130361), (394, 130451), (405, 130475), (421, 130532), (441, 130580), (467, 130619), (513, 130691),

Gene: CherryonLim\_48 Start: 36692, Stop: 35889, Start Num: 178

Candidate Starts for CherryonLim\_48:

(Start: 130 @36752 has 1 MA's), (Start: 178 @36692 has 13 MA's), (217, 36614), (284, 36485), (315, 36431), (332, 36392), (337, 36371), (393, 36227), (406, 36194), (442, 36089), (485, 36011), (523, 35942), (530, 35933), (547, 35903), (552, 35894),

Gene: ChickyNuggy\_28 Start: 19066, Stop: 19851, Start Num: 182

Candidate Starts for ChickyNuggy\_28:

(Start: 182 @19066 has 57 MA's), (200, 19111), (254, 19207), (258, 19213), (337, 19351), (352, 19384), (357, 19396), (421, 19585), (422, 19588), (448, 19663), (535, 19810),

Gene: Chidiebere\_31 Start: 21568, Stop: 22266, Start Num: 142

Candidate Starts for Chidiebere\_31:

(Start: 130 @21550 has 1 MA's), (Start: 142 @21568 has 18 MA's), (Start: 228 @21631 has 1 MA's), (246, 21667), (291, 21727), (295, 21739), (306, 21760), (321, 21793), (334, 21823), (335, 21826), (341, 21847), (345, 21853), (350, 21859), (358, 21880), (393, 21985), (398, 21994), (419, 22063), (422, 22069), (436, 22105), (441, 22117), (479, 22156), (492, 22177), (532, 22246), (541, 22258), (542, 22261),

Gene: Chikenjars\_30 Start: 22310, Stop: 23098, Start Num: 182

Candidate Starts for Chikenjars\_30:

(Start: 182 @22310 has 57 MA's), (200, 22355), (220, 22385), (Start: 228 @22397 has 1 MA's), (254, 22451), (338, 22598), (354, 22634), (357, 22640), (421, 22829), (422, 22832), (441, 22889), (448, 22907), (462, 22934), (535, 23054),

Gene: ChisanaKitsune\_27 Start: 20220, Stop: 20918, Start Num: 142

Candidate Starts for ChisanaKitsune\_27:

(88, 20082), (90, 20088), (99, 20109), (105, 20121), (118, 20154), (122, 20166), (Start: 142 @20220 has 18 MA's), (Start: 228 @20283 has 1 MA's), (295, 20391), (306, 20412), (321, 20445), (334, 20475), (335, 20478), (341, 20499), (345, 20505), (350, 20511), (358, 20532), (393, 20637), (398, 20646), (419, 20715), (422, 20721), (436, 20757), (441, 20769), (479, 20808), (532, 20898), (541, 20910), (542, 20913),

Gene: Citrus\_29 Start: 22314, Stop: 23102, Start Num: 182

Candidate Starts for Citrus\_29:

(Start: 182 @22314 has 57 MA's), (200, 22359), (220, 22389), (254, 22455), (338, 22602), (354, 22638), (357, 22644), (421, 22833), (422, 22836), (441, 22893), (448, 22911), (462, 22938), (535, 23058),

Gene: ClamChowder\_46 Start: 36471, Stop: 37226, Start Num: 167

Candidate Starts for ClamChowder\_46:

(154, 36456), (Start: 167 @36471 has 15 MA's), (211, 36543), (236, 36579), (287, 36651), (390, 36846), (393, 36852), (405, 36879), (418, 36927), (466, 37029), (512, 37113), (560, 37185),

Gene: Clap\_24 Start: 19798, Stop: 20505, Start Num: 177

Candidate Starts for Clap\_24:

(101, 19654), (Start: 177 @19798 has 50 MA's), (207, 19855), (Start: 228 @19894 has 1 MA's), (253, 19945), (259, 19954), (280, 19972), (281, 19975), (316, 20029), (317, 20032), (332, 20065), (336, 20083), (351, 20110), (383, 20188), (412, 20257), (414, 20263), (422, 20287), (424, 20293), (538, 20497),

Gene: Clark\_25 Start: 21234, Stop: 22034, Start Num: 163

Candidate Starts for Clark\_25:

(Start: 163 @21234 has 32 MA's), (Start: 174 @21246 has 42 MA's), (Start: 186 @21258 has 3 MA's), (187, 21261), (Start: 196 @21288 has 1 MA's), (Start: 205 @21300 has 5 MA's), (236, 21351), (293, 21444), (317, 21489), (318, 21492), (319, 21495), (344, 21555), (351, 21573), (355, 21585), (357, 21588), (358, 21591), (396, 21681), (423, 21768), (549, 21990), (559, 22014),

Gene: CloverMinnie\_45 Start: 37493, Stop: 38215, Start Num: 174

Candidate Starts for CloverMinnie\_45:

(79, 37307), (Start: 174 @37493 has 42 MA's), (227, 37586), (271, 37655), (286, 37682), (292, 37688), (337, 37778), (390, 37886), (395, 37898), (412, 37949), (422, 37979), (433, 38009), (438, 38024),

Gene: Clown\_50 Start: 38569, Stop: 39336, Start Num: 170

Candidate Starts for Clown\_50:

(Start: 170 @38569 has 35 MA's), (Start: 186 @38584 has 3 MA's), (189, 38593), (202, 38626), (211, 38638), (218, 38647), (234, 38668), (249, 38701), (282, 38737), (287, 38746), (303, 38767), (319, 38800), (357, 38881), (358, 38884), (383, 38932), (390, 38941), (405, 38974), (412, 39004), (418, 39022), (433, 39055), (439, 39073), (444, 39082), (475, 39139), (499, 39187), (502, 39193), (558, 39289),

Gene: CoffeeBean\_20 Start: 9913, Stop: 10809, Start Num: 160

Candidate Starts for CoffeeBean\_20:

(Start: 160 @9913 has 17 MA's), (Start: 205 @9991 has 5 MA's), (251, 10078), (282, 10126), (290, 10141), (327, 10219), (344, 10264), (393, 10396), (423, 10489), (429, 10504), (482, 10603), (521, 10684), (551, 10732), (570, 10777),

Gene: Colossa\_101 Start: 54396, Stop: 55136, Start Num: 170

Candidate Starts for Colossa\_101:

(133, 54351), (Start: 170 @54396 has 35 MA's), (202, 54453), (210, 54465), (217, 54474), (219, 54477), (236, 54501), (249, 54528), (301, 54582), (320, 54618), (355, 54693), (372, 54735), (379, 54744), (393, 54774), (399, 54786), (507, 55020), (534, 55050),

Gene: Commandaria\_20 Start: 9068, Stop: 9796, Start Num: 138

Candidate Starts for Commandaria\_20:

(Start: 138 @9068 has 22 MA's), (192, 9125), (243, 9158), (260, 9179), (288, 9221), (401, 9497), (414, 9545), (419, 9560), (492, 9707), (510, 9749),

Gene: Confidence\_26 Start: 21821, Stop: 22441, Start Num: 214

Candidate Starts for Confidence\_26:

(Start: 214 @21821 has 20 MA's), (Start: 226 @21827 has 2 MA's), (247, 21872), (269, 21908), (295, 21953), (321, 22007), (337, 22052), (365, 22124), (384, 22187), (412, 22250), (445, 22331), (509, 22409), (512, 22418), (514, 22421),

Gene: Conley\_28 Start: 20413, Stop: 21198, Start Num: 182

Candidate Starts for Conley\_28:

(Start: 182 @20413 has 57 MA's), (Start: 228 @20500 has 1 MA's), (234, 20509), (246, 20536), (254, 20554), (258, 20560), (260, 20563), (337, 20698), (352, 20731), (357, 20743), (421, 20932), (422, 20935), (448, 21010), (457, 21028), (535, 21157),

Gene: Coriander\_27 Start: 22534, Stop: 23235, Start Num: 177

Candidate Starts for Coriander\_27:

(Start: 177 @22534 has 50 MA's), (Start: 228 @22627 has 1 MA's), (236, 22642), (259, 22687), (285, 22717), (316, 22762), (328, 22789), (330, 22792), (351, 22843), (358, 22861), (398, 22942), (422, 23020), (424, 23026), (439, 23068), (444, 23077), (492, 23149), (529, 23212),

Gene: CoveyB\_47 Start: 36170, Stop: 36925, Start Num: 170

Candidate Starts for CoveyB\_47:

(121, 36092), (Start: 170 @36170 has 35 MA's), (211, 36242), (287, 36350), (317, 36395), (390, 36545), (393, 36551), (405, 36578), (418, 36626), (466, 36728), (512, 36812), (560, 36884),

Gene: Crater\_26 Start: 21059, Stop: 21682, Start Num: 224

Candidate Starts for Crater\_26:

(54, 20684), (68, 20741), (80, 20786), (103, 20840), (104, 20843), (119, 20879), (Start: 128 @20924 has 1 MA's), (Start: 130 @20927 has 1 MA's), (Start: 224 @21059 has 30 MA's), (Start: 226 @21065 has 2 MA's), (239, 21095), (247, 21110), (285, 21170), (324, 21251), (337, 21290), (365, 21362), (384, 21425), (408, 21470), (412, 21488), (419, 21509), (422, 21518), (509, 21650), (512, 21659), (520, 21671),

Gene: Crocheter\_30 Start: 22450, Stop: 23238, Start Num: 182

Candidate Starts for Crocheter\_30:

(Start: 182 @22450 has 57 MA's), (200, 22495), (220, 22525), (Start: 228 @22537 has 1 MA's), (254, 22591), (258, 22597), (288, 22642), (338, 22738), (345, 22756), (351, 22765), (357, 22780), (421, 22969), (422, 22972), (425, 22987), (448, 23047), (462, 23074), (535, 23194),

Gene: Cynthia\_24 Start: 19798, Stop: 20505, Start Num: 177

Candidate Starts for Cynthia\_24:

(101, 19654), (Start: 177 @19798 has 50 MA's), (207, 19855), (Start: 228 @19894 has 1 MA's), (253, 19945), (259, 19954), (280, 19972), (281, 19975), (316, 20029), (317, 20032), (332, 20065), (336, 20083), (351, 20110), (383, 20188), (412, 20257), (414, 20263), (422, 20287), (424, 20293), (538, 20497),

Gene: DalanDe\_26 Start: 21686, Stop: 22381, Start Num: 142

Candidate Starts for DalanDe\_26:

(Start: 142 @21686 has 18 MA's), (Start: 228 @21746 has 1 MA's), (254, 21791), (295, 21854), (306, 21875), (321, 21908), (335, 21941), (375, 22040), (382, 22076), (393, 22100), (398, 22109), (412, 22157), (416, 22169), (419, 22178), (436, 22220), (479, 22271), (530, 22358),

Gene: Dalilpop\_23 Start: 10164, Stop: 10931, Start Num: 138

Candidate Starts for Dalilpop\_23:

(Start: 138 @10164 has 22 MA's), (151, 10179), (199, 10233), (Start: 228 @10269 has 1 MA's), (230, 10272), (260, 10323), (288, 10365), (378, 10593), (394, 10629), (427, 10731), (489, 10842), (492, 10848), (516, 10896), (521, 10902),

Gene: Dancer\_27 Start: 19054, Stop: 19839, Start Num: 182

Candidate Starts for Dancer\_27:

(Start: 182 @19054 has 57 MA's), (200, 19099), (254, 19195), (258, 19201), (337, 19339), (352, 19372), (357, 19384), (421, 19573), (422, 19576), (448, 19651), (535, 19798),

Gene: Danyall\_46 Start: 36172, Stop: 36927, Start Num: 170

Candidate Starts for Danyall\_46:

(115, 36076), (Start: 170 @36172 has 35 MA's), (211, 36244), (236, 36280), (287, 36352), (298, 36367), (390, 36547), (393, 36553), (405, 36580), (466, 36730), (512, 36814), (560, 36886),

Gene: Daredevil\_123 Start: 74384, Stop: 75109, Start Num: 170

Candidate Starts for Daredevil\_123:

(Start: 170 @74384 has 35 MA's), (336, 74663), (361, 74720), (425, 74885), (447, 74936), (454, 74948), (481, 74984), (527, 75047),

Gene: DatBoi\_128 Start: 77112, Stop: 77834, Start Num: 176

Candidate Starts for DatBoi\_128:

(93, 76950), (100, 76968), (117, 77007), (131, 77061), (Start: 176 @77112 has 13 MA's), (Start: 205 @77169 has 5 MA's), (263, 77268), (319, 77346),

Gene: DaviePasture\_87 Start: 58761, Stop: 59612, Start Num: 166

Candidate Starts for DaviePasture\_87:

(146, 58737), (148, 58740), (Start: 166 @58761 has 38 MA's), (175, 58770), (188, 58791), (209, 58833), (213, 58839), (303, 58989), (307, 58998), (319, 59025), (324, 59037), (337, 59076), (405, 59256), (425, 59322), (428, 59331), (439, 59361), (451, 59388), (465, 59412), (494, 59466), (517, 59511), (526, 59523), (562, 59589),

Gene: Delian\_25 Start: 21173, Stop: 21976, Start Num: 163

Candidate Starts for Delian\_25:

(Start: 163 @21173 has 32 MA's), (Start: 196 @21221 has 1 MA's), (Start: 205 @21233 has 5 MA's), (216, 21248), (236, 21284), (293, 21377), (319, 21428), (343, 21485), (344, 21488), (351, 21506), (355, 21518), (357, 21521), (358, 21524), (423, 21701), (433, 21722), (435, 21728), (524, 21884), (549, 21920), (559, 21944), (569, 21965),

Gene: Delrey21\_46 Start: 41437, Stop: 42174, Start Num: 160

Candidate Starts for Delrey21\_46:

(19, 40798), (27, 40969), (29, 41011), (51, 41152), (152, 41428), (Start: 160 @41437 has 17 MA's), (Start: 165 @41443 has 2 MA's), (Start: 174 @41452 has 42 MA's), (Start: 226 @41536 has 2 MA's), (236, 41557), (239, 41566), (277, 41605), (284, 41617), (297, 41635), (319, 41677), (353, 41749), (355, 41755), (410, 41881), (423, 41920), (433, 41941), (438, 41956), (450, 41983), (545, 42130),

Gene: Demure\_29 Start: 21413, Stop: 22201, Start Num: 182

Candidate Starts for Demure\_29:

(Start: 182 @21413 has 57 MA's), (220, 21488), (Start: 228 @21500 has 1 MA's), (254, 21554), (258, 21560), (288, 21605), (338, 21701), (345, 21719), (351, 21728), (354, 21737), (357, 21743), (421, 21932), (422, 21935), (425, 21950), (462, 22037), (535, 22157),

Gene: Denise\_22 Start: 18886, Stop: 19509, Start Num: 224

Candidate Starts for Denise\_22:

(Start: 224 @18886 has 30 MA's), (Start: 226 @18892 has 2 MA's), (239, 18922), (247, 18937), (285, 18997), (295, 19018), (306, 19039), (365, 19189), (384, 19252), (412, 19315), (419, 19336), (422, 19345), (509, 19477), (510, 19483), (520, 19498), (523, 19501),

Gene: Derg\_41 Start: 39155, Stop: 39898, Start Num: 169

Candidate Starts for Derg\_41:

(Start: 169 @39155 has 53 MA's), (Start: 186 @39173 has 3 MA's), (Start: 205 @39218 has 5 MA's), (236, 39263), (284, 39338), (297, 39356), (319, 39398), (372, 39518), (378, 39530), (425, 39650), (438, 39686), (444, 39698), (457, 39725), (483, 39758), (500, 39791), (519, 39824), (543, 39851),

Gene: Dialga\_31 Start: 22472, Stop: 23260, Start Num: 182

Candidate Starts for Dialga\_31:

(Start: 182 @22472 has 57 MA's), (200, 22517), (220, 22547), (Start: 228 @22559 has 1 MA's), (254, 22613), (258, 22619), (288, 22664), (338, 22760), (345, 22778), (351, 22787), (357, 22802), (421, 22991), (422, 22994), (425, 23009), (448, 23069), (462, 23096), (535, 23216),

Gene: DirtyBoi\_28 Start: 22441, Stop: 23142, Start Num: 177

Candidate Starts for DirtyBoi\_28:

(Start: 177 @22441 has 50 MA's), (189, 22459), (Start: 228 @22534 has 1 MA's), (236, 22549), (285, 22624), (328, 22696), (336, 22723), (351, 22750), (354, 22759), (358, 22768), (394, 22843), (398, 22849), (422, 22927), (424, 22933), (492, 23056), (529, 23119),

Gene: Djokovic\_95 Start: 65471, Stop: 66187, Start Num: 180

Candidate Starts for Djokovic\_95:

(Start: 180 @65471 has 17 MA's), (331, 65753), (345, 65798), (394, 65909), (434, 66026), (436, 66032), (453, 66065), (461, 66074), (477, 66095), (488, 66113), (513, 66152), (515, 66155), (532, 66176),

Gene: Dmitri\_27 Start: 22590, Stop: 23291, Start Num: 177

Candidate Starts for Dmitri\_27:

(30, 22158), (31, 22161), (39, 22197), (43, 22218), (46, 22245), (48, 22257), (56, 22299), (84, 22407), (Start: 177 @22590 has 50 MA's), (189, 22608), (Start: 228 @22683 has 1 MA's), (236, 22698), (285, 22773), (299, 22794), (315, 22815), (328, 22845), (336, 22872), (351, 22899), (354, 22908), (358, 22917), (398, 22998), (412, 23046), (422, 23076), (424, 23082), (529, 23268),

Gene: DobbysSock\_24 Start: 20720, Stop: 21508, Start Num: 174

Candidate Starts for DobbysSock\_24:

(Start: 163 @20708 has 32 MA's), (Start: 174 @20720 has 42 MA's), (Start: 186 @20732 has 3 MA's), (187, 20735), (Start: 196 @20762 has 1 MA's), (Start: 205 @20774 has 5 MA's), (236, 20825), (293, 20918), (317, 20963), (318, 20966), (319, 20969), (344, 21029), (351, 21047), (355, 21059), (357, 21062), (358, 21065), (396, 21155), (423, 21242), (513, 21410), (526, 21428), (549, 21464), (559, 21488),

Gene: DoctorFroggo\_46 Start: 41437, Stop: 42174, Start Num: 160

Candidate Starts for DoctorFroggo\_46:

(19, 40798), (27, 40969), (29, 41011), (51, 41152), (152, 41428), (Start: 160 @41437 has 17 MA's), (Start: 165 @41443 has 2 MA's), (Start: 174 @41452 has 42 MA's), (Start: 226 @41536 has 2 MA's), (236, 41557), (239, 41566), (277, 41605), (284, 41617), (297, 41635), (319, 41677), (353, 41749), (355, 41755), (410, 41881), (423, 41920), (433, 41941), (438, 41956), (450, 41983), (545, 42130),

Gene: Dogfish\_46 Start: 35376, Stop: 36182, Start Num: 166

Candidate Starts for Dogfish\_46:

(Start: 166 @35376 has 38 MA's), (Start: 205 @35439 has 5 MA's), (279, 35562), (385, 35817), (412, 35898), (415, 35907), (423, 35928), (426, 35934), (447, 35985), (485, 36039), (513, 36096), (524, 36111), (556, 36159),

Gene: Doggs\_26 Start: 22233, Stop: 22934, Start Num: 177

Candidate Starts for Doggs\_26:

(Start: 177 @22233 has 50 MA's), (Start: 228 @22326 has 1 MA's), (236, 22341), (259, 22386), (285, 22416), (316, 22461), (328, 22488), (330, 22491), (351, 22542), (358, 22560), (398, 22641), (422, 22719), (424, 22725), (439, 22767), (444, 22776), (492, 22848), (529, 22911),

Gene: Dolores\_25 Start: 21222, Stop: 22010, Start Num: 174

Candidate Starts for Dolores\_25:

(Start: 163 @21210 has 32 MA's), (Start: 174 @21222 has 42 MA's), (Start: 186 @21234 has 3 MA's), (187, 21237), (Start: 196 @21264 has 1 MA's), (Start: 205 @21276 has 5 MA's), (236, 21327), (293, 21420), (317, 21465), (318, 21468), (319, 21471), (344, 21531), (351, 21549), (355, 21561), (357, 21564), (358, 21567), (396, 21657), (423, 21744), (549, 21966), (559, 21990),

Gene: DonkeyMan\_50 Start: 33281, Stop: 34132, Start Num: 158

Candidate Starts for DonkeyMan\_50:

(Start: 128 @33245 has 1 MA's), (133, 33251), (Start: 158 @33281 has 8 MA's), (257, 33464), (358, 33662), (367, 33695), (394, 33770), (398, 33785), (423, 33863), (484, 33974), (486, 33977), (491, 33983), (508, 34019), (528, 34046), (568, 34121),

Gene: DoobyDoo\_86 Start: 57557, Stop: 58408, Start Num: 166

Candidate Starts for DoobyDoo\_86:

(83, 57380), (96, 57407), (99, 57416), (106, 57431), (108, 57440), (146, 57533), (148, 57536), (Start: 166 @57557 has 38 MA's), (175, 57566), (188, 57587), (209, 57629), (213, 57635), (240, 57680), (303, 57785), (307, 57794), (319, 57821), (324, 57833), (337, 57872), (405, 58052), (425, 58118), (428, 58127), (439, 58157), (451, 58184), (465, 58208), (494, 58262), (517, 58307), (526, 58319), (562, 58385),

Gene: Dorin\_11 Start: 5894, Stop: 5211, Start Num: 201

Candidate Starts for Dorin\_11:

(Start: 201 @5894 has 2 MA's), (Start: 205 @5888 has 5 MA's), (213, 5876), (233, 5840), (238, 5825), (242, 5816), (346, 5615), (356, 5597), (366, 5561), (377, 5531), (422, 5417), (428, 5399), (451, 5348), (456, 5339), (469, 5318), (475, 5306), (479, 5297), (512, 5237),

Gene: Dorito\_24 Start: 20676, Stop: 21473, Start Num: 163

Candidate Starts for Dorito\_24:

(92, 20526), (Start: 163 @20676 has 32 MA's), (Start: 171 @20685 has 3 MA's), (Start: 186 @20697 has 3 MA's), (187, 20700), (Start: 196 @20727 has 1 MA's), (Start: 205 @20739 has 5 MA's), (236, 20790), (293, 20883), (317, 20928), (318, 20931), (319, 20934), (320, 20937), (344, 20994), (351, 21012), (357, 21027), (358, 21030), (391, 21108), (396, 21120), (405, 21147), (423, 21207), (438, 21243), (513, 21375), (526, 21393), (549, 21429), (565, 21465),

Gene: Duffington\_30 Start: 22295, Stop: 23083, Start Num: 182

Candidate Starts for Duffington\_30:

(Start: 182 @22295 has 57 MA's), (200, 22340), (220, 22370), (Start: 228 @22382 has 1 MA's), (254, 22436), (338, 22583), (351, 22610), (357, 22625), (381, 22709), (421, 22814), (422, 22817), (448, 22892), (535, 23039),

Gene: DumpTruck\_89 Start: 58754, Stop: 59617, Start Num: 150

Candidate Starts for DumpTruck\_89:

(Start: 141 @58742 has 4 MA's), (Start: 150 @58754 has 1 MA's), (Start: 165 @58772 has 2 MA's), (Start: 183 @58784 has 2 MA's), (188, 58793), (209, 58835), (276, 58943), (319, 59024), (324, 59036), (360, 59141), (369, 59162), (372, 59168), (373, 59171), (405, 59255), (444, 59369), (451, 59387), (463, 59408), (503, 59483), (541, 59540),

Gene: DumpsterDude\_29 Start: 25886, Stop: 26689, Start Num: 157

Candidate Starts for DumpsterDude\_29:

(Start: 157 @25886 has 1 MA's), (Start: 186 @25907 has 3 MA's), (Start: 196 @25937 has 1 MA's), (Start: 205 @25949 has 5 MA's), (216, 25964), (236, 26000), (293, 26093), (319, 26144), (340, 26192), (344, 26204), (351, 26222), (355, 26234), (357, 26237), (358, 26240), (368, 26273), (423, 26417), (433, 26438), (448, 26477), (513, 26585), (549, 26636), (559, 26660),

Gene: E3\_gp85 Start: 47322, Stop: 46429, Start Num: 127

Candidate Starts for E3\_gp85:

(127, 47322), (135, 47307), (140, 47298), (184, 47247), (191, 47229), (198, 47214), (209, 47193), (268, 47088), (274, 47079), (289, 47052), (302, 47022), (312, 47007), (316, 46998), (326, 46974), (331, 46962), (371, 46857), (383, 46830), (389, 46815), (397, 46803), (404, 46785), (423, 46728), (448, 46668), (492, 46587), (544, 46500), (558, 46470), (568, 46449),

Gene: E3\_gp167 Start: 114768, Stop: 115532, Start Num: 218

Candidate Starts for E3\_gp167:

(119, 114585), (218, 114768), (244, 114828), (250, 114837), (273, 114873), (312, 114954), (314, 114960), (329, 114996), (377, 115125), (380, 115131), (394, 115164), (397, 115170), (419, 115248), (421, 115254), (533, 115467),

Gene: EMoore\_42 Start: 39517, Stop: 40245, Start Num: 168

Candidate Starts for EMoore\_42:

(Start: 163 @39511 has 32 MA's), (Start: 168 @39517 has 1 MA's), (204, 39574), (230, 39613), (236, 39625), (284, 39685), (354, 39820), (355, 39823), (390, 39898), (398, 39913), (423, 39991), (444, 40039), (457, 40066), (498, 40129), (546, 40204), (555, 40219),

Gene: EMSquaredA\_27 Start: 21910, Stop: 22626, Start Num: 170

Candidate Starts for EMSquaredA\_27:

(Start: 142 @21883 has 18 MA's), (Start: 144 @21886 has 1 MA's), (Start: 170 @21910 has 35 MA's), (188, 21928), (217, 21982), (259, 22066), (291, 22105), (316, 22141), (328, 22168), (351, 22222), (358, 22240), (398, 22333), (422, 22411), (424, 22417), (522, 22594), (536, 22612),

Gene: Easley\_25 Start: 21244, Stop: 22020, Start Num: 186

Candidate Starts for Easley\_25:

(Start: 163 @21220 has 32 MA's), (Start: 174 @21232 has 42 MA's), (Start: 186 @21244 has 3 MA's), (187, 21247), (Start: 196 @21274 has 1 MA's), (Start: 205 @21286 has 5 MA's), (236, 21337), (293, 21430), (317, 21475), (318, 21478), (319, 21481), (344, 21541), (351, 21559), (355, 21571), (357, 21574), (358, 21577), (396, 21667), (423, 21754), (549, 21976), (559, 22000),

Gene: Ebert\_24 Start: 19798, Stop: 20505, Start Num: 177

Candidate Starts for Ebert\_24:

(101, 19654), (Start: 177 @19798 has 50 MA's), (207, 19855), (Start: 228 @19894 has 1 MA's), (253, 19945), (259, 19954), (280, 19972), (281, 19975), (316, 20029), (317, 20032), (332, 20065), (336, 20083), (351, 20110), (383, 20188), (412, 20257), (414, 20263), (422, 20287), (424, 20293), (538, 20497),

Gene: Ecliptus\_31 Start: 23080, Stop: 23703, Start Num: 224

Candidate Starts for Ecliptus\_31:

(Start: 224 @23080 has 30 MA's), (Start: 226 @23086 has 2 MA's), (239, 23116), (247, 23131), (337, 23311), (365, 23383), (381, 23434), (384, 23446), (408, 23491), (412, 23509), (419, 23530), (422, 23539), (509, 23671),

Gene: Eddiemania\_31 Start: 22956, Stop: 23744, Start Num: 182

Candidate Starts for Eddiemania\_31:

(Start: 182 @22956 has 57 MA's), (200, 23001), (220, 23031), (Start: 228 @23043 has 1 MA's), (254, 23097), (288, 23148), (338, 23244), (357, 23286), (421, 23475), (422, 23478), (448, 23553), (535, 23700),

Gene: EdnaMode\_23 Start: 18707, Stop: 19408, Start Num: 177

Candidate Starts for EdnaMode\_23:

(159, 18689), (162, 18692), (Start: 177 @18707 has 50 MA's), (Start: 228 @18800 has 1 MA's), (236, 18815), (253, 18851), (315, 18932), (330, 18965), (332, 18971), (351, 19016), (362, 19055), (422, 19193), (424, 19199), (433, 19223), (438, 19238), (538, 19400),

Gene: Egi03\_44 Start: 35952, Stop: 36707, Start Num: 167

Candidate Starts for Egi03\_44:

(154, 35937), (Start: 167 @35952 has 15 MA's), (211, 36024), (236, 36060), (287, 36132), (390, 36327), (393, 36333), (405, 36360), (418, 36408), (466, 36510), (512, 36594), (560, 36666),

Gene: ElJefes\_48 Start: 35628, Stop: 34825, Start Num: 178

Candidate Starts for ElJefes\_48:

(Start: 130 @35688 has 1 MA's), (Start: 178 @35628 has 13 MA's), (217, 35550), (249, 35478), (284, 35421), (315, 35367), (332, 35328), (337, 35307), (393, 35163), (406, 35130), (442, 35025), (485,

34947), (523, 34878), (530, 34869), (547, 34839), (552, 34830),

Gene: Elinal\_50 Start: 35490, Stop: 34687, Start Num: 178

Candidate Starts for Elinal\_50:

(Start: 130 @35550 has 1 MA's), (Start: 178 @35490 has 13 MA's), (284, 35283), (315, 35229), (325, 35208), (332, 35190), (335, 35181), (343, 35154), (384, 35043), (393, 35025), (406, 34992), (440, 34890), (442, 34887), (485, 34809), (487, 34806), (523, 34740), (547, 34701), (552, 34692),

Gene: Emianna\_19 Start: 9384, Stop: 10109, Start Num: 138

Candidate Starts for Emianna\_19:

(Start: 138 @9384 has 22 MA's), (Start: 170 @9408 has 35 MA's), (192, 9441), (230, 9444), (251, 9480), (260, 9495), (288, 9537), (354, 9684), (418, 9876), (458, 9978), (479, 10008), (492, 10029), (500, 10044), (537, 10104),

Gene: EmoNemo\_30 Start: 21568, Stop: 22266, Start Num: 142

Candidate Starts for EmoNemo\_30:

(Start: 130 @21550 has 1 MA's), (Start: 142 @21568 has 18 MA's), (Start: 228 @21631 has 1 MA's), (246, 21667), (291, 21727), (295, 21739), (306, 21760), (321, 21793), (334, 21823), (335, 21826), (341, 21847), (345, 21853), (350, 21859), (358, 21880), (393, 21985), (398, 21994), (419, 22063), (422, 22069), (436, 22105), (441, 22117), (479, 22156), (492, 22177), (532, 22246), (541, 22258), (542, 22261),

Gene: EnalisNailo\_27 Start: 22059, Stop: 22775, Start Num: 170

Candidate Starts for EnalisNailo\_27:

(Start: 142 @22032 has 18 MA's), (Start: 144 @22035 has 1 MA's), (Start: 170 @22059 has 35 MA's), (188, 22077), (217, 22131), (259, 22215), (291, 22254), (316, 22290), (328, 22317), (351, 22371), (358, 22389), (398, 22482), (422, 22560), (424, 22566), (522, 22743), (536, 22761),

Gene: EndAve\_30 Start: 22310, Stop: 23098, Start Num: 182

Candidate Starts for EndAve\_30:

(Start: 182 @22310 has 57 MA's), (200, 22355), (220, 22385), (Start: 228 @22397 has 1 MA's), (254, 22451), (338, 22598), (354, 22634), (357, 22640), (421, 22829), (422, 22832), (441, 22889), (448, 22907), (462, 22934), (535, 23054),

Gene: Ennea\_24 Start: 10528, Stop: 11301, Start Num: 138

Candidate Starts for Ennea\_24:

(Start: 138 @10528 has 22 MA's), (Start: 228 @10636 has 1 MA's), (230, 10639), (260, 10690), (288, 10732), (337, 10846), (359, 10900), (492, 11221), (521, 11275),

Gene: Erutan\_86 Start: 58695, Stop: 59546, Start Num: 166

Candidate Starts for Erutan\_86:

(146, 58671), (148, 58674), (Start: 166 @58695 has 38 MA's), (175, 58704), (188, 58725), (209, 58767), (213, 58773), (240, 58818), (303, 58923), (319, 58959), (324, 58971), (337, 59010), (405, 59190), (425, 59256), (428, 59265), (439, 59295), (463, 59343), (465, 59346), (494, 59400), (517, 59445), (526, 59457), (562, 59523),

Gene: Eudoria\_27 Start: 22303, Stop: 22923, Start Num: 215

Candidate Starts for Eudoria\_27:

(50, 21928), (103, 22099), (104, 22102), (Start: 128 @22183 has 1 MA's), (Start: 142 @22204 has 18 MA's), (Start: 215 @22303 has 16 MA's), (Start: 226 @22312 has 2 MA's), (247, 22357), (295, 22438), (337, 22537), (355, 22573), (374, 22624), (384, 22672), (412, 22735), (422, 22765), (445, 22816), (492, 22867), (509, 22894),

Gene: Evaa\_42 Start: 36118, Stop: 36834, Start Num: 180

Candidate Starts for Evaa\_42:

(36, 35704), (Start: 180 @36118 has 17 MA's), (Start: 205 @36172 has 5 MA's), (236, 36226), (259, 36271), (299, 36322), (302, 36325), (310, 36334), (316, 36346), (332, 36382), (358, 36454), (400, 36547), (414, 36595), (415, 36598), (422, 36619), (522, 36802),

Gene: Evamon\_43 Start: 36191, Stop: 36946, Start Num: 170

Candidate Starts for Evamon\_43:

(115, 36095), (Start: 170 @36191 has 35 MA's), (211, 36263), (236, 36299), (287, 36371), (298, 36386), (390, 36566), (393, 36572), (405, 36599), (418, 36647), (466, 36749), (512, 36833), (560, 36905),

Gene: Eviarto\_25 Start: 22309, Stop: 22926, Start Num: 214

Candidate Starts for Eviarto\_25:

(Start: 142 @22210 has 18 MA's), (185, 22249), (199, 22282), (Start: 214 @22309 has 20 MA's), (Start: 226 @22318 has 2 MA's), (247, 22360), (252, 22372), (285, 22420), (295, 22441), (306, 22462), (321, 22495), (323, 22498), (337, 22540), (355, 22576), (374, 22627), (384, 22675), (412, 22738), (422, 22768), (445, 22819), (509, 22897),

Gene: Ewald\_46 Start: 35188, Stop: 35994, Start Num: 166

Candidate Starts for Ewald\_46:

(Start: 166 @35188 has 38 MA's), (Start: 205 @35251 has 5 MA's), (255, 35341), (294, 35401), (326, 35473), (330, 35479), (331, 35482), (385, 35629), (411, 35707), (412, 35710), (423, 35740), (426, 35746), (447, 35797), (524, 35923), (556, 35971),

Gene: Eyes\_26 Start: 21433, Stop: 22146, Start Num: 177

Candidate Starts for Eyes\_26:

(129, 21376), (Start: 177 @21433 has 50 MA's), (Start: 228 @21526 has 1 MA's), (236, 21541), (259, 21586), (299, 21637), (317, 21664), (328, 21688), (354, 21751), (358, 21760), (418, 21910), (422, 21922), (424, 21928), (508, 22093),

Gene: Eyre\_23 Start: 19537, Stop: 20265, Start Num: 170

Candidate Starts for Eyre\_23:

(40, 19162), (74, 19333), (75, 19336), (107, 19417), (116, 19438), (Start: 170 @19537 has 35 MA's), (Start: 228 @19636 has 1 MA's), (236, 19651), (259, 19696), (328, 19798), (351, 19852), (358, 19870), (422, 20038), (424, 20044), (472, 20146), (508, 20209),

Gene: Fairfaxidum\_25 Start: 21557, Stop: 22270, Start Num: 170

Candidate Starts for Fairfaxidum\_25:

(Start: 157 @21542 has 1 MA's), (Start: 170 @21557 has 35 MA's), (Start: 186 @21569 has 3 MA's), (187, 21572), (188, 21575), (241, 21683), (259, 21713), (285, 21743), (316, 21788), (335, 21833), (351, 21875), (358, 21893), (398, 21980), (401, 21986), (415, 22037), (422, 22058), (424, 22064), (438, 22103), (444, 22115), (492, 22187), (529, 22250),

Gene: Faith5x5\_23 Start: 18643, Stop: 19344, Start Num: 170

Candidate Starts for Faith5x5\_23:

(Start: 170 @18643 has 35 MA's), (217, 18709), (Start: 228 @18733 has 1 MA's), (241, 18763), (259, 18793), (291, 18832), (299, 18844), (317, 18871), (328, 18895), (330, 18898), (352, 18952), (354, 18958), (358, 18967), (383, 19030), (394, 19045), (398, 19051), (412, 19099), (419, 19120), (422, 19129), (424, 19135), (444, 19186), (472, 19225), (479, 19237), (522, 19312), (538, 19333), (540, 19336),

Gene: Farrylious\_29 Start: 21321, Stop: 22019, Start Num: 142

Candidate Starts for Farrylous\_29:

(Start: 130 @21303 has 1 MA's), (Start: 142 @21321 has 18 MA's), (Start: 228 @21384 has 1 MA's), (246, 21420), (291, 21480), (295, 21492), (306, 21513), (321, 21546), (334, 21576), (335, 21579), (341, 21600), (345, 21606), (350, 21612), (358, 21633), (393, 21738), (398, 21747), (419, 21816), (422, 21822), (436, 21858), (441, 21870), (479, 21909), (492, 21930), (532, 21999), (541, 22011), (542, 22014),

Gene: Fazel\_28 Start: 21344, Stop: 22132, Start Num: 182

Candidate Starts for Fazel\_28:

(Start: 182 @21344 has 57 MA's), (200, 21389), (246, 21467), (254, 21485), (337, 21629), (338, 21632), (351, 21659), (357, 21674), (381, 21758), (405, 21806), (421, 21863), (422, 21866), (446, 21935), (448, 21941), (464, 21971),

Gene: FelixTres\_45 Start: 37556, Stop: 38278, Start Num: 174

Candidate Starts for FelixTres\_45:

(79, 37370), (Start: 174 @37556 has 42 MA's), (227, 37649), (271, 37718), (286, 37745), (292, 37751), (337, 37841), (390, 37949), (395, 37961), (412, 38012), (422, 38042), (433, 38072), (438, 38087),

Gene: Fenry\_24 Start: 20871, Stop: 21674, Start Num: 163

Candidate Starts for Fenry\_24:

(Start: 163 @20871 has 32 MA's), (Start: 196 @20919 has 1 MA's), (Start: 205 @20931 has 5 MA's), (216, 20946), (236, 20982), (293, 21075), (301, 21087), (318, 21123), (319, 21126), (338, 21171), (340, 21174), (344, 21186), (351, 21204), (355, 21216), (357, 21219), (358, 21222), (423, 21399), (433, 21420), (435, 21426), (524, 21582), (549, 21618), (559, 21642), (569, 21663),

Gene: Figliar\_30 Start: 22320, Stop: 23108, Start Num: 182

Candidate Starts for Figliar\_30:

(Start: 182 @22320 has 57 MA's), (200, 22365), (220, 22395), (Start: 228 @22407 has 1 MA's), (254, 22461), (338, 22608), (351, 22635), (357, 22650), (381, 22734), (421, 22839), (422, 22842), (448, 22917), (535, 23064),

Gene: Fireball\_45 Start: 36416, Stop: 37156, Start Num: 167

Candidate Starts for Fireball\_45:

(Start: 138 @36380 has 22 MA's), (154, 36401), (Start: 167 @36416 has 15 MA's), (211, 36488), (236, 36524), (287, 36596), (334, 36677), (390, 36791), (393, 36797), (405, 36824), (418, 36872), (466, 36974), (533, 37088), (561, 37136),

Gene: Fitzgerald\_44 Start: 40680, Stop: 41414, Start Num: 169

Candidate Starts for Fitzgerald\_44:

(94, 40533), (125, 40623), (Start: 169 @40680 has 53 MA's), (Start: 186 @40698 has 3 MA's), (236, 40785), (250, 40812), (284, 40860), (297, 40878), (319, 40920), (354, 40998), (372, 41040), (387, 41073), (438, 41208), (457, 41247), (519, 41346), (543, 41373), (558, 41406),

Gene: Flapper\_22 Start: 9234, Stop: 10004, Start Num: 138

Candidate Starts for Flapper\_22:

(Start: 138 @9234 has 22 MA's), (151, 9252), (Start: 228 @9342 has 1 MA's), (260, 9396), (288, 9438), (378, 9666), (393, 9699), (394, 9702), (492, 9921), (521, 9975),

Gene: Flatwoods\_46 Start: 39507, Stop: 40250, Start Num: 169

Candidate Starts for Flatwoods\_46:

(Start: 169 @39507 has 53 MA's), (Start: 186 @39525 has 3 MA's), (Start: 205 @39570 has 5 MA's), (236, 39615), (284, 39690), (297, 39708), (319, 39750), (333, 39777), (372, 39870), (378, 39882), (425, 40002), (438, 40038), (444, 40050), (457, 40077), (483, 40110), (500, 40143), (519, 40176),

(543, 40203),

Gene: Float294\_20 Start: 9077, Stop: 9850, Start Num: 138

Candidate Starts for Float294\_20:

(Start: 138 @9077 has 22 MA's), (Start: 228 @9185 has 1 MA's), (230, 9188), (260, 9239), (288, 9281), (337, 9395), (359, 9449), (408, 9581), (492, 9770), (521, 9824),

Gene: Floral\_27 Start: 21910, Stop: 22626, Start Num: 170

Candidate Starts for Floral\_27:

(Start: 142 @21883 has 18 MA's), (Start: 144 @21886 has 1 MA's), (Start: 170 @21910 has 35 MA's), (188, 21928), (217, 21982), (259, 22066), (291, 22105), (316, 22141), (328, 22168), (351, 22222), (358, 22240), (398, 22333), (422, 22411), (424, 22417), (522, 22594), (536, 22612),

Gene: FlyingTortilla\_30 Start: 24461, Stop: 25141, Start Num: 142

Candidate Starts for FlyingTortilla\_30:

(Start: 142 @24461 has 18 MA's), (Start: 228 @24518 has 1 MA's), (306, 24635), (321, 24668), (334, 24698), (335, 24701), (341, 24722), (345, 24728), (354, 24746), (359, 24767), (382, 24836), (393, 24860), (402, 24878), (408, 24899), (441, 24992), (445, 25001), (492, 25052), (532, 25121), (542, 25136),

Gene: Football\_28 Start: 19066, Stop: 19851, Start Num: 182

Candidate Starts for Football\_28:

(Start: 182 @19066 has 57 MA's), (200, 19111), (254, 19207), (258, 19213), (337, 19351), (352, 19384), (357, 19396), (421, 19585), (422, 19588), (448, 19663), (535, 19810),

Gene: FortCran\_27 Start: 19318, Stop: 20103, Start Num: 182

Candidate Starts for FortCran\_27:

(Start: 182 @19318 has 57 MA's), (189, 19333), (200, 19363), (254, 19459), (258, 19465), (337, 19603), (352, 19636), (357, 19648), (421, 19837), (422, 19840), (448, 19915), (535, 20062),

Gene: Forza\_182 Start: 105418, Stop: 104702, Start Num: 178

Candidate Starts for Forza\_182:

(Start: 178 @105418 has 13 MA's), (208, 105361), (313, 105178), (336, 105118), (362, 105049), (371, 105031), (405, 104956), (408, 104944), (411, 104929), (412, 104926), (419, 104905), (421, 104899), (427, 104884), (477, 104797), (488, 104779), (501, 104761), (513, 104737), (532, 104713),

Gene: Fosterous\_43 Start: 39239, Stop: 39973, Start Num: 169

Candidate Starts for Fosterous\_43:

(125, 39182), (Start: 169 @39239 has 53 MA's), (Start: 186 @39257 has 3 MA's), (236, 39344), (250, 39371), (284, 39419), (297, 39437), (319, 39479), (354, 39557), (372, 39599), (387, 39632), (438, 39767), (457, 39806), (519, 39905), (543, 39932), (558, 39965),

Gene: Foxboro\_20 Start: 9744, Stop: 10469, Start Num: 138

Candidate Starts for Foxboro\_20:

(Start: 138 @9744 has 22 MA's), (Start: 170 @9768 has 35 MA's), (192, 9801), (230, 9804), (251, 9840), (260, 9855), (288, 9897), (354, 10044), (418, 10236), (458, 10338), (479, 10368), (492, 10389), (500, 10404), (537, 10464),

Gene: Francesca\_10 Start: 6016, Stop: 5336, Start Num: 201

Candidate Starts for Francesca\_10:

(Start: 201 @6016 has 2 MA's), (Start: 205 @6010 has 5 MA's), (213, 5998), (233, 5962), (238, 5947), (242, 5938), (346, 5737), (356, 5719), (366, 5683), (377, 5653), (422, 5539), (428, 5521), (432, 5512), (456, 5461), (469, 5440), (475, 5428), (479, 5419),

Gene: Fresco\_42 Start: 35273, Stop: 35995, Start Num: 177

Candidate Starts for Fresco\_42:

(33, 34883), (67, 35060), (106, 35168), (Start: 177 @35273 has 50 MA's), (271, 35435), (299, 35480), (332, 35543), (336, 35561), (351, 35588), (383, 35666), (384, 35669), (412, 35738), (422, 35768), (424, 35774), (524, 35963),

Gene: Frickyeah\_27 Start: 21264, Stop: 21887, Start Num: 224

Candidate Starts for Frickyeah\_27:

(54, 20889), (68, 20946), (80, 20991), (103, 21045), (104, 21048), (119, 21084), (Start: 128 @21129 has 1 MA's), (Start: 130 @21132 has 1 MA's), (Start: 224 @21264 has 30 MA's), (Start: 226 @21270 has 2 MA's), (239, 21300), (247, 21315), (285, 21375), (324, 21456), (337, 21495), (365, 21567), (384, 21630), (408, 21675), (412, 21693), (419, 21714), (422, 21723), (509, 21855), (512, 21864), (520, 21876),

Gene: FroggyToad\_24 Start: 19863, Stop: 20570, Start Num: 177

Candidate Starts for FroggyToad\_24:

(101, 19719), (Start: 177 @19863 has 50 MA's), (207, 19920), (Start: 228 @19959 has 1 MA's), (259, 20019), (280, 20037), (281, 20040), (316, 20094), (317, 20097), (332, 20130), (336, 20148), (337, 20151), (383, 20253), (412, 20322), (422, 20352), (424, 20358), (538, 20562),

Gene: Frokostdame\_25 Start: 21118, Stop: 21918, Start Num: 163

Candidate Starts for Frokostdame\_25:

(88, 20968), (Start: 163 @21118 has 32 MA's), (Start: 196 @21166 has 1 MA's), (Start: 205 @21178 has 5 MA's), (216, 21193), (236, 21229), (293, 21322), (318, 21370), (319, 21373), (343, 21430), (344, 21433), (351, 21451), (355, 21463), (357, 21466), (358, 21469), (423, 21646), (433, 21667), (450, 21709), (513, 21814), (524, 21829), (526, 21832), (549, 21865), (559, 21889),

Gene: FruityLoops\_29 Start: 24464, Stop: 25144, Start Num: 142

Candidate Starts for FruityLoops\_29:

(Start: 142 @24464 has 18 MA's), (Start: 228 @24521 has 1 MA's), (306, 24638), (321, 24671), (334, 24701), (335, 24704), (341, 24725), (345, 24731), (354, 24749), (359, 24770), (393, 24863), (402, 24881), (408, 24902), (441, 24995), (445, 25004), (448, 25010), (492, 25055), (532, 25124), (542, 25139),

Gene: FuegoCuervo\_48 Start: 39107, Stop: 39841, Start Num: 169

Candidate Starts for FuegoCuervo\_48:

(Start: 169 @39107 has 53 MA's), (Start: 186 @39125 has 3 MA's), (236, 39212), (250, 39239), (284, 39287), (297, 39305), (305, 39317), (319, 39347), (334, 39377), (354, 39425), (372, 39467), (438, 39635), (457, 39674), (519, 39773), (543, 39800), (558, 39833),

Gene: Fugax\_47 Start: 36463, Stop: 37218, Start Num: 167

Candidate Starts for Fugax\_47:

(154, 36448), (Start: 167 @36463 has 15 MA's), (211, 36535), (236, 36571), (287, 36643), (390, 36838), (393, 36844), (405, 36871), (418, 36919), (466, 37021), (512, 37105), (560, 37177),

Gene: Fulcrum\_85 Start: 58384, Stop: 59235, Start Num: 166

Candidate Starts for Fulcrum\_85:

(83, 58207), (96, 58234), (99, 58243), (106, 58258), (108, 58267), (146, 58360), (148, 58363), (Start: 166 @58384 has 38 MA's), (175, 58393), (188, 58414), (209, 58456), (213, 58462), (240, 58507), (303, 58612), (319, 58648), (324, 58660), (337, 58699), (349, 58729), (351, 58732), (355, 58744), (405, 58879), (425, 58945), (428, 58954), (439, 58984), (451, 59011), (465, 59035), (494, 59089), (517, 59134), (526, 59146), (562, 59212),

Gene: Fury\_25 Start: 9669, Stop: 10463, Start Num: 128

Candidate Starts for Fury\_25:

(64, 9471), (Start: 128 @9669 has 1 MA's), (Start: 228 @9798 has 1 MA's), (230, 9801), (260, 9858), (288, 9900), (337, 10014), (345, 10029), (354, 10047), (365, 10083), (390, 10152), (393, 10158), (419, 10236), (422, 10245), (441, 10299), (479, 10359),

Gene: GAL1\_26 Start: 21339, Stop: 22043, Start Num: 170

Candidate Starts for GAL1\_26:

(Start: 170 @21339 has 35 MA's), (Start: 177 @21345 has 50 MA's), (217, 21411), (Start: 228 @21435 has 1 MA's), (241, 21465), (259, 21495), (291, 21534), (328, 21597), (354, 21660), (358, 21669), (393, 21744), (394, 21747), (398, 21753), (412, 21801), (422, 21831), (424, 21837), (479, 21939), (492, 21960), (529, 22023),

Gene: GEazy\_26 Start: 21448, Stop: 22167, Start Num: 177

Candidate Starts for GEazy\_26:

(129, 21391), (Start: 177 @21448 has 50 MA's), (Start: 228 @21541 has 1 MA's), (236, 21556), (259, 21601), (299, 21652), (317, 21679), (328, 21703), (354, 21766), (358, 21775), (422, 21937), (424, 21943),

Gene: GMA2\_76 Start: 77386, Stop: 76664, Start Num: 169

Candidate Starts for GMA2\_76:

(Start: 169 @77386 has 53 MA's), (Start: 182 @77380 has 57 MA's), (188, 77371), (232, 77287), (253, 77242), (345, 77065), (394, 76936), (403, 76918), (455, 76777), (480, 76750), (532, 76675),

Gene: GMA3\_32 Start: 38590, Stop: 39348, Start Num: 172

Candidate Starts for GMA3\_32:

(Start: 172 @38590 has 4 MA's), (225, 38677), (292, 38785), (318, 38833), (334, 38869), (351, 38905), (360, 38938), (364, 38950), (403, 39040), (411, 39073), (439, 39151), (469, 39208), (531, 39319),

Gene: GMA6\_16 Start: 13599, Stop: 14291, Start Num: 139

Candidate Starts for GMA6\_16:

(Start: 139 @13599 has 3 MA's), (Start: 228 @13659 has 1 MA's), (235, 13671), (239, 13683), (246, 13695), (265, 13716), (285, 13749), (306, 13791), (321, 13824), (358, 13911), (393, 14013), (417, 14085), (436, 14133), (491, 14205), (509, 14241), (539, 14286),

Gene: GOATification\_85 Start: 58384, Stop: 59235, Start Num: 166

Candidate Starts for GOATification\_85:

(83, 58207), (96, 58234), (99, 58243), (106, 58258), (108, 58267), (146, 58360), (148, 58363), (Start: 166 @58384 has 38 MA's), (175, 58393), (188, 58414), (209, 58456), (213, 58462), (240, 58507), (303, 58612), (319, 58648), (324, 58660), (337, 58699), (349, 58729), (351, 58732), (355, 58744), (405, 58879), (425, 58945), (428, 58954), (439, 58984), (451, 59011), (465, 59035), (494, 59089), (517, 59134), (526, 59146), (562, 59212),

Gene: GRU1\_9 Start: 2330, Stop: 3097, Start Num: 138

Candidate Starts for GRU1\_9:

(137, 2327), (Start: 138 @2330 has 22 MA's), (151, 2345), (Start: 228 @2435 has 1 MA's), (230, 2438), (260, 2489), (288, 2531), (324, 2606), (378, 2759), (393, 2792), (394, 2795), (427, 2897), (489, 3008), (492, 3014), (516, 3062), (521, 3068),

Gene: GTE5\_9 Start: 2331, Stop: 3101, Start Num: 138

Candidate Starts for GTE5\_9:

(Start: 138 @2331 has 22 MA's), (151, 2349), (Start: 228 @2439 has 1 MA's), (260, 2493), (288, 2535), (378, 2763), (393, 2796), (394, 2799), (489, 3012), (492, 3018), (516, 3066), (521, 3072),

Gene: GTE8\_7 Start: 2259, Stop: 2990, Start Num: 138

Candidate Starts for GTE8\_7:

(Start: 138 @2259 has 22 MA's), (Start: 170 @2283 has 35 MA's), (192, 2316), (230, 2319), (251, 2355), (260, 2370), (288, 2412), (374, 2616), (393, 2676), (418, 2751), (419, 2754), (456, 2853), (458, 2856), (479, 2886), (492, 2907), (500, 2922),

Gene: Gaea\_45 Start: 39151, Stop: 39894, Start Num: 169

Candidate Starts for Gaea\_45:

(Start: 169 @39151 has 53 MA's), (Start: 186 @39169 has 3 MA's), (Start: 205 @39214 has 5 MA's), (236, 39259), (264, 39304), (284, 39334), (297, 39352), (305, 39364), (319, 39394), (333, 39421), (372, 39514), (378, 39526), (412, 39610), (438, 39682), (444, 39694), (457, 39721), (483, 39754), (500, 39787), (519, 39820), (543, 39847),

Gene: Gagieri\_19 Start: 9542, Stop: 10426, Start Num: 160

Candidate Starts for Gagieri\_19:

(52, 9272), (57, 9284), (61, 9299), (Start: 160 @9542 has 17 MA's), (Start: 174 @9557 has 42 MA's), (Start: 205 @9620 has 5 MA's), (251, 9707), (261, 9725), (272, 9740), (284, 9758), (290, 9770), (351, 9899), (377, 9977), (393, 10013), (423, 10106), (429, 10121), (482, 10220), (504, 10268), (521, 10301), (551, 10349), (570, 10394),

Gene: Galadriel\_45 Start: 40046, Stop: 40780, Start Num: 169

Candidate Starts for Galadriel\_45:

(94, 39899), (125, 39989), (Start: 169 @40046 has 53 MA's), (Start: 186 @40064 has 3 MA's), (236, 40151), (250, 40178), (284, 40226), (297, 40244), (319, 40286), (354, 40364), (372, 40406), (387, 40439), (438, 40574), (457, 40613), (519, 40712), (543, 40739), (558, 40772),

Gene: Gambino\_27 Start: 21524, Stop: 22264, Start Num: 205

Candidate Starts for Gambino\_27:

(88, 21314), (Start: 163 @21464 has 32 MA's), (Start: 196 @21512 has 1 MA's), (Start: 205 @21524 has 5 MA's), (236, 21575), (293, 21668), (319, 21719), (343, 21776), (344, 21779), (351, 21797), (355, 21809), (357, 21812), (358, 21815), (423, 21992), (433, 22013), (435, 22019), (450, 22055), (513, 22160), (524, 22175), (526, 22178), (549, 22211), (559, 22235),

Gene: GemG\_24 Start: 19798, Stop: 20505, Start Num: 177

Candidate Starts for GemG\_24:

(101, 19654), (Start: 177 @19798 has 50 MA's), (207, 19855), (Start: 228 @19894 has 1 MA's), (253, 19945), (259, 19954), (280, 19972), (281, 19975), (316, 20029), (317, 20032), (332, 20065), (336, 20083), (351, 20110), (383, 20188), (412, 20257), (414, 20263), (422, 20287), (424, 20293), (538, 20497),

Gene: Genamy16\_87 Start: 57186, Stop: 58037, Start Num: 166

Candidate Starts for Genamy16\_87:

(146, 57162), (148, 57165), (Start: 166 @57186 has 38 MA's), (Start: 183 @57207 has 2 MA's), (188, 57216), (209, 57258), (213, 57264), (240, 57309), (301, 57411), (303, 57414), (319, 57450), (324, 57462), (337, 57501), (349, 57531), (351, 57534), (355, 57546), (357, 57549), (405, 57681), (425, 57747), (428, 57756), (439, 57786), (451, 57813), (463, 57834), (494, 57891), (517, 57936), (562, 58014),

Gene: Geodirt\_44 Start: 40658, Stop: 41392, Start Num: 169

Candidate Starts for Geodirt\_44:

(125, 40601), (Start: 169 @40658 has 53 MA's), (Start: 186 @40676 has 3 MA's), (236, 40763), (250, 40790), (284, 40838), (297, 40856), (319, 40898), (354, 40976), (372, 41018), (387, 41051), (438, 41186), (457, 41225), (519, 41324), (543, 41351), (558, 41384),

Gene: Getalong\_29 Start: 22301, Stop: 22924, Start Num: 224

Candidate Starts for Getalong\_29:

(54, 21926), (68, 21983), (80, 22028), (103, 22082), (104, 22085), (119, 22121), (Start: 128 @22166 has 1 MA's), (Start: 130 @22169 has 1 MA's), (Start: 224 @22301 has 30 MA's), (Start: 226 @22307 has 2 MA's), (239, 22337), (247, 22352), (285, 22412), (324, 22493), (337, 22532), (365, 22604), (384, 22667), (408, 22712), (412, 22730), (419, 22751), (422, 22760), (509, 22892), (512, 22901), (520, 22913),

Gene: Gezellig\_43 Start: 36323, Stop: 37078, Start Num: 170

Candidate Starts for Gezellig\_43:

(121, 36245), (Start: 170 @36323 has 35 MA's), (211, 36395), (287, 36503), (317, 36548), (390, 36698), (393, 36704), (405, 36731), (418, 36779), (466, 36881), (512, 36965), (560, 37037),

Gene: Gibbin\_88 Start: 59024, Stop: 59875, Start Num: 166

Candidate Starts for Gibbin\_88:

(146, 59000), (148, 59003), (Start: 166 @59024 has 38 MA's), (175, 59033), (188, 59054), (209, 59096), (213, 59102), (240, 59147), (303, 59252), (307, 59261), (319, 59288), (324, 59300), (337, 59339), (405, 59519), (425, 59585), (428, 59594), (439, 59624), (451, 59651), (465, 59675), (494, 59729), (517, 59774), (526, 59786), (562, 59852),

Gene: Gibbles\_38 Start: 40989, Stop: 41708, Start Num: 178

Candidate Starts for Gibbles\_38:

(Start: 178 @40989 has 13 MA's), (Start: 182 @40995 has 57 MA's), (Start: 196 @41031 has 1 MA's), (Start: 205 @41043 has 5 MA's), (257, 41136), (335, 41262), (345, 41280), (347, 41286), (360, 41328), (382, 41382), (386, 41394), (423, 41490), (455, 41550), (517, 41664),

Gene: Gill\_27 Start: 19428, Stop: 20213, Start Num: 182

Candidate Starts for Gill\_27:

(Start: 182 @19428 has 57 MA's), (189, 19443), (212, 19491), (234, 19524), (254, 19569), (258, 19575), (337, 19713), (352, 19746), (357, 19758), (421, 19947), (422, 19950), (448, 20025), (462, 20052), (535, 20172),

Gene: Gizermo\_24 Start: 19798, Stop: 20505, Start Num: 177

Candidate Starts for Gizermo\_24:

(101, 19654), (Start: 177 @19798 has 50 MA's), (207, 19855), (Start: 228 @19894 has 1 MA's), (253, 19945), (259, 19954), (280, 19972), (281, 19975), (316, 20029), (317, 20032), (332, 20065), (336, 20083), (351, 20110), (383, 20188), (412, 20257), (414, 20263), (422, 20287), (424, 20293), (538, 20497),

Gene: Glintora\_30 Start: 22280, Stop: 23068, Start Num: 182

Candidate Starts for Glintora\_30:

(Start: 182 @22280 has 57 MA's), (200, 22325), (220, 22355), (Start: 228 @22367 has 1 MA's), (254, 22421), (338, 22568), (354, 22604), (357, 22610), (421, 22799), (422, 22802), (433, 22838), (448, 22877), (535, 23024),

Gene: Gmala1\_33 Start: 37223, Stop: 38008, Start Num: 172

Candidate Starts for Gmala1\_33:

(Start: 172 @37223 has 4 MA's), (Start: 186 @37238 has 3 MA's), (Start: 196 @37268 has 1 MA's), (Start: 205 @37280 has 5 MA's), (213, 37292), (223, 37304), (234, 37328), (253, 37370), (292, 37418),

(316, 37460), (334, 37502), (351, 37553), (393, 37661), (443, 37805), (506, 37928), (531, 37970),

Gene: GordDuk1\_33 Start: 37164, Stop: 37949, Start Num: 172

Candidate Starts for GordDuk1\_33:

(Start: 172 @37164 has 4 MA's), (Start: 186 @37179 has 3 MA's), (Start: 205 @37221 has 5 MA's), (213, 37233), (234, 37269), (253, 37311), (292, 37359), (316, 37401), (334, 37443), (351, 37494), (393, 37602), (443, 37746), (506, 37869), (531, 37911),

Gene: GordTnk2\_33 Start: 37130, Stop: 37915, Start Num: 172

Candidate Starts for GordTnk2\_33:

(Start: 172 @37130 has 4 MA's), (Start: 186 @37145 has 3 MA's), (Start: 196 @37175 has 1 MA's), (Start: 205 @37187 has 5 MA's), (213, 37199), (223, 37211), (234, 37235), (253, 37277), (292, 37325), (334, 37409), (351, 37460), (393, 37568), (443, 37712), (506, 37835), (517, 37859), (531, 37877),

Gene: Gravy\_27 Start: 19428, Stop: 20213, Start Num: 182

Candidate Starts for Gravy\_27:

(Start: 182 @19428 has 57 MA's), (189, 19443), (212, 19491), (234, 19524), (254, 19569), (258, 19575), (337, 19713), (352, 19746), (357, 19758), (421, 19947), (422, 19950), (448, 20025), (462, 20052), (535, 20172),

Gene: Gray\_31 Start: 21550, Stop: 22266, Start Num: 130

Candidate Starts for Gray\_31:

(Start: 130 @21550 has 1 MA's), (Start: 142 @21568 has 18 MA's), (Start: 228 @21631 has 1 MA's), (246, 21667), (291, 21727), (295, 21739), (306, 21760), (321, 21793), (334, 21823), (335, 21826), (341, 21847), (345, 21853), (350, 21859), (358, 21880), (393, 21985), (398, 21994), (419, 22063), (422, 22069), (436, 22105), (441, 22117), (479, 22156), (492, 22177), (532, 22246), (541, 22258), (542, 22261),

Gene: Grayson\_31 Start: 9328, Stop: 8654, Start Num: 205

Candidate Starts for Grayson\_31:

(192, 9352), (197, 9343), (Start: 205 @9328 has 5 MA's), (242, 9262), (245, 9259), (255, 9238), (278, 9205), (324, 9124), (359, 9031), (378, 8977), (399, 8938), (422, 8866), (437, 8824), (439, 8818),

Gene: Gretellyn\_86 Start: 58751, Stop: 59602, Start Num: 166

Candidate Starts for Gretellyn\_86:

(146, 58727), (148, 58730), (Start: 166 @58751 has 38 MA's), (175, 58760), (188, 58781), (209, 58823), (213, 58829), (240, 58874), (303, 58979), (319, 59015), (324, 59027), (337, 59066), (405, 59246), (425, 59312), (428, 59321), (439, 59351), (463, 59399), (465, 59402), (494, 59456), (517, 59501), (526, 59513), (562, 59579),

Gene: GrootJr\_21 Start: 9807, Stop: 10532, Start Num: 138

Candidate Starts for GrootJr\_21:

(Start: 138 @9807 has 22 MA's), (Start: 170 @9831 has 35 MA's), (192, 9864), (230, 9867), (251, 9903), (260, 9918), (288, 9960), (354, 10107), (418, 10299), (458, 10401), (479, 10431), (492, 10452), (500, 10467), (537, 10527),

Gene: Guacamole\_25 Start: 21156, Stop: 21959, Start Num: 163

Candidate Starts for Guacamole\_25:

(Start: 163 @21156 has 32 MA's), (Start: 196 @21204 has 1 MA's), (Start: 205 @21216 has 5 MA's), (216, 21231), (236, 21267), (293, 21360), (319, 21411), (343, 21468), (344, 21471), (351, 21489), (355, 21501), (357, 21504), (358, 21507), (423, 21684), (433, 21705), (435, 21711), (524, 21867), (549, 21903), (559, 21927), (569, 21948),

Gene: Gudmit\_24 Start: 19608, Stop: 20321, Start Num: 170

Candidate Starts for Gudmit\_24:

(Start: 170 @19608 has 35 MA's), (188, 19626), (259, 19764), (317, 19842), (328, 19866), (351, 19920), (358, 19938), (398, 20031), (422, 20109), (424, 20115), (435, 20145), (529, 20301), (540, 20313),

Gene: Gusicorn\_30 Start: 22097, Stop: 22885, Start Num: 182

Candidate Starts for Gusicorn\_30:

(Start: 182 @22097 has 57 MA's), (200, 22142), (Start: 228 @22184 has 1 MA's), (254, 22238), (357, 22427), (421, 22616), (422, 22619), (448, 22694), (535, 22841),

Gene: Gustav\_37 Start: 28213, Stop: 28986, Start Num: 176

Candidate Starts for Gustav\_37:

(Start: 176 @28213 has 13 MA's), (202, 28267), (210, 28279), (239, 28330), (283, 28387), (303, 28417), (311, 28432), (318, 28450), (333, 28480), (334, 28483), (341, 28507), (354, 28540), (390, 28630), (459, 28798), (558, 28939), (569, 28963),

Gene: Gustavo\_45 Start: 39323, Stop: 40066, Start Num: 169

Candidate Starts for Gustavo\_45:

(Start: 169 @39323 has 53 MA's), (Start: 186 @39341 has 3 MA's), (Start: 205 @39386 has 5 MA's), (236, 39431), (277, 39494), (284, 39506), (297, 39524), (319, 39566), (333, 39593), (372, 39686), (378, 39698), (425, 39818), (438, 39854), (444, 39866), (457, 39893), (483, 39926), (500, 39959), (519, 39992), (543, 40019),

Gene: Haley23\_24 Start: 19798, Stop: 20505, Start Num: 177

Candidate Starts for Haley23\_24:

(101, 19654), (Start: 177 @19798 has 50 MA's), (207, 19855), (Start: 228 @19894 has 1 MA's), (253, 19945), (259, 19954), (280, 19972), (281, 19975), (316, 20029), (317, 20032), (332, 20065), (336, 20083), (351, 20110), (383, 20188), (412, 20257), (414, 20263), (422, 20287), (424, 20293), (538, 20497),

Gene: Halo3\_44 Start: 36616, Stop: 37371, Start Num: 170

Candidate Starts for Halo3\_44:

(115, 36520), (Start: 170 @36616 has 35 MA's), (211, 36688), (236, 36724), (287, 36796), (390, 36991), (393, 36997), (405, 37024), (466, 37174), (512, 37258), (560, 37330),

Gene: Hanem\_31 Start: 21568, Stop: 22266, Start Num: 142

Candidate Starts for Hanem\_31:

(Start: 130 @21550 has 1 MA's), (Start: 142 @21568 has 18 MA's), (Start: 228 @21631 has 1 MA's), (246, 21667), (291, 21727), (295, 21739), (306, 21760), (321, 21793), (334, 21823), (335, 21826), (341, 21847), (345, 21853), (350, 21859), (358, 21880), (393, 21985), (398, 21994), (419, 22063), (422, 22069), (436, 22105), (441, 22117), (479, 22156), (509, 22210), (532, 22246), (541, 22258), (542, 22261),

Gene: HannahD\_26 Start: 21448, Stop: 22167, Start Num: 177

Candidate Starts for HannahD\_26:

(129, 21391), (Start: 177 @21448 has 50 MA's), (Start: 228 @21541 has 1 MA's), (236, 21556), (259, 21601), (299, 21652), (317, 21679), (328, 21703), (354, 21766), (358, 21775), (422, 21937), (424, 21943),

Gene: Hans\_46 Start: 38978, Stop: 39697, Start Num: 174

Candidate Starts for Hans\_46:

(Start: 174 @38978 has 42 MA's), (187, 38993), (204, 39032), (236, 39083), (284, 39143), (393, 39362), (398, 39371), (405, 39389), (423, 39449), (457, 39524), (519, 39623), (546, 39662), (557, 39683),

Gene: Hedwig\_28 Start: 22437, Stop: 23138, Start Num: 177

Candidate Starts for Hedwig\_28:

(Start: 177 @22437 has 50 MA's), (189, 22455), (Start: 228 @22530 has 1 MA's), (236, 22545), (285, 22620), (328, 22692), (336, 22719), (351, 22746), (354, 22755), (358, 22764), (394, 22839), (398, 22845), (422, 22923), (424, 22929), (492, 23052), (508, 23082), (529, 23115),

Gene: Heinz\_49 Start: 31743, Stop: 32606, Start Num: 158

Candidate Starts for Heinz\_49:

(69, 31539), (98, 31623), (102, 31632), (133, 31713), (Start: 158 @31743 has 8 MA's), (257, 31926), (342, 32100), (357, 32133), (358, 32136), (367, 32169), (394, 32244), (397, 32250), (423, 32337), (484, 32448), (486, 32451), (491, 32457), (508, 32493), (528, 32520), (568, 32595),

Gene: Herod\_25 Start: 22309, Stop: 22926, Start Num: 214

Candidate Starts for Herod\_25:

(Start: 142 @22210 has 18 MA's), (185, 22249), (199, 22282), (Start: 214 @22309 has 20 MA's), (Start: 226 @22318 has 2 MA's), (247, 22360), (252, 22372), (285, 22420), (295, 22441), (306, 22462), (321, 22495), (323, 22498), (337, 22540), (355, 22576), (374, 22627), (384, 22675), (412, 22738), (422, 22768), (445, 22819), (509, 22897),

Gene: Hibiscus\_50 Start: 31692, Stop: 32555, Start Num: 158

Candidate Starts for Hibiscus\_50:

(69, 31488), (98, 31572), (102, 31581), (133, 31662), (Start: 158 @31692 has 8 MA's), (257, 31875), (342, 32049), (357, 32082), (358, 32085), (367, 32118), (394, 32193), (397, 32199), (423, 32286), (484, 32397), (486, 32400), (491, 32406), (508, 32442), (528, 32469), (568, 32544),

Gene: Hitter\_25 Start: 21152, Stop: 21955, Start Num: 163

Candidate Starts for Hitter\_25:

(Start: 163 @21152 has 32 MA's), (Start: 196 @21200 has 1 MA's), (Start: 205 @21212 has 5 MA's), (216, 21227), (293, 21356), (301, 21368), (319, 21407), (340, 21455), (344, 21467), (351, 21485), (355, 21497), (357, 21500), (358, 21503), (423, 21680), (433, 21701), (435, 21707), (524, 21863), (549, 21899), (559, 21923), (569, 21944),

Gene: Holliday\_28 Start: 21606, Stop: 22229, Start Num: 224

Candidate Starts for Holliday\_28:

(54, 21231), (68, 21288), (80, 21333), (103, 21387), (104, 21390), (119, 21426), (Start: 128 @21471 has 1 MA's), (Start: 130 @21474 has 1 MA's), (Start: 224 @21606 has 30 MA's), (Start: 226 @21612 has 2 MA's), (239, 21642), (247, 21657), (285, 21717), (324, 21798), (337, 21837), (365, 21909), (384, 21972), (408, 22017), (412, 22035), (419, 22056), (422, 22065), (509, 22197), (512, 22206), (520, 22218),

Gene: HomeFry\_22 Start: 8565, Stop: 9368, Start Num: 128

Candidate Starts for HomeFry\_22:

(64, 8367), (Start: 128 @8565 has 1 MA's), (208, 8664), (Start: 228 @8694 has 1 MA's), (230, 8697), (247, 8733), (260, 8754), (288, 8796), (337, 8910), (345, 8925), (354, 8943), (374, 8997), (419, 9141), (422, 9150), (437, 9195), (465, 9240), (479, 9264),

Gene: Hortense\_25 Start: 21831, Stop: 22619, Start Num: 174

Candidate Starts for Hortense\_25:

(Start: 163 @21819 has 32 MA's), (Start: 174 @21831 has 42 MA's), (Start: 186 @21843 has 3 MA's), (187, 21846), (Start: 196 @21873 has 1 MA's), (Start: 205 @21885 has 5 MA's), (236, 21936), (293, 22029), (317, 22074), (318, 22077), (319, 22080), (344, 22140), (351, 22158), (355, 22170), (357, 22173), (358, 22176), (396, 22266), (423, 22353), (513, 22521), (526, 22539), (549, 22575), (559, 22599),

Gene: Hortihabitatio\_30 Start: 21725, Stop: 22510, Start Num: 182

Candidate Starts for Hortihabitatio\_30:

(Start: 182 @21725 has 57 MA's), (Start: 228 @21812 has 1 MA's), (254, 21866), (338, 22013), (351, 22040), (357, 22055), (421, 22244), (422, 22247), (448, 22322), (464, 22352),

Gene: Horus\_28 Start: 21523, Stop: 22146, Start Num: 224

Candidate Starts for Horus\_28:

(54, 21148), (68, 21205), (80, 21250), (103, 21304), (104, 21307), (119, 21343), (Start: 128 @21388 has 1 MA's), (Start: 130 @21391 has 1 MA's), (Start: 224 @21523 has 30 MA's), (Start: 226 @21529 has 2 MA's), (239, 21559), (247, 21574), (285, 21634), (324, 21715), (337, 21754), (365, 21826), (384, 21889), (408, 21934), (412, 21952), (419, 21973), (422, 21982), (509, 22114), (512, 22123), (520, 22135),

Gene: Howe\_25 Start: 21873, Stop: 22619, Start Num: 196

Candidate Starts for Howe\_25:

(Start: 163 @21819 has 32 MA's), (Start: 174 @21831 has 42 MA's), (Start: 186 @21843 has 3 MA's), (187, 21846), (Start: 196 @21873 has 1 MA's), (Start: 205 @21885 has 5 MA's), (236, 21936), (293, 22029), (317, 22074), (318, 22077), (319, 22080), (344, 22140), (351, 22158), (355, 22170), (357, 22173), (358, 22176), (396, 22266), (423, 22353), (513, 22521), (526, 22539), (549, 22575), (559, 22599),

Gene: HubbaBubba\_15 Start: 6375, Stop: 7115, Start Num: 141

Candidate Starts for HubbaBubba\_15:

(Start: 141 @6375 has 4 MA's), (Start: 228 @6435 has 1 MA's), (230, 6438), (236, 6450), (288, 6531), (360, 6705), (418, 6870), (473, 6996), (492, 7032), (521, 7086),

Gene: Hugley\_25 Start: 22282, Stop: 22926, Start Num: 199

Candidate Starts for Hugley\_25:

(Start: 142 @22210 has 18 MA's), (185, 22249), (199, 22282), (Start: 214 @22309 has 20 MA's), (Start: 226 @22318 has 2 MA's), (247, 22360), (252, 22372), (285, 22420), (295, 22441), (306, 22462), (321, 22495), (323, 22498), (337, 22540), (355, 22576), (374, 22627), (384, 22675), (412, 22738), (422, 22768), (445, 22819), (509, 22897),

Gene: Hydrus\_31 Start: 22825, Stop: 23613, Start Num: 182

Candidate Starts for Hydrus\_31:

(Start: 182 @22825 has 57 MA's), (220, 22900), (Start: 228 @22912 has 1 MA's), (254, 22966), (258, 22972), (288, 23017), (338, 23113), (345, 23131), (351, 23140), (354, 23149), (357, 23155), (421, 23344), (422, 23347), (425, 23362), (448, 23422), (535, 23569),

Gene: Hyzer\_27 Start: 22843, Stop: 23631, Start Num: 171

Candidate Starts for Hyzer\_27:

(76, 22639), (108, 22723), (118, 22744), (Start: 171 @22843 has 3 MA's), (187, 22858), (Start: 196 @22885 has 1 MA's), (Start: 205 @22897 has 5 MA's), (216, 22912), (293, 23041), (319, 23092), (340, 23140), (344, 23152), (355, 23182), (357, 23185), (358, 23188), (423, 23365), (433, 23386), (435, 23392), (450, 23428), (513, 23533), (549, 23587), (559, 23611),

Gene: IDyn\_18 Start: 7766, Stop: 8506, Start Num: 141

Candidate Starts for IDyn\_18:

(Start: 141 @7766 has 4 MA's), (Start: 228 @7826 has 1 MA's), (230, 7829), (236, 7841), (288, 7922), (354, 8072), (360, 8096), (374, 8129), (408, 8225), (418, 8261), (473, 8387), (492, 8423), (521, 8477),

Gene: Inspectinfecti\_45 Start: 39424, Stop: 40143, Start Num: 174

Candidate Starts for Inspectinfecti\_45:

(Start: 174 @39424 has 42 MA's), (187, 39439), (204, 39478), (236, 39529), (284, 39589), (393, 39808), (398, 39817), (405, 39835), (423, 39895), (457, 39970), (519, 40069), (546, 40108), (557, 40129),

Gene: Invectra\_25 Start: 21541, Stop: 22338, Start Num: 163

Candidate Starts for Invectra\_25:

(92, 21391), (Start: 163 @21541 has 32 MA's), (Start: 171 @21550 has 3 MA's), (Start: 186 @21562 has 3 MA's), (187, 21565), (Start: 196 @21592 has 1 MA's), (Start: 205 @21604 has 5 MA's), (236, 21655), (293, 21748), (317, 21793), (318, 21796), (319, 21799), (344, 21859), (351, 21877), (355, 21889), (357, 21892), (358, 21895), (396, 21985), (423, 22072), (513, 22240), (549, 22294), (559, 22318),

Gene: JCole\_22 Start: 18663, Stop: 19364, Start Num: 170

Candidate Starts for JCole\_22:

(34, 18249), (35, 18252), (Start: 170 @18663 has 35 MA's), (217, 18729), (223, 18741), (Start: 228 @18753 has 1 MA's), (236, 18768), (241, 18783), (259, 18813), (291, 18852), (315, 18885), (317, 18891), (328, 18915), (330, 18918), (345, 18963), (351, 18969), (358, 18987), (398, 19071), (412, 19119), (422, 19149), (424, 19155), (432, 19176), (444, 19206), (492, 19278), (522, 19332), (538, 19353),

Gene: JKSyngboy\_43 Start: 39922, Stop: 40665, Start Num: 169

Candidate Starts for JKSyngboy\_43:

(Start: 169 @39922 has 53 MA's), (Start: 186 @39940 has 3 MA's), (Start: 205 @39985 has 5 MA's), (264, 40075), (284, 40105), (297, 40123), (305, 40135), (319, 40165), (333, 40192), (372, 40285), (378, 40297), (438, 40453), (444, 40465), (457, 40492), (483, 40525), (519, 40591), (543, 40618),

Gene: Jabberwocky\_44 Start: 41084, Stop: 41818, Start Num: 169

Candidate Starts for Jabberwocky\_44:

(125, 41027), (Start: 169 @41084 has 53 MA's), (Start: 186 @41102 has 3 MA's), (236, 41189), (250, 41216), (284, 41264), (297, 41282), (319, 41324), (354, 41402), (372, 41444), (387, 41477), (438, 41612), (457, 41651), (519, 41750), (543, 41777), (558, 41810),

Gene: Jablanski\_28 Start: 22900, Stop: 23523, Start Num: 214

Candidate Starts for Jablanski\_28:

(Start: 214 @22900 has 20 MA's), (227, 22909), (247, 22951), (269, 22987), (295, 23032), (306, 23053), (321, 23086), (337, 23131), (365, 23203), (374, 23218), (384, 23266), (408, 23311), (412, 23329), (419, 23350), (422, 23359), (445, 23413), (492, 23464), (509, 23491), (512, 23500), (514, 23503),

Gene: Jace\_72 Start: 41711, Stop: 42511, Start Num: 181

Candidate Starts for Jace\_72:

(Start: 181 @41711 has 5 MA's), (299, 41924), (359, 42038), (393, 42122), (411, 42176), (423, 42209), (428, 42224),

Gene: Jalammah\_27 Start: 21946, Stop: 22749, Start Num: 163

Candidate Starts for Jalammah\_27:

(Start: 163 @21946 has 32 MA's), (Start: 196 @21994 has 1 MA's), (Start: 205 @22006 has 5 MA's), (216, 22021), (236, 22057), (293, 22150), (319, 22201), (343, 22258), (344, 22261), (351, 22279), (355, 22291), (357, 22294), (358, 22297), (423, 22474), (433, 22495), (435, 22501), (549, 22693), (559, 22717), (569, 22738),

Gene: Jalebi\_86 Start: 59669, Stop: 60520, Start Num: 166

Candidate Starts for Jalebi\_86:

(146, 59645), (148, 59648), (Start: 166 @59669 has 38 MA's), (175, 59678), (188, 59699), (209, 59741), (213, 59747), (240, 59792), (303, 59897), (307, 59906), (319, 59933), (324, 59945), (337, 59984), (405, 60164), (425, 60230), (428, 60239), (439, 60269), (451, 60296), (465, 60320), (494, 60374), (517, 60419), (526, 60431), (562, 60497),

Gene: Jalleen\_24 Start: 19494, Stop: 20144, Start Num: 207

Candidate Starts for Jalleen\_24:

(101, 19293), (Start: 177 @19437 has 50 MA's), (207, 19494), (Start: 228 @19533 has 1 MA's), (259, 19593), (280, 19611), (281, 19614), (291, 19632), (316, 19668), (332, 19704), (336, 19722), (352, 19752), (383, 19827), (422, 19926), (424, 19932), (538, 20136),

Gene: Jambalaya\_44 Start: 35970, Stop: 36725, Start Num: 170

Candidate Starts for Jambalaya\_44:

(115, 35874), (Start: 170 @35970 has 35 MA's), (211, 36042), (287, 36150), (317, 36195), (390, 36345), (393, 36351), (405, 36378), (418, 36426), (466, 36528), (512, 36612), (560, 36684),

Gene: Jamemuya19\_82 Start: 56791, Stop: 57642, Start Num: 166

Candidate Starts for Jamemuya19\_82:

(146, 56767), (148, 56770), (Start: 166 @56791 has 38 MA's), (175, 56800), (Start: 183 @56812 has 2 MA's), (188, 56821), (209, 56863), (213, 56869), (240, 56914), (301, 57016), (303, 57019), (319, 57055), (324, 57067), (337, 57106), (349, 57136), (351, 57139), (355, 57151), (357, 57154), (405, 57286), (425, 57352), (428, 57361), (439, 57391), (451, 57418), (463, 57439), (494, 57496), (517, 57541), (562, 57619),

Gene: JasperJr\_25 Start: 21156, Stop: 21959, Start Num: 163

Candidate Starts for JasperJr\_25:

(Start: 163 @21156 has 32 MA's), (Start: 196 @21204 has 1 MA's), (Start: 205 @21216 has 5 MA's), (216, 21231), (236, 21267), (293, 21360), (319, 21411), (343, 21468), (344, 21471), (351, 21489), (355, 21501), (357, 21504), (358, 21507), (423, 21684), (433, 21705), (435, 21711), (524, 21867), (549, 21903), (559, 21927), (569, 21948),

Gene: JeanGrey\_131 Start: 99191, Stop: 99985, Start Num: 182

Candidate Starts for JeanGrey\_131:

(Start: 169 @99176 has 53 MA's), (Start: 182 @99191 has 57 MA's), (217, 99260), (254, 99323), (341, 99482), (352, 99506), (357, 99518), (393, 99623), (418, 99698), (425, 99725), (441, 99767), (449, 99788), (457, 99803), (535, 99935), (548, 99959), (553, 99968),

Gene: Jifall16\_18 Start: 8868, Stop: 9593, Start Num: 138

Candidate Starts for Jifall16\_18:

(Start: 138 @8868 has 22 MA's), (Start: 170 @8892 has 35 MA's), (192, 8925), (230, 8928), (251, 8964), (260, 8979), (288, 9021), (354, 9168), (418, 9360), (458, 9462), (479, 9492), (492, 9513), (500, 9528), (537, 9588),

Gene: Jodelie19\_31 Start: 23744, Stop: 24532, Start Num: 182

Candidate Starts for Jodelie19\_31:

(Start: 182 @23744 has 57 MA's), (200, 23789), (220, 23819), (Start: 228 @23831 has 1 MA's), (254, 23885), (338, 24032), (357, 24074), (381, 24158), (421, 24263), (422, 24266), (448, 24341), (535, 24488),

Gene: Jojo24\_48 Start: 32326, Stop: 33183, Start Num: 158

Candidate Starts for Jojo24\_48:

(2, 30784), (6, 31171), (7, 31207), (11, 31291), (12, 31480), (14, 31555), (18, 31585), (21, 31714), (66, 32113), (98, 32212), (102, 32221), (114, 32251), (126, 32281), (Start: 128 @32290 has 1 MA's), (133, 32296), (Start: 158 @32326 has 8 MA's), (257, 32509), (342, 32677), (357, 32710), (358, 32713), (367, 32746), (376, 32767), (394, 32821), (397, 32827), (423, 32914), (484, 33025), (486, 33028), (491, 33034), (508, 33070), (528, 33097), (568, 33172),

Gene: JuJu\_26 Start: 21224, Stop: 22018, Start Num: 160

Candidate Starts for JuJu\_26:

(Start: 160 @21224 has 17 MA's), (Start: 196 @21266 has 1 MA's), (Start: 205 @21278 has 5 MA's), (236, 21329), (293, 21422), (319, 21473), (343, 21530), (344, 21533), (351, 21551), (355, 21563), (357, 21566), (358, 21569), (423, 21746), (433, 21767), (549, 21965), (559, 21989), (569, 22007),

Gene: JulesRay\_27 Start: 19348, Stop: 20133, Start Num: 182

Candidate Starts for JulesRay\_27:

(Start: 182 @19348 has 57 MA's), (200, 19393), (254, 19489), (258, 19495), (337, 19633), (352, 19666), (357, 19678), (421, 19867), (422, 19870), (448, 19945), (535, 20092),

Gene: Jumbo\_41 Start: 43925, Stop: 44704, Start Num: 172

Candidate Starts for Jumbo\_41:

(Start: 172 @43925 has 4 MA's), (Start: 205 @43979 has 5 MA's), (227, 44015), (292, 44117), (305, 44138), (317, 44162), (351, 44240), (382, 44330), (393, 44348), (412, 44411), (423, 44441), (436, 44477), (460, 44528),

Gene: Kabluna\_21 Start: 8839, Stop: 9630, Start Num: 142

Candidate Starts for Kabluna\_21:

(Start: 142 @8839 has 18 MA's), (189, 8884), (222, 8947), (Start: 226 @8959 has 2 MA's), (Start: 228 @8965 has 1 MA's), (236, 8980), (251, 9004), (256, 9013), (288, 9061), (306, 9097), (354, 9208), (359, 9229), (366, 9250), (479, 9535), (492, 9556), (495, 9565), (500, 9571), (516, 9604),

Gene: Kabocha\_32 Start: 22381, Stop: 23079, Start Num: 142

Candidate Starts for Kabocha\_32:

(Start: 130 @22363 has 1 MA's), (Start: 142 @22381 has 18 MA's), (Start: 228 @22444 has 1 MA's), (246, 22480), (291, 22540), (295, 22552), (306, 22573), (321, 22606), (334, 22636), (335, 22639), (341, 22660), (345, 22666), (350, 22672), (358, 22693), (393, 22798), (398, 22807), (419, 22876), (422, 22882), (436, 22918), (441, 22930), (479, 22969), (492, 22990), (532, 23059), (541, 23071), (542, 23074),

Gene: Kamaru\_28 Start: 21606, Stop: 22229, Start Num: 224

Candidate Starts for Kamaru\_28:

(54, 21231), (68, 21288), (80, 21333), (103, 21387), (104, 21390), (119, 21426), (Start: 128 @21471 has 1 MA's), (Start: 130 @21474 has 1 MA's), (Start: 224 @21606 has 30 MA's), (Start: 226 @21612 has 2 MA's), (239, 21642), (247, 21657), (285, 21717), (324, 21798), (337, 21837), (365, 21909), (384, 21972), (408, 22017), (412, 22035), (419, 22056), (422, 22065), (509, 22197), (512, 22206), (520, 22218),

Gene: Kamashten\_43 Start: 39019, Stop: 39753, Start Num: 169

Candidate Starts for Kamashten\_43:

(125, 38962), (Start: 169 @39019 has 53 MA's), (Start: 186 @39037 has 3 MA's), (236, 39124), (250, 39151), (284, 39199), (297, 39217), (319, 39259), (354, 39337), (372, 39379), (387, 39412), (438, 39547), (457, 39586), (519, 39685), (543, 39712), (558, 39745),

Gene: Kampe\_40 Start: 40828, Stop: 41550, Start Num: 178

Candidate Starts for Kampe\_40:

(Start: 178 @40828 has 13 MA's), (Start: 205 @40882 has 5 MA's), (257, 40975), (316, 41056), (331, 41089), (360, 41167), (423, 41329), (455, 41389), (517, 41503),

Gene: KappaFarmDelta\_27 Start: 21652, Stop: 22440, Start Num: 160

Candidate Starts for KappaFarmDelta\_27:

(32, 21259), (53, 21388), (82, 21499), (95, 21526), (109, 21562), (Start: 160 @21652 has 17 MA's), (Start: 196 @21694 has 1 MA's), (Start: 205 @21706 has 5 MA's), (236, 21757), (293, 21850), (319, 21901), (340, 21949), (343, 21958), (344, 21961), (351, 21979), (355, 21991), (357, 21994), (358, 21997), (423, 22174), (433, 22195), (549, 22393), (559, 22417),

Gene: KayGee\_48 Start: 35490, Stop: 34687, Start Num: 178

Candidate Starts for KayGee\_48:

(Start: 130 @35550 has 1 MA's), (Start: 178 @35490 has 13 MA's), (284, 35283), (315, 35229), (325, 35208), (332, 35190), (335, 35181), (343, 35154), (384, 35043), (393, 35025), (406, 34992), (440, 34890), (442, 34887), (485, 34809), (487, 34806), (523, 34740), (547, 34701), (552, 34692),

Gene: Keitabear\_45 Start: 40674, Stop: 41408, Start Num: 169

Candidate Starts for Keitabear\_45:

(159, 40668), (Start: 169 @40674 has 53 MA's), (Start: 186 @40692 has 3 MA's), (236, 40779), (250, 40806), (284, 40854), (297, 40872), (319, 40914), (354, 40992), (372, 41034), (387, 41067), (438, 41202), (457, 41241), (519, 41340), (543, 41367), (558, 41400),

Gene: Kenna\_27 Start: 21499, Stop: 22122, Start Num: 224

Candidate Starts for Kenna\_27:

(54, 21124), (68, 21181), (80, 21226), (103, 21280), (104, 21283), (119, 21319), (Start: 128 @21364 has 1 MA's), (Start: 130 @21367 has 1 MA's), (Start: 224 @21499 has 30 MA's), (Start: 226 @21505 has 2 MA's), (239, 21535), (247, 21550), (285, 21610), (321, 21685), (337, 21730), (355, 21766), (365, 21802), (384, 21865), (408, 21910), (412, 21928), (419, 21949), (424, 21970), (509, 22090), (512, 22099), (520, 22111),

Gene: Kenosha\_30 Start: 22860, Stop: 23648, Start Num: 182

Candidate Starts for Kenosha\_30:

(Start: 182 @22860 has 57 MA's), (200, 22905), (Start: 228 @22947 has 1 MA's), (254, 23001), (258, 23007), (309, 23082), (354, 23184), (421, 23379), (422, 23382), (425, 23397), (448, 23457), (462, 23484), (535, 23604),

Gene: Kerry\_27 Start: 19428, Stop: 20213, Start Num: 182

Candidate Starts for Kerry\_27:

(Start: 182 @19428 has 57 MA's), (189, 19443), (212, 19491), (234, 19524), (254, 19569), (258, 19575), (337, 19713), (352, 19746), (357, 19758), (421, 19947), (422, 19950), (448, 20025), (462, 20052), (535, 20172),

Gene: Kewpiedoll\_45 Start: 39960, Stop: 40694, Start Num: 169

Candidate Starts for Kewpiedoll\_45:

(125, 39903), (Start: 169 @39960 has 53 MA's), (Start: 186 @39978 has 3 MA's), (236, 40065), (250, 40092), (284, 40140), (297, 40158), (319, 40200), (354, 40278), (372, 40320), (387, 40353), (438, 40488), (457, 40527), (519, 40626), (543, 40653), (558, 40686),

Gene: KidneyBean\_19 Start: 9147, Stop: 9872, Start Num: 138

Candidate Starts for KidneyBean\_19:

(Start: 138 @9147 has 22 MA's), (Start: 170 @9171 has 35 MA's), (192, 9204), (230, 9207), (251, 9243), (260, 9258), (288, 9300), (354, 9447), (418, 9639), (458, 9741), (479, 9771), (492, 9792), (500, 9807), (537, 9867),

Gene: Kiko\_27 Start: 21413, Stop: 22117, Start Num: 177

Candidate Starts for Kiko\_27:

(Start: 177 @21413 has 50 MA's), (217, 21482), (Start: 228 @21506 has 1 MA's), (259, 21566), (285, 21596), (291, 21605), (315, 21638), (328, 21668), (330, 21671), (336, 21695), (351, 21722), (362, 21761), (398, 21824), (412, 21872), (422, 21902), (424, 21908), (432, 21929), (444, 21959),

Gene: KimmyK\_45 Start: 36905, Stop: 37660, Start Num: 170

Candidate Starts for KimmyK\_45:

(121, 36827), (Start: 170 @36905 has 35 MA's), (211, 36977), (287, 37085), (317, 37130), (390, 37280), (393, 37286), (405, 37313), (418, 37361), (466, 37463), (512, 37547), (560, 37619),

Gene: Kita\_27 Start: 22303, Stop: 22923, Start Num: 215

Candidate Starts for Kita\_27:

(50, 21928), (103, 22099), (104, 22102), (Start: 128 @22183 has 1 MA's), (Start: 142 @22204 has 18 MA's), (Start: 215 @22303 has 16 MA's), (Start: 226 @22312 has 2 MA's), (247, 22357), (295, 22438), (337, 22537), (355, 22573), (374, 22624), (384, 22672), (412, 22735), (422, 22765), (445, 22816), (492, 22867), (509, 22894),

Gene: Kroos\_46 Start: 40063, Stop: 40806, Start Num: 169

Candidate Starts for Kroos\_46:

(Start: 169 @40063 has 53 MA's), (Start: 186 @40081 has 3 MA's), (Start: 205 @40126 has 5 MA's), (236, 40171), (284, 40246), (297, 40264), (319, 40306), (333, 40333), (372, 40426), (378, 40438), (438, 40594), (444, 40606), (457, 40633), (483, 40666), (519, 40732), (543, 40759),

Gene: Kudfre\_120 Start: 65328, Stop: 66050, Start Num: 181

Candidate Starts for Kudfre\_120:

(Start: 181 @65328 has 5 MA's), (202, 65376), (221, 65403), (227, 65418), (319, 65550), (351, 65619), (407, 65760), (415, 65790), (447, 65862), (500, 65934), (563, 66033), (565, 66036),

Gene: Kurt\_19 Start: 9384, Stop: 10109, Start Num: 138

Candidate Starts for Kurt\_19:

(Start: 138 @9384 has 22 MA's), (Start: 170 @9408 has 35 MA's), (192, 9441), (230, 9444), (251, 9480), (260, 9495), (288, 9537), (354, 9684), (418, 9876), (458, 9978), (479, 10008), (492, 10029), (500, 10044), (537, 10104),

Gene: Kuwabara\_27 Start: 20925, Stop: 21548, Start Num: 224

Candidate Starts for Kuwabara\_27:

(54, 20550), (68, 20607), (80, 20652), (103, 20706), (104, 20709), (119, 20745), (Start: 128 @20790 has 1 MA's), (Start: 130 @20793 has 1 MA's), (Start: 224 @20925 has 30 MA's), (Start: 226 @20931 has 2 MA's), (239, 20961), (247, 20976), (285, 21036), (321, 21111), (337, 21156), (355, 21192), (365, 21228), (384, 21291), (412, 21354), (419, 21375), (422, 21384), (447, 21441), (509, 21516), (512, 21525),

Gene: Kwobi\_47 Start: 40049, Stop: 40792, Start Num: 169

Candidate Starts for Kwobi\_47:

(Start: 169 @40049 has 53 MA's), (Start: 186 @40067 has 3 MA's), (Start: 205 @40112 has 5 MA's), (236, 40157), (284, 40232), (297, 40250), (305, 40262), (319, 40292), (333, 40319), (372, 40412), (378, 40424), (438, 40580), (444, 40592), (457, 40619), (483, 40652), (519, 40718), (543, 40745),

Gene: Lamberg\_23 Start: 18707, Stop: 19408, Start Num: 177

Candidate Starts for Lamberg\_23:

(159, 18689), (162, 18692), (Start: 177 @18707 has 50 MA's), (Start: 228 @18800 has 1 MA's), (236, 18815), (253, 18851), (315, 18932), (330, 18965), (332, 18971), (351, 19016), (362, 19055), (422, 19193), (424, 19199), (433, 19223), (438, 19238), (538, 19400),

Gene: Lambo\_86 Start: 58781, Stop: 59629, Start Num: 166

Candidate Starts for Lambo\_86:

(146, 58757), (148, 58760), (155, 58769), (Start: 166 @58781 has 38 MA's), (Start: 183 @58799 has 2 MA's), (188, 58808), (209, 58850), (213, 58856), (240, 58901), (303, 59006), (319, 59042), (324, 59054), (349, 59123), (351, 59126), (355, 59138), (405, 59273), (425, 59339), (428, 59348), (439, 59378), (463, 59426), (465, 59429), (494, 59483), (517, 59528), (526, 59540), (562, 59606),

Gene: LavAbarElk\_86 Start: 57842, Stop: 58693, Start Num: 166

Candidate Starts for LavAbarElk\_86:

(146, 57818), (148, 57821), (Start: 166 @57842 has 38 MA's), (175, 57851), (188, 57872), (209, 57914), (213, 57920), (303, 58070), (307, 58079), (319, 58106), (324, 58118), (337, 58157), (405, 58337), (425, 58403), (428, 58412), (439, 58442), (451, 58469), (465, 58493), (494, 58547), (517, 58592), (526, 58604), (562, 58670),

Gene: Lennon\_45 Start: 40763, Stop: 41497, Start Num: 169

Candidate Starts for Lennon\_45:

(125, 40706), (Start: 169 @40763 has 53 MA's), (Start: 186 @40781 has 3 MA's), (236, 40868), (250, 40895), (284, 40943), (297, 40961), (319, 41003), (354, 41081), (372, 41123), (387, 41156), (438, 41291), (457, 41330), (519, 41429), (543, 41456), (558, 41489),

Gene: Lenoshki\_31 Start: 23245, Stop: 23943, Start Num: 142

Candidate Starts for Lenoshki\_31:

(Start: 130 @23227 has 1 MA's), (Start: 142 @23245 has 18 MA's), (Start: 228 @23308 has 1 MA's), (246, 23344), (295, 23416), (306, 23437), (321, 23470), (334, 23500), (335, 23503), (341, 23524), (345, 23530), (350, 23536), (358, 23557), (393, 23662), (398, 23671), (419, 23740), (422, 23746), (436, 23782), (441, 23794), (479, 23833), (532, 23923), (541, 23935), (542, 23938),

Gene: Leonard\_44 Start: 39063, Stop: 39782, Start Num: 174

Candidate Starts for Leonard\_44:

(Start: 174 @39063 has 42 MA's), (187, 39078), (204, 39117), (230, 39156), (236, 39168), (261, 39207), (284, 39228), (393, 39447), (398, 39456), (405, 39474), (410, 39495), (423, 39534), (457, 39609), (519, 39708), (546, 39747), (557, 39768),

Gene: Leroy\_28 Start: 21524, Stop: 22147, Start Num: 224

Candidate Starts for Leroy\_28:

(54, 21149), (68, 21206), (80, 21251), (103, 21305), (104, 21308), (119, 21344), (Start: 128 @21389 has 1 MA's), (Start: 130 @21392 has 1 MA's), (Start: 224 @21524 has 30 MA's), (Start: 226 @21530 has 2 MA's), (239, 21560), (247, 21575), (285, 21635), (324, 21716), (337, 21755), (365, 21827), (384, 21890), (408, 21935), (412, 21953), (419, 21974), (422, 21983), (509, 22115), (512, 22124), (520, 22136),

Gene: Ligma\_42 Start: 35273, Stop: 35995, Start Num: 177

Candidate Starts for Ligma\_42:

(33, 34883), (67, 35060), (106, 35168), (Start: 177 @35273 has 50 MA's), (271, 35435), (299, 35480), (332, 35543), (336, 35561), (351, 35588), (383, 35666), (384, 35669), (412, 35738), (422, 35768), (424, 35774), (524, 35963),

Gene: LilHam\_43 Start: 38650, Stop: 39393, Start Num: 169

Candidate Starts for LilHam\_43:

(Start: 169 @38650 has 53 MA's), (Start: 186 @38668 has 3 MA's), (Start: 205 @38713 has 5 MA's), (236, 38758), (284, 38833), (297, 38851), (319, 38893), (372, 39013), (378, 39025), (425, 39145), (438, 39181), (444, 39193), (457, 39220), (483, 39253), (500, 39286), (519, 39319), (543, 39346),

Gene: LilJank\_113 Start: 66997, Stop: 67728, Start Num: 176

Candidate Starts for LilJank\_113:

(Start: 176 @66997 has 13 MA's), (187, 67012), (207, 67057), (213, 67066), (232, 67105), (249, 67141), (301, 67195), (335, 67261), (361, 67327), (372, 67348), (393, 67405), (438, 67525), (460, 67561), (470, 67570), (481, 67585), (569, 67720),

Gene: Lila22\_87 Start: 59144, Stop: 59992, Start Num: 166

Candidate Starts for Lila22\_87:

(146, 59120), (148, 59123), (152, 59129), (Start: 166 @59144 has 38 MA's), (Start: 183 @59162 has 2 MA's), (188, 59171), (209, 59213), (213, 59219), (240, 59264), (303, 59369), (319, 59405), (324, 59417), (349, 59486), (351, 59489), (355, 59501), (405, 59636), (425, 59702), (428, 59711), (439, 59741), (463, 59789), (465, 59792), (494, 59846), (517, 59891), (526, 59903), (562, 59969),

Gene: Lilas\_27 Start: 22035, Stop: 22775, Start Num: 144

Candidate Starts for Lilas\_27:

(Start: 142 @22032 has 18 MA's), (Start: 144 @22035 has 1 MA's), (Start: 170 @22059 has 35 MA's), (188, 22077), (217, 22131), (259, 22215), (291, 22254), (316, 22290), (328, 22317), (351, 22371), (358, 22389), (398, 22482), (422, 22560), (424, 22566), (522, 22743), (536, 22761),

Gene: Lilbeanie\_44 Start: 35096, Stop: 35851, Start Num: 171

Candidate Starts for Lilbeanie\_44:

(134, 35048), (Start: 171 @35096 has 3 MA's), (187, 35111), (Start: 205 @35150 has 5 MA's), (213, 35162), (216, 35165), (298, 35306), (319, 35345), (338, 35390), (372, 35471), (405, 35540), (414, 35576), (423, 35600),

Gene: LilyPad\_89 Start: 63022, Stop: 63735, Start Num: 180

Candidate Starts for LilyPad\_89:

(Start: 180 @63022 has 17 MA's), (331, 63301), (336, 63322), (414, 63517), (436, 63580), (441, 63592), (477, 63643), (513, 63700), (515, 63703), (532, 63724),

Gene: LitninMcQueen\_27 Start: 21255, Stop: 21878, Start Num: 224

Candidate Starts for LitninMcQueen\_27:

(54, 20880), (68, 20937), (80, 20982), (103, 21036), (104, 21039), (119, 21075), (Start: 128 @21120 has 1 MA's), (Start: 130 @21123 has 1 MA's), (Start: 224 @21255 has 30 MA's), (Start: 226 @21261 has 2 MA's), (239, 21291), (247, 21306), (285, 21366), (337, 21486), (365, 21558), (384, 21621), (408, 21666), (412, 21684), (419, 21705), (422, 21714), (509, 21846), (512, 21855), (520, 21867),

Gene: LittleFella\_91 Start: 63267, Stop: 63962, Start Num: 180

Candidate Starts for LittleFella\_91:

(Start: 160 @63252 has 17 MA's), (Start: 172 @63258 has 4 MA's), (Start: 180 @63267 has 17 MA's), (187, 63279), (189, 63285), (208, 63321), (219, 63336), (223, 63345), (249, 63402), (282, 63450), (313, 63501), (318, 63513), (343, 63579), (393, 63687), (394, 63690), (412, 63744), (419, 63765), (442, 63825), (461, 63846), (467, 63855), (474, 63864), (478, 63870), (532, 63951),

Gene: LittleMunchkin\_44 Start: 38558, Stop: 39280, Start Num: 174

Candidate Starts for LittleMunchkin\_44:

(77, 38360), (102, 38423), (106, 38432), (Start: 174 @38558 has 42 MA's), (259, 38717), (271, 38723), (285, 38747), (299, 38768), (311, 38783), (332, 38831), (352, 38879), (384, 38954), (412, 39023), (422, 39053), (445, 39113), (472, 39161), (534, 39260),

Gene: Lollipop1437\_23 Start: 10516, Stop: 11289, Start Num: 138

Candidate Starts for Lollipop1437\_23:

(Start: 138 @10516 has 22 MA's), (Start: 228 @10624 has 1 MA's), (230, 10627), (260, 10678), (288, 10720), (337, 10834), (359, 10888), (492, 11209), (521, 11263),

Gene: LonelyBoi\_27 Start: 22523, Stop: 23143, Start Num: 224

Candidate Starts for LonelyBoi\_27:

(Start: 171 @22436 has 3 MA's), (Start: 224 @22523 has 30 MA's), (Start: 226 @22529 has 2 MA's), (239, 22559), (247, 22574), (248, 22577), (269, 22610), (295, 22655), (321, 22709), (337, 22754), (365, 22826), (384, 22889), (412, 22952), (445, 23033), (509, 23111), (512, 23120), (514, 23123),

Gene: LordFarquaad\_24 Start: 19791, Stop: 20498, Start Num: 177

Candidate Starts for LordFarquaad\_24:

(101, 19647), (Start: 177 @19791 has 50 MA's), (207, 19848), (Start: 228 @19887 has 1 MA's), (259, 19947), (280, 19965), (281, 19968), (291, 19986), (316, 20022), (317, 20025), (332, 20058), (336, 20076), (351, 20103), (383, 20181), (412, 20250), (422, 20280), (424, 20286), (538, 20490),

Gene: Love\_49 Start: 41211, Stop: 41945, Start Num: 169

Candidate Starts for Love\_49:

(94, 41064), (125, 41154), (Start: 169 @41211 has 53 MA's), (Start: 186 @41229 has 3 MA's), (236, 41316), (250, 41343), (284, 41391), (297, 41409), (319, 41451), (354, 41529), (372, 41571), (387, 41604), (438, 41739), (457, 41778), (519, 41877), (543, 41904), (558, 41937),

Gene: Lton\_23 Start: 18736, Stop: 19437, Start Num: 177

Candidate Starts for Lton\_23:

(159, 18718), (162, 18721), (Start: 177 @18736 has 50 MA's), (236, 18844), (253, 18880), (315, 18961), (330, 18994), (332, 19000), (351, 19045), (362, 19084), (422, 19222), (424, 19228), (447, 19285), (538, 19429),

Gene: Lucky10\_24 Start: 19603, Stop: 20307, Start Num: 177

Candidate Starts for Lucky10\_24:

(Start: 177 @19603 has 50 MA's), (207, 19660), (Start: 228 @19699 has 1 MA's), (285, 19789), (299, 19810), (302, 19813), (317, 19837), (328, 19861), (330, 19864), (335, 19879), (351, 19915), (383, 19993), (401, 20020), (415, 20071), (422, 20092), (515, 20269), (538, 20299),

Gene: LuckyLeo\_84 Start: 58457, Stop: 59287, Start Num: 183

Candidate Starts for LuckyLeo\_84:

(146, 58415), (148, 58418), (155, 58427), (Start: 166 @58439 has 38 MA's), (Start: 183 @58457 has 2 MA's), (188, 58466), (Start: 196 @58490 has 1 MA's), (209, 58508), (243, 58565), (319, 58700), (335, 58739), (337, 58751), (351, 58784), (355, 58796), (360, 58817), (393, 58904), (405, 58931), (430, 59009), (439, 59036), (443, 59042), (448, 59057), (451, 59063), (494, 59141), (511, 59177), (563, 59267),

Gene: Luthien\_31 Start: 22308, Stop: 23096, Start Num: 182

Candidate Starts for Luthien\_31:

(Start: 182 @22308 has 57 MA's), (200, 22353), (220, 22383), (254, 22449), (338, 22596), (354, 22632), (357, 22638), (421, 22827), (422, 22830), (441, 22887), (448, 22905), (462, 22932), (535, 23052),

Gene: Lutum\_28 Start: 21499, Stop: 22122, Start Num: 224

Candidate Starts for Lutum\_28:

(54, 21124), (68, 21181), (80, 21226), (103, 21280), (104, 21283), (119, 21319), (Start: 128 @21364 has 1 MA's), (Start: 130 @21367 has 1 MA's), (Start: 224 @21499 has 30 MA's), (Start: 226 @21505 has 2 MA's), (239, 21535), (247, 21550), (285, 21610), (321, 21685), (337, 21730), (355, 21766), (365, 21802), (384, 21865), (408, 21910), (412, 21928), (419, 21949), (424, 21970), (509, 22090), (512, 22099), (520, 22111),

Gene: Lysidious\_26 Start: 21676, Stop: 22476, Start Num: 163

Candidate Starts for Lysidious\_26:

(Start: 163 @21676 has 32 MA's), (Start: 196 @21724 has 1 MA's), (Start: 205 @21736 has 5 MA's), (216, 21751), (236, 21787), (293, 21880), (318, 21928), (319, 21931), (340, 21979), (344, 21991), (351, 22009), (355, 22021), (357, 22024), (358, 22027), (423, 22204), (433, 22225), (435, 22231), (549, 22423), (559, 22447),

Gene: MacGully\_23 Start: 9496, Stop: 10359, Start Num: 160

Candidate Starts for MacGully\_23:

(44, 9142), (49, 9184), (Start: 160 @9496 has 17 MA's), (198, 9559), (Start: 205 @9574 has 5 MA's), (261, 9679), (270, 9691), (284, 9712), (322, 9802), (335, 9829), (346, 9853), (358, 9883), (362, 9904), (393, 9979), (422, 10066), (438, 10111), (476, 10183), (482, 10189), (490, 10201), (551, 10282), (566, 10315), (570, 10327),

Gene: Madavieve\_25 Start: 22640, Stop: 23206, Start Num: 247

Candidate Starts for Madavieve\_25:

(Start: 142 @22490 has 18 MA's), (185, 22529), (199, 22562), (Start: 214 @22589 has 20 MA's), (247, 22640), (252, 22652), (285, 22700), (295, 22721), (306, 22742), (321, 22775), (337, 22820), (355, 22856), (357, 22859), (374, 22907), (412, 23018), (422, 23048), (445, 23099), (509, 23177),

Gene: Madeline\_25 Start: 22607, Stop: 23224, Start Num: 214

Candidate Starts for Madeline\_25:

(Start: 142 @22508 has 18 MA's), (185, 22547), (199, 22580), (Start: 214 @22607 has 20 MA's), (Start: 226 @22616 has 2 MA's), (247, 22658), (252, 22670), (285, 22718), (295, 22739), (306, 22760), (321, 22793), (337, 22838), (355, 22874), (357, 22877), (374, 22925), (412, 23036), (422, 23066), (445, 23117), (509, 23195),

Gene: Madi\_94 Start: 65302, Stop: 66018, Start Num: 180

Candidate Starts for Madi\_94:

(Start: 180 @65302 has 17 MA's), (331, 65584), (345, 65629), (394, 65740), (434, 65857), (436, 65863), (453, 65896), (461, 65905), (477, 65926), (488, 65944), (513, 65983), (515, 65986), (532, 66007),

Gene: Madvan\_30 Start: 22092, Stop: 22880, Start Num: 182

Candidate Starts for Madvan\_30:

(Start: 182 @22092 has 57 MA's), (200, 22137), (220, 22167), (Start: 228 @22179 has 1 MA's), (254, 22233), (258, 22239), (288, 22284), (338, 22380), (345, 22398), (351, 22407), (357, 22422), (421, 22611), (422, 22614), (425, 22629), (448, 22689), (462, 22716), (535, 22836),

Gene: Magel\_27 Start: 19428, Stop: 20213, Start Num: 182

Candidate Starts for Magel\_27:

(Start: 182 @19428 has 57 MA's), (189, 19443), (212, 19491), (234, 19524), (254, 19569), (258, 19575), (337, 19713), (352, 19746), (357, 19758), (421, 19947), (422, 19950), (448, 20025), (462, 20052), (535, 20172),

Gene: MagicMan\_26 Start: 21754, Stop: 22467, Start Num: 177

Candidate Starts for MagicMan\_26:

(129, 21697), (Start: 177 @21754 has 50 MA's), (Start: 228 @21847 has 1 MA's), (236, 21862), (259, 21907), (317, 21985), (328, 22009), (354, 22072), (358, 22081), (393, 22156), (418, 22231), (422, 22243), (424, 22249), (492, 22384),

Gene: Mahdia\_35 Start: 27405, Stop: 28184, Start Num: 176

Candidate Starts for Mahdia\_35:

(Start: 176 @27405 has 13 MA's), (Start: 183 @27414 has 2 MA's), (202, 27459), (239, 27522), (283, 27579), (296, 27600), (303, 27609), (304, 27612), (311, 27624), (333, 27672), (334, 27675), (340, 27696), (341, 27699), (354, 27732), (444, 27966), (459, 27993), (558, 28134), (568, 28155), (569, 28158),

Gene: MajinBuu\_30 Start: 22315, Stop: 23103, Start Num: 182

Candidate Starts for MajinBuu\_30:

(Start: 182 @22315 has 57 MA's), (200, 22360), (220, 22390), (Start: 228 @22402 has 1 MA's), (254, 22456), (338, 22603), (351, 22630), (357, 22645), (381, 22729), (421, 22834), (422, 22837), (448, 22912), (535, 23059),

Gene: MakCheese\_31 Start: 25868, Stop: 26623, Start Num: 196

Candidate Starts for MakCheese\_31:

(Start: 165 @25817 has 2 MA's), (Start: 174 @25826 has 42 MA's), (Start: 186 @25838 has 3 MA's), (187, 25841), (Start: 196 @25868 has 1 MA's), (Start: 205 @25880 has 5 MA's), (223, 25904), (236, 25931), (293, 26024), (318, 26072), (319, 26075), (320, 26078), (344, 26135), (351, 26153), (355, 26165), (357, 26168), (358, 26171), (396, 26261), (423, 26348), (438, 26384), (450, 26411), (513, 26516), (549, 26570), (559, 26594),

Gene: MakoManhole\_45 Start: 37571, Stop: 38293, Start Num: 174

Candidate Starts for MakoManhole\_45:

(79, 37385), (Start: 174 @37571 has 42 MA's), (227, 37664), (271, 37733), (286, 37760), (292, 37766), (351, 37880), (390, 37964), (422, 38057), (433, 38087),

Gene: Malachai\_26 Start: 21633, Stop: 22436, Start Num: 163

Candidate Starts for Malachai\_26:

(Start: 163 @21633 has 32 MA's), (Start: 196 @21681 has 1 MA's), (Start: 205 @21693 has 5 MA's), (216, 21708), (236, 21744), (293, 21837), (319, 21888), (343, 21945), (344, 21948), (351, 21966), (355, 21978), (357, 21981), (358, 21984), (423, 22161), (433, 22182), (435, 22188), (524, 22344), (549, 22380), (559, 22404), (569, 22425),

Gene: Malibo\_27 Start: 21379, Stop: 21999, Start Num: 214

Candidate Starts for Malibo\_27:

(Start: 214 @21379 has 20 MA's), (225, 21385), (247, 21430), (252, 21442), (306, 21532), (321, 21565), (337, 21610), (357, 21649), (374, 21697), (377, 21718), (412, 21808), (422, 21838), (445, 21889), (509, 21967),

Gene: Malisha\_30 Start: 24037, Stop: 24663, Start Num: 214

Candidate Starts for Malisha\_30:

(Start: 214 @24037 has 20 MA's), (247, 24091), (262, 24118), (285, 24151), (295, 24172), (321, 24226), (330, 24244), (355, 24307), (357, 24310), (358, 24313), (365, 24343), (384, 24406), (412,

24469), (422, 24499), (509, 24631), (512, 24640),

Gene: Manasvini\_27 Start: 22303, Stop: 22923, Start Num: 215

Candidate Starts for Manasvini\_27:

(50, 21928), (103, 22099), (104, 22102), (Start: 128 @22183 has 1 MA's), (Start: 142 @22204 has 18 MA's), (Start: 215 @22303 has 16 MA's), (Start: 226 @22312 has 2 MA's), (247, 22357), (295, 22438), (337, 22537), (355, 22573), (374, 22624), (384, 22672), (412, 22735), (422, 22765), (445, 22816), (492, 22867), (509, 22894),

Gene: Manilisa\_49 Start: 36357, Stop: 37163, Start Num: 166

Candidate Starts for Manilisa\_49:

(153, 36342), (Start: 166 @36357 has 38 MA's), (Start: 205 @36420 has 5 MA's), (267, 36525), (270, 36531), (332, 36654), (385, 36798), (412, 36879), (423, 36909), (426, 36915), (447, 36966), (524, 37092), (556, 37140),

Gene: Mareelih\_179 Start: 104936, Stop: 104220, Start Num: 178

Candidate Starts for Mareelih\_179:

(Start: 178 @104936 has 13 MA's), (208, 104879), (313, 104696), (336, 104636), (362, 104567), (371, 104549), (405, 104474), (408, 104462), (411, 104447), (412, 104444), (419, 104423), (421, 104417), (427, 104402), (477, 104315), (488, 104297), (501, 104279), (513, 104255), (532, 104231),

Gene: Maridalia\_26 Start: 22303, Stop: 22923, Start Num: 215

Candidate Starts for Maridalia\_26:

(50, 21928), (103, 22099), (104, 22102), (Start: 128 @22183 has 1 MA's), (Start: 142 @22204 has 18 MA's), (Start: 215 @22303 has 16 MA's), (Start: 226 @22312 has 2 MA's), (247, 22357), (295, 22438), (337, 22537), (355, 22573), (374, 22624), (384, 22672), (412, 22735), (422, 22765), (445, 22816), (492, 22867), (509, 22894),

Gene: Marietta\_19 Start: 7689, Stop: 8432, Start Num: 195

Candidate Starts for Marietta\_19:

(123, 7560), (193, 7686), (Start: 195 @7689 has 2 MA's), (Start: 228 @7752 has 1 MA's), (230, 7755), (236, 7767), (288, 7848), (354, 7998), (360, 8022), (374, 8055), (418, 8187), (465, 8301), (473, 8313), (492, 8349), (521, 8403),

Gene: Mariokart\_42 Start: 35106, Stop: 35828, Start Num: 177

Candidate Starts for Mariokart\_42:

(1, 33240), (3, 33684), (4, 33756), (5, 33807), (9, 33999), (13, 34224), (24, 34527), (Start: 177 @35106 has 50 MA's), (259, 35262), (271, 35268), (299, 35313), (315, 35337), (332, 35376), (335, 35385), (336, 35394), (351, 35421), (352, 35424), (412, 35571), (422, 35601), (424, 35607), (479, 35718), (493, 35742), (522, 35793), (534, 35808),

Gene: Marteena\_27 Start: 21910, Stop: 22626, Start Num: 170

Candidate Starts for Marteena\_27:

(Start: 142 @21883 has 18 MA's), (Start: 144 @21886 has 1 MA's), (Start: 170 @21910 has 35 MA's), (188, 21928), (217, 21982), (259, 22066), (291, 22105), (316, 22141), (328, 22168), (351, 22222), (358, 22240), (398, 22333), (422, 22411), (424, 22417), (522, 22594), (536, 22612),

Gene: Maselop\_20 Start: 9989, Stop: 10885, Start Num: 160

Candidate Starts for Maselop\_20:

(61, 9752), (Start: 160 @9989 has 17 MA's), (Start: 205 @10067 has 5 MA's), (251, 10154), (282, 10202), (290, 10217), (327, 10295), (344, 10340), (393, 10472), (423, 10565), (429, 10580), (482, 10679), (521, 10760), (551, 10808), (570, 10853),

Gene: Matteo\_23 Start: 18653, Stop: 19369, Start Num: 170

Candidate Starts for Matteo\_23:

(Start: 142 @18626 has 18 MA's), (Start: 144 @18629 has 1 MA's), (Start: 170 @18653 has 35 MA's), (188, 18671), (217, 18725), (259, 18809), (291, 18848), (316, 18884), (328, 18911), (351, 18965), (358, 18983), (383, 19046), (398, 19076), (422, 19154), (424, 19160), (540, 19361),

Gene: Mbo2\_63 Start: 49136, Stop: 48321, Start Num: 139

Candidate Starts for Mbo2\_63:

(Start: 139 @49136 has 3 MA's), (198, 49061), (Start: 205 @49052 has 5 MA's), (221, 49028), (231, 49007), (255, 48959), (324, 48863), (335, 48839), (380, 48725), (421, 48608), (430, 48587), (438, 48569), (497, 48458), (510, 48443), (564, 48350),

Gene: Mbo4\_54 Start: 39648, Stop: 40400, Start Num: 179

Candidate Starts for Mbo4\_54:

(60, 39369), (62, 39378), (71, 39417), (73, 39426), (78, 39444), (Start: 150 @39618 has 1 MA's), (Start: 165 @39636 has 2 MA's), (179, 39648), (Start: 196 @39687 has 1 MA's), (Start: 205 @39702 has 5 MA's), (236, 39756), (301, 39837), (336, 39918), (370, 40002), (393, 40062), (405, 40089),

Gene: McCrothy\_45 Start: 40370, Stop: 41104, Start Num: 169

Candidate Starts for McCrothy\_45:

(94, 40223), (125, 40313), (Start: 169 @40370 has 53 MA's), (Start: 186 @40388 has 3 MA's), (236, 40475), (250, 40502), (284, 40550), (297, 40568), (319, 40610), (354, 40688), (372, 40730), (387, 40763), (438, 40898), (457, 40937), (519, 41036), (543, 41063), (558, 41096),

Gene: McDazzle\_49 Start: 35622, Stop: 34819, Start Num: 178

Candidate Starts for McDazzle\_49:

(Start: 130 @35682 has 1 MA's), (Start: 178 @35622 has 13 MA's), (217, 35544), (249, 35472), (284, 35415), (315, 35361), (332, 35322), (337, 35301), (393, 35157), (406, 35124), (442, 35019), (485, 34941), (523, 34872), (530, 34863), (547, 34833), (552, 34824),

Gene: McKinley\_47 Start: 40584, Stop: 41318, Start Num: 169

Candidate Starts for McKinley\_47:

(94, 40437), (125, 40527), (Start: 169 @40584 has 53 MA's), (Start: 186 @40602 has 3 MA's), (236, 40689), (250, 40716), (284, 40764), (297, 40782), (319, 40824), (354, 40902), (372, 40944), (387, 40977), (438, 41112), (457, 41151), (519, 41250), (543, 41277), (558, 41310),

Gene: Mcklovin\_25 Start: 24000, Stop: 24788, Start Num: 174

Candidate Starts for Mcklovin\_25:

(Start: 163 @23988 has 32 MA's), (Start: 174 @24000 has 42 MA's), (Start: 186 @24012 has 3 MA's), (187, 24015), (Start: 196 @24042 has 1 MA's), (Start: 205 @24054 has 5 MA's), (236, 24105), (293, 24198), (317, 24243), (318, 24246), (319, 24249), (344, 24309), (351, 24327), (355, 24339), (357, 24342), (358, 24345), (396, 24435), (423, 24522), (549, 24744), (559, 24768),

Gene: MelBins\_45 Start: 39210, Stop: 39932, Start Num: 174

Candidate Starts for MelBins\_45:

(Start: 174 @39210 has 42 MA's), (187, 39225), (204, 39264), (230, 39303), (236, 39315), (284, 39375), (349, 39498), (390, 39591), (393, 39597), (398, 39606), (410, 39645), (423, 39684), (457, 39759), (519, 39858), (546, 39897), (557, 39918),

Gene: Melba\_25 Start: 21152, Stop: 21955, Start Num: 163

Candidate Starts for Melba\_25:

(Start: 163 @21152 has 32 MA's), (Start: 196 @21200 has 1 MA's), (Start: 205 @21212 has 5 MA's), (216, 21227), (236, 21263), (293, 21356), (319, 21407), (343, 21464), (344, 21467), (351, 21485),

(355, 21497), (357, 21500), (358, 21503), (423, 21680), (433, 21701), (435, 21707), (524, 21863), (549, 21899), (559, 21923), (569, 21944),

Gene: Mellie\_24 Start: 20913, Stop: 21716, Start Num: 163

Candidate Starts for Mellie\_24:

(Start: 163 @20913 has 32 MA's), (Start: 196 @20961 has 1 MA's), (Start: 205 @20973 has 5 MA's), (216, 20988), (293, 21117), (301, 21129), (319, 21168), (340, 21216), (343, 21225), (344, 21228), (351, 21246), (355, 21258), (357, 21261), (358, 21264), (423, 21441), (433, 21462), (435, 21468), (549, 21660), (559, 21684), (569, 21705),

Gene: MerCougar\_19 Start: 8841, Stop: 9629, Start Num: 142

Candidate Starts for MerCougar\_19:

(Start: 142 @8841 has 18 MA's), (149, 8850), (220, 8940), (Start: 228 @8964 has 1 MA's), (236, 8979), (256, 9012), (288, 9060), (359, 9228), (366, 9249), (492, 9555), (495, 9564), (500, 9570), (505, 9579), (516, 9603),

Gene: Meyran\_46 Start: 36292, Stop: 37098, Start Num: 166

Candidate Starts for Meyran\_46:

(Start: 166 @36292 has 38 MA's), (Start: 205 @36355 has 5 MA's), (267, 36460), (270, 36466), (385, 36733), (412, 36814), (423, 36844), (426, 36850), (447, 36901), (524, 37027), (556, 37075),

Gene: MichaelScott\_25 Start: 21603, Stop: 22391, Start Num: 174

Candidate Starts for MichaelScott\_25:

(Start: 163 @21591 has 32 MA's), (Start: 174 @21603 has 42 MA's), (Start: 186 @21615 has 3 MA's), (187, 21618), (Start: 196 @21645 has 1 MA's), (Start: 205 @21657 has 5 MA's), (236, 21708), (293, 21801), (317, 21846), (318, 21849), (319, 21852), (344, 21912), (351, 21930), (355, 21942), (357, 21945), (358, 21948), (396, 22038), (423, 22125), (549, 22347), (559, 22371),

Gene: Mikronejon\_30 Start: 21568, Stop: 22266, Start Num: 142

Candidate Starts for Mikronejon\_30:

(Start: 130 @21550 has 1 MA's), (Start: 142 @21568 has 18 MA's), (Start: 228 @21631 has 1 MA's), (246, 21667), (291, 21727), (295, 21739), (306, 21760), (321, 21793), (334, 21823), (335, 21826), (341, 21847), (345, 21853), (350, 21859), (358, 21880), (393, 21985), (398, 21994), (419, 22063), (422, 22069), (436, 22105), (441, 22117), (479, 22156), (492, 22177), (532, 22246), (541, 22258), (542, 22261),

Gene: Mima20\_85 Start: 58476, Stop: 59327, Start Num: 166

Candidate Starts for Mima20\_85:

(83, 58299), (96, 58326), (99, 58335), (106, 58350), (108, 58359), (146, 58452), (148, 58455), (Start: 166 @58476 has 38 MA's), (175, 58485), (188, 58506), (209, 58548), (213, 58554), (301, 58701), (303, 58704), (319, 58740), (324, 58752), (337, 58791), (349, 58821), (351, 58824), (355, 58836), (405, 58971), (425, 59037), (428, 59046), (439, 59076), (451, 59103), (465, 59127), (494, 59181), (517, 59226), (526, 59238), (550, 59277), (562, 59304),

Gene: MintFen\_25 Start: 21152, Stop: 21955, Start Num: 163

Candidate Starts for MintFen\_25:

(Start: 163 @21152 has 32 MA's), (Start: 196 @21200 has 1 MA's), (Start: 205 @21212 has 5 MA's), (216, 21227), (236, 21263), (293, 21356), (319, 21407), (343, 21464), (344, 21467), (351, 21485), (355, 21497), (357, 21500), (358, 21503), (423, 21680), (433, 21701), (435, 21707), (524, 21863), (549, 21899), (559, 21923), (569, 21944),

Gene: MintFritos\_30 Start: 21568, Stop: 22266, Start Num: 142

Candidate Starts for MintFritos\_30:

(Start: 130 @21550 has 1 MA's), (Start: 142 @21568 has 18 MA's), (Start: 228 @21631 has 1 MA's), (246, 21667), (291, 21727), (295, 21739), (306, 21760), (321, 21793), (334, 21823), (335, 21826), (341, 21847), (345, 21853), (350, 21859), (358, 21880), (393, 21985), (398, 21994), (419, 22063), (422, 22069), (436, 22105), (441, 22117), (479, 22156), (492, 22177), (532, 22246), (541, 22258), (542, 22261),

Gene: MissRona\_27 Start: 21464, Stop: 22264, Start Num: 163

Candidate Starts for MissRona\_27:

(88, 21314), (Start: 163 @21464 has 32 MA's), (Start: 196 @21512 has 1 MA's), (Start: 205 @21524 has 5 MA's), (236, 21575), (293, 21668), (319, 21719), (343, 21776), (344, 21779), (351, 21797), (355, 21809), (357, 21812), (358, 21815), (423, 21992), (433, 22013), (435, 22019), (450, 22055), (513, 22160), (524, 22175), (526, 22178), (549, 22211), (559, 22235),

Gene: Mocha12\_24 Start: 19798, Stop: 20505, Start Num: 177

Candidate Starts for Mocha12\_24:

(101, 19654), (Start: 177 @19798 has 50 MA's), (207, 19855), (Start: 228 @19894 has 1 MA's), (253, 19945), (259, 19954), (280, 19972), (281, 19975), (316, 20029), (317, 20032), (332, 20065), (336, 20083), (351, 20110), (383, 20188), (412, 20257), (414, 20263), (422, 20287), (424, 20293), (538, 20497),

Gene: ModicumRichard\_33 Start: 27844, Stop: 28596, Start Num: 176

Candidate Starts for ModicumRichard\_33:

(Start: 176 @27844 has 13 MA's), (Start: 205 @27895 has 5 MA's), (319, 28072), (361, 28171), (398, 28231), (423, 28309), (450, 28372), (491, 28435), (504, 28462), (563, 28564),

Gene: MoiGyank\_89 Start: 59075, Stop: 59926, Start Num: 166

Candidate Starts for MoiGyank\_89:

(146, 59051), (148, 59054), (Start: 166 @59075 has 38 MA's), (175, 59084), (188, 59105), (209, 59147), (213, 59153), (240, 59198), (303, 59303), (307, 59312), (319, 59339), (324, 59351), (337, 59390), (405, 59570), (425, 59636), (428, 59645), (439, 59675), (451, 59702), (465, 59726), (494, 59780), (517, 59825), (526, 59837), (562, 59903),

Gene: Moonflower\_27 Start: 22646, Stop: 23239, Start Num: 236

Candidate Starts for Moonflower\_27:

(Start: 177 @22538 has 50 MA's), (223, 22616), (Start: 228 @22631 has 1 MA's), (236, 22646), (285, 22721), (316, 22766), (328, 22793), (336, 22820), (351, 22847), (354, 22856), (358, 22865), (394, 22940), (398, 22946), (422, 23024), (424, 23030), (492, 23153), (508, 23183), (529, 23216),

Gene: MoontowerMania\_45 Start: 40419, Stop: 41153, Start Num: 169

Candidate Starts for MoontowerMania\_45:

(94, 40272), (125, 40362), (Start: 169 @40419 has 53 MA's), (Start: 186 @40437 has 3 MA's), (236, 40524), (250, 40551), (284, 40599), (297, 40617), (319, 40659), (354, 40737), (372, 40779), (387, 40812), (438, 40947), (457, 40986), (519, 41085), (543, 41112), (558, 41145),

Gene: Moosehead\_23 Start: 18651, Stop: 19352, Start Num: 177

Candidate Starts for Moosehead\_23:

(Start: 177 @18651 has 50 MA's), (Start: 228 @18744 has 1 MA's), (236, 18759), (253, 18795), (315, 18876), (332, 18915), (354, 18969), (362, 18999), (422, 19137), (424, 19143), (538, 19344),

Gene: Morgana\_33 Start: 27600, Stop: 28349, Start Num: 176

Candidate Starts for Morgana\_33:

(38, 27204), (Start: 176 @27600 has 13 MA's), (Start: 205 @27651 has 5 MA's), (319, 27828), (355, 27909), (361, 27927), (398, 27984), (412, 28032), (423, 28062), (450, 28125), (491, 28188), (504,

28215), (563, 28317),

Gene: Morkie\_24 Start: 19442, Stop: 20146, Start Num: 172

Candidate Starts for Morkie\_24:

(Start: 172 @19442 has 4 MA's), (Start: 228 @19538 has 1 MA's), (285, 19628), (299, 19649), (302, 19652), (317, 19676), (328, 19700), (330, 19703), (335, 19718), (351, 19754), (383, 19832), (401, 19859), (415, 19910), (422, 19931), (515, 20108), (538, 20138),

Gene: MortyNRick\_27 Start: 21231, Stop: 21854, Start Num: 224

Candidate Starts for MortyNRick\_27:

(54, 20856), (68, 20913), (80, 20958), (103, 21012), (104, 21015), (119, 21051), (Start: 128 @21096 has 1 MA's), (Start: 130 @21099 has 1 MA's), (Start: 224 @21231 has 30 MA's), (Start: 226 @21237 has 2 MA's), (239, 21267), (247, 21282), (285, 21342), (321, 21417), (337, 21462), (355, 21498), (365, 21534), (384, 21597), (412, 21660), (419, 21681), (422, 21690), (447, 21747), (509, 21822), (512, 21831),

Gene: MossRose\_45 Start: 37550, Stop: 38272, Start Num: 174

Candidate Starts for MossRose\_45:

(79, 37364), (Start: 174 @37550 has 42 MA's), (227, 37643), (271, 37712), (286, 37739), (292, 37745), (351, 37859), (390, 37943), (422, 38036), (433, 38066),

Gene: Mossy\_31 Start: 23518, Stop: 24303, Start Num: 182

Candidate Starts for Mossy\_31:

(Start: 182 @23518 has 57 MA's), (254, 23659), (338, 23806), (351, 23833), (357, 23848), (381, 23932), (412, 24010), (421, 24037), (422, 24040), (448, 24115), (464, 24145),

Gene: Murp\_26 Start: 21420, Stop: 22214, Start Num: 163

Candidate Starts for Murp\_26:

(49, 21117), (67, 21204), (88, 21270), (Start: 163 @21420 has 32 MA's), (Start: 196 @21468 has 1 MA's), (Start: 205 @21480 has 5 MA's), (236, 21531), (293, 21624), (319, 21675), (340, 21723), (343, 21732), (344, 21735), (351, 21753), (355, 21765), (357, 21768), (358, 21771), (368, 21804), (423, 21948), (433, 21969), (549, 22167), (559, 22191),

Gene: Mutzi\_43 Start: 37151, Stop: 37906, Start Num: 167

Candidate Starts for Mutzi\_43:

(Start: 138 @37115 has 22 MA's), (154, 37136), (Start: 167 @37151 has 15 MA's), (211, 37223), (236, 37259), (287, 37331), (334, 37412), (390, 37526), (393, 37532), (405, 37559), (418, 37607), (466, 37709), (507, 37784), (512, 37793), (560, 37865), (563, 37871),

Gene: Mysticmoon\_30 Start: 22127, Stop: 22912, Start Num: 182

Candidate Starts for Mysticmoon\_30:

(Start: 142 @22082 has 18 MA's), (Start: 182 @22127 has 57 MA's), (200, 22172), (254, 22268), (338, 22415), (345, 22433), (351, 22442), (357, 22457), (381, 22541), (405, 22589), (422, 22649), (448, 22724),

Gene: NHagos\_43 Start: 36157, Stop: 36879, Start Num: 174

Candidate Starts for NHagos\_43:

(Start: 174 @36157 has 42 MA's), (217, 36226), (227, 36250), (259, 36313), (271, 36319), (351, 36466), (395, 36562), (398, 36565), (422, 36643), (433, 36673), (438, 36688),

Gene: NadineRae\_17 Start: 6891, Stop: 7682, Start Num: 141

Candidate Starts for NadineRae\_17:

(Start: 141 @6891 has 4 MA's), (Start: 228 @7002 has 1 MA's), (230, 7005), (236, 7017), (288, 7098), (354, 7248), (360, 7272), (374, 7305), (418, 7437), (465, 7551), (473, 7563), (492, 7599), (514, 7644), (521, 7653),

Gene: Nadmeg\_31 Start: 23523, Stop: 24311, Start Num: 182

Candidate Starts for Nadmeg\_31:

(Start: 182 @23523 has 57 MA's), (200, 23568), (220, 23598), (Start: 228 @23610 has 1 MA's), (254, 23664), (258, 23670), (288, 23715), (338, 23811), (345, 23829), (354, 23847), (357, 23853), (421, 24042), (422, 24045), (433, 24081), (448, 24120), (462, 24147), (535, 24267),

Gene: NatB6\_19 Start: 9475, Stop: 10200, Start Num: 138

Candidate Starts for NatB6\_19:

(Start: 138 @9475 has 22 MA's), (Start: 170 @9499 has 35 MA's), (192, 9532), (230, 9535), (251, 9571), (260, 9586), (288, 9628), (354, 9775), (418, 9967), (458, 10069), (479, 10099), (492, 10120), (500, 10135), (537, 10195),

Gene: Natkenzie\_46 Start: 40683, Stop: 41405, Start Num: 174

Candidate Starts for Natkenzie\_46:

(71, 40467), (111, 40572), (Start: 174 @40683 has 42 MA's), (236, 40788), (239, 40797), (284, 40848), (297, 40866), (319, 40908), (351, 40974), (353, 40980), (355, 40986), (383, 41052), (423, 41151), (519, 41325), (536, 41346), (545, 41361),

Gene: Neobush\_27 Start: 22303, Stop: 22923, Start Num: 215

Candidate Starts for Neobush\_27:

(50, 21928), (103, 22099), (104, 22102), (Start: 128 @22183 has 1 MA's), (Start: 142 @22204 has 18 MA's), (Start: 215 @22303 has 16 MA's), (Start: 226 @22312 has 2 MA's), (247, 22357), (295, 22438), (337, 22537), (355, 22573), (374, 22624), (384, 22672), (412, 22735), (422, 22765), (445, 22816), (492, 22867), (509, 22894),

Gene: Nettuno\_23 Start: 18707, Stop: 19408, Start Num: 177

Candidate Starts for Nettuno\_23:

(159, 18692), (162, 18695), (Start: 177 @18707 has 50 MA's), (Start: 228 @18800 has 1 MA's), (236, 18815), (253, 18851), (315, 18932), (330, 18965), (332, 18971), (351, 19016), (362, 19055), (422, 19193), (424, 19199), (433, 19223), (438, 19238), (538, 19400),

Gene: Neville\_115 Start: 65621, Stop: 66349, Start Num: 176

Candidate Starts for Neville\_115:

(Start: 176 @65621 has 13 MA's), (202, 65675), (207, 65681), (210, 65687), (232, 65729), (249, 65765), (301, 65819), (354, 65927), (361, 65951), (393, 66023), (438, 66143), (460, 66179), (470, 66188), (481, 66203), (569, 66338),

Gene: Nithya\_30 Start: 22307, Stop: 23095, Start Num: 182

Candidate Starts for Nithya\_30:

(Start: 182 @22307 has 57 MA's), (200, 22352), (220, 22382), (Start: 228 @22394 has 1 MA's), (254, 22448), (338, 22595), (354, 22631), (357, 22637), (421, 22826), (422, 22829), (441, 22886), (448, 22904), (462, 22931), (535, 23051),

Gene: NoPickles\_27 Start: 19073, Stop: 19858, Start Num: 182

Candidate Starts for NoPickles\_27:

(Start: 182 @19073 has 57 MA's), (200, 19118), (254, 19214), (258, 19220), (337, 19358), (352, 19391), (357, 19403), (421, 19592), (422, 19595), (448, 19670), (535, 19817),

Gene: NorManre\_91 Start: 59988, Stop: 60839, Start Num: 166

Candidate Starts for NorManre\_91:

(146, 59964), (148, 59967), (Start: 166 @59988 has 38 MA's), (175, 59997), (188, 60018), (209, 60060), (213, 60066), (240, 60111), (303, 60216), (307, 60225), (319, 60252), (324, 60264), (337, 60303), (405, 60483), (428, 60558), (439, 60588), (463, 60636), (465, 60639), (494, 60693), (517, 60738), (526, 60750), (562, 60816),

Gene: Nordenberg\_40 Start: 39404, Stop: 40138, Start Num: 169

Candidate Starts for Nordenberg\_40:

(94, 39257), (125, 39347), (Start: 169 @39404 has 53 MA's), (Start: 186 @39422 has 3 MA's), (236, 39509), (250, 39536), (284, 39584), (297, 39602), (319, 39644), (354, 39722), (372, 39764), (387, 39797), (438, 39932), (457, 39971), (519, 40070), (543, 40097), (558, 40130),

Gene: NosilaM\_21 Start: 9718, Stop: 10509, Start Num: 142

Candidate Starts for NosilaM\_21:

(Start: 142 @9718 has 18 MA's), (189, 9763), (222, 9826), (Start: 226 @9838 has 2 MA's), (Start: 228 @9844 has 1 MA's), (236, 9859), (251, 9883), (256, 9892), (288, 9940), (306, 9976), (354, 10087), (359, 10108), (366, 10129), (479, 10414), (492, 10435), (495, 10444), (500, 10450), (516, 10483),

Gene: Nova53\_11 Start: 6450, Stop: 5779, Start Num: 205

Candidate Starts for Nova53\_11:

(Start: 205 @6450 has 5 MA's), (216, 6435), (356, 6159), (365, 6126), (411, 6009), (422, 5976), (424, 5970), (428, 5958), (456, 5898), (469, 5877), (475, 5865), (479, 5856),

Gene: NovaSharks\_86 Start: 56889, Stop: 57740, Start Num: 166

Candidate Starts for NovaSharks\_86:

(146, 56865), (148, 56868), (Start: 166 @56889 has 38 MA's), (Start: 183 @56910 has 2 MA's), (188, 56919), (209, 56961), (213, 56967), (240, 57012), (301, 57114), (303, 57117), (319, 57153), (324, 57165), (337, 57204), (349, 57234), (351, 57237), (355, 57249), (357, 57252), (405, 57384), (425, 57450), (428, 57459), (439, 57489), (451, 57516), (463, 57537), (494, 57594), (517, 57639), (562, 57717),

Gene: NovumRegina\_19 Start: 9806, Stop: 10531, Start Num: 138

Candidate Starts for NovumRegina\_19:

(Start: 138 @9806 has 22 MA's), (Start: 170 @9830 has 35 MA's), (192, 9863), (230, 9866), (251, 9902), (260, 9917), (288, 9959), (354, 10106), (418, 10298), (458, 10400), (479, 10430), (492, 10451), (500, 10466), (537, 10526),

Gene: Nubi\_44 Start: 36296, Stop: 37051, Start Num: 167

Candidate Starts for Nubi\_44:

(Start: 138 @36260 has 22 MA's), (154, 36281), (Start: 167 @36296 has 15 MA's), (211, 36368), (236, 36404), (287, 36476), (334, 36557), (390, 36671), (393, 36677), (405, 36704), (418, 36752), (466, 36854), (512, 36938), (560, 37010),

Gene: Nyceirae\_51 Start: 36282, Stop: 37091, Start Num: 166

Candidate Starts for Nyceirae\_51:

(Start: 166 @36282 has 38 MA's), (Start: 205 @36345 has 5 MA's), (270, 36456), (318, 36546), (359, 36669), (385, 36726), (411, 36804), (412, 36807), (423, 36837), (426, 36843), (447, 36894), (452, 36903), (485, 36948), (524, 37020), (556, 37068),

Gene: Nymphadora\_25 Start: 22318, Stop: 22926, Start Num: 226

Candidate Starts for Nymphadora\_25:

(Start: 142 @22210 has 18 MA's), (185, 22249), (199, 22282), (Start: 214 @22309 has 20 MA's), (Start: 226 @22318 has 2 MA's), (247, 22360), (252, 22372), (285, 22420), (295, 22441), (306, 22462),

(321, 22495), (323, 22498), (337, 22540), (355, 22576), (374, 22627), (384, 22675), (412, 22738), (422, 22768), (445, 22819), (509, 22897),

Gene: ODay\_32 Start: 23377, Stop: 24000, Start Num: 224

Candidate Starts for ODay\_32:

(127, 23236), (147, 23269), (Start: 164 @23290 has 1 MA's), (Start: 167 @23293 has 15 MA's), (Start: 224 @23377 has 30 MA's), (Start: 226 @23383 has 2 MA's), (239, 23413), (247, 23428), (285, 23488), (321, 23563), (337, 23608), (355, 23644), (358, 23650), (365, 23680), (384, 23743), (412, 23806), (419, 23827), (422, 23836), (509, 23968), (512, 23977),

Gene: ObLaDi\_33 Start: 27823, Stop: 28575, Start Num: 176

Candidate Starts for ObLaDi\_33:

(Start: 176 @27823 has 13 MA's), (Start: 205 @27874 has 5 MA's), (319, 28051), (361, 28150), (398, 28210), (423, 28288), (450, 28351), (491, 28414), (504, 28441), (563, 28543),

Gene: Obliviate\_25 Start: 21074, Stop: 21871, Start Num: 160

Candidate Starts for Obliviate\_25:

(32, 20681), (53, 20810), (82, 20921), (95, 20948), (109, 20984), (Start: 160 @21074 has 17 MA's), (Start: 205 @21128 has 5 MA's), (216, 21143), (236, 21179), (293, 21272), (301, 21284), (318, 21320), (319, 21323), (340, 21371), (343, 21380), (344, 21383), (351, 21401), (355, 21413), (357, 21416), (358, 21419), (412, 21566), (423, 21596), (433, 21617), (435, 21623), (438, 21632), (549, 21815), (559, 21839), (569, 21860),

Gene: Octobien14\_115 Start: 63857, Stop: 64579, Start Num: 181

Candidate Starts for Octobien14\_115:

(120, 63755), (143, 63815), (Start: 181 @63857 has 5 MA's), (202, 63905), (315, 64067), (319, 64079), (407, 64289), (425, 64346), (438, 64376), (447, 64391), (500, 64463), (508, 64478), (563, 64562), (565, 64565),

Gene: Odesza\_27 Start: 19428, Stop: 20213, Start Num: 182

Candidate Starts for Odesza\_27:

(Start: 182 @19428 has 57 MA's), (189, 19443), (212, 19491), (234, 19524), (254, 19569), (258, 19575), (337, 19713), (352, 19746), (357, 19758), (421, 19947), (422, 19950), (448, 20025), (462, 20052), (535, 20172),

Gene: OhMyWard\_30 Start: 22858, Stop: 23643, Start Num: 182

Candidate Starts for OhMyWard\_30:

(Start: 182 @22858 has 57 MA's), (254, 22999), (338, 23146), (351, 23173), (357, 23188), (381, 23272), (421, 23377), (422, 23380), (448, 23455), (464, 23485),

Gene: Ohgeesy\_25 Start: 21932, Stop: 22549, Start Num: 214

Candidate Starts for Ohgeesy\_25:

(Start: 142 @21833 has 18 MA's), (185, 21872), (199, 21905), (Start: 214 @21932 has 20 MA's), (247, 21983), (252, 21995), (285, 22043), (295, 22064), (306, 22085), (321, 22118), (337, 22163), (355, 22199), (357, 22202), (374, 22250), (412, 22361), (422, 22391), (445, 22442), (509, 22520),

Gene: OlgasClover\_30 Start: 23043, Stop: 23831, Start Num: 182

Candidate Starts for OlgasClover\_30:

(Start: 182 @23043 has 57 MA's), (200, 23088), (220, 23118), (Start: 228 @23130 has 1 MA's), (254, 23184), (337, 23328), (338, 23331), (351, 23358), (357, 23373), (381, 23457), (421, 23562), (422, 23565), (448, 23640),

Gene: OneDirection\_22 Start: 18679, Stop: 19380, Start Num: 177

Candidate Starts for OneDirection\_22:

(162, 18664), (Start: 177 @18679 has 50 MA's), (189, 18697), (Start: 228 @18772 has 1 MA's), (236, 18787), (253, 18823), (315, 18904), (332, 18943), (351, 18988), (362, 19027), (422, 19165), (424, 19171), (433, 19195), (538, 19372),

Gene: Oogie\_31 Start: 23271, Stop: 23969, Start Num: 142

Candidate Starts for Oogie\_31:

(Start: 130 @23253 has 1 MA's), (Start: 142 @23271 has 18 MA's), (Start: 228 @23334 has 1 MA's), (246, 23370), (295, 23442), (306, 23463), (321, 23496), (334, 23526), (335, 23529), (341, 23550), (345, 23556), (350, 23562), (358, 23583), (393, 23688), (398, 23697), (419, 23766), (422, 23772), (436, 23808), (441, 23820), (479, 23859), (532, 23949), (541, 23961), (542, 23964),

Gene: Opie\_26 Start: 21778, Stop: 22491, Start Num: 177

Candidate Starts for Opie\_26:

(129, 21721), (Start: 177 @21778 has 50 MA's), (187, 21790), (Start: 228 @21871 has 1 MA's), (236, 21886), (259, 21931), (299, 21982), (328, 22033), (354, 22096), (358, 22105), (393, 22180), (418, 22255), (422, 22267), (424, 22273),

Gene: Orchid\_39 Start: 40829, Stop: 41551, Start Num: 178

Candidate Starts for Orchid\_39:

(Start: 178 @40829 has 13 MA's), (Start: 205 @40883 has 5 MA's), (257, 40976), (316, 41057), (331, 41090), (360, 41168), (423, 41330), (455, 41390), (517, 41504),

Gene: Oregano\_25 Start: 21268, Stop: 22056, Start Num: 174

Candidate Starts for Oregano\_25:

(Start: 163 @21256 has 32 MA's), (Start: 174 @21268 has 42 MA's), (Start: 186 @21280 has 3 MA's), (187, 21283), (Start: 196 @21310 has 1 MA's), (Start: 205 @21322 has 5 MA's), (236, 21373), (293, 21466), (317, 21511), (318, 21514), (319, 21517), (320, 21520), (344, 21577), (351, 21595), (355, 21607), (357, 21610), (358, 21613), (396, 21703), (423, 21790), (513, 21958), (549, 22012), (559, 22036),

Gene: OtterstedtS21\_87 Start: 58792, Stop: 59643, Start Num: 166

Candidate Starts for OtterstedtS21\_87:

(146, 58768), (148, 58771), (Start: 166 @58792 has 38 MA's), (175, 58801), (188, 58822), (209, 58864), (213, 58870), (240, 58915), (303, 59020), (319, 59056), (324, 59068), (337, 59107), (405, 59287), (425, 59353), (428, 59362), (439, 59392), (451, 59419), (465, 59443), (494, 59497), (517, 59542), (526, 59554), (562, 59620),

Gene: Outis\_19 Start: 8535, Stop: 9323, Start Num: 142

Candidate Starts for Outis\_19:

(Start: 142 @8535 has 18 MA's), (149, 8544), (220, 8634), (Start: 228 @8658 has 1 MA's), (236, 8673), (256, 8706), (288, 8754), (359, 8922), (366, 8943), (492, 9249), (495, 9258), (500, 9264), (505, 9273), (516, 9297),

Gene: PCoral7\_26 Start: 21477, Stop: 22187, Start Num: 170

Candidate Starts for PCoral7\_26:

(Start: 170 @21477 has 35 MA's), (Start: 186 @21489 has 3 MA's), (188, 21495), (259, 21633), (285, 21663), (316, 21708), (328, 21735), (336, 21762), (358, 21813), (388, 21882), (398, 21897), (401, 21903), (409, 21933), (422, 21975), (424, 21981), (444, 22032), (492, 22104), (529, 22167),

Gene: Pakusa\_30 Start: 21310, Stop: 22008, Start Num: 142

Candidate Starts for Pakusa\_30:

(Start: 130 @21292 has 1 MA's), (Start: 142 @21310 has 18 MA's), (Start: 228 @21373 has 1 MA's), (246, 21409), (291, 21469), (295, 21481), (306, 21502), (321, 21535), (334, 21565), (335, 21568), (341, 21589), (345, 21595), (350, 21601), (358, 21622), (393, 21727), (398, 21736), (419, 21805), (422, 21811), (436, 21847), (441, 21859), (479, 21898), (492, 21919), (532, 21988), (541, 22000), (542, 22003),

Gene: PantheRoc\_26 Start: 21501, Stop: 22121, Start Num: 215

Candidate Starts for PantheRoc\_26:

(50, 21126), (103, 21297), (104, 21300), (Start: 128 @21381 has 1 MA's), (Start: 142 @21402 has 18 MA's), (Start: 215 @21501 has 16 MA's), (Start: 226 @21510 has 2 MA's), (247, 21555), (295, 21636), (321, 21690), (337, 21735), (355, 21771), (374, 21822), (384, 21870), (412, 21933), (422, 21963), (445, 22014), (509, 22092),

Gene: Paries\_48 Start: 40873, Stop: 41607, Start Num: 169

Candidate Starts for Paries\_48:

(94, 40726), (125, 40816), (Start: 169 @40873 has 53 MA's), (Start: 186 @40891 has 3 MA's), (236, 40978), (250, 41005), (284, 41053), (297, 41071), (319, 41113), (354, 41191), (372, 41233), (387, 41266), (438, 41401), (457, 41440), (519, 41539), (543, 41566), (558, 41599),

Gene: ParvusTarda\_86 Start: 58065, Stop: 58916, Start Num: 166

Candidate Starts for ParvusTarda\_86:

(83, 57888), (96, 57915), (99, 57924), (106, 57939), (108, 57948), (146, 58041), (148, 58044), (Start: 166 @58065 has 38 MA's), (175, 58074), (188, 58095), (209, 58137), (213, 58143), (240, 58188), (301, 58290), (303, 58293), (319, 58329), (324, 58341), (349, 58410), (351, 58413), (355, 58425), (405, 58560), (425, 58626), (428, 58635), (439, 58665), (463, 58713), (465, 58716), (494, 58770), (517, 58815), (526, 58827), (562, 58893),

Gene: Patio\_21 Start: 9753, Stop: 10526, Start Num: 138

Candidate Starts for Patio\_21:

(Start: 138 @9753 has 22 MA's), (Start: 228 @9861 has 1 MA's), (230, 9864), (260, 9915), (288, 9957), (359, 10125), (492, 10446), (521, 10500),

Gene: Patos\_91 Start: 59987, Stop: 60838, Start Num: 166

Candidate Starts for Patos\_91:

(146, 59963), (148, 59966), (Start: 166 @59987 has 38 MA's), (175, 59996), (188, 60017), (209, 60059), (213, 60065), (240, 60110), (303, 60215), (307, 60224), (319, 60251), (324, 60263), (337, 60302), (405, 60482), (428, 60557), (439, 60587), (463, 60635), (465, 60638), (494, 60692), (517, 60737), (526, 60749), (562, 60815),

Gene: PatrickStar\_40 Start: 40828, Stop: 41550, Start Num: 178

Candidate Starts for PatrickStar\_40:

(Start: 178 @40828 has 13 MA's), (Start: 205 @40882 has 5 MA's), (257, 40975), (316, 41056), (331, 41089), (360, 41167), (423, 41329), (455, 41389), (517, 41503),

Gene: Pemberton\_20 Start: 7657, Stop: 8400, Start Num: 195

Candidate Starts for Pemberton\_20:

(123, 7528), (Start: 195 @7657 has 2 MA's), (Start: 228 @7720 has 1 MA's), (230, 7723), (236, 7735), (288, 7816), (354, 7966), (360, 7990), (374, 8023), (408, 8119), (418, 8155), (473, 8281), (492, 8317), (521, 8371),

Gene: Pepperoni\_24 Start: 19528, Stop: 20244, Start Num: 170

Candidate Starts for Pepperoni\_24:

(Start: 142 @19501 has 18 MA's), (Start: 144 @19504 has 1 MA's), (Start: 170 @19528 has 35 MA's), (188, 19546), (259, 19684), (291, 19723), (316, 19759), (328, 19786), (351, 19840), (358, 19858), (383, 19921), (398, 19951), (422, 20029), (424, 20035), (522, 20212), (540, 20236),

Gene: Pepy6\_033 Start: 28827, Stop: 29618, Start Num: 182

Candidate Starts for Pepy6\_033:

(Start: 172 @28815 has 4 MA's), (Start: 182 @28827 has 57 MA's), (254, 28968), (334, 29103), (337, 29118), (358, 29166), (398, 29277), (418, 29343), (422, 29355), (441, 29412), (493, 29511), (525, 29565),

Gene: Peregrin\_29 Start: 8642, Stop: 7968, Start Num: 205

Candidate Starts for Peregrin\_29:

(192, 8666), (197, 8657), (Start: 205 @8642 has 5 MA's), (242, 8576), (245, 8573), (255, 8552), (278, 8519), (324, 8438), (359, 8345), (378, 8291), (399, 8252), (415, 8201), (422, 8180), (439, 8132), (475, 8060),

Gene: Periwinkle\_30 Start: 21968, Stop: 22591, Start Num: 224

Candidate Starts for Periwinkle\_30:

(54, 21593), (68, 21650), (80, 21695), (103, 21749), (104, 21752), (119, 21788), (Start: 128 @21833 has 1 MA's), (Start: 130 @21836 has 1 MA's), (Start: 224 @21968 has 30 MA's), (Start: 226 @21974 has 2 MA's), (239, 22004), (247, 22019), (285, 22079), (295, 22100), (324, 22160), (337, 22199), (365, 22271), (384, 22334), (408, 22379), (412, 22397), (419, 22418), (422, 22427), (509, 22559), (512, 22568), (520, 22580),

Gene: Perkunas\_29 Start: 19840, Stop: 20625, Start Num: 182

Candidate Starts for Perkunas\_29:

(Start: 182 @19840 has 57 MA's), (189, 19855), (232, 19933), (254, 19981), (258, 19987), (337, 20125), (357, 20170), (421, 20359), (422, 20362), (448, 20437), (462, 20464),

Gene: PerroGrande22\_37 Start: 30153, Stop: 30944, Start Num: 182

Candidate Starts for PerroGrande22\_37:

(Start: 182 @30153 has 57 MA's), (254, 30294), (288, 30345), (337, 30444), (358, 30492), (398, 30603), (422, 30681), (441, 30738), (464, 30786), (525, 30891),

Gene: PestoPenguin\_33 Start: 22097, Stop: 22885, Start Num: 182

Candidate Starts for PestoPenguin\_33:

(Start: 182 @22097 has 57 MA's), (200, 22142), (Start: 228 @22184 has 1 MA's), (254, 22238), (357, 22427), (421, 22616), (422, 22619), (448, 22694), (535, 22841),

Gene: Petito\_29 Start: 20607, Stop: 21392, Start Num: 182

Candidate Starts for Petito\_29:

(Start: 182 @20607 has 57 MA's), (200, 20652), (246, 20730), (254, 20748), (258, 20754), (260, 20757), (337, 20892), (352, 20925), (357, 20937), (421, 21126), (422, 21129), (448, 21204), (462, 21231), (535, 21351),

Gene: Petra\_27 Start: 21152, Stop: 21940, Start Num: 171

Candidate Starts for Petra\_27:

(76, 20948), (108, 21032), (118, 21053), (Start: 171 @21152 has 3 MA's), (Start: 186 @21164 has 3 MA's), (187, 21167), (Start: 196 @21194 has 1 MA's), (Start: 205 @21206 has 5 MA's), (216, 21221), (293, 21350), (301, 21362), (319, 21401), (340, 21449), (344, 21461), (355, 21491), (357, 21494), (358, 21497), (423, 21674), (433, 21695), (435, 21701), (438, 21710), (549, 21893), (559, 21917),

Gene: Phabuloso\_27 Start: 21255, Stop: 21878, Start Num: 224

Candidate Starts for Phabuloso\_27:

(54, 20880), (68, 20937), (80, 20982), (103, 21036), (104, 21039), (119, 21075), (Start: 128 @21120 has 1 MA's), (Start: 130 @21123 has 1 MA's), (Start: 224 @21255 has 30 MA's), (Start: 226 @21261 has 2 MA's), (239, 21291), (247, 21306), (285, 21366), (324, 21447), (337, 21486), (365, 21558), (384, 21621), (408, 21666), (412, 21684), (419, 21705), (422, 21714), (509, 21846), (512, 21855), (520, 21867),

Gene: Phauci\_37 Start: 35913, Stop: 36635, Start Num: 174

Candidate Starts for Phauci\_37:

(Start: 174 @35913 has 42 MA's), (187, 35928), (230, 36006), (236, 36018), (284, 36078), (349, 36201), (390, 36294), (393, 36300), (410, 36348), (423, 36387), (457, 36462), (519, 36561), (546, 36600), (557, 36621),

Gene: Phepper\_30 Start: 22090, Stop: 22878, Start Num: 182

Candidate Starts for Phepper\_30:

(Start: 182 @22090 has 57 MA's), (220, 22165), (Start: 228 @22177 has 1 MA's), (254, 22231), (258, 22237), (288, 22282), (309, 22312), (338, 22378), (345, 22396), (352, 22408), (354, 22414), (357, 22420), (421, 22609), (422, 22612), (448, 22687), (535, 22834),

Gene: Pherobrine\_29 Start: 22125, Stop: 22910, Start Num: 182

Candidate Starts for Pherobrine\_29:

(Start: 142 @22080 has 18 MA's), (Start: 182 @22125 has 57 MA's), (200, 22170), (254, 22266), (338, 22413), (345, 22431), (351, 22440), (357, 22455), (381, 22539), (405, 22587), (422, 22647), (448, 22722),

Gene: Phinally\_44 Start: 39060, Stop: 39779, Start Num: 174

Candidate Starts for Phinally\_44:

(Start: 174 @39060 has 42 MA's), (187, 39075), (204, 39114), (230, 39153), (236, 39165), (261, 39204), (284, 39225), (393, 39444), (398, 39453), (405, 39471), (410, 39492), (423, 39531), (457, 39606), (519, 39705), (546, 39744), (557, 39765),

Gene: Phishy\_50 Start: 37259, Stop: 38065, Start Num: 166

Candidate Starts for Phishy\_50:

(Start: 166 @37259 has 38 MA's), (Start: 205 @37322 has 5 MA's), (255, 37412), (326, 37544), (330, 37550), (331, 37553), (385, 37700), (412, 37781), (423, 37811), (426, 37817), (447, 37868), (524, 37994), (556, 38042),

Gene: Phistory\_29 Start: 22289, Stop: 22912, Start Num: 224

Candidate Starts for Phistory\_29:

(54, 21914), (68, 21971), (80, 22016), (103, 22070), (104, 22073), (119, 22109), (Start: 128 @22154 has 1 MA's), (Start: 130 @22157 has 1 MA's), (Start: 224 @22289 has 30 MA's), (Start: 226 @22295 has 2 MA's), (239, 22325), (247, 22340), (285, 22400), (324, 22481), (337, 22520), (365, 22592), (384, 22655), (408, 22700), (412, 22718), (419, 22739), (422, 22748), (509, 22880), (512, 22889), (520, 22901),

Gene: Phlop\_43 Start: 36377, Stop: 37132, Start Num: 167

Candidate Starts for Phlop\_43:

(154, 36362), (Start: 167 @36377 has 15 MA's), (211, 36449), (236, 36485), (287, 36557), (390, 36752), (393, 36758), (405, 36785), (418, 36833), (466, 36935), (512, 37019), (560, 37091),

Gene: Phomeo\_18 Start: 9034, Stop: 9759, Start Num: 138

Candidate Starts for Phomeo\_18:

(Start: 138 @9034 has 22 MA's), (Start: 170 @9058 has 35 MA's), (192, 9091), (230, 9094), (251, 9130), (260, 9145), (288, 9187), (308, 9226), (354, 9334), (418, 9526), (458, 9628), (479, 9658), (492, 9679), (500, 9694), (537, 9754),

Gene: PhorbesPhlower\_24 Start: 19442, Stop: 20146, Start Num: 172

Candidate Starts for PhorbesPhlower\_24:

(Start: 172 @19442 has 4 MA's), (Start: 228 @19538 has 1 MA's), (285, 19628), (299, 19649), (302, 19652), (317, 19676), (328, 19700), (330, 19703), (335, 19718), (351, 19754), (383, 19832), (401, 19859), (415, 19910), (422, 19931), (515, 20108), (538, 20138),

Gene: PhriskyACE\_24 Start: 20739, Stop: 21473, Start Num: 205

Candidate Starts for PhriskyACE\_24:

(92, 20526), (Start: 163 @20676 has 32 MA's), (Start: 171 @20685 has 3 MA's), (Start: 186 @20697 has 3 MA's), (187, 20700), (Start: 196 @20727 has 1 MA's), (Start: 205 @20739 has 5 MA's), (236, 20790), (293, 20883), (317, 20928), (318, 20931), (319, 20934), (320, 20937), (344, 20994), (351, 21012), (357, 21027), (358, 21030), (391, 21108), (396, 21120), (405, 21147), (423, 21207), (438, 21243), (513, 21375), (526, 21393), (549, 21429), (565, 21465),

Gene: PhrostedPhlake\_27 Start: 21845, Stop: 22648, Start Num: 163

Candidate Starts for PhrostedPhlake\_27:

(Start: 163 @21845 has 32 MA's), (Start: 196 @21893 has 1 MA's), (Start: 205 @21905 has 5 MA's), (216, 21920), (236, 21956), (293, 22049), (319, 22100), (343, 22157), (344, 22160), (351, 22178), (355, 22190), (357, 22193), (358, 22196), (423, 22373), (433, 22394), (435, 22400), (524, 22556), (549, 22592), (559, 22616), (569, 22637),

Gene: Pickett\_23 Start: 18631, Stop: 19332, Start Num: 177

Candidate Starts for Pickett\_23:

(159, 18616), (162, 18619), (Start: 177 @18631 has 50 MA's), (236, 18739), (253, 18775), (315, 18856), (332, 18895), (351, 18940), (362, 18979), (415, 19096), (422, 19117), (424, 19123), (447, 19180), (538, 19324),

Gene: PinkCoffee\_46 Start: 36480, Stop: 37235, Start Num: 167

Candidate Starts for PinkCoffee\_46:

(154, 36465), (Start: 167 @36480 has 15 MA's), (211, 36552), (236, 36588), (287, 36660), (390, 36855), (393, 36861), (405, 36888), (418, 36936), (466, 37038), (512, 37122), (560, 37194),

Gene: Pipp\_25 Start: 21146, Stop: 21946, Start Num: 163

Candidate Starts for Pipp\_25:

(Start: 163 @21146 has 32 MA's), (Start: 196 @21194 has 1 MA's), (Start: 205 @21206 has 5 MA's), (236, 21257), (293, 21350), (319, 21401), (343, 21458), (344, 21461), (351, 21479), (355, 21491), (357, 21494), (358, 21497), (414, 21650), (423, 21674), (433, 21695), (549, 21893), (559, 21917), (569, 21935),

Gene: Pleakley\_25 Start: 9799, Stop: 10464, Start Num: 228

Candidate Starts for Pleakley\_25:

(Start: 228 @9799 has 1 MA's), (230, 9802), (260, 9859), (288, 9901), (337, 10015), (345, 10030), (354, 10048), (365, 10084), (390, 10153), (393, 10159), (419, 10237), (422, 10246), (441, 10300), (479, 10360),

Gene: Poco6\_034 Start: 30846, Stop: 31637, Start Num: 182

Candidate Starts for Poco6\_034:

(Start: 182 @30846 has 57 MA's), (254, 30987), (288, 31038), (337, 31137), (358, 31185), (398, 31296), (422, 31374), (441, 31431), (464, 31479), (525, 31584),

Gene: Pollux\_27 Start: 21910, Stop: 22626, Start Num: 170

Candidate Starts for Pollux\_27:

(Start: 142 @21883 has 18 MA's), (Start: 144 @21886 has 1 MA's), (Start: 170 @21910 has 35 MA's), (188, 21928), (217, 21982), (259, 22066), (291, 22105), (316, 22141), (328, 22168), (351, 22222), (358, 22240), (398, 22333), (422, 22411), (424, 22417), (522, 22594), (536, 22612),

Gene: Polly\_24 Start: 21758, Stop: 22366, Start Num: 226

Candidate Starts for Polly\_24:

(Start: 142 @21650 has 18 MA's), (185, 21689), (199, 21722), (Start: 214 @21749 has 20 MA's), (Start: 226 @21758 has 2 MA's), (247, 21800), (252, 21812), (285, 21860), (295, 21881), (306, 21902), (321, 21935), (337, 21980), (357, 22019), (374, 22067), (384, 22115), (412, 22178), (445, 22259), (492, 22310), (509, 22337),

Gene: Polyuyuki\_20 Start: 9999, Stop: 10895, Start Num: 160

Candidate Starts for Polyuyuki\_20:

(61, 9762), (Start: 160 @9999 has 17 MA's), (Start: 205 @10077 has 5 MA's), (251, 10164), (282, 10212), (290, 10227), (327, 10305), (344, 10350), (393, 10482), (423, 10575), (429, 10590), (482, 10689), (521, 10770), (551, 10818), (570, 10863),

Gene: Portcullis\_45 Start: 35691, Stop: 36446, Start Num: 170

Candidate Starts for Portcullis\_45:

(115, 35595), (Start: 170 @35691 has 35 MA's), (211, 35763), (236, 35799), (287, 35871), (390, 36066), (393, 36072), (405, 36099), (466, 36249), (512, 36333), (560, 36405),

Gene: Posh\_28 Start: 22753, Stop: 23376, Start Num: 214

Candidate Starts for Posh\_28:

(Start: 214 @22753 has 20 MA's), (227, 22762), (247, 22804), (269, 22840), (295, 22885), (306, 22906), (321, 22939), (337, 22984), (365, 23056), (374, 23071), (384, 23119), (408, 23164), (412, 23182), (419, 23203), (422, 23212), (445, 23266), (492, 23317), (509, 23344), (512, 23353), (514, 23356),

Gene: PrincePatrick\_25 Start: 21553, Stop: 22266, Start Num: 170

Candidate Starts for PrincePatrick\_25:

(Start: 157 @21538 has 1 MA's), (Start: 170 @21553 has 35 MA's), (Start: 186 @21565 has 3 MA's), (187, 21568), (188, 21571), (241, 21679), (259, 21709), (285, 21739), (316, 21784), (335, 21829), (336, 21838), (351, 21871), (358, 21889), (398, 21976), (401, 21982), (415, 22033), (422, 22054), (424, 22060), (438, 22099), (444, 22111), (492, 22183), (529, 22246),

Gene: PullumCavea\_43 Start: 36377, Stop: 37132, Start Num: 167

Candidate Starts for PullumCavea\_43:

(154, 36362), (Start: 167 @36377 has 15 MA's), (211, 36449), (236, 36485), (287, 36557), (390, 36752), (393, 36758), (405, 36785), (418, 36833), (466, 36935), (512, 37019), (560, 37091),

Gene: Pumpkiney\_47 Start: 38004, Stop: 38729, Start Num: 174

Candidate Starts for Pumpkiney\_47:

(71, 37788), (97, 37857), (111, 37893), (122, 37920), (Start: 174 @38004 has 42 MA's), (236, 38109), (284, 38169), (297, 38187), (319, 38229), (346, 38286), (355, 38310), (383, 38376), (423, 38475), (438, 38511), (450, 38538), (519, 38649), (545, 38685),

Gene: Pupper\_177 Start: 129600, Stop: 130310, Start Num: 180

Candidate Starts for Pupper\_177:

(Start: 180 @129600 has 17 MA's), (187, 129612), (206, 129651), (234, 129702), (282, 129786), (304, 129819), (313, 129837), (357, 129942), (358, 129945), (394, 130035), (405, 130059), (421, 130116), (441, 130164), (467, 130203), (513, 130275),

Gene: Puppets\_35 Start: 26921, Stop: 27625, Start Num: 180

Candidate Starts for Puppets\_35:

(161, 26903), (Start: 180 @26921 has 17 MA's), (187, 26933), (219, 26987), (232, 27017), (275, 27086), (285, 27104), (351, 27239), (405, 27365), (413, 27398), (419, 27416), (431, 27449), (481, 27527), (513, 27578),

Gene: Pytheas\_28 Start: 22899, Stop: 23522, Start Num: 214

Candidate Starts for Pytheas\_28:

(Start: 214 @22899 has 20 MA's), (227, 22908), (247, 22950), (269, 22986), (295, 23031), (306, 23052), (321, 23085), (337, 23130), (365, 23202), (374, 23217), (384, 23265), (408, 23310), (412, 23328), (419, 23349), (422, 23358), (445, 23412), (492, 23463), (509, 23490), (512, 23499), (514, 23502),

Gene: Rabbitrun\_118 Start: 66939, Stop: 67664, Start Num: 176

Candidate Starts for Rabbitrun\_118:

(Start: 176 @66939 has 13 MA's), (207, 66999), (232, 67047), (249, 67083), (301, 67137), (335, 67200), (354, 67242), (361, 67266), (363, 67272), (392, 67341), (393, 67344), (438, 67464), (481, 67524), (569, 67656),

Gene: Ranch\_90 Start: 58464, Stop: 59315, Start Num: 166

Candidate Starts for Ranch\_90:

(83, 58287), (96, 58314), (99, 58323), (106, 58338), (108, 58347), (146, 58440), (148, 58443), (Start: 166 @58464 has 38 MA's), (175, 58473), (188, 58494), (209, 58536), (213, 58542), (303, 58692), (307, 58701), (319, 58728), (324, 58740), (337, 58779), (349, 58809), (351, 58812), (355, 58824), (405, 58959), (428, 59034), (439, 59064), (453, 59094), (463, 59112), (465, 59115), (494, 59169), (517, 59214), (562, 59292),

Gene: RavenCo17\_24 Start: 20690, Stop: 21409, Start Num: 177

Candidate Starts for RavenCo17\_24:

(15, 19883), (20, 20024), (45, 20324), (101, 20546), (Start: 177 @20690 has 50 MA's), (217, 20756), (Start: 228 @20783 has 1 MA's), (236, 20798), (259, 20843), (299, 20894), (315, 20915), (328, 20945), (351, 20999), (354, 21008), (358, 21017), (422, 21185), (424, 21191), (472, 21293), (508, 21356),

Gene: RayTheFireFly\_27 Start: 22566, Stop: 23267, Start Num: 177

Candidate Starts for RayTheFireFly\_27:

(Start: 177 @22566 has 50 MA's), (189, 22584), (Start: 228 @22659 has 1 MA's), (236, 22674), (299, 22770), (305, 22776), (328, 22821), (351, 22875), (354, 22884), (358, 22893), (394, 22968), (398, 22974), (422, 23052), (424, 23058), (492, 23181), (529, 23244),

Gene: RazorC\_84 Start: 56931, Stop: 57782, Start Num: 166

Candidate Starts for RazorC\_84:

(96, 56781), (99, 56790), (106, 56805), (108, 56814), (146, 56907), (148, 56910), (Start: 166 @56931 has 38 MA's), (Start: 183 @56952 has 2 MA's), (188, 56961), (209, 57003), (213, 57009), (240, 57054), (301, 57156), (303, 57159), (319, 57195), (324, 57207), (337, 57246), (349, 57276), (351, 57279), (355, 57291), (357, 57294), (405, 57426), (425, 57492), (428, 57501), (439, 57531), (451, 57558), (463, 57579), (494, 57636), (517, 57681), (562, 57759),

Gene: RedRaider\_25 Start: 10628, Stop: 11401, Start Num: 138

Candidate Starts for RedRaider\_25:

(Start: 138 @10628 has 22 MA's), (Start: 228 @10736 has 1 MA's), (230, 10739), (288, 10832), (359, 11000), (408, 11132), (437, 11225), (492, 11321), (521, 11375),

Gene: Reyja\_51 Start: 33537, Stop: 34391, Start Num: 158

Candidate Starts for Reyja\_51:

(Start: 158 @33537 has 8 MA's), (257, 33720), (358, 33918), (367, 33951), (398, 34044), (423, 34122), (484, 34233), (486, 34236), (491, 34242), (508, 34278), (528, 34305), (568, 34380),

Gene: Reynauld\_61 Start: 54042, Stop: 53173, Start Num: 158

Candidate Starts for Reynauld\_61:

(Start: 158 @54042 has 8 MA's), (Start: 182 @54015 has 57 MA's), (203, 53964), (208, 53958), (284, 53832), (339, 53715), (348, 53682), (359, 53643), (397, 53553), (423, 53466), (468, 53388), (486, 53355), (518, 53295), (535, 53274), (555, 53235), (558, 53226), (573, 53178),

Gene: Ribeye\_46 Start: 40481, Stop: 41224, Start Num: 169

Candidate Starts for Ribeye\_46:

(Start: 169 @40481 has 53 MA's), (Start: 186 @40499 has 3 MA's), (Start: 205 @40544 has 5 MA's), (236, 40589), (284, 40664), (297, 40682), (333, 40751), (372, 40844), (378, 40856), (438, 41012), (444, 41024), (457, 41051), (483, 41084), (496, 41111), (519, 41150), (543, 41177),

Gene: Rickmore\_29 Start: 20743, Stop: 21531, Start Num: 182

Candidate Starts for Rickmore\_29:

(Start: 182 @20743 has 57 MA's), (247, 20869), (254, 20884), (338, 21031), (357, 21073), (401, 21193), (422, 21265), (535, 21487),

Gene: Riduram\_85 Start: 56506, Stop: 57357, Start Num: 166

Candidate Starts for Riduram\_85:

(146, 56482), (148, 56485), (Start: 166 @56506 has 38 MA's), (Start: 183 @56527 has 2 MA's), (188, 56536), (209, 56578), (213, 56584), (240, 56629), (301, 56731), (303, 56734), (319, 56770), (324, 56782), (337, 56821), (349, 56851), (351, 56854), (355, 56866), (405, 57001), (425, 57067), (428, 57076), (439, 57106), (451, 57133), (463, 57154), (494, 57211), (498, 57220), (517, 57256), (562, 57334),

Gene: RiverRaider\_46 Start: 38597, Stop: 39352, Start Num: 169

Candidate Starts for RiverRaider\_46:

(Start: 169 @38597 has 53 MA's), (Start: 186 @38615 has 3 MA's), (Start: 196 @38645 has 1 MA's), (236, 38702), (264, 38747), (284, 38777), (300, 38798), (319, 38837), (349, 38903), (372, 38957), (423, 39086), (444, 39140), (457, 39167), (543, 39293), (554, 39314),

Gene: RobinSparkles\_42 Start: 41471, Stop: 42193, Start Num: 178

Candidate Starts for RobinSparkles\_42:

(Start: 178 @41471 has 13 MA's), (Start: 182 @41477 has 57 MA's), (Start: 196 @41513 has 1 MA's), (Start: 205 @41525 has 5 MA's), (257, 41618), (335, 41744), (345, 41762), (347, 41768), (360, 41810), (382, 41864), (386, 41876), (423, 41972), (455, 42032), (517, 42146),

Gene: Rofo\_46 Start: 40199, Stop: 40933, Start Num: 169

Candidate Starts for Rofo\_46:

(94, 40052), (125, 40142), (Start: 169 @40199 has 53 MA's), (Start: 186 @40217 has 3 MA's), (236, 40304), (250, 40331), (284, 40379), (297, 40397), (319, 40439), (354, 40517), (372, 40559), (387, 40592), (438, 40727), (457, 40766), (519, 40865), (543, 40892), (558, 40925),

Gene: RogerDodger\_47 Start: 36520, Stop: 37275, Start Num: 170

Candidate Starts for RogerDodger\_47:

(121, 36442), (Start: 170 @36520 has 35 MA's), (211, 36592), (236, 36628), (287, 36700), (390, 36895), (393, 36901), (405, 36928), (418, 36976), (466, 37078), (512, 37162), (560, 37234),

Gene: Roney\_27 Start: 19428, Stop: 20213, Start Num: 182

Candidate Starts for Roney\_27:

(Start: 182 @19428 has 57 MA's), (189, 19443), (212, 19491), (234, 19524), (254, 19569), (258, 19575), (337, 19713), (352, 19746), (357, 19758), (421, 19947), (422, 19950), (448, 20025), (462, 20052), (535, 20172),

Gene: Rota\_85 Start: 58898, Stop: 59749, Start Num: 166

Candidate Starts for Rota\_85:

(146, 58874), (148, 58877), (Start: 166 @58898 has 38 MA's), (175, 58907), (188, 58928), (209, 58970), (213, 58976), (240, 59021), (303, 59126), (307, 59135), (319, 59162), (324, 59174), (337, 59213), (349, 59243), (351, 59246), (355, 59258), (405, 59393), (425, 59459), (428, 59468), (439, 59498), (463, 59546), (465, 59549), (494, 59603), (517, 59648), (562, 59726),

Gene: Rukungu\_87 Start: 59252, Stop: 60103, Start Num: 166

Candidate Starts for Rukungu\_87:

(83, 59075), (96, 59102), (99, 59111), (106, 59126), (108, 59135), (146, 59228), (148, 59231), (Start: 166 @59252 has 38 MA's), (175, 59261), (188, 59282), (209, 59324), (213, 59330), (240, 59375), (303, 59480), (319, 59516), (324, 59528), (337, 59567), (349, 59597), (351, 59600), (355, 59612), (405, 59747), (425, 59813), (428, 59822), (439, 59852), (451, 59879), (465, 59903), (494, 59957), (517, 60002), (526, 60014), (562, 60080),

Gene: Rumi\_85 Start: 56474, Stop: 57325, Start Num: 166

Candidate Starts for Rumi\_85:

(96, 56324), (99, 56333), (106, 56348), (108, 56357), (146, 56450), (148, 56453), (Start: 166 @56474 has 38 MA's), (175, 56483), (Start: 183 @56495 has 2 MA's), (188, 56504), (209, 56546), (213, 56552), (240, 56597), (301, 56699), (303, 56702), (319, 56738), (324, 56750), (337, 56789), (349, 56819), (351, 56822), (355, 56834), (357, 56837), (405, 56969), (425, 57035), (428, 57044), (439, 57074), (451, 57101), (463, 57122), (494, 57179), (517, 57224), (562, 57302),

Gene: Runhaar\_30 Start: 22093, Stop: 22881, Start Num: 182

Candidate Starts for Runhaar\_30:

(Start: 182 @22093 has 57 MA's), (220, 22168), (Start: 228 @22180 has 1 MA's), (254, 22234), (258, 22240), (288, 22285), (309, 22315), (338, 22381), (345, 22399), (352, 22411), (354, 22417), (357, 22423), (421, 22612), (422, 22615), (425, 22630), (448, 22690), (535, 22837),

Gene: Ruthy\_29 Start: 24516, Stop: 25301, Start Num: 186

Candidate Starts for Ruthy\_29:

(Start: 157 @24495 has 1 MA's), (Start: 164 @24504 has 1 MA's), (Start: 186 @24516 has 3 MA's), (187, 24519), (Start: 196 @24546 has 1 MA's), (Start: 205 @24558 has 5 MA's), (236, 24609), (319, 24753), (340, 24801), (344, 24813), (351, 24831), (355, 24843), (357, 24846), (358, 24849), (423, 25026), (433, 25047), (450, 25089), (513, 25194), (549, 25248), (559, 25272),

Gene: SCentae\_176 Start: 129792, Stop: 130502, Start Num: 180

Candidate Starts for SCentae\_176:

(Start: 180 @129792 has 17 MA's), (187, 129804), (206, 129843), (234, 129894), (282, 129978), (304, 130011), (313, 130029), (357, 130134), (358, 130137), (394, 130227), (405, 130251), (421, 130308), (441, 130356), (467, 130395), (513, 130467),

Gene: Sadboi\_86 Start: 58752, Stop: 59600, Start Num: 166

Candidate Starts for Sadboi\_86:

(146, 58728), (148, 58731), (155, 58740), (Start: 166 @58752 has 38 MA's), (175, 58761), (Start: 183 @58773 has 2 MA's), (188, 58782), (Start: 196 @58806 has 1 MA's), (209, 58824), (213, 58830), (246, 58881), (303, 58977), (307, 58986), (319, 59013), (324, 59025), (349, 59094), (351, 59097), (355, 59109), (405, 59244), (428, 59319), (439, 59349), (463, 59397), (465, 59400), (494, 59454), (517, 59499), (526, 59511), (562, 59577),

Gene: Sahara\_23 Start: 19470, Stop: 20177, Start Num: 177

Candidate Starts for Sahara\_23:

(101, 19326), (Start: 177 @19470 has 50 MA's), (207, 19527), (Start: 228 @19566 has 1 MA's), (259, 19626), (280, 19644), (281, 19647), (291, 19665), (316, 19701), (332, 19737), (336, 19755), (352, 19785), (383, 19860), (422, 19959), (424, 19965), (538, 20169),

Gene: Salvador\_43 Start: 36189, Stop: 36944, Start Num: 170

Candidate Starts for Salvador\_43:

(115, 36093), (Start: 170 @36189 has 35 MA's), (211, 36261), (236, 36297), (287, 36369), (298, 36384), (390, 36564), (393, 36570), (405, 36597), (418, 36645), (466, 36747), (512, 36831), (560, 36903),

Gene: Samba\_25 Start: 21230, Stop: 22033, Start Num: 163

Candidate Starts for Samba\_25:

(Start: 163 @21230 has 32 MA's), (Start: 196 @21278 has 1 MA's), (Start: 205 @21290 has 5 MA's), (216, 21305), (293, 21434), (301, 21446), (319, 21485), (340, 21533), (344, 21545), (351, 21563), (355, 21575), (357, 21578), (358, 21581), (423, 21758), (433, 21779), (435, 21785), (524, 21941), (549, 21977), (559, 22001), (569, 22022),

Gene: Samman98\_25 Start: 21237, Stop: 22025, Start Num: 174

Candidate Starts for Samman98\_25:

(Start: 163 @21225 has 32 MA's), (Start: 174 @21237 has 42 MA's), (Start: 186 @21249 has 3 MA's), (187, 21252), (Start: 196 @21279 has 1 MA's), (Start: 205 @21291 has 5 MA's), (236, 21342), (293, 21435), (317, 21480), (318, 21483), (319, 21486), (320, 21489), (344, 21546), (351, 21564), (355, 21576), (357, 21579), (358, 21582), (396, 21672), (423, 21759), (438, 21795), (513, 21927), (526, 21945), (549, 21981), (565, 22017),

Gene: Sampson\_46 Start: 40628, Stop: 41350, Start Num: 174

Candidate Starts for Sampson\_46:

(71, 40412), (111, 40517), (Start: 174 @40628 has 42 MA's), (236, 40733), (239, 40742), (284, 40793), (297, 40811), (319, 40853), (351, 40919), (353, 40925), (355, 40931), (383, 40997), (423, 41096), (519, 41270), (536, 41291), (545, 41306),

Gene: Sampudon\_88 Start: 59669, Stop: 60520, Start Num: 166

Candidate Starts for Sampudon\_88:

(146, 59645), (148, 59648), (Start: 166 @59669 has 38 MA's), (175, 59678), (188, 59699), (209, 59741), (213, 59747), (240, 59792), (303, 59897), (307, 59906), (319, 59933), (324, 59945), (337, 59984), (405, 60164), (425, 60230), (428, 60239), (439, 60269), (451, 60296), (465, 60320), (494, 60374), (517, 60419), (526, 60431), (562, 60497),

Gene: Sanjuju\_44 Start: 40813, Stop: 41547, Start Num: 169

Candidate Starts for Sanjuju\_44:

(94, 40666), (125, 40756), (Start: 169 @40813 has 53 MA's), (Start: 186 @40831 has 3 MA's), (236, 40918), (250, 40945), (284, 40993), (297, 41011), (319, 41053), (354, 41131), (372, 41173), (387, 41206), (438, 41341), (457, 41380), (519, 41479), (543, 41506), (558, 41539),

Gene: Santhid\_48 Start: 31055, Stop: 31930, Start Num: 158

Candidate Starts for Santhid\_48:

(66, 30830), (98, 30929), (102, 30938), (114, 30968), (Start: 128 @31019 has 1 MA's), (133, 31025), (Start: 158 @31055 has 8 MA's), (257, 31238), (357, 31457), (358, 31460), (367, 31493), (394, 31568), (397, 31574), (398, 31583), (423, 31661), (484, 31772), (486, 31775), (491, 31781), (508, 31817), (528, 31844), (568, 31919),

Gene: Saronaya\_45 Start: 39323, Stop: 40066, Start Num: 169

Candidate Starts for Saronaya\_45:

(Start: 169 @39323 has 53 MA's), (Start: 186 @39341 has 3 MA's), (Start: 205 @39386 has 5 MA's), (236, 39431), (277, 39494), (284, 39506), (297, 39524), (319, 39566), (333, 39593), (372, 39686), (378, 39698), (425, 39818), (438, 39854), (444, 39866), (457, 39893), (483, 39926), (500, 39959), (519, 39992), (543, 40019),

Gene: Savage\_24 Start: 19798, Stop: 20505, Start Num: 177

Candidate Starts for Savage\_24:

(101, 19654), (Start: 177 @19798 has 50 MA's), (207, 19855), (Start: 228 @19894 has 1 MA's), (253, 19945), (259, 19954), (280, 19972), (281, 19975), (316, 20029), (317, 20032), (332, 20065), (336, 20083), (351, 20110), (383, 20188), (412, 20257), (414, 20263), (422, 20287), (424, 20293), (538, 20497),

Gene: Savbucketdawg\_44 Start: 35970, Stop: 36725, Start Num: 170

Candidate Starts for Savbucketdawg\_44:

(115, 35874), (Start: 170 @35970 has 35 MA's), (211, 36042), (287, 36150), (317, 36195), (390, 36345), (393, 36351), (405, 36378), (418, 36426), (466, 36528), (512, 36612), (560, 36684),

Gene: ScarletRaider\_30 Start: 24488, Stop: 25168, Start Num: 142

Candidate Starts for ScarletRaider\_30:

(Start: 142 @24488 has 18 MA's), (Start: 228 @24545 has 1 MA's), (306, 24662), (321, 24695), (334, 24725), (335, 24728), (341, 24749), (345, 24755), (354, 24773), (359, 24794), (382, 24863), (393, 24887), (402, 24905), (408, 24926), (441, 25019), (445, 25028), (492, 25079), (532, 25148), (542, 25163),

Gene: Schnabeltier\_26 Start: 21755, Stop: 22468, Start Num: 177

Candidate Starts for Schnabeltier\_26:

(129, 21698), (Start: 177 @21755 has 50 MA's), (Start: 228 @21848 has 1 MA's), (236, 21863), (259, 21908), (317, 21986), (328, 22010), (354, 22073), (358, 22082), (393, 22157), (418, 22232), (422, 22244), (424, 22250), (492, 22385),

Gene: Schomber\_30 Start: 21318, Stop: 22016, Start Num: 142

Candidate Starts for Schomber\_30:

(Start: 130 @21300 has 1 MA's), (Start: 142 @21318 has 18 MA's), (Start: 228 @21381 has 1 MA's), (246, 21417), (291, 21477), (295, 21489), (306, 21510), (321, 21543), (334, 21573), (335, 21576), (341, 21597), (345, 21603), (350, 21609), (358, 21630), (393, 21735), (398, 21744), (419, 21813), (422, 21819), (436, 21855), (441, 21867), (479, 21906), (492, 21927), (532, 21996), (541, 22008), (542, 22011),

Gene: SchottB\_44 Start: 40323, Stop: 41066, Start Num: 169

Candidate Starts for SchottB\_44:

(Start: 169 @40323 has 53 MA's), (Start: 186 @40341 has 3 MA's), (Start: 205 @40386 has 5 MA's), (236, 40431), (284, 40506), (297, 40524), (319, 40566), (372, 40686), (378, 40698), (425, 40818), (438, 40854), (444, 40866), (457, 40893), (483, 40926), (500, 40959), (519, 40992), (543, 41019),

Gene: Schwartz33\_31 Start: 22450, Stop: 23235, Start Num: 182

Candidate Starts for Schwartz33\_31:

(124, 22369), (Start: 182 @22450 has 57 MA's), (Start: 228 @22537 has 1 MA's), (254, 22591), (334, 22720), (345, 22756), (351, 22765), (352, 22768), (357, 22780), (405, 22912), (421, 22969), (422, 22972), (496, 23137),

Gene: Scioto\_47 Start: 40684, Stop: 41406, Start Num: 174

Candidate Starts for Scioto\_47:

(71, 40468), (111, 40573), (Start: 174 @40684 has 42 MA's), (236, 40789), (239, 40798), (284, 40849), (297, 40867), (319, 40909), (351, 40975), (353, 40981), (355, 40987), (383, 41053), (423, 41152), (519, 41326), (536, 41347), (545, 41362),

Gene: Scuba\_25 Start: 9756, Stop: 10550, Start Num: 128

Candidate Starts for Scuba\_25:

(Start: 128 @9756 has 1 MA's), (Start: 228 @9885 has 1 MA's), (230, 9888), (260, 9945), (288, 9987), (337, 10101), (345, 10116), (354, 10134), (365, 10170), (390, 10239), (393, 10245), (419, 10323), (422, 10332), (441, 10386), (479, 10446),

Gene: Secretariat\_28 Start: 21176, Stop: 21964, Start Num: 182

Candidate Starts for Secretariat\_28:

(Start: 182 @21176 has 57 MA's), (Start: 228 @21263 has 1 MA's), (254, 21317), (320, 21419), (324, 21422), (337, 21461), (345, 21482), (351, 21491), (357, 21506), (405, 21638), (421, 21695), (422, 21698), (462, 21800), (496, 21863),

Gene: Sedona\_45 Start: 40410, Stop: 41144, Start Num: 169

Candidate Starts for Sedona\_45:

(159, 40404), (Start: 169 @40410 has 53 MA's), (Start: 186 @40428 has 3 MA's), (236, 40515), (250, 40542), (284, 40590), (297, 40608), (319, 40650), (354, 40728), (372, 40770), (438, 40938), (457, 40977), (519, 41076), (543, 41103), (558, 41136),

Gene: Sekhmet\_25 Start: 21597, Stop: 22385, Start Num: 174

Candidate Starts for Sekhmet\_25:

(Start: 163 @21585 has 32 MA's), (Start: 174 @21597 has 42 MA's), (Start: 186 @21609 has 3 MA's), (187, 21612), (Start: 205 @21651 has 5 MA's), (207, 21654), (236, 21702), (293, 21795), (317, 21840), (318, 21843), (319, 21846), (320, 21849), (344, 21906), (351, 21924), (357, 21939), (358, 21942), (391, 22020), (396, 22032), (405, 22059), (423, 22119), (438, 22155), (513, 22287), (526, 22305), (549, 22341), (565, 22377),

Gene: Sephiroth\_116 Start: 65083, Stop: 65805, Start Num: 181

Candidate Starts for Sephiroth\_116:

(Start: 181 @65083 has 5 MA's), (202, 65131), (221, 65158), (227, 65173), (319, 65305), (407, 65515), (447, 65617), (500, 65689), (563, 65788), (565, 65791),

Gene: ShaggyRogers\_30 Start: 22096, Stop: 22884, Start Num: 182

Candidate Starts for ShaggyRogers\_30:

(Start: 182 @22096 has 57 MA's), (200, 22141), (Start: 228 @22183 has 1 MA's), (247, 22222), (254, 22237), (357, 22426), (401, 22546), (421, 22615), (422, 22618), (448, 22693), (535, 22840),

Gene: Shatter\_42 Start: 35273, Stop: 35995, Start Num: 177

Candidate Starts for Shatter\_42:

(33, 34883), (67, 35060), (106, 35168), (Start: 177 @35273 has 50 MA's), (271, 35435), (299, 35480), (332, 35543), (336, 35561), (351, 35588), (383, 35666), (384, 35669), (412, 35738), (422, 35768), (424, 35774), (524, 35963),

Gene: ShawBrad\_28 Start: 21511, Stop: 22134, Start Num: 224

Candidate Starts for ShawBrad\_28:

(54, 21136), (68, 21193), (80, 21238), (103, 21292), (104, 21295), (119, 21331), (Start: 128 @21376 has 1 MA's), (Start: 130 @21379 has 1 MA's), (Start: 224 @21511 has 30 MA's), (Start: 226 @21517 has 2 MA's), (239, 21547), (247, 21562), (324, 21703), (337, 21742), (365, 21814), (384, 21877), (408, 21922), (412, 21940), (419, 21961), (422, 21970), (509, 22102), (512, 22111), (520, 22123),

Gene: Shinji\_44 Start: 35841, Stop: 36488, Start Num: 236

Candidate Starts for Shinji\_44:

(154, 35718), (Start: 167 @35733 has 15 MA's), (194, 35778), (211, 35805), (236, 35841), (287, 35913), (334, 35994), (390, 36108), (393, 36114), (405, 36141), (418, 36189), (466, 36291), (512, 36375), (560, 36447),

Gene: Shivanishola\_45 Start: 39080, Stop: 39814, Start Num: 169

Candidate Starts for Shivanishola\_45:

(94, 38933), (125, 39023), (Start: 169 @39080 has 53 MA's), (Start: 186 @39098 has 3 MA's), (236, 39185), (250, 39212), (284, 39260), (297, 39278), (319, 39320), (354, 39398), (372, 39440), (387, 39473), (438, 39608), (457, 39647), (519, 39746), (543, 39773), (558, 39806),

Gene: Shlim410\_25 Start: 21831, Stop: 22619, Start Num: 174

Candidate Starts for Shlim410\_25:

(Start: 163 @21819 has 32 MA's), (Start: 174 @21831 has 42 MA's), (Start: 186 @21843 has 3 MA's), (187, 21846), (Start: 196 @21873 has 1 MA's), (Start: 205 @21885 has 5 MA's), (236, 21936), (293, 22029), (317, 22074), (318, 22077), (319, 22080), (344, 22140), (351, 22158), (355, 22170), (357, 22173), (358, 22176), (396, 22266), (423, 22353), (513, 22521), (526, 22539), (549, 22575), (559, 22599),

Gene: Sidious\_26 Start: 22171, Stop: 22956, Start Num: 171

Candidate Starts for Sidious\_26:

(Start: 171 @22171 has 3 MA's), (Start: 196 @22213 has 1 MA's), (Start: 205 @22225 has 5 MA's), (227, 22258), (236, 22276), (293, 22369), (319, 22420), (343, 22477), (344, 22480), (351, 22498), (355, 22510), (357, 22513), (358, 22516), (412, 22663), (423, 22693), (435, 22720), (450, 22756), (513, 22861), (524, 22876), (526, 22879), (549, 22912),

Gene: Sienna\_96 Start: 65667, Stop: 66386, Start Num: 178

Candidate Starts for Sienna\_96:

(89, 65493), (91, 65496), (Start: 178 @65667 has 13 MA's), (331, 65952), (345, 65997), (394, 66108), (434, 66225), (436, 66231), (453, 66264), (461, 66273), (477, 66294), (488, 66312), (513, 66351), (515, 66354), (532, 66375),

Gene: Sisko\_42 Start: 36073, Stop: 36798, Start Num: 174

Candidate Starts for Sisko\_42:

(77, 35875), (106, 35947), (Start: 174 @36073 has 42 MA's), (Start: 183 @36082 has 2 MA's), (259, 36232), (271, 36238), (285, 36262), (291, 36271), (299, 36283), (311, 36298), (330, 36340), (336, 36364), (352, 36394), (390, 36478), (412, 36541), (420, 36565), (422, 36571), (515, 36754), (522, 36763),

Gene: Sitar\_45 Start: 40763, Stop: 41497, Start Num: 169

Candidate Starts for Sitar\_45:

(125, 40706), (Start: 169 @40763 has 53 MA's), (Start: 186 @40781 has 3 MA's), (236, 40868), (250, 40895), (284, 40943), (297, 40961), (319, 41003), (354, 41081), (372, 41123), (387, 41156), (438, 41291), (457, 41330), (519, 41429), (543, 41456), (558, 41489),

Gene: Sixama\_183 Start: 106329, Stop: 105496, Start Num: 112

Candidate Starts for Sixama\_183:

(Start: 112 @106329 has 1 MA's), (119, 106317), (Start: 178 @106209 has 13 MA's), (206, 106155), (208, 106152), (232, 106107), (313, 105969), (335, 105918), (336, 105909), (403, 105753), (405, 105747), (411, 105720), (413, 105714), (419, 105696), (422, 105687), (433, 105663), (515, 105528),

Gene: Skog\_9 Start: 6153, Stop: 6860, Start Num: 180

Candidate Starts for Skog\_9:

(Start: 180 @6153 has 17 MA's), (206, 6204), (234, 6255), (304, 6372), (313, 6390), (336, 6450), (355, 6492), (358, 6498), (394, 6585), (405, 6609), (421, 6666), (441, 6714), (467, 6753), (513, 6825),

Gene: Skysand\_20 Start: 9079, Stop: 9852, Start Num: 138

Candidate Starts for Skysand\_20:

(Start: 138 @9079 has 22 MA's), (Start: 228 @9187 has 1 MA's), (230, 9190), (260, 9241), (288, 9283), (337, 9397), (359, 9451), (408, 9583), (492, 9772), (521, 9826),

Gene: SmokingBunny\_44 Start: 36282, Stop: 37037, Start Num: 167

Candidate Starts for SmokingBunny\_44:

(Start: 138 @36246 has 22 MA's), (154, 36267), (Start: 167 @36282 has 15 MA's), (211, 36354), (236, 36390), (287, 36462), (334, 36543), (390, 36657), (393, 36663), (405, 36690), (418, 36738), (466, 36840), (512, 36924), (560, 36996),

Gene: SoilAssassin\_24 Start: 19791, Stop: 20498, Start Num: 177

Candidate Starts for SoilAssassin\_24:

(101, 19647), (Start: 177 @19791 has 50 MA's), (207, 19848), (Start: 228 @19887 has 1 MA's), (259, 19947), (280, 19965), (281, 19968), (291, 19986), (316, 20022), (317, 20025), (332, 20058), (336, 20076), (351, 20103), (383, 20181), (412, 20250), (422, 20280), (424, 20286), (538, 20490),

Gene: Sour\_47 Start: 39940, Stop: 40659, Start Num: 174

Candidate Starts for Sour\_47:

(106, 39817), (Start: 174 @39940 has 42 MA's), (Start: 186 @39949 has 3 MA's), (217, 40009), (259, 40096), (271, 40102), (285, 40126), (299, 40147), (315, 40171), (317, 40177), (330, 40204), (332, 40210), (336, 40228), (351, 40255), (352, 40258), (412, 40402), (422, 40432), (508, 40600), (534, 40639),

Gene: SpeedDemon\_1340 Start: 81228, Stop: 81950, Start Num: 176

Candidate Starts for SpeedDemon\_1340:

(87, 81057), (131, 81177), (149, 81201), (Start: 176 @81228 has 13 MA's), (Start: 205 @81285 has 5 MA's), (263, 81381),

Gene: Spooky\_28 Start: 21590, Stop: 22213, Start Num: 224

Candidate Starts for Spooky\_28:

(54, 21218), (68, 21275), (80, 21320), (103, 21374), (104, 21377), (119, 21413), (Start: 128 @21458 has 1 MA's), (Start: 130 @21461 has 1 MA's), (Start: 224 @21590 has 30 MA's), (227, 21599), (239, 21626), (247, 21641), (285, 21701), (330, 21794), (337, 21821), (365, 21893), (384, 21956), (408, 22001), (412, 22019), (419, 22040), (422, 22049), (509, 22181), (512, 22190),

Gene: Sprinklemunch\_29 Start: 26070, Stop: 26876, Start Num: 165

Candidate Starts for Sprinklemunch\_29:

(Start: 165 @26070 has 2 MA's), (Start: 174 @26079 has 42 MA's), (Start: 186 @26091 has 3 MA's), (187, 26094), (Start: 196 @26121 has 1 MA's), (Start: 205 @26133 has 5 MA's), (236, 26184), (275, 26250), (318, 26325), (319, 26328), (320, 26331), (338, 26373), (340, 26376), (343, 26385), (344, 26388), (351, 26406), (355, 26418), (357, 26421), (396, 26514), (412, 26571), (423, 26601), (450,

26664), (513, 26769), (549, 26823), (559, 26847),

Gene: Sproutie\_24 Start: 19798, Stop: 20505, Start Num: 177

Candidate Starts for Sproutie\_24:

(101, 19654), (Start: 177 @19798 has 50 MA's), (207, 19855), (Start: 228 @19894 has 1 MA's), (253, 19945), (259, 19954), (280, 19972), (281, 19975), (316, 20029), (317, 20032), (332, 20065), (336, 20083), (351, 20110), (383, 20188), (412, 20257), (414, 20263), (422, 20287), (424, 20293), (538, 20497),

Gene: Squiddly\_30 Start: 23002, Stop: 23625, Start Num: 224

Candidate Starts for Squiddly\_30:

(54, 22630), (68, 22687), (80, 22732), (103, 22786), (104, 22789), (119, 22825), (Start: 128 @22870 has 1 MA's), (Start: 130 @22873 has 1 MA's), (Start: 224 @23002 has 30 MA's), (227, 23011), (239, 23038), (247, 23053), (285, 23113), (330, 23206), (337, 23233), (365, 23305), (384, 23368), (408, 23413), (412, 23431), (419, 23452), (422, 23461), (509, 23593), (512, 23602),

Gene: Srilaccoli3\_56 Start: 53248, Stop: 52379, Start Num: 158

Candidate Starts for Srilaccoli3\_56:

(16, 54031), (17, 54016), (26, 53749), (51, 53539), (72, 53455), (110, 53353), (Start: 128 @53290 has 1 MA's), (Start: 158 @53248 has 8 MA's), (208, 53164), (249, 53086), (271, 53056), (284, 53038), (348, 52888), (358, 52861), (359, 52849), (397, 52759), (423, 52672), (468, 52594), (486, 52561), (535, 52480), (555, 52441), (558, 52432), (573, 52384),

Gene: StarStruck\_19 Start: 8535, Stop: 9323, Start Num: 142

Candidate Starts for StarStruck\_19:

(Start: 142 @8535 has 18 MA's), (149, 8544), (220, 8634), (Start: 228 @8658 has 1 MA's), (236, 8673), (256, 8706), (288, 8754), (359, 8922), (366, 8943), (492, 9249), (495, 9258), (500, 9264), (505, 9273), (516, 9297),

Gene: Stormer\_86 Start: 56637, Stop: 57467, Start Num: 183

Candidate Starts for Stormer\_86:

(96, 56466), (99, 56475), (106, 56490), (108, 56499), (146, 56592), (148, 56595), (Start: 166 @56616 has 38 MA's), (175, 56625), (Start: 183 @56637 has 2 MA's), (188, 56646), (209, 56688), (213, 56694), (240, 56739), (301, 56841), (303, 56844), (319, 56880), (324, 56892), (337, 56931), (349, 56961), (351, 56964), (355, 56976), (357, 56979), (405, 57111), (425, 57177), (428, 57186), (439, 57216), (451, 57243), (463, 57264), (494, 57321), (517, 57366), (562, 57444),

Gene: StorminNorm\_45 Start: 39414, Stop: 40157, Start Num: 169

Candidate Starts for StorminNorm\_45:

(Start: 169 @39414 has 53 MA's), (Start: 186 @39432 has 3 MA's), (Start: 205 @39477 has 5 MA's), (236, 39522), (284, 39597), (297, 39615), (305, 39627), (319, 39657), (333, 39684), (372, 39777), (378, 39789), (438, 39945), (444, 39957), (457, 39984), (483, 40017), (519, 40083), (543, 40110),

Gene: Stultus\_44 Start: 39716, Stop: 40450, Start Num: 169

Candidate Starts for Stultus\_44:

(125, 39659), (Start: 169 @39716 has 53 MA's), (Start: 186 @39734 has 3 MA's), (236, 39821), (250, 39848), (284, 39896), (297, 39914), (319, 39956), (354, 40034), (372, 40076), (387, 40109), (438, 40244), (457, 40283), (519, 40382), (543, 40409), (558, 40442),

Gene: Suerte\_23 Start: 20721, Stop: 21509, Start Num: 174

Candidate Starts for Suerte\_23:

(Start: 163 @20709 has 32 MA's), (Start: 174 @20721 has 42 MA's), (Start: 186 @20733 has 3 MA's), (187, 20736), (Start: 196 @20763 has 1 MA's), (Start: 205 @20775 has 5 MA's), (236, 20826), (293,

20919), (317, 20964), (319, 20970), (344, 21030), (351, 21048), (355, 21060), (357, 21063), (358, 21066), (396, 21156), (405, 21183), (423, 21243), (438, 21279), (513, 21411), (526, 21429), (549, 21465),

Gene: Sukkupi\_19 Start: 7686, Stop: 8480, Start Num: 139

Candidate Starts for Sukkupi\_19:

(Start: 139 @7686 has 3 MA's), (Start: 228 @7800 has 1 MA's), (230, 7803), (236, 7815), (288, 7896), (354, 8046), (360, 8070), (374, 8103), (418, 8235), (473, 8361), (492, 8397), (521, 8451),

Gene: SuperSulley\_20 Start: 8964, Stop: 9755, Start Num: 142

Candidate Starts for SuperSulley\_20:

(Start: 142 @8964 has 18 MA's), (149, 8973), (189, 9009), (222, 9072), (Start: 228 @9090 has 1 MA's), (236, 9105), (251, 9129), (256, 9138), (288, 9186), (306, 9222), (354, 9333), (366, 9375), (479, 9660), (492, 9681), (495, 9690), (500, 9696), (516, 9729),

Gene: Susceptit\_27 Start: 22303, Stop: 22923, Start Num: 215

Candidate Starts for Susceptit\_27:

(50, 21928), (103, 22099), (104, 22102), (Start: 128 @22183 has 1 MA's), (Start: 142 @22204 has 18 MA's), (Start: 215 @22303 has 16 MA's), (Start: 226 @22312 has 2 MA's), (247, 22357), (295, 22438), (337, 22537), (355, 22573), (374, 22624), (384, 22672), (412, 22735), (422, 22765), (445, 22816), (492, 22867), (509, 22894),

Gene: Suzy\_95 Start: 65979, Stop: 66695, Start Num: 180

Candidate Starts for Suzy\_95:

(Start: 180 @65979 has 17 MA's), (267, 66147), (331, 66261), (357, 66327), (436, 66540), (453, 66573), (477, 66603), (515, 66663), (532, 66684),

Gene: SweetCrkHerbs\_29 Start: 19513, Stop: 20298, Start Num: 182

Candidate Starts for SweetCrkHerbs\_29:

(Start: 182 @19513 has 57 MA's), (189, 19528), (232, 19606), (254, 19654), (258, 19660), (337, 19798), (357, 19843), (421, 20032), (422, 20035), (448, 20110), (462, 20137),

Gene: Syleon\_121 Start: 65865, Stop: 66587, Start Num: 181

Candidate Starts for Syleon\_121:

(Start: 181 @65865 has 5 MA's), (202, 65913), (221, 65940), (227, 65955), (319, 66087), (407, 66297), (438, 66384), (447, 66399), (500, 66471), (508, 66486), (563, 66570), (565, 66573),

Gene: TPA4\_30 Start: 27688, Stop: 28482, Start Num: 170

Candidate Starts for TPA4\_30:

(81, 27505), (Start: 170 @27688 has 35 MA's), (213, 27760), (243, 27820), (268, 27856), (284, 27880), (408, 28165), (423, 28213), (475, 28309), (501, 28354),

Gene: Tairn4Wing\_29 Start: 19346, Stop: 20131, Start Num: 182

Candidate Starts for Tairn4Wing\_29:

(Start: 182 @19346 has 57 MA's), (200, 19391), (254, 19487), (258, 19493), (337, 19631), (352, 19664), (357, 19676), (421, 19865), (422, 19868), (448, 19943), (535, 20090),

Gene: Talon44\_28 Start: 19513, Stop: 20298, Start Num: 182

Candidate Starts for Talon44\_28:

(Start: 182 @19513 has 57 MA's), (189, 19528), (232, 19606), (254, 19654), (258, 19660), (337, 19798), (357, 19843), (421, 20032), (422, 20035), (448, 20110), (462, 20137),

Gene: Tangent\_46 Start: 39790, Stop: 40524, Start Num: 169

Candidate Starts for Tangent\_46:

(94, 39643), (125, 39733), (Start: 169 @39790 has 53 MA's), (Start: 186 @39808 has 3 MA's), (236, 39895), (250, 39922), (284, 39970), (297, 39988), (319, 40030), (354, 40108), (372, 40150), (387, 40183), (438, 40318), (457, 40357), (519, 40456), (543, 40483), (558, 40516),

Gene: Tangerine\_45 Start: 39195, Stop: 39938, Start Num: 169

Candidate Starts for Tangerine\_45:

(Start: 169 @39195 has 53 MA's), (Start: 186 @39213 has 3 MA's), (Start: 205 @39258 has 5 MA's), (236, 39303), (284, 39378), (297, 39396), (319, 39438), (333, 39465), (372, 39558), (378, 39570), (438, 39726), (444, 39738), (457, 39765), (483, 39798), (500, 39831), (519, 39864), (543, 39891),

Gene: Tanis\_27 Start: 19278, Stop: 20063, Start Num: 182

Candidate Starts for Tanis\_27:

(Start: 182 @19278 has 57 MA's), (189, 19293), (212, 19341), (234, 19374), (254, 19419), (258, 19425), (337, 19563), (352, 19596), (357, 19608), (421, 19797), (422, 19800), (448, 19875), (462, 19902), (535, 20022),

Gene: Tardus\_47 Start: 40038, Stop: 40760, Start Num: 174

Candidate Starts for Tardus\_47:

(71, 39822), (97, 39891), (111, 39927), (Start: 174 @40038 has 42 MA's), (236, 40143), (239, 40152), (284, 40203), (297, 40221), (319, 40263), (355, 40341), (423, 40506), (438, 40542), (450, 40569), (519, 40680), (545, 40716),

Gene: TaronosaurusRx\_26 Start: 21786, Stop: 22499, Start Num: 177

Candidate Starts for TaronosaurusRx\_26:

(129, 21729), (136, 21738), (Start: 177 @21786 has 50 MA's), (217, 21852), (Start: 228 @21879 has 1 MA's), (236, 21894), (259, 21939), (299, 21990), (317, 22017), (328, 22041), (354, 22104), (358, 22113), (393, 22188), (418, 22263), (422, 22275), (424, 22281), (472, 22383),

Gene: Tarzan\_50 Start: 32536, Stop: 33387, Start Num: 158

Candidate Starts for Tarzan\_50:

(Start: 128 @32500 has 1 MA's), (133, 32506), (Start: 158 @32536 has 8 MA's), (257, 32719), (358, 32917), (367, 32950), (394, 33025), (398, 33040), (423, 33118), (484, 33229), (486, 33232), (491, 33238), (508, 33274), (528, 33301), (568, 33376),

Gene: Tayonia\_27 Start: 22303, Stop: 22923, Start Num: 215

Candidate Starts for Tayonia\_27:

(50, 21928), (103, 22099), (104, 22102), (Start: 128 @22183 has 1 MA's), (Start: 142 @22204 has 18 MA's), (Start: 215 @22303 has 16 MA's), (Start: 226 @22312 has 2 MA's), (247, 22357), (295, 22438), (337, 22537), (355, 22573), (374, 22624), (384, 22672), (412, 22735), (422, 22765), (445, 22816), (492, 22867), (509, 22894),

Gene: TenaciousP\_31 Start: 23744, Stop: 24532, Start Num: 182

Candidate Starts for TenaciousP\_31:

(Start: 182 @23744 has 57 MA's), (200, 23789), (220, 23819), (Start: 228 @23831 has 1 MA's), (254, 23885), (338, 24032), (357, 24074), (381, 24158), (421, 24263), (422, 24266), (448, 24341), (535, 24488),

Gene: Terapin\_96 Start: 65473, Stop: 66189, Start Num: 180

Candidate Starts for Terapin\_96:

(Start: 180 @65473 has 17 MA's), (331, 65755), (345, 65800), (394, 65911), (434, 66028), (436, 66034), (453, 66067), (461, 66076), (477, 66097), (488, 66115), (513, 66154), (515, 66157), (532, 66178),

Gene: Thales\_26 Start: 21024, Stop: 21719, Start Num: 142

Candidate Starts for Thales\_26:

(Start: 142 @21024 has 18 MA's), (Start: 228 @21084 has 1 MA's), (254, 21129), (295, 21192), (306, 21213), (321, 21246), (335, 21279), (375, 21378), (382, 21414), (393, 21438), (398, 21447), (412, 21495), (416, 21507), (419, 21516), (436, 21558), (479, 21609), (530, 21696),

Gene: ThankyouJordi\_24 Start: 22284, Stop: 22901, Start Num: 214

Candidate Starts for ThankyouJordi\_24:

(Start: 142 @22185 has 18 MA's), (185, 22224), (199, 22257), (Start: 214 @22284 has 20 MA's), (225, 22290), (Start: 226 @22293 has 2 MA's), (247, 22335), (285, 22395), (321, 22470), (330, 22488), (337, 22515), (355, 22551), (374, 22602), (377, 22623), (412, 22713), (445, 22794), (509, 22872),

Gene: Thimann\_25 Start: 21189, Stop: 21977, Start Num: 174

Candidate Starts for Thimann\_25:

(Start: 163 @21177 has 32 MA's), (Start: 174 @21189 has 42 MA's), (Start: 186 @21201 has 3 MA's), (187, 21204), (Start: 196 @21231 has 1 MA's), (Start: 205 @21243 has 5 MA's), (236, 21294), (293, 21387), (317, 21432), (319, 21438), (344, 21498), (351, 21516), (355, 21528), (357, 21531), (358, 21534), (396, 21624), (405, 21651), (423, 21711), (438, 21747), (513, 21879), (526, 21897), (549, 21933),

Gene: Thing3\_43 Start: 39019, Stop: 39753, Start Num: 169

Candidate Starts for Thing3\_43:

(125, 38962), (Start: 169 @39019 has 53 MA's), (Start: 186 @39037 has 3 MA's), (236, 39124), (250, 39151), (284, 39199), (297, 39217), (319, 39259), (354, 39337), (372, 39379), (387, 39412), (438, 39547), (457, 39586), (519, 39685), (543, 39712), (558, 39745),

Gene: Tillicus\_80 Start: 58169, Stop: 59020, Start Num: 166

Candidate Starts for Tillicus\_80:

(148, 58148), (Start: 166 @58169 has 38 MA's), (175, 58178), (Start: 183 @58190 has 2 MA's), (188, 58199), (Start: 196 @58223 has 1 MA's), (209, 58241), (243, 58298), (319, 58433), (335, 58472), (337, 58484), (351, 58517), (355, 58529), (360, 58550), (393, 58637), (405, 58664), (414, 58700), (425, 58730), (430, 58742), (439, 58769), (463, 58817), (465, 58820), (494, 58874), (563, 59000),

Gene: TillyBobJoe\_44 Start: 36086, Stop: 36841, Start Num: 167

Candidate Starts for TillyBobJoe\_44:

(Start: 138 @36050 has 22 MA's), (154, 36071), (Start: 167 @36086 has 15 MA's), (211, 36158), (236, 36194), (287, 36266), (334, 36347), (390, 36461), (393, 36467), (405, 36494), (418, 36542), (466, 36644), (512, 36728), (560, 36800), (563, 36806),

Gene: TimTam\_25 Start: 22309, Stop: 22926, Start Num: 214

Candidate Starts for TimTam\_25:

(Start: 142 @22210 has 18 MA's), (185, 22249), (199, 22282), (Start: 214 @22309 has 20 MA's), (Start: 226 @22318 has 2 MA's), (247, 22360), (252, 22372), (285, 22420), (295, 22441), (306, 22462), (321, 22495), (323, 22498), (337, 22540), (355, 22576), (374, 22627), (384, 22675), (412, 22738), (422, 22768), (445, 22819), (509, 22897),

Gene: TinyDot\_25 Start: 19158, Stop: 19859, Start Num: 177

Candidate Starts for TinyDot\_25:

(25, 18633), (37, 18750), (41, 18777), (42, 18780), (47, 18819), (59, 18876), (60, 18879), (70, 18924), (113, 19041), (145, 19122), (162, 19143), (Start: 177 @19158 has 50 MA's), (Start: 186 @19167 has 3 MA's), (Start: 228 @19251 has 1 MA's), (236, 19266), (253, 19302), (315, 19383), (330, 19416), (332, 19422), (351, 19467), (362, 19506), (422, 19644), (424, 19650), (447, 19707), (538, 19851),

Gene: Toast\_26 Start: 21477, Stop: 22187, Start Num: 170

Candidate Starts for Toast\_26:

(Start: 170 @21477 has 35 MA's), (Start: 186 @21489 has 3 MA's), (188, 21495), (259, 21633), (285, 21663), (316, 21708), (328, 21735), (336, 21762), (358, 21813), (388, 21882), (398, 21897), (401, 21903), (409, 21933), (422, 21975), (424, 21981), (444, 22032), (492, 22104), (529, 22167),

Gene: Togo\_43 Start: 36282, Stop: 37037, Start Num: 167

Candidate Starts for Togo\_43:

(Start: 138 @36246 has 22 MA's), (154, 36267), (Start: 167 @36282 has 15 MA's), (211, 36354), (236, 36390), (287, 36462), (334, 36543), (390, 36657), (393, 36663), (405, 36690), (418, 36738), (466, 36840), (512, 36924), (560, 36996),

Gene: Tonaltzin\_32 Start: 22314, Stop: 23102, Start Num: 182

Candidate Starts for Tonaltzin\_32:

(Start: 182 @22314 has 57 MA's), (200, 22359), (220, 22389), (Start: 228 @22401 has 1 MA's), (254, 22455), (338, 22602), (351, 22629), (357, 22644), (381, 22728), (421, 22833), (422, 22836), (448, 22911), (535, 23058),

Gene: Toneprano\_30 Start: 21568, Stop: 22266, Start Num: 142

Candidate Starts for Toneprano\_30:

(Start: 130 @21550 has 1 MA's), (Start: 142 @21568 has 18 MA's), (Start: 228 @21631 has 1 MA's), (246, 21667), (291, 21727), (295, 21739), (306, 21760), (321, 21793), (334, 21823), (335, 21826), (341, 21847), (345, 21853), (350, 21859), (358, 21880), (393, 21985), (398, 21994), (419, 22063), (422, 22069), (436, 22105), (441, 22117), (479, 22156), (492, 22177), (532, 22246), (541, 22258), (542, 22261),

Gene: Towmatter\_121 Start: 74465, Stop: 75190, Start Num: 170

Candidate Starts for Towmatter\_121:

(Start: 170 @74465 has 35 MA's), (336, 74744), (361, 74801), (425, 74966), (447, 75017), (454, 75029), (481, 75065), (527, 75128),

Gene: Tracker\_19 Start: 9229, Stop: 9954, Start Num: 138

Candidate Starts for Tracker\_19:

(Start: 138 @9229 has 22 MA's), (Start: 170 @9253 has 35 MA's), (192, 9286), (230, 9289), (251, 9325), (260, 9340), (288, 9382), (308, 9421), (354, 9529), (393, 9646), (418, 9721), (437, 9778), (456, 9820), (479, 9853), (492, 9874), (500, 9889), (537, 9949),

Gene: TraderJ\_45 Start: 37582, Stop: 38304, Start Num: 174

Candidate Starts for TraderJ\_45:

(79, 37396), (Start: 174 @37582 has 42 MA's), (271, 37744), (286, 37771), (292, 37777), (351, 37891), (390, 37975), (422, 38068), (433, 38098),

Gene: Trax\_117 Start: 66615, Stop: 67343, Start Num: 176

Candidate Starts for Trax\_117:

(Start: 176 @66615 has 13 MA's), (187, 66630), (207, 66675), (213, 66684), (232, 66723), (249, 66759), (301, 66813), (335, 66879), (361, 66945), (372, 66966), (393, 67023), (438, 67143), (481, 67203), (569, 67335),

Gene: Trine\_36 Start: 27342, Stop: 28031, Start Num: 180

Candidate Starts for Trine\_36:

(156, 27315), (Start: 180 @27342 has 17 MA's), (187, 27354), (223, 27417), (232, 27438), (236, 27447), (275, 27504), (351, 27657), (393, 27753), (398, 27762), (413, 27813), (419, 27831), (427,

27852),

Gene: Trufflozitus\_30 Start: 19347, Stop: 20132, Start Num: 182

Candidate Starts for Trufflozitus\_30:

(Start: 182 @19347 has 57 MA's), (200, 19392), (254, 19488), (258, 19494), (337, 19632), (352, 19665), (357, 19677), (421, 19866), (422, 19869), (448, 19944), (535, 20091),

Gene: Trumpet\_27 Start: 22303, Stop: 22923, Start Num: 215

Candidate Starts for Trumpet\_27:

(50, 21928), (103, 22099), (104, 22102), (Start: 128 @22183 has 1 MA's), (Start: 142 @22204 has 18 MA's), (Start: 215 @22303 has 16 MA's), (Start: 226 @22312 has 2 MA's), (247, 22357), (295, 22438), (337, 22537), (355, 22573), (374, 22624), (384, 22672), (412, 22735), (422, 22765), (445, 22816), (492, 22867), (509, 22894),

Gene: TuertoX\_24 Start: 19798, Stop: 20505, Start Num: 177

Candidate Starts for TuertoX\_24:

(101, 19654), (Start: 177 @19798 has 50 MA's), (207, 19855), (Start: 228 @19894 has 1 MA's), (253, 19945), (259, 19954), (280, 19972), (281, 19975), (316, 20029), (317, 20032), (332, 20065), (336, 20083), (351, 20110), (383, 20188), (412, 20257), (414, 20263), (422, 20287), (424, 20293), (538, 20497),

Gene: Turuncu\_22 Start: 8752, Stop: 9522, Start Num: 138

Candidate Starts for Turuncu\_22:

(Start: 138 @8752 has 22 MA's), (151, 8770), (Start: 228 @8860 has 1 MA's), (260, 8914), (288, 8956), (378, 9184), (393, 9217), (394, 9220), (492, 9439), (516, 9487), (521, 9493),

Gene: Tuti\_29 Start: 21572, Stop: 22360, Start Num: 171

Candidate Starts for Tuti\_29:

(92, 21413), (Start: 163 @21563 has 32 MA's), (Start: 171 @21572 has 3 MA's), (Start: 186 @21584 has 3 MA's), (187, 21587), (Start: 196 @21614 has 1 MA's), (Start: 205 @21626 has 5 MA's), (236, 21677), (293, 21770), (317, 21815), (318, 21818), (319, 21821), (320, 21824), (344, 21881), (351, 21899), (355, 21911), (357, 21914), (358, 21917), (391, 21995), (396, 22007), (405, 22034), (423, 22094), (513, 22262), (526, 22280), (549, 22316), (559, 22340), (565, 22352),

Gene: Twin\_30 Start: 21568, Stop: 22266, Start Num: 142

Candidate Starts for Twin\_30:

(Start: 130 @21550 has 1 MA's), (Start: 142 @21568 has 18 MA's), (Start: 228 @21631 has 1 MA's), (246, 21667), (291, 21727), (295, 21739), (306, 21760), (321, 21793), (334, 21823), (335, 21826), (341, 21847), (345, 21853), (350, 21859), (358, 21880), (393, 21985), (398, 21994), (419, 22063), (422, 22069), (436, 22105), (441, 22117), (479, 22156), (492, 22177), (532, 22246), (541, 22258), (542, 22261),

Gene: Twinkle\_25 Start: 22890, Stop: 23678, Start Num: 174

Candidate Starts for Twinkle\_25:

(Start: 163 @22878 has 32 MA's), (Start: 174 @22890 has 42 MA's), (Start: 186 @22902 has 3 MA's), (187, 22905), (Start: 196 @22932 has 1 MA's), (Start: 205 @22944 has 5 MA's), (236, 22995), (293, 23088), (317, 23133), (318, 23136), (319, 23139), (344, 23199), (351, 23217), (355, 23229), (357, 23232), (358, 23235), (396, 23325), (423, 23412), (513, 23580), (526, 23598), (549, 23634), (559, 23658),

Gene: Twister6\_46 Start: 36083, Stop: 36838, Start Num: 170

Candidate Starts for Twister6\_46:

(115, 35987), (Start: 170 @36083 has 35 MA's), (211, 36155), (236, 36191), (287, 36263), (298, 36278), (390, 36458), (393, 36464), (405, 36491), (466, 36641), (512, 36725), (560, 36797),

Gene: Tycho\_45 Start: 39282, Stop: 40025, Start Num: 169

Candidate Starts for Tycho\_45:

(Start: 169 @39282 has 53 MA's), (Start: 186 @39300 has 3 MA's), (Start: 205 @39345 has 5 MA's), (236, 39390), (284, 39465), (297, 39483), (305, 39495), (319, 39525), (333, 39552), (372, 39645), (378, 39657), (438, 39813), (444, 39825), (457, 39852), (483, 39885), (519, 39951), (543, 39978),

Gene: UBSmoodge\_32 Start: 23407, Stop: 24087, Start Num: 142

Candidate Starts for UBSmoodge\_32:

(Start: 128 @23386 has 1 MA's), (Start: 142 @23407 has 18 MA's), (Start: 228 @23464 has 1 MA's), (237, 23485), (306, 23581), (321, 23614), (334, 23644), (335, 23647), (341, 23668), (345, 23674), (354, 23692), (359, 23713), (382, 23782), (393, 23806), (402, 23824), (408, 23845), (441, 23938), (445, 23947), (448, 23953), (492, 23998), (532, 24067), (542, 24082),

Gene: UmaThurman\_25 Start: 21277, Stop: 22080, Start Num: 163

Candidate Starts for UmaThurman\_25:

(Start: 163 @21277 has 32 MA's), (Start: 196 @21325 has 1 MA's), (Start: 205 @21337 has 5 MA's), (293, 21481), (301, 21493), (319, 21532), (344, 21592), (351, 21610), (355, 21622), (357, 21625), (358, 21628), (423, 21805), (433, 21826), (435, 21832), (438, 21841), (524, 21988), (549, 22024), (559, 22048), (569, 22069),

Gene: Untouchable\_30 Start: 22449, Stop: 23237, Start Num: 182

Candidate Starts for Untouchable\_30:

(Start: 182 @22449 has 57 MA's), (200, 22494), (220, 22524), (Start: 228 @22536 has 1 MA's), (254, 22590), (258, 22596), (288, 22641), (338, 22737), (345, 22755), (351, 22764), (357, 22779), (421, 22968), (422, 22971), (425, 22986), (448, 23046), (462, 23073), (535, 23193),

Gene: Upyo\_37 Start: 28484, Stop: 29182, Start Num: 180

Candidate Starts for Upyo\_37:

(Start: 150 @28451 has 1 MA's), (Start: 180 @28484 has 17 MA's), (187, 28496), (232, 28580), (269, 28637), (275, 28646), (304, 28691), (318, 28721), (393, 28895), (413, 28955), (415, 28961), (419, 28973), (427, 28994), (434, 29015), (438, 29027), (513, 29135),

Gene: Utz\_25 Start: 21147, Stop: 21947, Start Num: 163

Candidate Starts for Utz\_25:

(Start: 163 @21147 has 32 MA's), (Start: 196 @21195 has 1 MA's), (Start: 205 @21207 has 5 MA's), (236, 21258), (293, 21351), (319, 21402), (343, 21459), (344, 21462), (351, 21480), (355, 21492), (357, 21495), (358, 21498), (414, 21651), (423, 21675), (433, 21696), (549, 21894), (559, 21918), (569, 21936),

Gene: Valary\_46 Start: 37125, Stop: 37880, Start Num: 170

Candidate Starts for Valary\_46:

(121, 37047), (Start: 170 @37125 has 35 MA's), (211, 37197), (287, 37305), (317, 37350), (390, 37500), (393, 37506), (405, 37533), (418, 37581), (466, 37683), (512, 37767), (560, 37839),

Gene: VanDeWege\_47 Start: 36417, Stop: 37172, Start Num: 170

Candidate Starts for VanDeWege\_47:

(121, 36339), (Start: 170 @36417 has 35 MA's), (211, 36489), (287, 36597), (317, 36642), (390, 36792), (393, 36798), (405, 36825), (418, 36873), (466, 36975), (512, 37059), (560, 37131),

Gene: VanLee\_104 Start: 55246, Stop: 55980, Start Num: 173

Candidate Starts for VanLee\_104:

(133, 55198), (Start: 173 @55246 has 1 MA's), (189, 55264), (210, 55309), (219, 55321), (249, 55372), (282, 55399), (301, 55426), (320, 55462), (336, 55501), (355, 55537), (360, 55555), (372, 55579), (393, 55618), (405, 55645), (459, 55783), (507, 55864), (572, 55969),

Gene: Vardy\_30 Start: 22058, Stop: 22846, Start Num: 182

Candidate Starts for Vardy\_30:

(Start: 182 @22058 has 57 MA's), (220, 22133), (Start: 228 @22145 has 1 MA's), (254, 22199), (258, 22205), (288, 22250), (309, 22280), (338, 22346), (345, 22364), (352, 22376), (354, 22382), (357, 22388), (421, 22577), (422, 22580), (425, 22595), (448, 22655), (535, 22802),

Gene: Vasanti\_23 Start: 19352, Stop: 20059, Start Num: 177

Candidate Starts for Vasanti\_23:

(101, 19208), (Start: 177 @19352 has 50 MA's), (207, 19409), (Start: 228 @19448 has 1 MA's), (259, 19508), (281, 19529), (315, 19580), (316, 19583), (317, 19586), (332, 19619), (336, 19637), (337, 19640), (383, 19742), (412, 19811), (415, 19820), (422, 19841), (424, 19847), (515, 20021), (538, 20051),

Gene: Verity\_46 Start: 41437, Stop: 42174, Start Num: 160

Candidate Starts for Verity\_46:

(19, 40798), (27, 40969), (29, 41011), (51, 41152), (152, 41428), (Start: 160 @41437 has 17 MA's), (Start: 165 @41443 has 2 MA's), (Start: 174 @41452 has 42 MA's), (Start: 226 @41536 has 2 MA's), (236, 41557), (239, 41566), (277, 41605), (284, 41617), (297, 41635), (319, 41677), (353, 41749), (355, 41755), (410, 41881), (423, 41920), (433, 41941), (438, 41956), (450, 41983), (545, 42130),

Gene: ViaConlectus\_46 Start: 39318, Stop: 40043, Start Num: 174

Candidate Starts for ViaConlectus\_46:

(71, 39102), (111, 39207), (Start: 174 @39318 has 42 MA's), (236, 39423), (284, 39483), (297, 39501), (319, 39543), (346, 39600), (355, 39624), (383, 39690), (423, 39789), (438, 39825), (450, 39852), (519, 39963), (545, 39999),

Gene: Vivi2\_48 Start: 40816, Stop: 41550, Start Num: 169

Candidate Starts for Vivi2\_48:

(94, 40669), (125, 40759), (Start: 169 @40816 has 53 MA's), (Start: 186 @40834 has 3 MA's), (236, 40921), (250, 40948), (284, 40996), (297, 41014), (319, 41056), (354, 41134), (372, 41176), (387, 41209), (438, 41344), (457, 41383), (519, 41482), (543, 41509), (558, 41542),

Gene: Vordorf\_47 Start: 35552, Stop: 36358, Start Num: 166

Candidate Starts for Vordorf\_47:

(Start: 139 @35519 has 3 MA's), (Start: 166 @35552 has 38 MA's), (Start: 205 @35615 has 5 MA's), (255, 35705), (326, 35837), (330, 35843), (331, 35846), (385, 35993), (412, 36074), (423, 36104), (426, 36110), (447, 36161), (524, 36287), (556, 36335),

Gene: Walrus\_27 Start: 21692, Stop: 22495, Start Num: 163

Candidate Starts for Walrus\_27:

(Start: 163 @21692 has 32 MA's), (Start: 196 @21740 has 1 MA's), (Start: 205 @21752 has 5 MA's), (216, 21767), (293, 21896), (301, 21908), (319, 21947), (338, 21992), (340, 21995), (344, 22007), (351, 22025), (355, 22037), (357, 22040), (358, 22043), (423, 22220), (433, 22241), (435, 22247), (524, 22403), (549, 22439), (559, 22463), (569, 22484),

Gene: Weasels2\_31 Start: 9643, Stop: 8966, Start Num: 205

Candidate Starts for Weasels2\_31:

(Start: 205 @9643 has 5 MA's), (229, 9604), (245, 9574), (255, 9553), (278, 9520), (359, 9346), (378, 9292), (422, 9181),

Gene: WelcomeAyanna\_24 Start: 22284, Stop: 22901, Start Num: 214

Candidate Starts for WelcomeAyanna\_24:

(Start: 142 @22185 has 18 MA's), (185, 22224), (199, 22257), (Start: 214 @22284 has 20 MA's), (225, 22290), (Start: 226 @22293 has 2 MA's), (247, 22335), (285, 22395), (321, 22470), (330, 22488), (337, 22515), (355, 22551), (374, 22602), (377, 22623), (412, 22713), (445, 22794), (509, 22872),

Gene: Wheezy\_19 Start: 9432, Stop: 10157, Start Num: 138

Candidate Starts for Wheezy\_19:

(Start: 138 @9432 has 22 MA's), (Start: 170 @9456 has 35 MA's), (192, 9489), (230, 9492), (251, 9528), (260, 9543), (288, 9585), (308, 9624), (354, 9732), (393, 9849), (418, 9924), (437, 9981), (456, 10023), (479, 10056), (492, 10077), (500, 10092), (537, 10152),

Gene: Whiteclaw\_24 Start: 19798, Stop: 20505, Start Num: 177

Candidate Starts for Whiteclaw\_24:

(101, 19654), (Start: 177 @19798 has 50 MA's), (207, 19855), (Start: 228 @19894 has 1 MA's), (253, 19945), (259, 19954), (280, 19972), (281, 19975), (316, 20029), (317, 20032), (332, 20065), (336, 20083), (351, 20110), (383, 20188), (412, 20257), (414, 20263), (422, 20287), (424, 20293), (538, 20497),

Gene: Whitney\_29 Start: 22410, Stop: 23033, Start Num: 224

Candidate Starts for Whitney\_29:

(54, 22035), (68, 22092), (80, 22137), (103, 22191), (104, 22194), (119, 22230), (Start: 128 @22275 has 1 MA's), (Start: 130 @22278 has 1 MA's), (Start: 224 @22410 has 30 MA's), (Start: 226 @22416 has 2 MA's), (239, 22446), (247, 22461), (285, 22521), (324, 22602), (337, 22641), (365, 22713), (384, 22776), (408, 22821), (412, 22839), (419, 22860), (422, 22869), (509, 23001), (512, 23010), (520, 23022),

Gene: WhoseManz\_19 Start: 7300, Stop: 8043, Start Num: 195

Candidate Starts for WhoseManz\_19:

(123, 7171), (193, 7297), (Start: 195 @7300 has 2 MA's), (Start: 228 @7363 has 1 MA's), (230, 7366), (236, 7378), (288, 7459), (354, 7609), (360, 7633), (374, 7666), (418, 7798), (473, 7924), (492, 7960), (521, 8014),

Gene: Widow\_36 Start: 28002, Stop: 28706, Start Num: 180

Candidate Starts for Widow\_36:

(161, 27984), (Start: 180 @28002 has 17 MA's), (187, 28014), (219, 28068), (232, 28098), (236, 28107), (275, 28167), (285, 28185), (351, 28320), (405, 28446), (413, 28479), (419, 28497), (431, 28530), (481, 28608), (513, 28659),

Gene: William\_26 Start: 21300, Stop: 22013, Start Num: 170

Candidate Starts for William\_26:

(Start: 157 @21285 has 1 MA's), (Start: 170 @21300 has 35 MA's), (Start: 186 @21312 has 3 MA's), (187, 21315), (188, 21318), (241, 21426), (259, 21456), (285, 21486), (316, 21531), (335, 21576), (336, 21585), (351, 21618), (358, 21636), (398, 21723), (401, 21729), (409, 21759), (415, 21780), (422, 21801), (424, 21807), (438, 21846), (444, 21858), (492, 21930), (529, 21993),

Gene: WinkNick\_25 Start: 21234, Stop: 22010, Start Num: 186

Candidate Starts for WinkNick\_25:

(Start: 163 @21210 has 32 MA's), (Start: 174 @21222 has 42 MA's), (Start: 186 @21234 has 3 MA's), (187, 21237), (Start: 196 @21264 has 1 MA's), (Start: 205 @21276 has 5 MA's), (236, 21327), (293,

21420), (317, 21465), (318, 21468), (319, 21471), (344, 21531), (351, 21549), (355, 21561), (357, 21564), (358, 21567), (396, 21657), (423, 21744), (549, 21966), (559, 21990),

Gene: Wisp\_24 Start: 20862, Stop: 21665, Start Num: 163

Candidate Starts for Wisp\_24:

(Start: 163 @20862 has 32 MA's), (Start: 196 @20910 has 1 MA's), (Start: 205 @20922 has 5 MA's), (216, 20937), (236, 20973), (293, 21066), (319, 21117), (343, 21174), (344, 21177), (351, 21195), (355, 21207), (357, 21210), (358, 21213), (423, 21390), (433, 21411), (435, 21417), (524, 21573), (549, 21609), (559, 21633), (569, 21654),

Gene: Wizard\_43 Start: 36323, Stop: 37078, Start Num: 170

Candidate Starts for Wizard\_43:

(121, 36245), (Start: 170 @36323 has 35 MA's), (211, 36395), (287, 36503), (317, 36548), (390, 36698), (393, 36704), (405, 36731), (418, 36779), (466, 36881), (512, 36965), (560, 37037),

Gene: Wocket\_27 Start: 21844, Stop: 22632, Start Num: 165

Candidate Starts for Wocket\_27:

(119, 21760), (Start: 165 @21844 has 2 MA's), (Start: 205 @21898 has 5 MA's), (236, 21949), (293, 22042), (319, 22093), (340, 22141), (344, 22153), (351, 22171), (355, 22183), (357, 22186), (358, 22189), (423, 22366), (433, 22387), (549, 22585), (559, 22609),

Gene: Wojtek\_79 Start: 58771, Stop: 59619, Start Num: 166

Candidate Starts for Wojtek\_79:

(146, 58747), (148, 58750), (Start: 166 @58771 has 38 MA's), (175, 58780), (Start: 183 @58792 has 2 MA's), (188, 58801), (Start: 196 @58825 has 1 MA's), (209, 58843), (213, 58849), (246, 58900), (303, 58996), (307, 59005), (319, 59032), (324, 59044), (337, 59083), (405, 59263), (425, 59329), (428, 59338), (439, 59368), (451, 59395), (465, 59419), (494, 59473), (517, 59518), (526, 59530), (562, 59596),

Gene: Wooper\_45 Start: 37588, Stop: 38310, Start Num: 174

Candidate Starts for Wooper\_45:

(79, 37402), (Start: 174 @37588 has 42 MA's), (271, 37750), (286, 37777), (292, 37783), (351, 37897), (390, 37981), (422, 38074), (433, 38104),

Gene: Wrigley\_28 Start: 22650, Stop: 23273, Start Num: 214

Candidate Starts for Wrigley\_28:

(Start: 214 @22650 has 20 MA's), (227, 22659), (247, 22701), (269, 22737), (295, 22782), (306, 22803), (321, 22836), (337, 22881), (365, 22953), (374, 22968), (384, 23016), (408, 23061), (412, 23079), (419, 23100), (422, 23109), (445, 23163), (492, 23214), (509, 23241), (512, 23250), (514, 23253),

Gene: Xenia2\_89 Start: 59110, Stop: 59985, Start Num: 141

Candidate Starts for Xenia2\_89:

(Start: 141 @59110 has 4 MA's), (Start: 150 @59122 has 1 MA's), (Start: 165 @59140 has 2 MA's), (Start: 183 @59152 has 2 MA's), (188, 59161), (209, 59203), (276, 59311), (324, 59404), (360, 59509), (369, 59530), (372, 59536), (373, 59539), (405, 59623), (444, 59737), (451, 59755), (463, 59776), (503, 59851), (541, 59908),

Gene: Yago84\_42 Start: 36147, Stop: 36872, Start Num: 174

Candidate Starts for Yago84\_42:

(77, 35949), (106, 36021), (Start: 174 @36147 has 42 MA's), (259, 36306), (271, 36312), (285, 36336), (291, 36345), (299, 36357), (311, 36372), (336, 36438), (352, 36468), (390, 36552), (412, 36615), (420, 36639), (422, 36645), (515, 36828), (522, 36837),

Gene: Yeet412\_24 Start: 19791, Stop: 20498, Start Num: 177

Candidate Starts for Yeet412\_24:

(101, 19647), (Start: 177 @19791 has 50 MA's), (207, 19848), (Start: 228 @19887 has 1 MA's), (259, 19947), (280, 19965), (281, 19968), (291, 19986), (316, 20022), (317, 20025), (332, 20058), (336, 20076), (351, 20103), (383, 20181), (412, 20250), (422, 20280), (424, 20286), (538, 20490),

Gene: Yeezy\_27 Start: 21525, Stop: 22145, Start Num: 215

Candidate Starts for Yeezy\_27:

(Start: 215 @21525 has 16 MA's), (Start: 226 @21534 has 2 MA's), (247, 21579), (295, 21660), (321, 21714), (337, 21759), (355, 21795), (374, 21846), (384, 21894), (412, 21957), (422, 21987), (445, 22038), (509, 22116),

Gene: Yeshua\_45 Start: 37565, Stop: 38287, Start Num: 174

Candidate Starts for Yeshua\_45:

(79, 37379), (Start: 174 @37565 has 42 MA's), (271, 37727), (286, 37754), (292, 37760), (351, 37874), (390, 37958), (422, 38051), (433, 38081),

Gene: Yikes\_87 Start: 59300, Stop: 60151, Start Num: 166

Candidate Starts for Yikes\_87:

(83, 59123), (96, 59150), (99, 59159), (106, 59174), (108, 59183), (146, 59276), (148, 59279), (Start: 166 @59300 has 38 MA's), (175, 59309), (188, 59330), (209, 59372), (213, 59378), (240, 59423), (303, 59528), (319, 59564), (324, 59576), (337, 59615), (349, 59645), (351, 59648), (355, 59660), (405, 59795), (425, 59861), (428, 59870), (439, 59900), (451, 59927), (465, 59951), (494, 60005), (517, 60050), (526, 60062), (562, 60128),

Gene: Yndexa\_19 Start: 7686, Stop: 8480, Start Num: 139

Candidate Starts for Yndexa\_19:

(Start: 139 @7686 has 3 MA's), (Start: 228 @7800 has 1 MA's), (230, 7803), (236, 7815), (288, 7896), (354, 8046), (360, 8070), (374, 8103), (418, 8235), (473, 8361), (492, 8397), (521, 8451),

Gene: YorkOnyx\_46 Start: 39539, Stop: 40282, Start Num: 169

Candidate Starts for YorkOnyx\_46:

(Start: 169 @39539 has 53 MA's), (Start: 186 @39557 has 3 MA's), (Start: 205 @39602 has 5 MA's), (236, 39647), (250, 39674), (264, 39692), (284, 39722), (297, 39740), (305, 39752), (319, 39782), (333, 39809), (372, 39902), (378, 39914), (425, 40034), (438, 40070), (444, 40082), (457, 40109), (483, 40142), (496, 40169), (500, 40175), (519, 40208), (543, 40235),

Gene: YungMoney\_47 Start: 38725, Stop: 39480, Start Num: 167

Candidate Starts for YungMoney\_47:

(154, 38710), (Start: 167 @38725 has 15 MA's), (211, 38797), (235, 38830), (236, 38833), (249, 38860), (266, 38881), (287, 38905), (382, 39085), (390, 39100), (393, 39106), (405, 39133), (418, 39181), (466, 39283), (512, 39367), (560, 39439),

Gene: ZAYM\_27 Start: 22255, Stop: 22968, Start Num: 177

Candidate Starts for ZAYM\_27:

(55, 21961), (56, 21964), (75, 22045), (85, 22075), (129, 22198), (Start: 177 @22255 has 50 MA's), (217, 22321), (Start: 228 @22348 has 1 MA's), (236, 22363), (259, 22408), (299, 22459), (317, 22486), (328, 22510), (354, 22573), (393, 22657), (412, 22714), (418, 22732), (422, 22744), (424, 22750),

Gene: Zameen\_27 Start: 22303, Stop: 22923, Start Num: 215

Candidate Starts for Zameen\_27:

(50, 21928), (103, 22099), (104, 22102), (Start: 128 @22183 has 1 MA's), (Start: 142 @22204 has 18 MA's), (Start: 215 @22303 has 16 MA's), (Start: 226 @22312 has 2 MA's), (247, 22357), (295, 22438), (337, 22537), (355, 22573), (374, 22624), (384, 22672), (412, 22735), (422, 22765), (445, 22816), (492, 22867), (509, 22894),

Gene: Zany\_85 Start: 59554, Stop: 60444, Start Num: 166

Candidate Starts for Zany\_85:

(146, 59530), (148, 59533), (Start: 166 @59554 has 38 MA's), (175, 59563), (188, 59584), (209, 59626), (213, 59632), (303, 59782), (307, 59791), (319, 59818), (324, 59830), (337, 59869), (405, 60049), (425, 60115), (428, 60124), (439, 60154), (451, 60181), (465, 60205), (494, 60259), (517, 60304), (526, 60316), (571, 60403), (574, 60436),

Gene: Zarbodnamra\_25 Start: 21151, Stop: 21954, Start Num: 163

Candidate Starts for Zarbodnamra\_25:

(Start: 163 @21151 has 32 MA's), (Start: 196 @21199 has 1 MA's), (Start: 205 @21211 has 5 MA's), (216, 21226), (236, 21262), (293, 21355), (319, 21406), (343, 21463), (344, 21466), (351, 21484), (355, 21496), (357, 21499), (358, 21502), (423, 21679), (433, 21700), (435, 21706), (524, 21862), (549, 21898), (559, 21922), (569, 21943),

Gene: Zeph\_31 Start: 22807, Stop: 23595, Start Num: 182

Candidate Starts for Zeph\_31:

(Start: 182 @22807 has 57 MA's), (220, 22882), (Start: 228 @22894 has 1 MA's), (254, 22948), (258, 22954), (288, 22999), (338, 23095), (345, 23113), (351, 23122), (354, 23131), (357, 23137), (421, 23326), (422, 23329), (425, 23344), (448, 23404), (535, 23551),

Gene: ZiggyZoo\_25 Start: 21074, Stop: 21871, Start Num: 160

Candidate Starts for ZiggyZoo\_25:

(32, 20681), (53, 20810), (82, 20921), (95, 20948), (109, 20984), (Start: 160 @21074 has 17 MA's), (Start: 205 @21128 has 5 MA's), (216, 21143), (236, 21179), (293, 21272), (301, 21284), (318, 21320), (319, 21323), (340, 21371), (343, 21380), (344, 21383), (351, 21401), (355, 21413), (357, 21416), (358, 21419), (412, 21566), (423, 21596), (433, 21617), (435, 21623), (438, 21632), (549, 21815), (559, 21839), (569, 21860),

Gene: Zilla\_25 Start: 21169, Stop: 21972, Start Num: 163

Candidate Starts for Zilla\_25:

(Start: 163 @21169 has 32 MA's), (Start: 196 @21217 has 1 MA's), (Start: 205 @21229 has 5 MA's), (216, 21244), (236, 21280), (293, 21373), (319, 21424), (343, 21481), (344, 21484), (351, 21502), (355, 21514), (357, 21517), (358, 21520), (423, 21697), (433, 21718), (435, 21724), (524, 21880), (549, 21916), (559, 21940), (569, 21961),

Gene: Zipp\_47 Start: 41352, Stop: 42089, Start Num: 160

Candidate Starts for Zipp\_47:

(22, 40737), (23, 40776), (27, 40884), (29, 40926), (51, 41067), (152, 41343), (Start: 160 @41352 has 17 MA's), (Start: 165 @41358 has 2 MA's), (Start: 174 @41367 has 42 MA's), (236, 41472), (239, 41481), (277, 41520), (284, 41532), (297, 41550), (319, 41592), (353, 41664), (355, 41670), (410, 41796), (423, 41835), (433, 41856), (438, 41871), (450, 41898), (545, 42045),

Gene: Zirinka\_25 Start: 22321, Stop: 22938, Start Num: 214

Candidate Starts for Zirinka\_25:

(Start: 142 @22222 has 18 MA's), (185, 22261), (199, 22294), (Start: 214 @22321 has 20 MA's), (Start: 226 @22330 has 2 MA's), (247, 22372), (252, 22384), (285, 22432), (295, 22453), (306, 22474), (321, 22507), (337, 22552), (355, 22588), (374, 22639), (412, 22750), (422, 22780), (445, 22831), (509, 22909),

Gene: Zitch\_49 Start: 39473, Stop: 40198, Start Num: 174

Candidate Starts for Zitch\_49:

(97, 39326), (111, 39362), (Start: 174 @39473 has 42 MA's), (204, 39527), (236, 39578), (239, 39587), (284, 39638), (297, 39656), (319, 39698), (346, 39755), (355, 39779), (383, 39845), (410, 39905), (423, 39944), (438, 39980), (450, 40007), (519, 40118), (545, 40154),

Gene: Zodiariah\_29 Start: 26113, Stop: 26916, Start Num: 165

Candidate Starts for Zodiariah\_29:

(Start: 165 @26113 has 2 MA's), (Start: 174 @26122 has 42 MA's), (Start: 186 @26134 has 3 MA's), (Start: 196 @26164 has 1 MA's), (Start: 205 @26176 has 5 MA's), (223, 26200), (236, 26227), (293, 26320), (319, 26371), (320, 26374), (344, 26431), (351, 26449), (396, 26554), (423, 26641), (438, 26677), (450, 26704), (513, 26809), (549, 26863), (559, 26887),