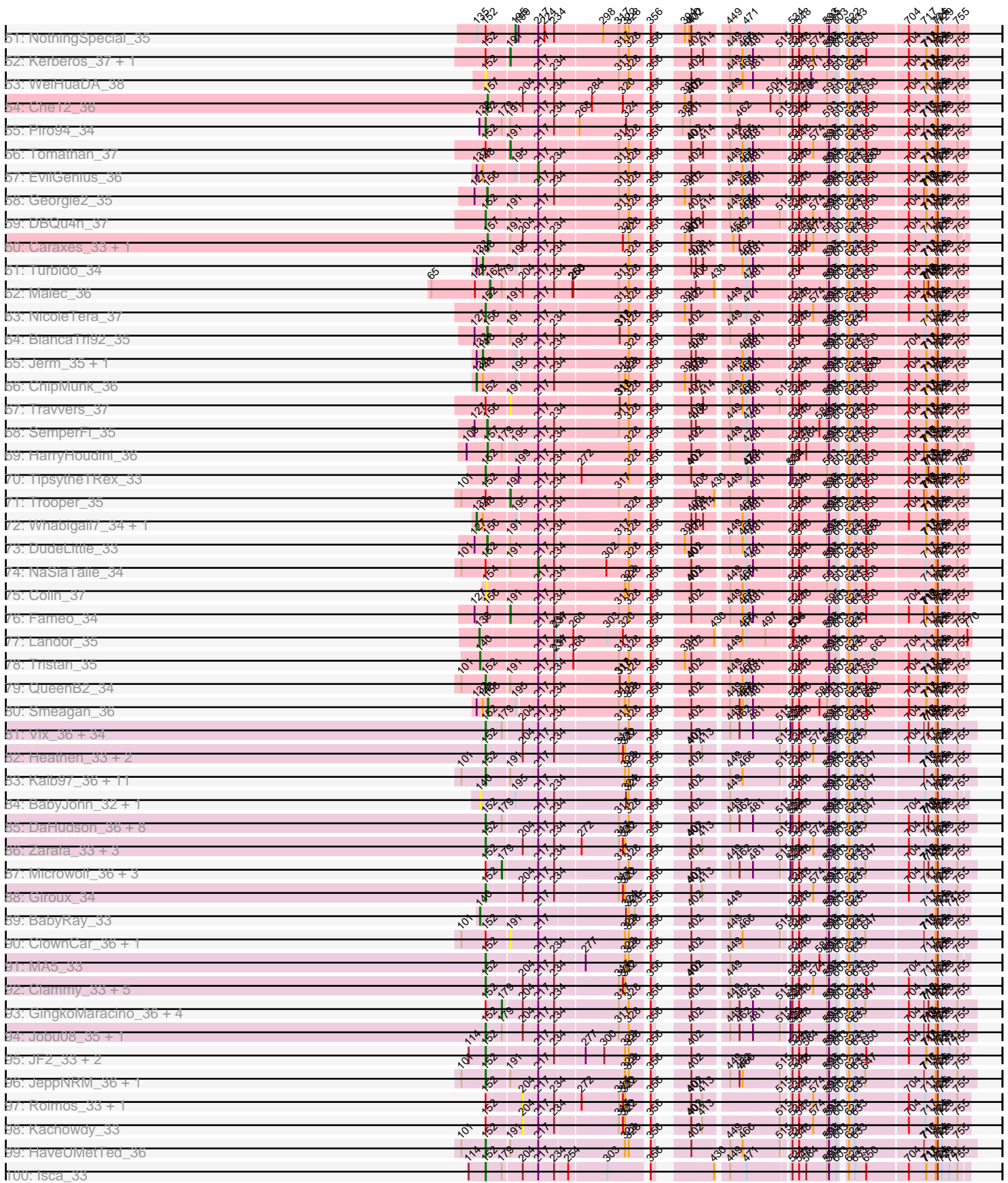


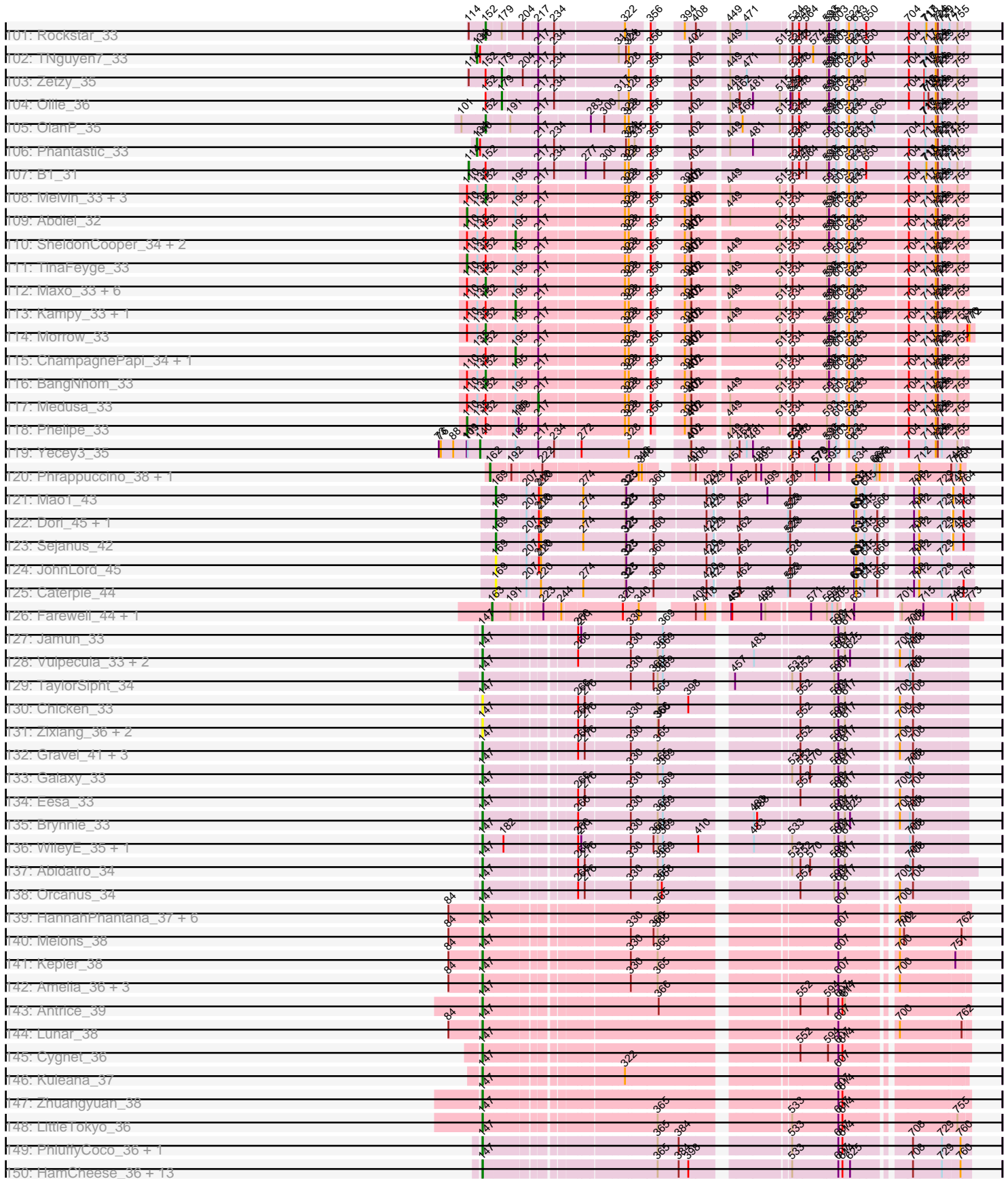
Pham 296069

1: Pharaoh_32	109	140	196	217	234	316	328	356	408	449	444	515	536	585	622	680	704	711	759	755
2: Zimmer_35	102	164	199	211	234	253	316	336	402	447	481	514	536	585	622	680	701	711	755	755
3: Kimona_30	102	164	199	211	234	253	316	336	402	447	481	514	536	585	622	680	701	711	755	755
4: Baehexic_34 + 5	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
5: Jsquared_34	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
6: Gratitude_34	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
7: Power_33	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
8: XianYue_35	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
9: Bactobuster_35	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
10: Leviathan_35	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
11: MajorMajor_34 + 2	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
12: Pukovnik_35	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
13: KingCyrus_36	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
14: Jaan_37	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
15: Koduck_34 + 1	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
16: C3_31	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
17: Kaipine_35	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
18: LionsBait_35	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
19: MiculOcigas_34	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
20: SwirlSquare_34	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
21: Serenity_34	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
22: Buggy_36	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
23: TarsusIV_33	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
24: Leogania_35	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
25: AN9_36 + 4	65	102	164	199	211	234	272	316	336	402	447	504	536	585	622	680	701	711	755	755
26: Journey13_31	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
27: Ph8s_35	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
28: HippoHollow_33	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
29: Trixie_35	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
30: SnapTap_34 + 2	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
31: Agape74_35 + 1	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
32: Heifalump_35	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
33: Pomar16_37	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
34: Duplo_37	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
35: Drake55_36	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
36: Odin_33	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
37: QueenBeesly_34 + 1	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
38: Naji_37 + 2	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
39: Acolyte_34	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
40: Iwokeupikedis_34	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
41: Skhol_34	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
42: Larenn_35	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
43: Flare16_34	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
44: Daimatian_35 + 2	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
45: JoshKayV_35	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
46: Adzzy_35	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
47: IronVian_36	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
48: Phaded_37	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
49: MissWhite_33	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755
50: GaugeLDP_35	102	164	199	211	234	272	316	336	402	447	481	514	536	585	622	680	701	711	755	755

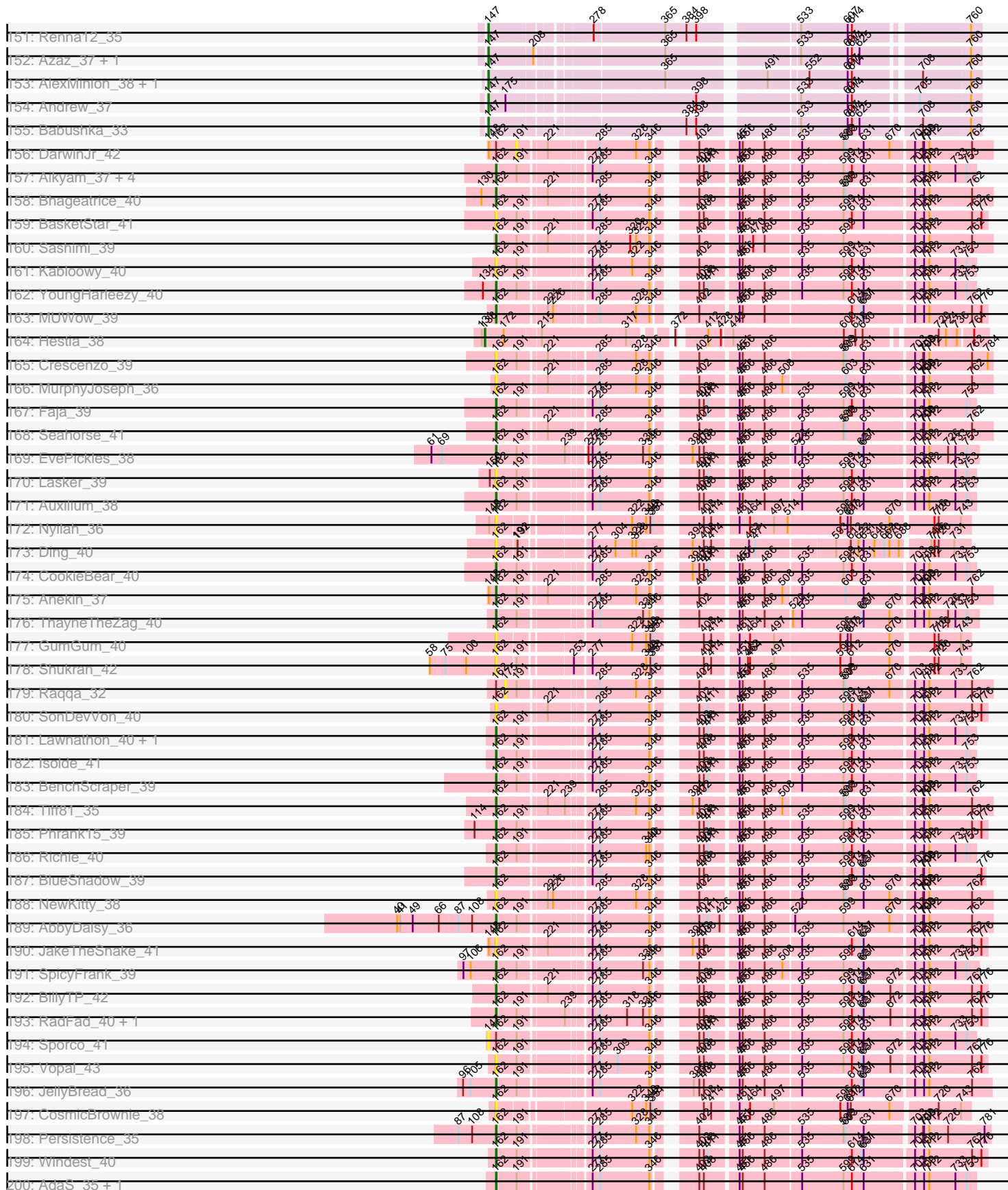
Pham 296069



Pham 296069

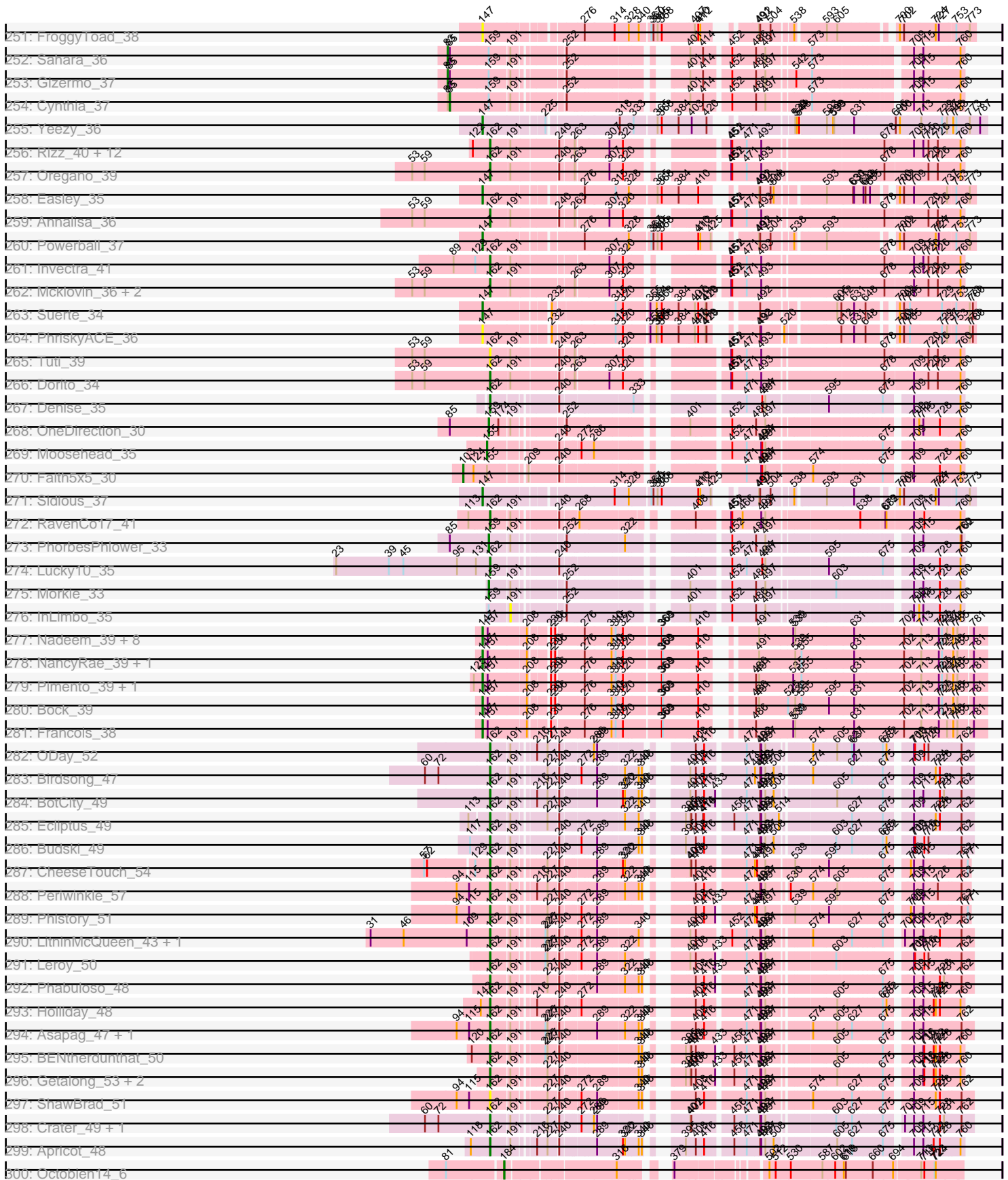


Pham 296069

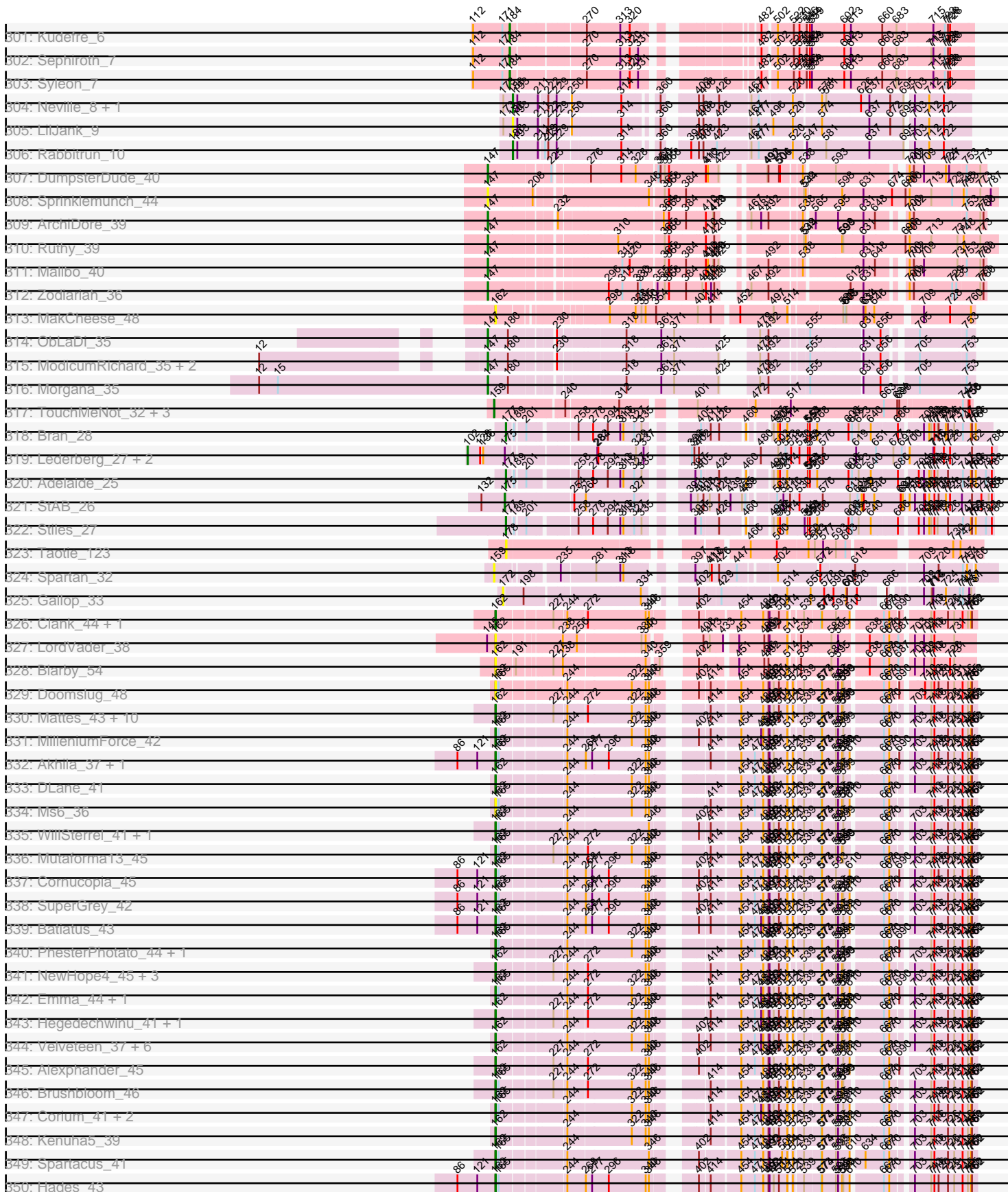




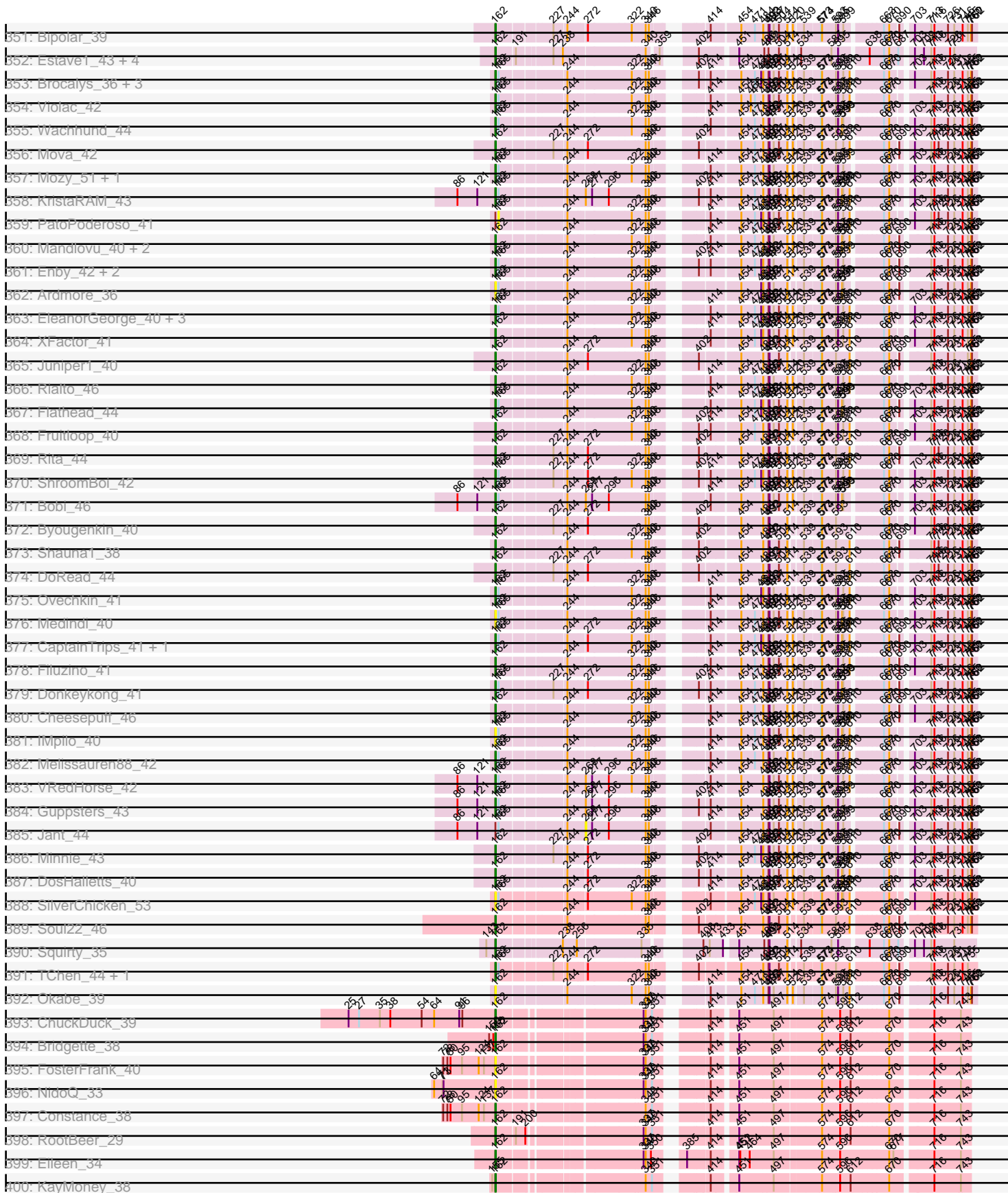
Pham 296069



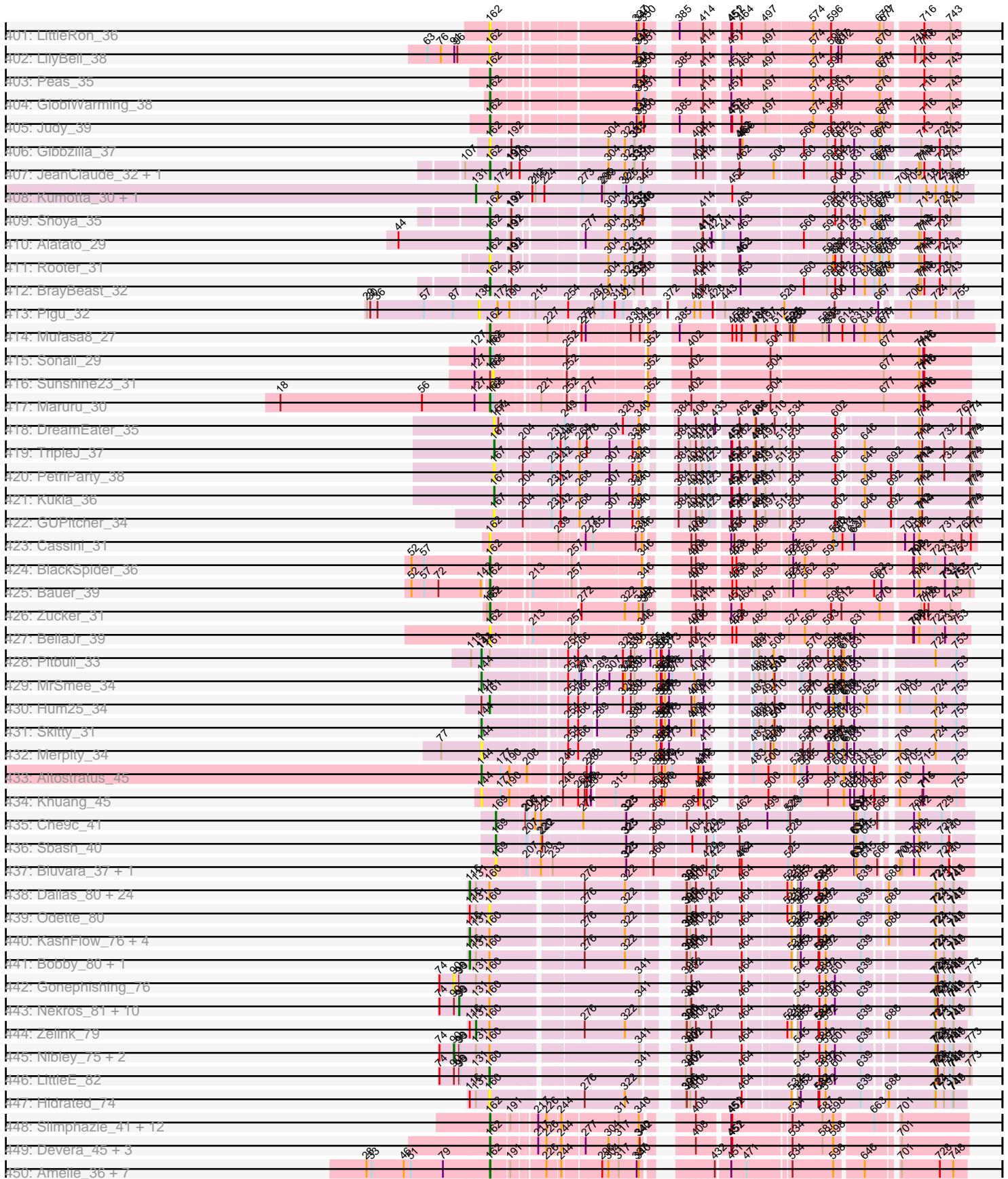
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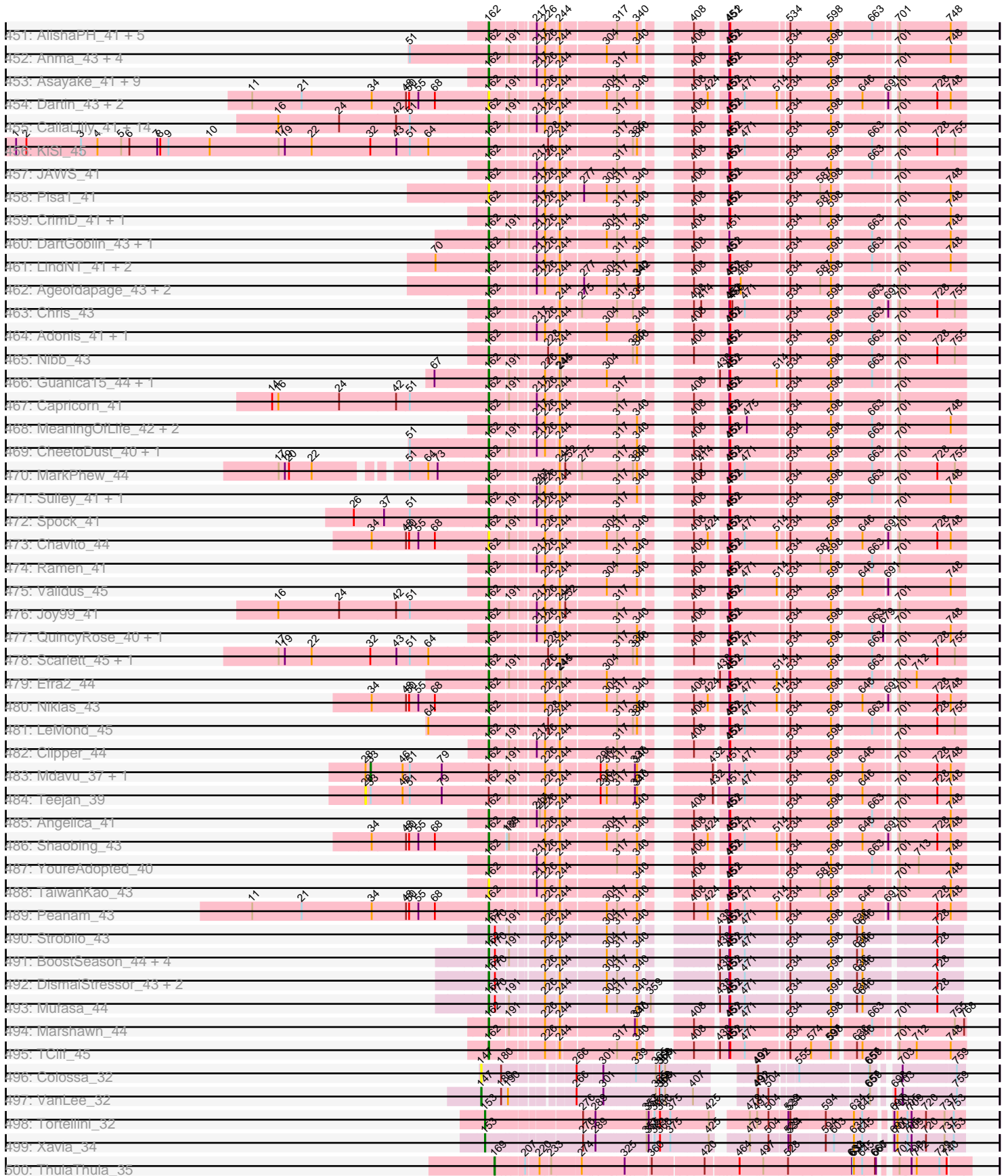
Pham 296069



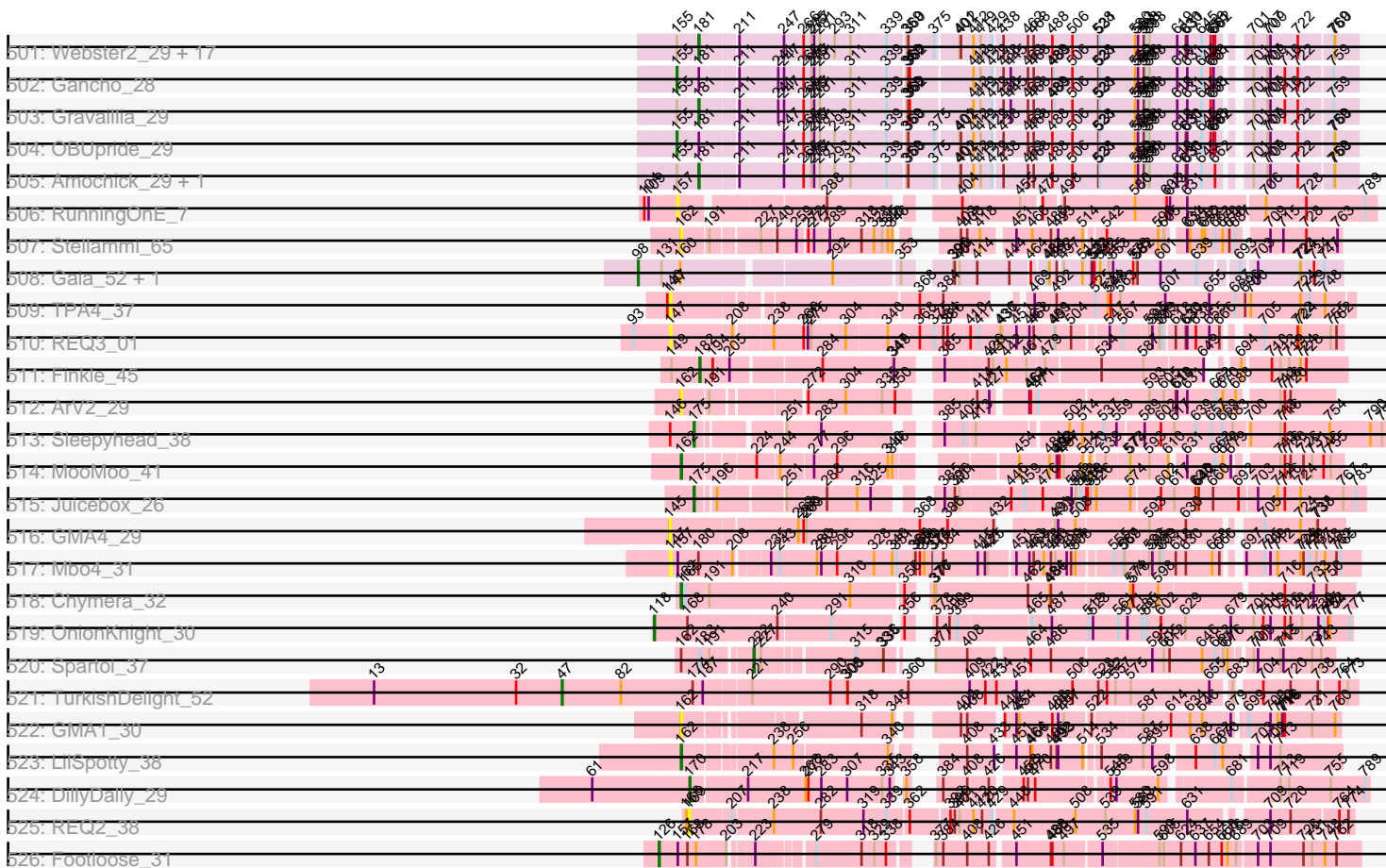
Pham 296069



Pham 296069



Pham 296069



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 296069 Report

This analysis was run 04/25/26 on database version 644.

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

Pham number 296069 has 948 members, 161 are drafts.

Phages represented in each track:

- Track 1 : Pharaoh\_32
- Track 2 : Zimmer\_35
- Track 3 : Kimona\_30
- Track 4 : Baehexic\_34, Centaur\_35, WideWale\_35, Terrific\_37, Updawg\_35, Equemioh13\_35
- Track 5 : Jsquared\_34
- Track 6 : Gratitude\_34
- Track 7 : Power\_33
- Track 8 : XianYue\_35
- Track 9 : Bactobuster\_35
- Track 10 : Leviathan\_35
- Track 11 : MajorMajor\_34, Bradman\_34, Quokka\_33
- Track 12 : Pukovnik\_35
- Track 13 : KingCyrus\_36
- Track 14 : Jaan\_37
- Track 15 : Koduck\_34, L5\_33
- Track 16 : C3\_31
- Track 17 : Kalpine\_35
- Track 18 : LionsBait\_35
- Track 19 : MiculUcigas\_34
- Track 20 : SwirlSquare\_34
- Track 21 : Serenity\_34
- Track 22 : Buggy\_36
- Track 23 : TarsusIV\_33
- Track 24 : Leogania\_35
- Track 25 : AN9\_36, VC3\_36, ANI8\_36, AN3\_33, VA6\_33
- Track 26 : Journey13\_31
- Track 27 : Ph8s\_35
- Track 28 : HippoHollow\_33
- Track 29 : Trixie\_35
- Track 30 : SnapTap\_34, Crucio\_34, SweetiePie\_34
- Track 31 : Agape74\_35, AbbyPaige\_35
- Track 32 : Heffalump\_35

- Track 33 : Pomar16\_37
- Track 34 : Duplo\_37
- Track 35 : Drake55\_36
- Track 36 : Odin\_33
- Track 37 : QueenBeesly\_34, FiringLine\_34
- Track 38 : Naji\_37, D29\_33, D32\_37
- Track 39 : Acolyte\_34
- Track 40 : Iwokeuplikedis\_34
- Track 41 : Sknot\_34
- Track 42 : Larenn\_35
- Track 43 : Flare16\_34
- Track 44 : Dalmatian\_35, Anselm\_35, Retro23\_35
- Track 45 : JoshKayV\_35
- Track 46 : Adzzy\_35
- Track 47 : IronMan\_36
- Track 48 : Phaded\_37
- Track 49 : MissWhite\_33
- Track 50 : GaugeLDP\_35
- Track 51 : NothingSpecial\_35
- Track 52 : Kerberos\_37, StarStuff\_37
- Track 53 : WeiHuaDA\_38
- Track 54 : Che12\_36
- Track 55 : Piro94\_34
- Track 56 : Tomathan\_37
- Track 57 : EvilGenius\_36
- Track 58 : Georgie2\_35
- Track 59 : DBQu4n\_37
- Track 60 : Caraxes\_33, Superchunk\_33
- Track 61 : Turbido\_34
- Track 62 : Malec\_36
- Track 63 : NicoleTera\_37
- Track 64 : BiancaTri92\_35
- Track 65 : Jerm\_35, Dignity\_35
- Track 66 : ChipMunk\_36
- Track 67 : Travvers\_37
- Track 68 : SemperFi\_35
- Track 69 : HarryHoudini\_36
- Track 70 : TipsytheTRex\_33
- Track 71 : Trooper\_35
- Track 72 : Whabigail7\_34, LilTurb\_34
- Track 73 : DudeLittle\_33
- Track 74 : NaSiaTalie\_34
- Track 75 : Colin\_37
- Track 76 : Fameo\_34
- Track 77 : Landor\_35
- Track 78 : Tristan\_35
- Track 79 : QueenB2\_34
- Track 80 : Smeagan\_36
- Track 81 : Vix\_36, Dieselweasel\_36, MuchMore\_38, Colbster\_36, Grum1\_36, JHC117\_36, Grif\_36, Penny1\_36, EpicPhail\_36, LBerry\_36, Tiffany\_36, AugsMagnumOpus\_38, Mainiac\_36, Cullens\_36, Snickers\_36, Bigflo\_36, Anubis\_38, Phoebe\_36, P28Green\_36, Beauxregard13\_36, MoneyMay\_36, Marie\_36, Sabinator\_36, Hercules11\_36, StepMih\_36, MadMarie\_36, Croquant\_37,

PotatoSplit\_37, Gwennie\_35, SoYo\_36, BreSam8\_36, LugYA\_38, Stagni\_36, Sabia\_36, MarQuardt\_36

- Track 82 : Heathen\_33, HelDan\_33, Puppy\_34
- Track 83 : Kalb97\_36, Reba\_36, Manu\_36, Marius\_36, Groupthink\_36, Kalnoky\_36, Phranny\_36, PurpleHaze\_35, Pawn\_35, Heliosoles\_35, PhishRPhriends\_34, Gemma\_35
- Track 84 : BabyJohn\_32, Chiqui\_32
- Track 85 : DaHudson\_36, GtownJaz\_36, Aglet\_36, Pembroke\_36, Watson\_36, Lowa\_36, Wooldri\_38, Grub\_36, PGHhamlin\_38
- Track 86 : Zarafa\_33, Scout\_33, Fred313\_33, DropBear\_33
- Track 87 : Microwolf\_36, Lilith\_36, Malinsilva\_38, Farber\_36
- Track 88 : Giroux\_34
- Track 89 : BabyRay\_33
- Track 90 : ClownCar\_36, Calvinny\_36
- Track 91 : MA5\_33
- Track 92 : Clammy\_33, SaturnRing\_33, BlueBird\_34, Idleandcovert\_33, Bugatti\_33, Pistachio\_34
- Track 93 : GingkoMaracino\_36, Fernando\_36, Taurus\_36, JenCasNa\_36, Montavir\_35
- Track 94 : Jobu08\_35, SoilDragon\_35
- Track 95 : JF2\_33, MK4\_33, JF4\_33
- Track 96 : JeppNRM\_36, ACFishhook\_35
- Track 97 : Roimos\_33, Marchesa\_33
- Track 98 : Kachowdy\_33
- Track 99 : HaveUMetTed\_36
- Track 100 : Isca\_33
- Track 101 : Rockstar\_33
- Track 102 : TNguyen7\_33
- Track 103 : Zetzy\_35
- Track 104 : Ollie\_36
- Track 105 : OlanP\_35
- Track 106 : Phantastic\_33
- Track 107 : B1\_31
- Track 108 : Melvin\_33, TroyPia\_33, BellusTerra\_33, Commander\_33
- Track 109 : Abdiel\_32
- Track 110 : SheldonCooper\_34, Cerulean\_34, Obama12\_34
- Track 111 : TinaFeyge\_33
- Track 112 : Maxo\_33, Eurydice\_33, Eagle\_32, Ohfah\_33, Sparxx\_33, Nebs\_33, Polymorphads\_33
- Track 113 : Kampy\_33, LeoAvram\_33
- Track 114 : Morrow\_33
- Track 115 : ChampagnePapi\_34, LHTSCC\_34
- Track 116 : BangNhom\_33
- Track 117 : Medusa\_33
- Track 118 : Felipe\_33
- Track 119 : Yecey3\_35
- Track 120 : Phrappuccino\_38, Settecandela\_38
- Track 121 : Mao1\_43
- Track 122 : Dori\_45, Mask\_46
- Track 123 : Sejanus\_42
- Track 124 : JohnLord\_45
- Track 125 : Caterpie\_44
- Track 126 : Farewell\_44, Sparky\_45

- Track 127 : Jamun\_33
- Track 128 : Vulpecula\_33, Basilisk\_34, Ruchi\_33
- Track 129 : TaylorSipht\_34
- Track 130 : Chicken\_33
- Track 131 : Zixiang\_36, KendraB23\_42, Shen\_33
- Track 132 : Gravel\_41, Toad24\_36, Pelletreau\_41, Westrich\_40
- Track 133 : Galaxy\_33
- Track 134 : Eesa\_33
- Track 135 : Brynnie\_33
- Track 136 : WileyE\_35, Chickaboom\_35
- Track 137 : Abidatro\_34
- Track 138 : Orcanus\_34
- Track 139 : HannahPhantana\_37, Bedetta\_40, Pineda\_38, Cote\_38, Coral\_36, OtsoOtso\_37, Polka\_36
- Track 140 : Melons\_38
- Track 141 : Kepler\_38
- Track 142 : Amelia\_36, Jerole\_37, Daob\_38, Colusalem\_37
- Track 143 : Antrice\_39
- Track 144 : Lunar\_38
- Track 145 : Cygnet\_36
- Track 146 : Kuleana\_37
- Track 147 : Zhuangyuan\_38
- Track 148 : LittleTokyo\_36
- Track 149 : PhluffyCoco\_36, Rattail\_36
- Track 150 : HamCheese\_36, Atlantica\_36, RedFox\_36, Amphitrite\_36, AmiCi24\_35, DanHam62\_36, AdoptaAdorbs\_35, KHumphrey\_36, Laphuphu24k\_35, Fingolfin\_36, Juno112\_35, Camara\_36, Oppalora\_35, Glotell\_37
- Track 151 : Renna12\_35
- Track 152 : Azaz\_37, Leona\_35
- Track 153 : AlexMinion\_38, StuartMinion\_28
- Track 154 : Andrew\_37
- Track 155 : Babushka\_33
- Track 156 : DarwinJr\_42
- Track 157 : Aikyam\_37, MaterMagnus\_40, Gorpy\_41, Raphaella\_40, Sakai\_40
- Track 158 : Bhageatrice\_40
- Track 159 : BasketStar\_41
- Track 160 : Sashimi\_39
- Track 161 : Kabloowy\_40
- Track 162 : YoungHarleezy\_40
- Track 163 : MUWow\_39
- Track 164 : Hestia\_38
- Track 165 : Crescenzo\_39
- Track 166 : MurphyJoseph\_36
- Track 167 : Faja\_39
- Track 168 : Seahorse\_41
- Track 169 : EvePickles\_38
- Track 170 : Lasker\_39
- Track 171 : Auxilium\_38
- Track 172 : Nyilah\_36
- Track 173 : Ding\_40
- Track 174 : CookieBear\_40
- Track 175 : Anekin\_37
- Track 176 : ThayneTheZag\_40

- Track 177 : GumGum\_40
- Track 178 : Shukran\_42
- Track 179 : Raqqa\_32
- Track 180 : SonDevVon\_40
- Track 181 : Lawnathon\_40, Mapleville\_40
- Track 182 : Isolde\_41
- Track 183 : BenchScraper\_39
- Track 184 : Tiff81\_35
- Track 185 : Phrank15\_39
- Track 186 : Richie\_40
- Track 187 : BlueShadow\_39
- Track 188 : NewKitty\_38
- Track 189 : AbbyDaisy\_36
- Track 190 : JakeTheSnake\_41
- Track 191 : SpicyFrank\_39
- Track 192 : BillyTP\_42
- Track 193 : RadFad\_40, Hillester\_40
- Track 194 : Sporco\_41
- Track 195 : Vopal\_43
- Track 196 : JellyBread\_36
- Track 197 : CosmicBrownie\_38
- Track 198 : Persistence\_35
- Track 199 : Windest\_40
- Track 200 : AdaS\_35, MidnightRain\_42
- Track 201 : Satrap\_40
- Track 202 : LeBruni\_37
- Track 203 : Globfish\_39
- Track 204 : VWB\_31
- Track 205 : SPB78\_39
- Track 206 : Spooks\_11
- Track 207 : Success\_11
- Track 208 : PFR2\_28, PFR1\_26
- Track 209 : Goib\_39
- Track 210 : DinoDaryn\_38, TZGordon\_39, Huffy\_38
- Track 211 : Vendetta\_37, Splinter\_37
- Track 212 : Banquo\_37
- Track 213 : TinaLin\_36
- Track 214 : Gspu1\_28
- Track 215 : Schmidt\_32
- Track 216 : Catfish\_37
- Track 217 : Bradissa\_36, EnalisNailo\_35, Lilas\_38
- Track 218 : Confidence\_37
- Track 219 : Floral\_36, Pollux\_38
- Track 220 : EMSquaredA\_37, Marteena\_36
- Track 221 : Angelique\_39
- Track 222 : Jablanski\_39, WelcomeAyanna\_38, Pytheas\_39
- Track 223 : Posh\_42
- Track 224 : Wrigley\_43
- Track 225 : BeeGee\_42
- Track 226 : Cashline\_38
- Track 227 : LonelyBoi\_38
- Track 228 : Ohgeesy\_38, BaxterFox\_37, PantheRoc\_37
- Track 229 : Bunnybear\_33

- Track 230 : SushiChef\_36
- Track 231 : Lton\_34
- Track 232 : Pepperoni\_31
- Track 233 : ThankyouJordi\_38
- Track 234 : Nymphadora\_39, Hugley\_36, Eviarto\_39, TimTam\_39
- Track 235 : Bosnia\_39
- Track 236 : Maridalia\_39
- Track 237 : Hyzer\_43
- Track 238 : Herod\_39, BatStarr\_39
- Track 239 : Agueybana\_38
- Track 240 : BoyNamedSue\_39, AlumE\_39
- Track 241 : Madeline\_35
- Track 242 : Madavieve\_34
- Track 243 : Kita\_40
- Track 244 : Clap\_37, GemG\_37, Mocha12\_37, Ebert\_39, Lamberg\_33, Haley23\_37, Yinzer\_36
- Track 245 : Attis\_34, EdnaMode\_33, Eudoria\_39, Neobush\_39, Suscepit\_39, Bialota\_37, Zameen\_39, Zirinka\_36, Antonio\_39, Tayonia\_39, Manasvini\_39, SoilAssassin\_34, LordFarquaad\_35, Polly\_36, Trumpet\_39, Yeet412\_34
- Track 246 : Nettuno\_33, Savage\_37, Matteo\_30, Jalleen\_36, Sproutie\_37, TuertoX\_37, Whiteclaw\_37
- Track 247 : JCole\_37
- Track 248 : Bjanes7\_34
- Track 249 : Pickett\_32
- Track 250 : Vasanti\_37
- Track 251 : FroggyToad\_38
- Track 252 : Sahara\_36
- Track 253 : Gizermo\_37
- Track 254 : Cynthia\_37
- Track 255 : Yeezy\_36
- Track 256 : Rizz\_40, Adora\_37, Samman98\_40, Dolores\_40, WinkNick\_41, Howe\_40, Shlim410\_38, Beenie\_33, Clark\_39, Sekhmet\_40, MichaelScott\_40, Hortense\_40, Twinkle\_39
- Track 257 : Oregano\_39
- Track 258 : Easley\_35
- Track 259 : Annalisa\_36
- Track 260 : Powerball\_37
- Track 261 : Invectra\_41
- Track 262 : Mcklovin\_36, Thimann\_36, DobbysSock\_31
- Track 263 : Suerte\_34
- Track 264 : PhriskyACE\_36
- Track 265 : Tuti\_39
- Track 266 : Dorito\_34
- Track 267 : Denise\_35
- Track 268 : OneDirection\_30
- Track 269 : Moosehead\_35
- Track 270 : Faith5x5\_30
- Track 271 : Sidious\_37
- Track 272 : RavenCo17\_41
- Track 273 : PhorbesPhlower\_33
- Track 274 : Lucky10\_35
- Track 275 : Morkie\_33
- Track 276 : InLimbo\_35

- Track 277 : Nadeem\_39, Brylie\_39, Mulch\_39, Ayotoya\_39, Hamood\_39, Chop\_39, GrandSlam\_39, Parada\_39, WheatThin\_39
- Track 278 : NancyRae\_39, BetterKatz\_39
- Track 279 : Pimento\_39, DelRio\_40
- Track 280 : Bock\_39
- Track 281 : Francois\_38
- Track 282 : ODay\_52
- Track 283 : Birdsong\_47
- Track 284 : BotCity\_49
- Track 285 : Ecliptus\_49
- Track 286 : Budski\_49
- Track 287 : CheeseTouch\_54
- Track 288 : Periwinkle\_57
- Track 289 : Phistory\_51
- Track 290 : LitninMcQueen\_43, Kamaru\_44
- Track 291 : Leroy\_50
- Track 292 : Phabuloso\_48
- Track 293 : Holliday\_48
- Track 294 : Asapag\_47, Frickyeah\_52
- Track 295 : BENtherdunthat\_50
- Track 296 : Getalong\_53, Kenna\_49, Lutum\_50
- Track 297 : ShawBrad\_51
- Track 298 : Crater\_49, Horus\_48
- Track 299 : Apricot\_48
- Track 300 : Octobien14\_6
- Track 301 : Kudrefre\_6
- Track 302 : Sephiroth\_7
- Track 303 : Syleon\_7
- Track 304 : Neville\_8, Trax\_8
- Track 305 : LilJank\_9
- Track 306 : Rabbitrun\_10
- Track 307 : DumpsterDude\_40
- Track 308 : Sprinklemunch\_44
- Track 309 : ArchiDore\_39
- Track 310 : Ruthy\_39
- Track 311 : Malibo\_40
- Track 312 : Zodiariah\_36
- Track 313 : MakCheese\_48
- Track 314 : ObLaDi\_35
- Track 315 : ModicumRichard\_35, Aleemily\_34, Cafasso\_35
- Track 316 : Morgana\_35
- Track 317 : TouchMeNot\_32, Colleen\_32, Arianna\_32, Poushou\_32
- Track 318 : Bran\_28
- Track 319 : Lederberg\_27, Troy\_27, SamW\_27
- Track 320 : Adelaide\_25
- Track 321 : StAB\_26
- Track 322 : Stiles\_27
- Track 323 : Taotie\_123
- Track 324 : Spartan\_32
- Track 325 : Gallop\_33
- Track 326 : Clank\_44, SimranZ1\_43
- Track 327 : LordVader\_38
- Track 328 : Blarby\_54

- Track 329 : Doomslug\_48
- Track 330 : Mattes\_43, SwagPigglett\_45, Saal\_43, Gorge\_43, DRBy19\_43, Jennelsea\_37, BobaPhett\_43, Zizzle\_44, Philus\_43, Whatsapiecost\_41, James\_43
- Track 331 : MilleniumForce\_42
- Track 332 : Akhila\_37, MilanaBonita\_37
- Track 333 : DLane\_41
- Track 334 : Ms6\_36
- Track 335 : WillSterrel\_41, IrishSherpFalk\_41
- Track 336 : Mutaforma13\_45
- Track 337 : Cornucopia\_45
- Track 338 : SuperGrey\_42
- Track 339 : Batiatus\_43
- Track 340 : PhesterPhotato\_44, Phalconet\_41
- Track 341 : NewHope4\_45, Enzomatic\_49, Polo2Bam\_48, SeaLumen\_48
- Track 342 : Emma\_44, Moonbeam\_41
- Track 343 : Hegedechwinu\_41, Juice456\_44
- Track 344 : Velveteen\_37, Coco12\_40, Kingsley\_38, Sarma624\_38, Brookers\_39, Cerasum\_38, BigPhil\_38
- Track 345 : Alexphander\_45
- Track 346 : Brushbloom\_46
- Track 347 : Corium\_41, KingJulian\_42, Phanphagia\_37
- Track 348 : Kenuha5\_39
- Track 349 : Spartacus\_41
- Track 350 : Hades\_43
- Track 351 : Bipolar\_39
- Track 352 : Estave1\_43, Renaud18\_46, DeadP\_46, Wee\_46, Taj\_45
- Track 353 : Brocalys\_36, Clifton\_35, LastJedi\_34, Pippy\_38
- Track 354 : Violac\_42
- Track 355 : Wachhund\_44
- Track 356 : Mova\_42
- Track 357 : Mozy\_51, StAnnes\_42
- Track 358 : KristaRAM\_43
- Track 359 : PatoPoderoso\_41
- Track 360 : Mandlovu\_40, Hlubikazi\_41, Strokeseat\_41
- Track 361 : Enby\_42, Lorde\_42, SG4\_40
- Track 362 : Ardmore\_36
- Track 363 : EleanorGeorge\_40, Beakin\_43, LunaBlu\_46, Galactic\_43
- Track 364 : XFactor\_41
- Track 365 : Juniper1\_40
- Track 366 : Rialto\_46
- Track 367 : Flathead\_44
- Track 368 : Fruitloop\_40
- Track 369 : Rita\_44
- Track 370 : ShroomBoi\_42
- Track 371 : Bobi\_46
- Track 372 : Byougenkin\_40
- Track 373 : Shauna1\_38
- Track 374 : DoRead\_44
- Track 375 : Ovechkin\_41
- Track 376 : Medindi\_40
- Track 377 : CaptainTrips\_41, MinionDave\_43
- Track 378 : Filuzino\_41
- Track 379 : Donkeykong\_41

- Track 380 : Cheesepuff\_46
- Track 381 : IMpilo\_40
- Track 382 : Melissauren88\_42
- Track 383 : VRedHorse\_42
- Track 384 : Guppsters\_43
- Track 385 : Jant\_44
- Track 386 : Minnie\_43
- Track 387 : DosHalletts\_40
- Track 388 : SilverChicken\_53
- Track 389 : Soul22\_46
- Track 390 : Squirty\_35
- Track 391 : TChen\_44, LunaStella\_42
- Track 392 : Okabe\_39
- Track 393 : ChuckDuck\_39
- Track 394 : Bridgette\_38
- Track 395 : FosterFrank\_40
- Track 396 : NidoQ\_33
- Track 397 : Constance\_38
- Track 398 : RootBeer\_29
- Track 399 : Eileen\_34
- Track 400 : KayMoney\_38
- Track 401 : LittleRon\_36
- Track 402 : LilyBell\_38
- Track 403 : Peas\_35
- Track 404 : GlobiWarming\_38
- Track 405 : Judy\_39
- Track 406 : Gibbzilla\_37
- Track 407 : JeanClaude\_32, Sarge\_28
- Track 408 : Kumotta\_30, MargaretKali\_30
- Track 409 : Shoya\_35
- Track 410 : Alatato\_29
- Track 411 : Rooter\_31
- Track 412 : BrayBeast\_32
- Track 413 : Pigu\_32
- Track 414 : Mufasa8\_27
- Track 415 : Sonali\_29
- Track 416 : Sunshine23\_31
- Track 417 : Maruru\_30
- Track 418 : DreamEater\_35
- Track 419 : TripleJ\_37
- Track 420 : PetriParty\_38
- Track 421 : Kukla\_36
- Track 422 : GUPitcher\_34
- Track 423 : Cassini\_31
- Track 424 : BlackSpider\_36
- Track 425 : Bauer\_39
- Track 426 : Zucker\_31
- Track 427 : BellaJr\_39
- Track 428 : Pitbull\_33
- Track 429 : MrSmee\_34
- Track 430 : Hum25\_34
- Track 431 : Skitty\_31
- Track 432 : Merpity\_34

- Track 433 : Altostratus\_45
- Track 434 : Khuang\_45
- Track 435 : Che9c\_41
- Track 436 : Sbash\_40
- Track 437 : Bluvava\_37, Stuck\_46
- Track 438 : Dallas\_80, NihilNomen\_82, Halley\_83, BAKA\_86, Phoebus\_84, Yeet\_76, ThreeRngTarjay\_79, Kalah2\_76, Redno2\_78, Beem\_81, Dove\_67, Hughesyang\_81, Optimus\_79, Wanda\_85, Bombitas\_71, Duke13\_85, Minerva\_84, JuicyJay\_79, Bagrid\_82, EricMillard\_80, DmpstrDiver\_82, Pound\_82, Klein\_81, HokkenD\_73, Schatzie\_77
- Track 439 : Odette\_80
- Track 440 : KashFlow\_76, Constella\_68, Ejimix\_81, Xiaokay\_72, Thibault\_69
- Track 441 : Bobby\_80, Marleymoo\_72
- Track 442 : Gonephishing\_76
- Track 443 : Nekros\_81, Shaboozey\_79, Courthouse\_82, MiaZeal\_87, Hannaconda\_75, BronnyJames\_80, Omega\_85, Ariel\_86, Lucky2013\_84, Porcelain\_86, Squint\_87
- Track 444 : Zelink\_79
- Track 445 : Nibley\_75, Rearden\_78, Superphikiman\_84
- Track 446 : LittleE\_82
- Track 447 : Hidrated\_74
- Track 448 : Slimphazie\_41, BarrelRoll\_41, TruffulaTree\_41, Adephegia\_41, Atiba\_41, ActinUp\_41, Tachez\_41, Padpat\_42, HedwigODU\_41, Jayhawk\_42, Rapunzel97\_41, Veliki\_41, Emerson\_42
- Track 449 : Devera\_45, Dole\_44, Illumine\_44, Stinson\_42
- Track 450 : Amelie\_36, Binglebops\_36, Torres\_39, LilPharaoh\_36, SgtBeansprout\_36, Nutello\_36, Nikao\_39, Enkosi\_39
- Track 451 : AlishaPH\_41, Beezoo\_43, Tiri\_42, Pokerus\_40, Geraldini\_43, Apocalypse\_44
- Track 452 : Anma\_43, DrHayes\_42, SamuelLPlaqson\_42, TiniBug\_42, Urkel\_42
- Track 453 : Asayake\_41, BEEST\_41, Hyperbowlee\_41, Durfee\_41, Padfoot\_41, Blizzard\_41, CaseJules\_42, ShiaSurprise\_42, Boiii\_41, Piatt\_41
- Track 454 : Dartin\_43, McMater\_43, Richo\_43
- Track 455 : CallaLilly\_41, CREW\_41, Topper\_41, Dalmuri\_41, Rosmarinus\_41, Belladonna\_41, Homura\_41, Inky\_41, Jeckyll\_41, Peel\_41, Llorens\_41, BGlluviae\_41, Lunahalos\_41, Jarvi\_41, Twitch\_41
- Track 456 : KiSi\_45
- Track 457 : JAWS\_41
- Track 458 : Pisa1\_41
- Track 459 : CrimD\_41, Megsy\_42
- Track 460 : DartGoblin\_43, Bella96\_42
- Track 461 : LindNT\_41, TreyKay\_42, Prithvi\_42
- Track 462 : Ageofdapage\_43, LaterM\_42, Murucutumbu\_42
- Track 463 : Chris\_43
- Track 464 : Adonis\_41, Anaya\_43
- Track 465 : Nibb\_43
- Track 466 : Guanica15\_44, Yunkel11\_44
- Track 467 : Capricorn\_41
- Track 468 : MeaningOfLife\_42, Zavala\_42, Mynx\_42
- Track 469 : CheetoDust\_40, BaghaKamala\_40
- Track 470 : MarkPhew\_44
- Track 471 : Sulley\_41, Deby\_41
- Track 472 : Spock\_41

- Track 473 : Chavito\_44
- Track 474 : Ramen\_41
- Track 475 : Validus\_45
- Track 476 : Joy99\_41
- Track 477 : QuincyRose\_40, Ganymede\_42
- Track 478 : Scarlett\_45, Oscar\_45
- Track 479 : Efra2\_44
- Track 480 : Niklas\_43
- Track 481 : LeMond\_45
- Track 482 : Clipper\_44
- Track 483 : Mdavu\_37, Trice\_37
- Track 484 : Teejan\_39
- Track 485 : Angelica\_41
- Track 486 : Shaobing\_43
- Track 487 : YoureAdopted\_40
- Track 488 : TaiwanKao\_43
- Track 489 : Peanam\_43
- Track 490 : Strobilo\_43
- Track 491 : BoostSeason\_44, Findley\_43, Doughnut\_44, Milly\_43, ZoeJ\_43
- Track 492 : DismalStressor\_43, Marcoliusprime\_43, DismalFunk\_43
- Track 493 : Mufasa\_44
- Track 494 : Marshawn\_44
- Track 495 : TClif\_45
- Track 496 : Colossa\_32
- Track 497 : VanLee\_32
- Track 498 : Tortellini\_32
- Track 499 : Xavia\_34
- Track 500 : ThulaThula\_35
- Track 501 : Webster2\_29, Amymech\_29, Giles\_29, LilHazelNut\_29, Forge\_29, Kinbote\_29, BloominB\_29, DeepSoil15\_29, Hadrien\_29, Evanesce\_29, HH92\_29, Wishmaker\_29, Ein37\_29, Dewey\_29, Luna22\_29, Luke\_29, Hail\_29, Ubuntu\_29
- Track 502 : Gancho\_28
- Track 503 : Gravallia\_29
- Track 504 : OBUpide\_29
- Track 505 : Amochick\_29, Daegal\_30
- Track 506 : RunningOnE\_7
- Track 507 : Stellammi\_65
- Track 508 : Gaia\_52, Nebkiss\_56
- Track 509 : TPA4\_37
- Track 510 : REQ3\_01
- Track 511 : Finkle\_45
- Track 512 : ArV2\_29
- Track 513 : Sleepyhead\_38
- Track 514 : MooMoo\_41
- Track 515 : Juicebox\_26
- Track 516 : GMA4\_29
- Track 517 : Mbo4\_31
- Track 518 : Chymera\_32
- Track 519 : OnionKnight\_30
- Track 520 : Spartoi\_37
- Track 521 : TurkishDelight\_52
- Track 522 : GMA1\_30
- Track 523 : LilSpotty\_38

- Track 524 : DillyDally\_29
- Track 525 : REQ2\_38
- Track 526 : Footloose\_31

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

The start number called the most often in the published annotations is 162, it was called in 317 of the 787 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AbbyDaisy\_36, ActinUp\_41, AdaS\_35, Adephegia\_41, Adonis\_41, Adora\_37, Ageofdapage\_43, Aikyam\_37, Akhila\_37, Alatato\_29, Alexphander\_45, AlishaPH\_41, Amelie\_36, Anaya\_43, Anekin\_37, Angelica\_41, Anma\_43, Annalisa\_36, Apocalypse\_44, Apricot\_48, ArV2\_29, Ardmore\_36, Asapag\_47, Asayake\_41, Atiba\_41, Auxilium\_38, BEEST\_41, BENtherdunthat\_50, BGlluviae\_41, BaghaKamala\_40, BarrelRoll\_41, BasketStar\_41, Batiatus\_43, Bauer\_39, Beakin\_43, BeeGee\_42, Beenie\_33, Beezoo\_43, Bella96\_42, BellaJr\_39, Belladonna\_41, BenchScraper\_39, Bhageatrice\_40, BigPhil\_38, Biglebops\_36, BillyTP\_42, Bipolar\_39, Birdsong\_47, BlackSpider\_36, Blarby\_54, Blizzard\_41, BlueShadow\_39, BobaPhett\_43, Bobi\_46, Boiiii\_41, BoostSeason\_44, BotCity\_49, BrayBeast\_32, Bridgette\_38, Brocalys\_36, Brookers\_39, Brushbloom\_46, Budski\_49, Byougenkin\_40, CREW\_41, CallaLilly\_41, Capricorn\_41, CaptainTrips\_41, CaseJules\_42, Cashline\_38, Cassini\_31, Cerasum\_38, Chavito\_44, CheeseTouch\_54, Cheesepuff\_46, CheetoDust\_40, Chris\_43, ChuckDuck\_39, Chymera\_32, Clank\_44, Clark\_39, Clifton\_35, Clipper\_44, Coco12\_40, Constance\_38, CookieBear\_40, Corium\_41, Cornucopia\_45, CosmicBrownie\_38, Crater\_49, Crescenzo\_39, CrimD\_41, DLane\_41, DRBy19\_43, Dalmuri\_41, DartGoblin\_43, Dartin\_43, DeadP\_46, Deby\_41, Denise\_35, Devera\_45, Ding\_40, DismalFunk\_43, DismalStressor\_43, DoRead\_44, DobbysSock\_31, Dole\_44, Dolores\_40, Donkeykong\_41, Doomslug\_48, Dorito\_34, DosHalletts\_40, Doughnut\_44, DrHayes\_42, Durfee\_41, EMSquaredA\_37, Ecliptus\_49, Efra2\_44, Eileen\_34, EleanorGeorge\_40, Emerson\_42, Emma\_44, Enby\_42, Enkosi\_39, Enzomatic\_49, Estave1\_43, EvePickles\_38, Faja\_39, Filuzino\_41, Findley\_43, Flathead\_44, Floral\_36, FosterFrank\_40, Frickyeah\_52, Fruitloop\_40, GMA1\_30, Galactic\_43, Ganymede\_42, Geraldini\_43, Getalong\_53, Gibbzilla\_37, Globfish\_39, GlobiWarming\_38, Gorge\_43, Gorpy\_41, Guanica15\_44, GumGum\_40, Guppsters\_43, Hades\_43, HedwigODU\_41, Hegedechwinu\_41, Hillester\_40, Hlubikazi\_41, Holliday\_48, Homura\_41, Hortense\_40, Horus\_48, Howe\_40, Hyperbowlee\_41, IMpilo\_40, Illumine\_44, Inky\_41, Invecetra\_41, IrishSherpFalk\_41, Isolde\_41, JAWS\_41, JakeTheSnake\_41, James\_43, Jarvi\_41, Jayhawk\_42, JeanClaude\_32, Jeckyll\_41, JellyBread\_36, Jennelsea\_37, Joy99\_41, Judy\_39, Juice456\_44, Juniper1\_40, Kabloowy\_40, Kamaru\_44, KayMoney\_38, Kenna\_49, Kenuha5\_39, KiSi\_45, KingJulian\_42, Kingsley\_38, KristaRAM\_43, Lasker\_39, LastJedi\_34, LaterM\_42, Lawnathon\_40, LeBruni\_37, LeMond\_45, Leroy\_50, LilPharaoh\_36, LilSpotty\_38, LilyBell\_38, LindNT\_41, LitninMcQueen\_43, LittleRon\_36, Llorens\_41, LordVader\_38, Lorde\_42, Lton\_34, Lucky10\_35, LunaBlu\_46, LunaStella\_42, Lunahalos\_41, Lutum\_50, MUWow\_39, MakCheese\_48, Malec\_36, Mandlovu\_40, Mapleville\_40, Marcoliusprime\_43, MarkPhew\_44, Marshawn\_44, Marteena\_36, Maruru\_30, MaterMagnus\_40, Mattes\_43, McMater\_43, Mcklovin\_36, MeaningOfLife\_42, Medindi\_40, Megsy\_42,

Melissauren88\_42, MichaelScott\_40, MidnightRain\_42, MilanaBonita\_37, MilleniumForce\_42, Milly\_43, MinionDave\_43, Minnie\_43, MooMoo\_41, Moonbeam\_41, Mova\_42, Mozy\_51, Ms6\_36, Mufasa8\_27, Mufasa\_44, MurphyJoseph\_36, Murucutumbu\_42, Mutaforma13\_45, Mynx\_42, NewHope4\_45, NewKitty\_38, Nibb\_43, NidoQ\_33, Nikao\_39, Niklas\_43, Nutello\_36, Nyilah\_36, ODay\_52, Okabe\_39, Oregano\_39, Oscar\_45, Ovechkin\_41, Padfoot\_41, Padpat\_42, Peanam\_43, Peas\_35, Peel\_41, Periwinkle\_57, Persistence\_35, Phabuloso\_48, Phalconet\_41, Phanphagia\_37, PhesterPotato\_44, Philus\_43, Phistory\_51, Phrank15\_39, Phrappuccino\_38, Piatt\_41, Pippy\_38, Pisa1\_41, Pokerus\_40, Pollux\_38, Polo2Bam\_48, Prithvi\_42, QuincyRose\_40, RadFad\_40, Ramen\_41, Raphaella\_40, Rapunzel97\_41, RavenCo17\_41, Renaud18\_46, Rialto\_46, Richie\_40, Richo\_43, Rita\_44, Rizz\_40, RootBeer\_29, Rooter\_31, Rosmarinus\_41, SG4\_40, Saal\_43, Sakai\_40, Samman98\_40, SamuelLPlaqson\_42, Sarge\_28, Sarma624\_38, Sashimi\_39, Satrap\_40, Scarlett\_45, SeaLumen\_48, Seahorse\_41, Sekhmet\_40, Settecandela\_38, SgtBeansprout\_36, Shaobing\_43, Shauna1\_38, ShawBrad\_51, ShiaSurprise\_42, Shlim410\_38, Shoya\_35, ShroomBoi\_42, Shukran\_42, SilverChicken\_53, SimranZ1\_43, Slimphazie\_41, SonDevVon\_40, Sonali\_29, Soul22\_46, Spartacus\_41, SpicyFrank\_39, Spock\_41, Squirty\_35, StAnnes\_42, Stellammi\_65, Stinson\_42, Strobilo\_43, Strokeseat\_41, Sulley\_41, SuperGrey\_42, SwagPiggett\_45, TChen\_44, TClif\_45, Tachez\_41, TaiwanKao\_43, Taj\_45, ThayneTheZag\_40, Thimann\_36, Tiff81\_35, TiniBug\_42, Tiri\_42, Topper\_41, Torres\_39, TreyKay\_42, TruffulaTree\_41, Tuti\_39, Twinkle\_39, Twitch\_41, Urkel\_42, VRedHorse\_42, Validus\_45, Veliki\_41, Velveteen\_37, Violac\_42, Vopal\_43, Wachhund\_44, Wee\_46, Whatsapiecost\_41, WillSterrel\_41, Windest\_40, WinkNick\_41, XFactor\_41, YoungHarleezy\_40, YoureAdopted\_40, Yunkel11\_44, Zavala\_42, Zizzle\_44, ZoeJ\_43, Zucker\_31,

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

- DarwinJr\_42, Jant\_44, Mdavu\_37, PatoPoderoso\_41, Raqqa\_32, Spartoi\_37, Sporco\_41, Sunshine23\_31, Teejan\_39, Trice\_37,

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

- ACFishhook\_35, AN3\_33, AN9\_36, ANI8\_36, AbbyPaige\_35, Abdiel\_32, Abidatro\_34, Acolyte\_34, Adelaide\_25, AdoptaAdorbs\_35, Adzzy\_35, Agape74\_35, Aglet\_36, Agueybana\_38, Aleemily\_34, AlexMinion\_38, Altostratus\_45, AlumE\_39, Amelia\_36, AmiCi24\_35, Amochick\_29, Amphitrite\_36, Amymech\_29, Andrew\_37, Angelique\_39, Anselm\_35, Antonio\_39, Antrice\_39, Anubis\_38, ArchiDore\_39, Arianna\_32, Ariel\_86, Atlantica\_36, Attis\_34, AugsMagnumOpus\_38, Ayotoya\_39, Azaz\_37, B1\_31, BAKA\_86, Babushka\_33, BabyJohn\_32, BabyRay\_33, Bactobuster\_35, Baehexic\_34, Bagrid\_82, BangNhom\_33, Banquo\_37, Basilisk\_34, BatStarr\_39, BaxterFox\_37, Beauxregard13\_36, Bedetta\_40, Beem\_81, BellusTerra\_33, BetterKatz\_39, Bialota\_37, BiancaTri92\_35, Bigflo\_36, Bjanes7\_34, BloominB\_29, BlueBird\_34, Bluvara\_37, Bobby\_80, Bock\_39, Bombitas\_71, Bosnia\_39, BoyNamedSue\_39, Bradissa\_36, Bradman\_34, Bran\_28, BreSam8\_36, BronnyJames\_80, Brylie\_39, Brynnie\_33, Bugatti\_33, Buggy\_36, Bunnybear\_33, C3\_31, Cafasso\_35, Calvinny\_36, Camara\_36, Caraxes\_33, Caterpie\_44, Catfish\_37, Centaur\_35, Cerulean\_34, ChampagnePapi\_34, Che12\_36, Che9c\_41, Chickaboom\_35, Chicken\_33, ChipMunk\_36, Chiqui\_32, Chop\_39, Clammy\_33, Clap\_37, ClownCar\_36, Colbster\_36, Colin\_37, Colleen\_32, Colossa\_32, Colusalem\_37, Commander\_33, Confidence\_37, Constella\_68, Coral\_36, Cote\_38, Courthouse\_82, Croquant\_37, Crucio\_34, Cullens\_36, Cygnet\_36, Cynthia\_37, D29\_33, D32\_37, DBQu4n\_37, DaHudson\_36, Daegal\_30, Dallas\_80, Dalmatian\_35, DanHam62\_36, Daob\_38, DeepSoil15\_29, DelRio\_40, Dewey\_29, Dieselweasel\_36,

Dignity\_35, DillyDally\_29, DinoDaryn\_38, DmpstrDiver\_82, Dori\_45, Dove\_67, Drake55\_36, DreamEater\_35, DropBear\_33, DudeLittle\_33, Duke13\_85, DumpsterDude\_40, Duplo\_37, Eagle\_32, Easley\_35, Ebert\_39, EdnaMode\_33, Eesa\_33, Ein37\_29, Ejimix\_81, EnalisNailo\_35, EpicPhail\_36, Equemioh13\_35, EricMillard\_80, Eudoria\_39, Eurydice\_33, Evanesce\_29, Eviarto\_39, EvilGenius\_36, Faith5x5\_30, Fameo\_34, Farber\_36, Farewell\_44, Fernando\_36, Fingolfin\_36, Finkle\_45, FiringLine\_34, Flare16\_34, Footloose\_31, Forge\_29, Francois\_38, Fred313\_33, FroggyToad\_38, GMA4\_29, GUPitcher\_34, Gaia\_52, Galaxy\_33, Gallop\_33, Gancho\_28, GaugeLDP\_35, GemG\_37, Gemma\_35, Georgie2\_35, Giles\_29, GingkoMaracino\_36, Giroux\_34, Gizermo\_37, Glotell\_37, Goib\_39, Gonephishing\_76, GrandSlam\_39, Gratitude\_34, Gravaillia\_29, Gravel\_41, Grif\_36, Groupthink\_36, Grub\_36, Grum1\_36, Gspu1\_28, GtownJaz\_36, Gwennie\_35, HH92\_29, Hadrien\_29, Hail\_29, Haley23\_37, Halley\_83, HamCheese\_36, Hamood\_39, Hannaconda\_75, HannahPhantana\_37, HarryHoudini\_36, HaveUMetTed\_36, Heathen\_33, Heffalump\_35, HelDan\_33, Heliosoles\_35, Hercules11\_36, Herod\_39, Hestia\_38, Hidrated\_74, HippoHollow\_33, HokkenD\_73, Huffy\_38, Hughesyang\_81, Hugley\_36, Hum25\_34, Hyzer\_43, Idleandcovert\_33, InLimbo\_35, IronMan\_36, Isca\_33, Iwokeuplikedis\_34, JCole\_37, JF2\_33, JF4\_33, JHC117\_36, Jaan\_37, Jablanski\_39, Jalleen\_36, Jamun\_33, JenCasNa\_36, JeppNRM\_36, Jerm\_35, Jerole\_37, Jobu08\_35, JohnLord\_45, JoshKayV\_35, Journey13\_31, Jsquared\_34, Juicebox\_26, JuicyJay\_79, Juno112\_35, KHumphrey\_36, Kachowdy\_33, Kalah2\_76, Kalb97\_36, Kalnoky\_36, Kalpine\_35, Kamy\_33, KashFlow\_76, KendraB23\_42, Kepler\_38, Kerberos\_37, Khuang\_45, Kimona\_30, Kinbote\_29, KingCyrus\_36, Kita\_40, Klein\_81, Koduck\_34, Kudrefre\_6, Kukla\_36, Kuleana\_37, Kumotta\_30, L5\_33, LBerry\_36, LHTSCC\_34, Lamberg\_33, Landor\_35, Laphuphu24k\_35, Larenn\_35, Lederberg\_27, LeoAvram\_33, Leogania\_35, Leona\_35, Leviathan\_35, LilHazelNut\_29, LilJank\_9, LiITurb\_34, Lilas\_38, Lilit\_36, LionsBait\_35, LittleE\_82, LittleTokyo\_36, LonelyBoi\_38, LordFarquaad\_35, Iowa\_36, Lucky2013\_84, LugYA\_38, Luke\_29, Luna22\_29, Lunar\_38, MA5\_33, MK4\_33, MadMarie\_36, Madavieve\_34, Madeline\_35, Mainiac\_36, MajorMajor\_34, Malibo\_40, Malinsilva\_38, Manasvini\_39, Manu\_36, Mao1\_43, MarQuardt\_36, Marchesa\_33, MargaretKali\_30, Maridalia\_39, Marie\_36, Marius\_36, Marleymoo\_72, Mask\_46, Matteo\_30, Maxo\_33, Mbo4\_31, Medusa\_33, Melons\_38, Melvin\_33, Merpity\_34, MiaZeal\_87, Microwolf\_36, MiculUcigas\_34, Minerva\_84, MissWhite\_33, Mocha12\_37, ModicumRichard\_35, MoneyMay\_36, Montavir\_35, Moosehead\_35, Morgana\_35, Morkie\_33, Morrow\_33, MrSmee\_34, MuchMore\_38, Mulch\_39, NaSiaTalie\_34, Nadeem\_39, Naji\_37, NancyRae\_39, Nebkiss\_56, Nebs\_33, Nekros\_81, Neobush\_39, Nettuno\_33, Neville\_8, Nibley\_75, NicoleTera\_37, NihilNomen\_82, NothingSpecial\_35, Nymphadora\_39, OBUpride\_29, ObLaDi\_35, Obama12\_34, Octobien14\_6, Odette\_80, Odin\_33, Ohfah\_33, Ohgeesy\_38, OlanP\_35, Ollie\_36, Omega\_85, OneDirection\_30, OnionKnight\_30, Oppalora\_35, Optimus\_79, Orcanus\_34, OtsoOtso\_37, P28Green\_36, PFR1\_26, PFR2\_28, PGHhamlin\_38, PantheRoc\_37, Parada\_39, Pawn\_35, Pelletreau\_41, Pembroke\_36, Penny1\_36, Pepperoni\_31, PetriParty\_38, Ph8s\_35, Phaded\_37, Phantastic\_33, Pharaoh\_32, Phelipe\_33, PhishRPhriends\_34, PhluffyCoco\_36, Phoebe\_36, Phoebus\_84, PhorbesPhlower\_33, Phranny\_36, PhriskyACE\_36, Pickett\_32, Pigu\_32, Pimento\_39, Pineda\_38, Piro94\_34, Pistachio\_34, Pitbull\_33, Polka\_36, Polly\_36, Polymorphads\_33, Pomar16\_37, Porcelain\_86, Posh\_42, PotatoSplit\_37, Pound\_82, Poushou\_32, Power\_33, Powerball\_37, Pukovnik\_35, Puppy\_34, PurpleHaze\_35, Pytheas\_39, QueenB2\_34, QueenBeesly\_34, Quokka\_33, REQ2\_38, REQ3\_01, Rabbitrun\_10, Rattail\_36, Rearden\_78, Reba\_36, RedFox\_36, Redno2\_78, Renna12\_35, Retro23\_35, Rockstar\_33, Roimos\_33, Ruchi\_33, RunningOnE\_7, Ruthy\_39, SPB78\_39, Sabia\_36, Sabinator\_36,

Sahara\_36, SamW\_27, SaturnRing\_33, Savage\_37, Sbash\_40, Schatzie\_77, Schmidt\_32, Scout\_33, Sejanus\_42, SemperFi\_35, Sephiroth\_7, Serenity\_34, Shaboozey\_79, SheldonCooper\_34, Shen\_33, Sidious\_37, Skitty\_31, Sknot\_34, Sleepyhead\_38, Smeagan\_36, SnapTap\_34, Snickers\_36, SoYo\_36, SoilAssassin\_34, SoilDragon\_35, Sparky\_45, Spartan\_32, Sparxx\_33, Splinter\_37, Spooks\_11, Sprinklemunch\_44, Sproutie\_37, Squint\_87, StAB\_26, Stagni\_36, StarStuff\_37, StepMih\_36, Stiles\_27, StuartMinion\_28, Stuck\_46, Success\_11, Suerte\_34, Superchunk\_33, Superphikiman\_84, Suscepit\_39, SushiChef\_36, SweetiePie\_34, SwirlSquare\_34, Syleon\_7, TNguyen7\_33, TPA4\_37, TZGordon\_39, Taotie\_123, TarsusIV\_33, Taurus\_36, TaylorSipht\_34, Tayonia\_39, Terrific\_37, ThankyouJordi\_38, Thibault\_69, ThreeRngTarjay\_79, ThulaThula\_35, Tiffany\_36, TimTam\_39, TinaFeyge\_33, TinaLin\_36, TipsytheTRex\_33, Toad24\_36, Tomathan\_37, Tortellini\_32, TouchMeNot\_32, Travvers\_37, Trax\_8, TripleJ\_37, Tristan\_35, Trixie\_35, Trooper\_35, TroyPia\_33, Troy\_27, Trumpet\_39, TuertoX\_37, Turbido\_34, TurkishDelight\_52, Ubuntu\_29, Updawg\_35, VA6\_33, VC3\_36, VWB\_31, VanLee\_32, Vasanti\_37, Vendetta\_37, Vix\_36, Vulpecula\_33, Wanda\_85, Watson\_36, Webster2\_29, WeiHuaDA\_38, WelcomeAyanna\_38, Westrich\_40, Whabigail7\_34, WheatThin\_39, Whiteclaw\_37, WideWale\_35, WileyE\_35, Wishmaker\_29, Wooldri\_38, Wrigley\_43, Xavia\_34, XianYue\_35, Xiaokay\_72, Yecey3\_35, Yeet412\_34, Yeet\_76, Yeezy\_36, Yinzer\_36, Zameen\_39, Zarafa\_33, Zelink\_79, Zetzy\_35, Zhuangyuan\_38, Zimmer\_35, Zirinka\_36, Zixiang\_36, Zodiariah\_36,

### Summary by start number:

#### Start 28:

- Found in 11 of 948 ( 1.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Teejan\_39 (K1),

#### Start 33:

- Found in 11 of 948 ( 1.2% ) of genes in pham
- Manual Annotations of this start: 1 of 787
- Called 18.2% of time when present
- Phage (with cluster) where this start called: Mdavu\_37 (K1), Trice\_37 (K1),

#### Start 47:

- Found in 1 of 948 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 787
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TurkishDelight\_52 (singleton),

#### Start 83:

- Found in 18 of 948 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 2 of 787
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Gizermo\_37 (CZ2), Sahara\_36 (CZ2),

#### Start 85:

- Found in 58 of 948 ( 6.1% ) of genes in pham
- Manual Annotations of this start: 6 of 787
- Called 10.3% of time when present

- Phage (with cluster) where this start called: BatStarr\_39 (CZ1), Bjanes7\_34 (CZ2), Cynthia\_37 (CZ2), Herod\_39 (CZ1), Kita\_40 (CZ1), ThankyouJordi\_38 (CZ1),

Start 90:

- Found in 16 of 948 ( 1.7% ) of genes in pham
- Manual Annotations of this start: 1 of 787
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Gonephishing\_76 (J), Nibley\_75 (J), Rearden\_78 (J), Superphikiman\_84 (J),

Start 98:

- Found in 18 of 948 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 10 of 787
- Called 72.2% of time when present
- Phage (with cluster) where this start called: Ariel\_86 (J), BronnyJames\_80 (J), Courthouse\_82 (J), Gaia\_52 (X), Hannaconda\_75 (J), Lucky2013\_84 (J), MiaZeal\_87 (J), Nebkiss\_56 (X), Nekros\_81 (J), Omega\_85 (J), Porcelain\_86 (J), Shaboozey\_79 (J), Squint\_87 (J),

Start 101:

- Found in 34 of 948 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 2 of 787
- Called 5.9% of time when present
- Phage (with cluster) where this start called: GaugeLDP\_35 (A2), Sknot\_34 (A2),

Start 102:

- Found in 5 of 948 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 3 of 787
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Lederberg\_27 (EP), SamW\_27 (EP), Troy\_27 (EP),

Start 103:

- Found in 1 of 948 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 787
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Faith5x5\_30 (CZ6),

Start 110:

- Found in 22 of 948 ( 2.3% ) of genes in pham
- Manual Annotations of this start: 3 of 787
- Called 13.6% of time when present
- Phage (with cluster) where this start called: Abdiel\_32 (A4), Phelipe\_33 (A4), TinaFeyge\_33 (A4),

Start 114:

- Found in 9 of 948 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 1 of 787
- Called 11.1% of time when present
- Phage (with cluster) where this start called: B1\_31 (A3),

Start 116:

- Found in 35 of 948 ( 3.7% ) of genes in pham

- Manual Annotations of this start: 29 of 787
- Called 91.4% of time when present
- Phage (with cluster) where this start called: BAKA\_86 (J), Bagrid\_82 (J), Beem\_81 (J), Bobby\_80 (J), Bombitas\_71 (J), Constella\_68 (J), Dallas\_80 (J), DmpstrDiver\_82 (J), Dove\_67 (J), Duke13\_85 (J), Ejimix\_81 (J), EricMillard\_80 (J), Halley\_83 (J), HokkenD\_73 (J), Hughesyang\_81 (J), JuicyJay\_79 (J), Kalah2\_76 (J), KashFlow\_76 (J), Klein\_81 (J), Marleymoo\_72 (J), Minerva\_84 (J), NihilNomen\_82 (J), Optimus\_79 (J), Phoebus\_84 (J), Pound\_82 (J), Redno2\_78 (J), Schatzie\_77 (J), Thibault\_69 (J), ThreeRngTarjay\_79 (J), Wanda\_85 (J), Xiaokay\_72 (J), Yeet\_76 (J),

#### Start 118:

- Found in 4 of 948 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 787
- Called 75.0% of time when present
- Phage (with cluster) where this start called: OnionKnight\_30 (singleton), SPB78\_39 (BA), VWB\_31 (BA),

#### Start 126:

- Found in 1 of 948 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 787
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Footloose\_31 (singleton),

#### Start 131:

- Found in 57 of 948 ( 6.0% ) of genes in pham
- Manual Annotations of this start: 3 of 787
- Called 5.3% of time when present
- Phage (with cluster) where this start called: Kumotta\_30 (FB), MargaretKali\_30 (FB), Zelink\_79 (J),

#### Start 133:

- Found in 15 of 948 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 7 of 787
- Called 46.7% of time when present
- Phage (with cluster) where this start called: AbbyPaige\_35 (A2), Agape74\_35 (A2), ChipMunk\_36 (A2), Larenn\_35 (A2), Leviathan\_35 (A2), LilTurb\_34 (A2), Whabigail7\_34 (A2),

#### Start 134:

- Found in 3 of 948 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 2 of 787
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Phantastic\_33 (A3), TNguyen7\_33 (A3),

#### Start 138:

- Found in 2 of 948 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 787
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hestia\_38 (AY), Pigu\_32 (FB),

#### Start 139:

- Found in 3 of 948 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 787

- Called 33.3% of time when present
- Phage (with cluster) where this start called: Landor\_35 (A2),

#### Start 140:

- Found in 12 of 948 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 6 of 787
- Called 66.7% of time when present
- Phage (with cluster) where this start called: BabyJohn\_32 (A3), BabyRay\_33 (A3), Chiqui\_32 (A3), Jaan\_37 (A2), Pharaoh\_32 (A12), Pukovnik\_35 (A2), Tristan\_35 (A2), Yecey3\_35 (A9),

#### Start 144:

- Found in 7 of 948 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 4 of 787
- Called 85.7% of time when present
- Phage (with cluster) where this start called: Altostratus\_45 (FS), Khuang\_45 (FS), Merpity\_34 (FQ), MrSmeem\_34 (FQ), Pitbull\_33 (FQ), Skitty\_31 (FQ),

#### Start 145:

- Found in 2 of 948 ( 0.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: GMA4\_29 (singleton),

#### Start 147:

- Found in 107 of 948 ( 11.3% ) of genes in pham
- Manual Annotations of this start: 80 of 787
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abidatro\_34 (AS1), AdoptaAdorbs\_35 (AS3), Aleemily\_34 (DZ), AlexMinion\_38 (AS3), Amelia\_36 (AS2), AmiCi24\_35 (AS3), Amphitrite\_36 (AS3), Andrew\_37 (AS3), Antrice\_39 (AS2), ArchiDore\_39 (DW), Atlantica\_36 (AS3), Ayotoya\_39 (DI), Azaz\_37 (AS3), Babushka\_33 (AS3), Basilisk\_34 (AS1), BaxterFox\_37 (CZ3), Bedetta\_40 (AS2), BetterKatz\_39 (DI), Bock\_39 (DI), Brylie\_39 (DI), Brynnie\_33 (AS1), Cafasso\_35 (DZ), Camara\_36 (AS3), Chickaboom\_35 (AS1), Chicken\_33 (AS1), Chop\_39 (DI), Colossa\_32 (KA), Colusalem\_37 (AS2), Coral\_36 (AS2), Cote\_38 (AS2), Cygnet\_36 (AS2), DanHam62\_36 (AS3), Daob\_38 (AS2), DelRio\_40 (DI), DumpsterDude\_40 (DW), Easley\_35 (CZ4), Eesa\_33 (AS1), Fingolfin\_36 (AS3), Francois\_38 (DI), FroggyToad\_38 (CZ2), Galaxy\_33 (AS1), Glotell\_37 (AS3), GrandSlam\_39 (DI), Gravel\_41 (AS1), HamCheese\_36 (AS3), Hamood\_39 (DI), HannahPhantana\_37 (AS2), JCole\_37 (CZ2), Jamun\_33 (AS1), Jerole\_37 (AS2), Juno112\_35 (AS3), KHumphrey\_36 (AS3), KendraB23\_42 (AS1), Kepler\_38 (AS2), Kuleana\_37 (AS2), Laphuphu24k\_35 (AS3), Leona\_35 (AS3), LittleTokyo\_36 (AS2), Lunar\_38 (AS2), Madeline\_35 (CZ1), Malibo\_40 (DW), Mbo4\_31 (singleton), Melons\_38 (AS2), ModicumRichard\_35 (DZ), Morgana\_35 (DZ), Mulch\_39 (DI), Nadeem\_39 (DI), NancyRae\_39 (DI), ObLaDi\_35 (DZ), Ohgeesy\_38 (CZ), Oppalora\_35 (AS3), Orcanus\_34 (AS1), OtsoOtso\_37 (AS2), PantheRoc\_37 (CZ3), Parada\_39 (DI), Pelletreau\_41 (AS1), PhluffyCoco\_36 (AS3), PhriskyACE\_36 (CZ4), Pimento\_39 (DI), Pineda\_38 (AS2), Polka\_36 (AS2), Powerball\_37 (CZ4), REQ3\_01 (singleton), Rattail\_36 (AS3), RedFox\_36 (AS3), Renna12\_35 (AS3), Ruchi\_33 (AS1), Ruthy\_39 (DW), Shen\_33 (AS1), Sidious\_37 (CZ7), Sporco\_41 (AY), Sprinklemunch\_44 (DW), StuartMinion\_28 (AS3), Suerte\_34 (CZ4), TPA4\_37 (singleton), TaylorSipht\_34 (AS1), Toad24\_36 (AS1), VanLee\_32 (KA), Vasanti\_37 (CZ2), Vulpecula\_33 (AS1),

Westrich\_40 (AS1), WheatThin\_39 (DI), WileyE\_35 (AS1), Yeezy\_36 (CZ3), Zhuangyuan\_38 (AS2), Zixiang\_36 (AS1), Zodiariah\_36 (DW),

Start 148:

- Found in 21 of 948 ( 2.2% ) of genes in pham
- Manual Annotations of this start: 5 of 787
- Called 28.6% of time when present
- Phage (with cluster) where this start called: Dignity\_35 (A2), HippoHollow\_33 (A2), IronMan\_36 (A2), Jerm\_35 (A2), KingCyrus\_36 (A2), Turbido\_34 (A2),

Start 152:

- Found in 183 of 948 ( 19.3% ) of genes in pham
- Manual Annotations of this start: 120 of 787
- Called 73.8% of time when present
- Phage (with cluster) where this start called: ACFishhook\_35 (A3), AN3\_33 (A2), AN9\_36 (A2), ANI8\_36 (A2), Aglet\_36 (A3), Anselm\_35 (A2), Anubis\_38 (A3), AugsMagnumOpus\_38 (A3), Baehexic\_34 (A2), BangNhom\_33 (A4), Beauxregard13\_36 (A3), BellusTerra\_33 (A4), Bigflo\_36 (A3), BlueBird\_34 (A3), Bradman\_34 (A2), BreSam8\_36 (A3), Bugatti\_33 (A3), Buggy\_36 (A2), Centaur\_35 (A2), Clammy\_33 (A3), Colbster\_36 (A3), Commander\_33 (A4), Croquant\_37 (A3), Cullens\_36 (A3), D29\_33 (A2), D32\_37 (A2), DBQu4n\_37 (A2), DaHudson\_36 (A3), Dalmatian\_35 (A2), Dieselweasel\_36 (A3), DropBear\_33 (A3), Duplo\_37 (A2), Eagle\_32 (A4), EpicPhail\_36 (A3), Equemioh13\_35 (A2), Eurydice\_33 (A4), Fred313\_33 (A3), Gemma\_35 (A3), Giroux\_34 (A3), Grif\_36 (A3), Groupthink\_36 (A3), Grub\_36 (A3), Grum1\_36 (A3), GtownJaz\_36 (A3), Gwennie\_35 (A3), HaveUMetTed\_36 (A3), Heathen\_33 (A3), HelDan\_33 (A3), Heliosoles\_35 (A3), Hercules11\_36 (A3), Idleandcovert\_33 (A3), Isca\_33 (A3), Iwokeuplikedis\_34 (A2), JF2\_33 (A3), JF4\_33 (A3), JHC117\_36 (A3), JeppNRM\_36 (A3), Jobu08\_35 (A3), Journey13\_31 (A2), Jsquared\_34 (A2), Kalb97\_36 (A3), Kalnoky\_36 (A3), Kimona\_30 (A19), LBerry\_36 (A3), Leogania\_35 (A2), LionsBait\_35 (A2), Iowa\_36 (A3), LugYA\_38 (A3), MA5\_33 (A3), MK4\_33 (A3), MadMarie\_36 (A3), Mainiac\_36 (A3), MajorMajor\_34 (A2), Manu\_36 (A3), MarQuardt\_36 (A3), Marie\_36 (A3), Marius\_36 (A3), Maxo\_33 (A4), Melvin\_33 (A4), MiculUcigas\_34 (A2), MissWhite\_33 (A2), MoneyMay\_36 (A3), Morrow\_33 (A4), MuchMore\_38 (A3), Naji\_37 (A2), Nebs\_33 (A4), NicoleTera\_37 (A2), Ohfah\_33 (A4), OlanP\_35 (A3), P28Green\_36 (A3), PGHhamlin\_38 (A3), Pawn\_35 (A3), Pembroke\_36 (A3), Penny1\_36 (A3), Phaded\_37 (A2), PhishRPhriends\_34 (A3), Phoebe\_36 (A3), Phranny\_36 (A3), Piro94\_34 (A2), Pistachio\_34 (A3), Polymorphads\_33 (A4), PotatoSplit\_37 (A3), Puppy\_34 (A3), PurpleHaze\_35 (A3), QueenB2\_34 (A2), Quokka\_33 (A2), Reba\_36 (A3), Retro23\_35 (A2), Rockstar\_33 (A3), Sabia\_36 (A3), Sabinator\_36 (A3), SaturnRing\_33 (A3), Scout\_33 (A3), Serenity\_34 (A2), Snickers\_36 (A3), SoYo\_36 (A3), SoilDragon\_35 (A3), Sparxx\_33 (A4), Stagni\_36 (A3), StepMih\_36 (A3), TarsusIV\_33 (A2), Terrific\_37 (A2), Tiffany\_36 (A3), TipsytheTRex\_33 (A2), TroyPia\_33 (A4), Updawg\_35 (A2), VA6\_33 (A2), VC3\_36 (A2), Vix\_36 (A3), Watson\_36 (A3), WeiHuaDA\_38 (A2), WideWale\_35 (A2), Wooldri\_38 (A3), XianYue\_35 (A2), Zarafa\_33 (A3),

Start 153:

- Found in 2 of 948 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 2 of 787
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Tortellini\_32 (P2), Xavia\_34 (P3),

Start 154:

- Found in 3 of 948 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 2 of 787
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Colin\_37 (A2), Kalpine\_35 (A2), Zimmer\_35 (A12),

Start 155:

- Found in 27 of 948 ( 2.8% ) of genes in pham
- Manual Annotations of this start: 3 of 787
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Gancho\_28 (Q), Moosehead\_35 (CZ6), OBUpride\_29 (Q),

Start 156:

- Found in 9 of 948 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 8 of 787
- Called 88.9% of time when present
- Phage (with cluster) where this start called: BiancaTri92\_35 (A2), DudeLittle\_33 (A2), FiringLine\_34 (A2), Georgie2\_35 (A2), JoshKayV\_35 (A2), Power\_33 (A2), QueenBeesly\_34 (A2), SemperFi\_35 (A2),

Start 157:

- Found in 30 of 948 ( 3.2% ) of genes in pham
- Manual Annotations of this start: 10 of 787
- Called 40.0% of time when present
- Phage (with cluster) where this start called: Adzzy\_35 (A2), Caraxes\_33 (A2), Che12\_36 (A2), HarryHoudini\_36 (A2), Koduck\_34 (A2), L5\_33 (A2), Odin\_33 (A2), RunningOnE\_7 (UNK), Spooks\_11 (BT), Success\_11 (BT), Superchunk\_33 (A2), SwirlSquare\_34 (A2),

Start 158:

- Found in 2 of 948 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 787
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Smeagan\_36 (A2),

Start 159:

- Found in 73 of 948 ( 7.7% ) of genes in pham
- Manual Annotations of this start: 56 of 787
- Called 86.3% of time when present
- Phage (with cluster) where this start called: Agueybana\_38 (CZ1), AlumE\_39 (CZ1), Angelique\_39 (CY1), Antonio\_39 (CZ1), Arianna\_32 (EO), Attis\_34 (CZ2), Bialota\_37 (CZ1), Bosnia\_39 (CZ1), BoyNamedSue\_39 (CZ1), Bradissa\_36 (CY1), Bunnybear\_33 (CZ), Clap\_37 (CZ2), Colleen\_32 (EO), Confidence\_37 (CY1), Ebert\_39 (CZ2), EdnaMode\_33 (CZ2), EnalisNailo\_35 (CY1), Eudoria\_39 (CZ1), Eviarto\_39 (CZ1), GemG\_37 (CZ2), Haley23\_37 (CZ2), Hugley\_36 (CZ1), Hyzer\_43 (CZ1), Jablanski\_39 (CY3), Jalleen\_36 (CZ2), Lamberg\_33 (CZ2), Lilas\_38 (CY1), LonelyBoi\_38 (CY7), LordFarquaad\_35 (CZ2), Madavieve\_34 (CZ1), Manasvini\_39 (CZ1), Maridalia\_39 (CZ1), Matteo\_30 (CZ2), Mocha12\_37 (CZ2), Morkie\_33 (DH), Neobush\_39 (CZ1), Nettuno\_33 (CZ2), Nymphadora\_39 (CZ1), OneDirection\_30 (CZ6), Pepperoni\_31 (CZ), PhorbesPhlower\_33 (DH), Pickett\_32 (CZ2), Polly\_36 (CZ1), Posh\_42 (CY4), Poushou\_32 (EO), Pytheas\_39 (CY3), Savage\_37 (CZ2),

SoilAssassin\_34 (CZ2), Spartan\_32 (ES), Sproutie\_37 (CZ2), Suscepit\_39 (CZ1), Tayonia\_39 (CZ1), TimTam\_39 (CZ1), TouchMeNot\_32 (EO), Trumpet\_39 (CZ1), TuertoX\_37 (CZ2), WelcomeAyanna\_38 (CZ1), Whiteclaw\_37 (CZ2), Wrigley\_43 (CY4), Yeet412\_34 (CZ2), Yinzer\_36 (CZ2), Zameen\_39 (CZ1), Zirinka\_36 (CZ1),

Start 160:

- Found in 53 of 948 ( 5.6% ) of genes in pham
- Manual Annotations of this start: 1 of 787
- Called 5.7% of time when present
- Phage (with cluster) where this start called: Hidrated\_74 (J), LittleE\_82 (J), Odette\_80 (J),

Start 161:

- Found in 2 of 948 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 787
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Hum25\_34 (FQ),

Start 162:

- Found in 384 of 948 ( 40.5% ) of genes in pham
- Manual Annotations of this start: 317 of 787
- Called 97.4% of time when present
- Phage (with cluster) where this start called: AbbyDaisy\_36 (AY), ActinUp\_41 (K1), AdaS\_35 (AY), Adephagia\_41 (K1), Adonis\_41 (K1), Adora\_37 (CZ4), Ageofdapage\_43 (K1), Aikyam\_37 (AY), Akhila\_37 (F1), Alatato\_29 (FB), Alexphander\_45 (F1), AlishaPH\_41 (K1), Amelie\_36 (K1), Anaya\_43 (K1), Anekin\_37 (AY), Angelica\_41 (K1), Anma\_43 (K1), Annalisa\_36 (CZ4), Apocalypse\_44 (K1), Apricot\_48 (DN3), ArV2\_29 (singleton), Ardmore\_36 (F1), Asapag\_47 (DN1), Asayake\_41 (K1), Atiba\_41 (K1), Auxilium\_38 (AY), BEEST\_41 (K1), BENTherdunthat\_50 (DN1), BGlluviae\_41 (K1), BaghaKamala\_40 (K1), BarrelRoll\_41 (K1), BasketStar\_41 (AY), Batiatus\_43 (F1), Bauer\_39 (FN), Beakin\_43 (F1), BeeGee\_42 (CY5), Beenie\_33 (CZ4), Beezoo\_43 (K1), Bella96\_42 (K1), BellaJr\_39 (FN), Belladonna\_41 (K1), BenchScraper\_39 (AY), Bhageatrice\_40 (AY), BigPhil\_38 (F1), Biglebops\_36 (K1), BillyTP\_42 (AY), Bipolar\_39 (F1), Birdsong\_47 (DN), BlackSpider\_36 (FN), Blarby\_54 (F), Blizzard\_41 (K1), BlueShadow\_39 (AY), BobaPhett\_43 (F1), Bobi\_46 (F1), Boiii\_41 (K1), BoostSeason\_44 (K2), BotCity\_49 (DN), BrayBeast\_32 (FB), Bridgette\_38 (FA), Brocalys\_36 (F1), Brookers\_39 (F1), Brushbloom\_46 (F1), Budski\_49 (DN), Byougenkin\_40 (F1), CREW\_41 (K1), CallaLilly\_41 (K1), Capricorn\_41 (K1), CaptainTrips\_41 (F1), CaseJules\_42 (K1), Cashline\_38 (CY6), Cassini\_31 (FN), Cerasum\_38 (F1), Chavito\_44 (K1), CheeseTouch\_54 (DN1), Cheesepuff\_46 (F1), CheetoDust\_40 (K1), Chris\_43 (K1), ChuckDuck\_39 (FA), Chymera\_32 (singleton), Clank\_44 (F), Clark\_39 (CZ4), Clifton\_35 (F1), Clipper\_44 (K1), Coco12\_40 (F1), Constance\_38 (FA), CookieBear\_40 (AY), Corium\_41 (F1), Cornucopia\_45 (F1), CosmicBrownie\_38 (AY), Crater\_49 (DN3), Crescenzo\_39 (AY), CrimD\_41 (K1), DLane\_41 (F1), DRBy19\_43 (F1), Dalmuri\_41 (K1), DartGoblin\_43 (K1), Dartin\_43 (K1), DeadP\_46 (F1), Deby\_41 (K1), Denise\_35 (CZ5), Devera\_45 (K1), Ding\_40 (AY), DismalFunk\_43 (K2), DismalStressor\_43 (K2), DoRead\_44 (F1), DobbysSock\_31 (CZ4), Dole\_44 (K1), Dolores\_40 (CZ4), Donkeykong\_41 (F1), Doomslug\_48 (F), Dorito\_34 (CZ4), DosHalletts\_40 (F1), Doughnut\_44 (K2), DrHayes\_42 (K1), Durfee\_41 (K1), EMSquaredA\_37 (CY1), Ecliptus\_49 (DN), Efra2\_44 (K1), Eileen\_34 (FA), EleanorGeorge\_40 (F1), Emerson\_42 (K1), Emma\_44 (F1), Enby\_42 (F1), Enkosi\_39 (K1), Enzomatic\_49 (F1), Estave1\_43 (F1), EvePickles\_38 (AY), Faja\_39 (AY),

Filuzino\_41 (F1), Findley\_43 (K2), Flathead\_44 (F1), Floral\_36 (CY1), FosterFrank\_40 (FA), Frickyeah\_52 (DN1), Fruitloop\_40 (F1), GMA1\_30 (singleton), Galactic\_43 (F1), Ganymede\_42 (K1), Geraldini\_43 (K1), Getalong\_53 (DN1), Gibbzilla\_37 (FB), Globfish\_39 (AY), GlobiWarming\_38 (FA), Gorge\_43 (F1), Gorpy\_41 (AY), Guanica15\_44 (K1), GumGum\_40 (AY), Guppsters\_43 (F1), Hades\_43 (F1), HedwigODU\_41 (K1), Hegedechwinu\_41 (F1), Hillester\_40 (AY), Hlubikazi\_41 (F1), Holliday\_48 (DN1), Homura\_41 (K1), Hortense\_40 (CZ4), Horus\_48 (DN1), Howe\_40 (CZ4), Hyperbowlee\_41 (K1), IMpilo\_40 (F1), Illumine\_44 (K1), Inky\_41 (K1), Invectra\_41 (CZ4), IrishSherpFalk\_41 (F1), Isolde\_41 (AY), JAWS\_41 (K1), JakeTheSnake\_41 (AY), James\_43 (F1), Jarvi\_41 (K1), Jayhawk\_42 (K1), JeanClaude\_32 (FB), Jeckyll\_41 (K1), JellyBread\_36 (AY), Jennelsea\_37 (F1), Joy99\_41 (K1), Judy\_39 (FA), Juice456\_44 (F1), Juniper1\_40 (F1), Kabloowy\_40 (AY), Kamaru\_44 (DN1), KayMoney\_38 (FA), Kenna\_49 (DN1), Kenuha5\_39 (F1), KiSi\_45 (K1), KingJulian\_42 (F1), Kingsley\_38 (F1), KristaRAM\_43 (F1), Lasker\_39 (AY), LastJedi\_34 (F1), LaterM\_42 (K1), Lawnathon\_40 (AY), LeBruni\_37 (AY), LeMond\_45 (K1), Leroy\_50 (DN1), LilPharaoh\_36 (K1), LilSpotty\_38 (singleton), LilyBell\_38 (FA), LindNT\_41 (K1), LitninMcQueen\_43 (DN1), LittleRon\_36 (FA), Llorens\_41 (K1), LordVader\_38 (F), Lorde\_42 (F1), Lton\_34 (CZ), Lucky10\_35 (DH), LunaBlu\_46 (F1), LunaStella\_42 (F4), Lunahalos\_41 (K1), Lutum\_50 (DN1), MUWow\_39 (AY), MakCheese\_48 (DW), Malec\_36 (A2), Mandlovu\_40 (F1), Mapleville\_40 (AY), Marcoliusprime\_43 (K2), MarkPhew\_44 (K1), Marshawn\_44 (K6), Marteena\_36 (CY1), Maruru\_30 (FG), MaterMagnus\_40 (AY), Mattes\_43 (F1), McMater\_43 (K1), Mcklovin\_36 (CZ4), MeaningOfLife\_42 (K1), Medindi\_40 (F1), Megsy\_42 (K1), Melissauren88\_42 (F1), MichaelScott\_40 (CZ4), MidnightRain\_42 (AY), MilanaBonita\_37 (F1), MilleniumForce\_42 (F1), Milly\_43 (K2), MinionDave\_43 (F1), Minnie\_43 (F1), MooMoo\_41 (singleton), Moonbeam\_41 (F1), Mova\_42 (F1), Mozy\_51 (F1), Ms6\_36 (F1), Mufasa8\_27 (FG), Mufasa\_44 (K2), MurphyJoseph\_36 (AY), Murucutumbu\_42 (K1), Mutaforma13\_45 (F1), Mynx\_42 (K1), NewHope4\_45 (F1), NewKitty\_38 (AY), Nibb\_43 (K1), NidoQ\_33 (FA), Nikao\_39 (K1), Niklas\_43 (K1), Nutello\_36 (K1), Nyilah\_36 (AY), ODay\_52 (DN), Okabe\_39 (F8), Oregano\_39 (CZ4), Oscar\_45 (K1), Ovechkin\_41 (F1), Padfoot\_41 (K1), Padpat\_42 (K1), Peanam\_43 (K1), Peas\_35 (FA), Peel\_41 (K1), Periwinkle\_57 (DN1), Persistence\_35 (AY), Phabuloso\_48 (DN1), Phalconet\_41 (F1), Phanphagia\_37 (F1), PhesterPhotato\_44 (F1), Philus\_43 (F1), Phistory\_51 (DN1), Phrank15\_39 (AY), Phrappuccino\_38 (AA), Piatt\_41 (K1), Pippy\_38 (F1), Pisa1\_41 (K1), Pokerus\_40 (K1), Pollux\_38 (CY1), Polo2Bam\_48 (F1), Prithvi\_42 (K1), QuincyRose\_40 (K1), RadFad\_40 (AY), Ramen\_41 (K1), Raphaella\_40 (AY), Rapunzel97\_41 (K1), RavenCo17\_41 (CZ8), Renaud18\_46 (F4), Rialto\_46 (F1), Richie\_40 (AY), Richo\_43 (K1), Rita\_44 (F1), Rizz\_40 (CZ4), RootBeer\_29 (FA), Rooter\_31 (FB), Rosmarinus\_41 (K1), SG4\_40 (F1), Saal\_43 (F1), Sakai\_40 (AY), Samman98\_40 (CZ4), SamuelLPlaqson\_42 (K1), Sarge\_28 (FB), Sarma624\_38 (F1), Sashimi\_39 (AY), Satrap\_40 (AY), Scarlett\_45 (K1), SeaLumen\_48 (F1), Seahorse\_41 (AY), Sekhmet\_40 (CZ4), Settecandela\_38 (AA), SgtBeansprout\_36 (K1), Shaobing\_43 (K1), Shauna1\_38 (F1), ShawBrad\_51 (DN1), ShiaSurprise\_42 (K1), Shlim410\_38 (CZ4), Shoya\_35 (FB), ShroomBoi\_42 (F1), Shukran\_42 (AY), SilverChicken\_53 (F2), SimranZ1\_43 (F1), Slimphazie\_41 (K1), SonDevVon\_40 (AY), Sonali\_29 (FG), Soul22\_46 (F2), Spartacus\_41 (F1), SpicyFrank\_39 (AY), Spock\_41 (K1), Squirty\_35 (F3), StAnnes\_42 (F1), Stellammi\_65 (UNK), Stinson\_42 (K1), Strobilo\_43 (K2), Strokeseat\_41 (F1), Sulley\_41 (K1), SuperGrey\_42 (F1), SwagPigglett\_45 (F1), TChen\_44 (F4), TClif\_45 (K6), Tachez\_41 (K1), TaiwanKao\_43 (K1), Taj\_45 (F1), ThayneTheZag\_40 (AY), Thimann\_36 (CZ4), Tiff81\_35 (AY), TiniBug\_42 (K1), Tiri\_42 (K1), Topper\_41 (K1), Torres\_39 (K1), TreyKay\_42 (K1), TruffulaTree\_41 (K1), Tuti\_39 (CZ4), Twinkle\_39 (CZ4), Twitch\_41 (K1), Urkel\_42 (K1), VRedHorse\_42

(F1), Validus\_45 (K1), Veliki\_41 (K1), Velveteen\_37 (F1), Violac\_42 (F1), Vopal\_43 (AY), Wachhund\_44 (F1), Wee\_46 (F1), Whatsapiecost\_41 (F1), WillSterrel\_41 (F1), Windest\_40 (AY), WinkNick\_41 (CZ4), XFactor\_41 (F1), YoungHarleezy\_40 (AY), YoureAdopted\_40 (K1), Yunkel11\_44 (K1), Zavala\_42 (K1), Zizzle\_44 (F1), ZoeJ\_43 (K2), Zucker\_31 (FN),

#### Start 163:

- Found in 2 of 948 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 2 of 787
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Farewell\_44 (AF), Sparky\_45 (AF),

#### Start 165:

- Found in 59 of 948 ( 6.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 3.4% of time when present
- Phage (with cluster) where this start called: PatoPoderoso\_41 (F1), Sunshine23\_31 (FG),

#### Start 167:

- Found in 5 of 948 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 2 of 787
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DreamEater\_35 (FJ), GUPitcher\_34 (FJ), Kukla\_36 (FJ), PetriParty\_38 (FJ), TripleJ\_37 (FJ),

#### Start 169:

- Found in 12 of 948 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 7 of 787
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bluvara\_37 (I3), Caterpie\_44 (AD), Che9c\_41 (I2), Dori\_45 (AD), JohnLord\_45 (AD), Mao1\_43 (AD), Mask\_46 (AD), REQ2\_38 (singleton), Sbash\_40 (I2), Sejanus\_42 (AD), Stuck\_46 (I2), ThulaThula\_35 (P5),

#### Start 170:

- Found in 11 of 948 ( 1.2% ) of genes in pham
- Manual Annotations of this start: 1 of 787
- Called 9.1% of time when present
- Phage (with cluster) where this start called: DillyDally\_29 (singleton),

#### Start 172:

- Found in 5 of 948 ( 0.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Gallop\_33 (ES),

#### Start 175:

- Found in 8 of 948 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 3 of 787
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Juicebox\_26 (singleton), Raqqa\_32 (AY), Sleepyhead\_38 (singleton), StAB\_26 (EP),

Start 177:

- Found in 5 of 948 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 3 of 787
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Adelaide\_25 (EP), Bran\_28 (EP), Stiles\_27 (EP),

Start 178:

- Found in 4 of 948 ( 0.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Taotie\_123 (EQ),

Start 179:

- Found in 67 of 948 ( 7.1% ) of genes in pham
- Manual Annotations of this start: 10 of 787
- Called 19.4% of time when present
- Phage (with cluster) where this start called: Farber\_36 (A3), Fernando\_36 (A3), GingkoMaracino\_36 (A3), JenCasNa\_36 (A3), Lilith\_36 (A3), Malinsilva\_38 (A3), Microwolf\_36 (A3), Montavir\_35 (A3), Ollie\_36 (A3), PFR1\_26 (BX), PFR2\_28 (BX), Taurus\_36 (A3), Zetzy\_35 (A3),

Start 181:

- Found in 23 of 948 ( 2.4% ) of genes in pham
- Manual Annotations of this start: 20 of 787
- Called 91.3% of time when present
- Phage (with cluster) where this start called: Amochick\_29 (Q), Amymech\_29 (Q), BloominB\_29 (Q), Daegal\_30 (Q), DeepSoil15\_29 (Q), Dewey\_29 (Q), Ein37\_29 (Q), Evanesce\_29 (Q), Forge\_29 (Q), Giles\_29 (Q), Gravaillia\_29 (Q), HH92\_29 (Q), Hadrien\_29 (Q), Hail\_29 (Q), Kinbote\_29 (Q), LilHazelnut\_29 (Q), Luke\_29 (Q), Luna22\_29 (Q), Ubuntu\_29 (Q), Webster2\_29 (Q), Wishmaker\_29 (Q),

Start 182:

- Found in 5 of 948 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 2 of 787
- Called 60.0% of time when present
- Phage (with cluster) where this start called: Finkle\_45 (singleton), Gspu1\_28 (CU2), Schmidt\_32 (CU4),

Start 184:

- Found in 4 of 948 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 4 of 787
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kudrefre\_6 (DU1), Octobien14\_6 (DU1), Sephiroth\_7 (DU1), Syleon\_7 (DU1),

Start 188:

- Found in 13 of 948 ( 1.4% ) of genes in pham
- Manual Annotations of this start: 12 of 787
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Banquo\_37 (CU1), Catfish\_37 (CU5), DinoDaryn\_38 (CU1), Goib\_39 (CU1), Huffy\_38 (CU1), LilJank\_9 (DU2), Neville\_8

(DU2), Rabbitrun\_10 (DU2), Splinter\_37 (CU1), TZGordon\_39 (CU1), TinaLin\_36 (CU1), Trax\_8 (DU2), Vendetta\_37 (CU1),

Start 191:

- Found in 310 of 948 ( 32.7% ) of genes in pham
- Manual Annotations of this start: 14 of 787
- Called 6.8% of time when present
- Phage (with cluster) where this start called: Acolyte\_34 (A2), C3\_31 (A2), Calvinny\_36 (A3), ClownCar\_36 (A3), Crucio\_34 (A2), DarwinJr\_42 (AY), Drake55\_36 (A2), Fameo\_34 (A2), Flare16\_34 (A2), Gratitude\_34 (A2), InLimbo\_35 (DH), Kerberos\_37 (A2), Pomar16\_37 (A2), SnapTap\_34 (A2), StarStuff\_37 (A2), SushiChef\_36 (CZ), SweetiePie\_34 (A2), Tomathan\_37 (A2), Travvers\_37 (A2), Trixie\_35 (A2), Trooper\_35 (A2),

Start 195:

- Found in 43 of 948 ( 4.5% ) of genes in pham
- Manual Annotations of this start: 8 of 787
- Called 18.6% of time when present
- Phage (with cluster) where this start called: Cerulean\_34 (A4), ChampagnePapi\_34 (A4), Kampy\_33 (A4), LHTSCC\_34 (A4), LeoAvram\_33 (A4), NothingSpecial\_35 (A2), Obama12\_34 (A4), SheldonCooper\_34 (A4),

Start 204:

- Found in 77 of 948 ( 8.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 3.9% of time when present
- Phage (with cluster) where this start called: Kachowdy\_33 (A3), Marchesa\_33 (A3), Roimos\_33 (A3),

Start 217:

- Found in 318 of 948 ( 33.5% ) of genes in pham
- Manual Annotations of this start: 6 of 787
- Called 1.9% of time when present
- Phage (with cluster) where this start called: Bactobuster\_35 (A2), EvilGenius\_36 (A2), Heffalump\_35 (A2), Medusa\_33 (A4), NaSiaTalie\_34 (A2), Ph8s\_35 (A2),

Start 222:

- Found in 12 of 948 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 1 of 787
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Spartoi\_37 (singleton),

Start 268:

- Found in 30 of 948 ( 3.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 3.3% of time when present
- Phage (with cluster) where this start called: Jant\_44 (F1),

### Summary by clusters:

There are 75 clusters represented in this pham: DN, AA, singleton, FS, BA, DH, FQ, CZ2, CZ3, P3, CZ1, CZ6, AS1, CZ4, CZ5, BT, FA, FB, DZ, K6, CZ8, FG, DW, FJ, BX, FN, CY6, CU5, CU4, CY3, CU2, CU1, A12, EQ, I3, DI, A19, A3, A2, DN1, A4, DN3,

A9, DU1, DU2, P5, AS3, AS2, EO, CY7, AD, CY5, F, J, KA, CZ7, Q, CZ, AY, X, UNK, AF, EP, ES, CY1, F1, F2, F3, F4, K2, F8, P2, K1, CY4, I2,

Info for manual annotations of cluster A12:

- Start number 140 was manually annotated 1 time for cluster A12.
- Start number 154 was manually annotated 1 time for cluster A12.

Info for manual annotations of cluster A19:

- Start number 152 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:

- Start number 101 was manually annotated 2 times for cluster A2.
- Start number 133 was manually annotated 7 times for cluster A2.
- Start number 139 was manually annotated 1 time for cluster A2.
- Start number 140 was manually annotated 3 times for cluster A2.
- Start number 148 was manually annotated 5 times for cluster A2.
- Start number 152 was manually annotated 33 times for cluster A2.
- Start number 154 was manually annotated 1 time for cluster A2.
- Start number 156 was manually annotated 8 times for cluster A2.
- Start number 157 was manually annotated 8 times for cluster A2.
- Start number 158 was manually annotated 1 time for cluster A2.
- Start number 162 was manually annotated 1 time for cluster A2.
- Start number 191 was manually annotated 14 times for cluster A2.
- Start number 195 was manually annotated 1 time for cluster A2.
- Start number 217 was manually annotated 5 times for cluster A2.

Info for manual annotations of cluster A3:

- Start number 114 was manually annotated 1 time for cluster A3.
- Start number 134 was manually annotated 2 times for cluster A3.
- Start number 140 was manually annotated 1 time for cluster A3.
- Start number 152 was manually annotated 73 times for cluster A3.
- Start number 179 was manually annotated 10 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 110 was manually annotated 3 times for cluster A4.
- Start number 152 was manually annotated 13 times for cluster A4.
- Start number 195 was manually annotated 7 times for cluster A4.
- Start number 217 was manually annotated 1 time for cluster A4.

Info for manual annotations of cluster A9:

- Start number 140 was manually annotated 1 time for cluster A9.

Info for manual annotations of cluster AA:

- Start number 162 was manually annotated 2 times for cluster AA.

Info for manual annotations of cluster AD:

- Start number 169 was manually annotated 4 times for cluster AD.

Info for manual annotations of cluster AF:

- Start number 163 was manually annotated 2 times for cluster AF.

Info for manual annotations of cluster AS1:

- Start number 147 was manually annotated 13 times for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 147 was manually annotated 17 times for cluster AS2.

Info for manual annotations of cluster AS3:

- Start number 147 was manually annotated 14 times for cluster AS3.

Info for manual annotations of cluster AY:

- Start number 138 was manually annotated 1 time for cluster AY.
- Start number 162 was manually annotated 34 times for cluster AY.

Info for manual annotations of cluster BT:

- Start number 157 was manually annotated 2 times for cluster BT.

Info for manual annotations of cluster CU1:

- Start number 188 was manually annotated 8 times for cluster CU1.

Info for manual annotations of cluster CU4:

- Start number 182 was manually annotated 1 time for cluster CU4.

Info for manual annotations of cluster CU5:

- Start number 188 was manually annotated 1 time for cluster CU5.

Info for manual annotations of cluster CY1:

- Start number 159 was manually annotated 5 times for cluster CY1.
- Start number 162 was manually annotated 4 times for cluster CY1.

Info for manual annotations of cluster CY3:

- Start number 159 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CY4:

- Start number 159 was manually annotated 2 times for cluster CY4.

Info for manual annotations of cluster CY5:

- Start number 162 was manually annotated 1 time for cluster CY5.

Info for manual annotations of cluster CY6:

- Start number 162 was manually annotated 1 time for cluster CY6.

Info for manual annotations of cluster CY7:

- Start number 159 was manually annotated 1 time for cluster CY7.

Info for manual annotations of cluster CZ:

- Start number 147 was manually annotated 1 time for cluster CZ.
- Start number 159 was manually annotated 1 time for cluster CZ.
- Start number 162 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:

- Start number 85 was manually annotated 4 times for cluster CZ1.
- Start number 147 was manually annotated 1 time for cluster CZ1.

- Start number 159 was manually annotated 20 times for cluster CZ1.

Info for manual annotations of cluster CZ2:

- Start number 83 was manually annotated 2 times for cluster CZ2.
- Start number 85 was manually annotated 2 times for cluster CZ2.
- Start number 147 was manually annotated 1 time for cluster CZ2.
- Start number 159 was manually annotated 18 times for cluster CZ2.

Info for manual annotations of cluster CZ3:

- Start number 147 was manually annotated 3 times for cluster CZ3.

Info for manual annotations of cluster CZ4:

- Start number 147 was manually annotated 3 times for cluster CZ4.
- Start number 162 was manually annotated 19 times for cluster CZ4.

Info for manual annotations of cluster CZ5:

- Start number 162 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ6:

- Start number 103 was manually annotated 1 time for cluster CZ6.
- Start number 155 was manually annotated 1 time for cluster CZ6.
- Start number 159 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster CZ7:

- Start number 147 was manually annotated 1 time for cluster CZ7.

Info for manual annotations of cluster CZ8:

- Start number 162 was manually annotated 1 time for cluster CZ8.

Info for manual annotations of cluster DH:

- Start number 159 was manually annotated 2 times for cluster DH.
- Start number 162 was manually annotated 1 time for cluster DH.

Info for manual annotations of cluster DI:

- Start number 147 was manually annotated 15 times for cluster DI.

Info for manual annotations of cluster DN:

- Start number 162 was manually annotated 5 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 162 was manually annotated 14 times for cluster DN1.

Info for manual annotations of cluster DN3:

- Start number 162 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DU1:

- Start number 184 was manually annotated 4 times for cluster DU1.

Info for manual annotations of cluster DU2:

- Start number 188 was manually annotated 3 times for cluster DU2.

Info for manual annotations of cluster DW:

- Start number 147 was manually annotated 5 times for cluster DW.

Info for manual annotations of cluster DZ:

- Start number 147 was manually annotated 5 times for cluster DZ.

Info for manual annotations of cluster EO:

- Start number 159 was manually annotated 4 times for cluster EO.

Info for manual annotations of cluster EP:

- Start number 102 was manually annotated 3 times for cluster EP.
- Start number 175 was manually annotated 1 time for cluster EP.
- Start number 177 was manually annotated 3 times for cluster EP.

Info for manual annotations of cluster F1:

- Start number 162 was manually annotated 89 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 162 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster F3:

- Start number 162 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster F4:

- Start number 162 was manually annotated 3 times for cluster F4.

Info for manual annotations of cluster FA:

- Start number 162 was manually annotated 9 times for cluster FA.

Info for manual annotations of cluster FB:

- Start number 131 was manually annotated 2 times for cluster FB.
- Start number 162 was manually annotated 4 times for cluster FB.

Info for manual annotations of cluster FG:

- Start number 162 was manually annotated 3 times for cluster FG.

Info for manual annotations of cluster FJ:

- Start number 167 was manually annotated 2 times for cluster FJ.

Info for manual annotations of cluster FN:

- Start number 162 was manually annotated 3 times for cluster FN.

Info for manual annotations of cluster FQ:

- Start number 144 was manually annotated 3 times for cluster FQ.
- Start number 161 was manually annotated 1 time for cluster FQ.

Info for manual annotations of cluster FS:

- Start number 144 was manually annotated 1 time for cluster FS.

Info for manual annotations of cluster I2:

- Start number 169 was manually annotated 2 times for cluster I2.

Info for manual annotations of cluster J:

- Start number 90 was manually annotated 1 time for cluster J.
- Start number 98 was manually annotated 8 times for cluster J.
- Start number 116 was manually annotated 29 times for cluster J.
- Start number 131 was manually annotated 1 time for cluster J.
- Start number 160 was manually annotated 1 time for cluster J.

Info for manual annotations of cluster K1:

- Start number 33 was manually annotated 1 time for cluster K1.
- Start number 162 was manually annotated 102 times for cluster K1.

Info for manual annotations of cluster K2:

- Start number 162 was manually annotated 10 times for cluster K2.

Info for manual annotations of cluster K6:

- Start number 162 was manually annotated 2 times for cluster K6.

Info for manual annotations of cluster KA:

- Start number 147 was manually annotated 1 time for cluster KA.

Info for manual annotations of cluster P2:

- Start number 153 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

- Start number 153 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster P5:

- Start number 169 was manually annotated 1 time for cluster P5.

Info for manual annotations of cluster Q:

- Start number 155 was manually annotated 2 times for cluster Q.
- Start number 181 was manually annotated 20 times for cluster Q.

Info for manual annotations of cluster X:

- Start number 98 was manually annotated 2 times for cluster X.

### **Gene Information:**

Gene: ACFishhook\_35 Start: 26718, Stop: 25579, Start Num: 152

Candidate Starts for ACFishhook\_35:

(Start: 101 @26781 has 2 MA's), (Start: 152 @26718 has 120 MA's), (Start: 191 @26664 has 14 MA's), (Start: 217 @26595 has 6 MA's), (322, 26376), (328, 26367), (356, 26331), (402, 26274), (449, 26196), (462, 26172), (466, 26163), (515, 26061), (534, 26043), (548, 26031), (593, 25956), (595, 25950), (603, 25929), (622, 25914), (633, 25896), (647, 25872), (716, 25713), (717, 25710), (724, 25680), (726, 25674), (729, 25662), (755, 25623),

Gene: AN3\_33 Start: 26414, Stop: 25290, Start Num: 152

Candidate Starts for AN3\_33:

(105, 26468), (Start: 152 @26414 has 120 MA's), (Start: 191 @26360 has 14 MA's), (Start: 217 @26291 has 6 MA's), (317, 26090), (328, 26063), (356, 26027), (401, 25973), (402, 25970), (414, 25943), (449, 25892), (466, 25859), (471, 25847), (481, 25829), (515, 25757), (534, 25739), (548, 25727), (574, 25688), (593, 25652), (595, 25646), (603, 25625), (622, 25610), (633, 25592), (650, 25565), (704, 25454), (717, 25406), (718, 25403), (724, 25376), (726, 25370), (729, 25358), (755, 25319),

Gene: AN9\_36 Start: 26399, Stop: 25275, Start Num: 152

Candidate Starts for AN9\_36:

(105, 26453), (Start: 152 @26399 has 120 MA's), (Start: 191 @26345 has 14 MA's), (Start: 217 @26276 has 6 MA's), (317, 26075), (328, 26048), (356, 26012), (401, 25958), (402, 25955), (414, 25928), (449, 25877), (466, 25844), (471, 25832), (481, 25814), (515, 25742), (534, 25724), (548, 25712), (574, 25673), (593, 25637), (595, 25631), (603, 25610), (622, 25595), (633, 25577), (650, 25550), (704, 25439), (717, 25391), (718, 25388), (724, 25361), (726, 25355), (729, 25343), (755, 25304),

Gene: ANI8\_36 Start: 26399, Stop: 25275, Start Num: 152

Candidate Starts for ANI8\_36:

(105, 26453), (Start: 152 @26399 has 120 MA's), (Start: 191 @26345 has 14 MA's), (Start: 217 @26276 has 6 MA's), (317, 26075), (328, 26048), (356, 26012), (401, 25958), (402, 25955), (414, 25928), (449, 25877), (466, 25844), (471, 25832), (481, 25814), (515, 25742), (534, 25724), (548, 25712), (574, 25673), (593, 25637), (595, 25631), (603, 25610), (622, 25595), (633, 25577), (650, 25550), (704, 25439), (717, 25391), (718, 25388), (724, 25361), (726, 25355), (729, 25343), (755, 25304),

Gene: AbbyDaisy\_36 Start: 27417, Stop: 26233, Start Num: 162

Candidate Starts for AbbyDaisy\_36:

(40, 27699), (41, 27690), (49, 27654), (66, 27579), (87, 27522), (108, 27483), (Start: 162 @27417 has 317 MA's), (Start: 191 @27366 has 14 MA's), (277, 27198), (285, 27180), (346, 27048), (402, 26970), (411, 26952), (426, 26919), (451, 26883), (456, 26874), (486, 26814), (523, 26739), (599, 26619), (670, 26505), (703, 26448), (708, 26427), (709, 26424), (712, 26409), (762, 26289),

Gene: AbbyPaige\_35 Start: 26720, Stop: 25575, Start Num: 133

Candidate Starts for AbbyPaige\_35:

(Start: 133 @26720 has 7 MA's), (Start: 148 @26702 has 5 MA's), (Start: 195 @26618 has 8 MA's), (Start: 217 @26570 has 6 MA's), (234, 26525), (328, 26342), (356, 26306), (402, 26249), (408, 26237), (466, 26138), (471, 26126), (481, 26108), (534, 26018), (548, 26006), (593, 25931), (595, 25925), (603, 25904), (622, 25889), (633, 25871), (650, 25844), (704, 25733), (717, 25685), (718, 25682), (724, 25655), (726, 25649), (729, 25637), (755, 25598),

Gene: Abdiel\_32 Start: 26295, Stop: 25129, Start Num: 110

Candidate Starts for Abdiel\_32:

(Start: 110 @26295 has 3 MA's), (135, 26268), (Start: 152 @26250 has 120 MA's), (Start: 195 @26181 has 8 MA's), (Start: 217 @26127 has 6 MA's), (322, 25908), (328, 25899), (356, 25863), (394, 25821), (401, 25809), (402, 25806), (449, 25728), (515, 25593), (534, 25575), (593, 25488), (595, 25482), (603, 25461), (622, 25446), (633, 25428), (704, 25290), (717, 25242), (724, 25212), (726, 25206), (729, 25194), (755, 25155),

Gene: Abidatro\_34 Start: 24278, Stop: 23067, Start Num: 147

Candidate Starts for Abidatro\_34:

(Start: 147 @24278 has 80 MA's), (266, 24059), (276, 24041), (330, 23924), (365, 23849), (369, 23834), (533, 23540), (552, 23519), (570, 23492), (599, 23426), (607, 23414), (617, 23396), (705, 23252), (708, 23243),

Gene: Acolyte\_34 Start: 27024, Stop: 25957, Start Num: 191

Candidate Starts for Acolyte\_34:

(Start: 152 @27078 has 120 MA's), (Start: 191 @27024 has 14 MA's), (Start: 217 @26955 has 6 MA's), (328, 26727), (356, 26691), (402, 26634), (414, 26607), (449, 26556), (481, 26493), (534, 26403), (548, 26391), (564, 26370), (593, 26316), (595, 26310), (603, 26289), (622, 26274), (650, 26229), (704, 26118), (717, 26070), (724, 26040), (726, 26034), (729, 26022), (755, 25983),

Gene: ActinUp\_41 Start: 32479, Stop: 33567, Start Num: 162

Candidate Starts for ActinUp\_41:

(Start: 162 @32479 has 317 MA's), (Start: 191 @32530 has 14 MA's), (Start: 217 @32581 has 6 MA's), (226, 32605), (244, 32641), (317, 32779), (340, 32833), (408, 32917), (451, 32986), (452, 32989), (534, 33139), (587, 33217), (598, 33244), (663, 33331), (701, 33379),

Gene: AdaS\_35 Start: 25676, Stop: 24537, Start Num: 162

Candidate Starts for AdaS\_35:

(Start: 162 @25676 has 317 MA's), (Start: 191 @25625 has 14 MA's), (277, 25457), (285, 25439), (346, 25307), (402, 25229), (408, 25217), (451, 25142), (456, 25133), (486, 25073), (535, 24983), (599, 24878), (614, 24857), (631, 24830), (703, 24707), (709, 24683), (712, 24668), (733, 24593), (753, 24563),

Gene: Adelaide\_25 Start: 24090, Stop: 22960, Start Num: 177

Candidate Starts for Adelaide\_25:

(Start: 177 @24090 has 3 MA's), (189, 24075), (201, 24051), (258, 23937), (278, 23898), (294, 23856), (313, 23823), (316, 23814), (327, 23787), (335, 23769), (397, 23685), (405, 23670), (426, 23625), (460, 23565), (497, 23523), (502, 23511), (506, 23505), (514, 23484), (548, 23430), (551, 23427), (554, 23424), (568, 23403), (608, 23319), (615, 23313), (623, 23295), (640, 23265), (686, 23208), (704, 23166), (709, 23151), (712, 23136), (713, 23130), (716, 23121), (719, 23112), (726, 23082), (747, 23040), (760, 23019), (762, 23016), (766, 23007), (783, 22980), (788, 22965),

Gene: Adephagia\_41 Start: 32476, Stop: 33564, Start Num: 162

Candidate Starts for Adephagia\_41:

(Start: 162 @32476 has 317 MA's), (Start: 191 @32527 has 14 MA's), (Start: 217 @32578 has 6 MA's), (226, 32602), (244, 32638), (317, 32776), (340, 32830), (408, 32914), (451, 32983), (452, 32986), (534, 33136), (587, 33214), (598, 33241), (663, 33328), (701, 33376),

Gene: Adonis\_41 Start: 32777, Stop: 33865, Start Num: 162

Candidate Starts for Adonis\_41:

(Start: 162 @32777 has 317 MA's), (Start: 217 @32879 has 6 MA's), (226, 32903), (244, 32939), (304, 33053), (340, 33131), (408, 33215), (451, 33284), (452, 33287), (534, 33437), (598, 33542), (663, 33629), (701, 33677),

Gene: AdoptaAdorbs\_35 Start: 23914, Stop: 22721, Start Num: 147

Candidate Starts for AdoptaAdorbs\_35:

(Start: 147 @23914 has 80 MA's), (365, 23485), (384, 23428), (398, 23404), (533, 23176), (607, 23050), (614, 23038), (625, 23017), (708, 22879), (729, 22798), (760, 22750),

Gene: Adora\_37 Start: 31194, Stop: 32321, Start Num: 162

Candidate Starts for Adora\_37:

(122, 31155), (Start: 162 @31194 has 317 MA's), (Start: 191 @31248 has 14 MA's), (240, 31371), (263, 31404), (307, 31494), (320, 31527), (451, 31722), (452, 31725), (471, 31767), (493, 31803), (678, 32100), (709, 32178), (715, 32205), (720, 32220), (726, 32247), (760, 32310),

Gene: Adzzy\_35 Start: 25141, Stop: 24026, Start Num: 157

Candidate Starts for Adzzy\_35:

(Start: 157 @25141 has 10 MA's), (Start: 217 @25024 has 6 MA's), (234, 24979), (328, 24796), (356, 24760), (394, 24718), (401, 24706), (402, 24703), (413, 24679), (515, 24490), (534, 24472), (548, 24460), (564, 24439), (593, 24385), (603, 24358), (622, 24343), (633, 24325), (650, 24298), (717, 24139), (724, 24109), (726, 24103), (729, 24091), (755, 24052), (760, 24043),

Gene: Agape74\_35 Start: 26696, Stop: 25551, Start Num: 133

Candidate Starts for Agape74\_35:

(Start: 133 @26696 has 7 MA's), (Start: 148 @26678 has 5 MA's), (Start: 195 @26594 has 8 MA's), (Start: 217 @26546 has 6 MA's), (234, 26501), (328, 26318), (356, 26282), (402, 26225), (408, 26213), (466, 26114), (471, 26102), (481, 26084), (534, 25994), (548, 25982), (593, 25907), (595, 25901), (603, 25880), (622, 25865), (633, 25847), (650, 25820), (704, 25709), (717, 25661), (718, 25658), (724, 25631), (726, 25625), (729, 25613), (755, 25574),

Gene: Ageofdapage\_43 Start: 33453, Stop: 34541, Start Num: 162

Candidate Starts for Ageofdapage\_43:

(Start: 162 @33453 has 317 MA's), (Start: 217 @33555 has 6 MA's), (226, 33579), (244, 33615), (277, 33666), (304, 33729), (317, 33753), (340, 33807), (342, 33810), (408, 33891), (451, 33960), (452, 33963), (466, 33993), (534, 34113), (587, 34191), (598, 34218), (701, 34353),

Gene: Aglet\_36 Start: 26791, Stop: 25646, Start Num: 152

Candidate Starts for Aglet\_36:

(Start: 152 @26791 has 120 MA's), (Start: 179 @26752 has 10 MA's), (Start: 217 @26668 has 6 MA's), (234, 26623), (317, 26467), (328, 26440), (356, 26404), (402, 26347), (449, 26269), (462, 26245), (481, 26206), (515, 26134), (529, 26122), (534, 26116), (548, 26104), (593, 26029), (595, 26023), (603, 26002), (622, 25987), (633, 25969), (647, 25945), (704, 25831), (716, 25786), (717, 25783), (720, 25774), (724, 25753), (726, 25747), (729, 25735), (755, 25696),

Gene: Agueybana\_38 Start: 30381, Stop: 31463, Start Num: 159

Candidate Starts for Agueybana\_38:

(Start: 85 @30270 has 6 MA's), (Start: 159 @30381 has 56 MA's), (Start: 191 @30435 has 14 MA's), (252, 30555), (401, 30810), (414, 30840), (452, 30900), (486, 30966), (497, 30990), (709, 31320), (760, 31452),

Gene: Aikyam\_37 Start: 25607, Stop: 24468, Start Num: 162

Candidate Starts for Aikyam\_37:

(Start: 162 @25607 has 317 MA's), (Start: 191 @25556 has 14 MA's), (277, 25388), (285, 25370), (346, 25238), (402, 25160), (408, 25148), (411, 25142), (451, 25073), (456, 25064), (486, 25004), (535, 24914), (599, 24809), (614, 24788), (631, 24761), (703, 24638), (709, 24614), (712, 24599), (733, 24524), (753, 24494),

Gene: Akhila\_37 Start: 29110, Stop: 30237, Start Num: 162

Candidate Starts for Akhila\_37:

(86, 29008), (121, 29065), (Start: 162 @29110 has 317 MA's), (165, 29119), (244, 29281), (268, 29332), (277, 29350), (296, 29395), (340, 29491), (346, 29500), (414, 29605), (454, 29674), (471, 29713), (484, 29734), (492, 29746), (493, 29749), (497, 29761), (514, 29800), (520, 29806), (539, 29827), (573, 29863), (574, 29866), (593, 29902), (595, 29908), (598, 29920), (599, 29923), (610, 29938), (663, 30007), (670, 30022), (690, 30040), (703, 30064), (713, 30109), (716, 30118), (720, 30130), (726, 30157), (731, 30175), (746, 30196), (755, 30211), (760, 30220), (762, 30223),

Gene: Alatato\_29 Start: 23820, Stop: 22690, Start Num: 162

Candidate Starts for Alatato\_29:

(44, 24084), (Start: 162 @23820 has 317 MA's), (Start: 191 @23769 has 14 MA's), (192, 23766), (277, 23604), (304, 23541), (322, 23496), (333, 23475), (413, 23337), (414, 23334), (427, 23310), (441, 23295), (463, 23250), (560, 23091), (593, 23037), (612, 22995), (631, 22968), (663, 22914), (670, 22899), (675, 22890), (712, 22806), (713, 22800), (716, 22791), (728, 22746),

Gene: Aleemily\_34 Start: 29847, Stop: 28720, Start Num: 147

Candidate Starts for Aleemily\_34:

(12, 30327), (Start: 147 @29847 has 80 MA's), (180, 29793), (230, 29688), (318, 29517), (361, 29427), (371, 29391), (425, 29277), (479, 29238), (492, 29214), (555, 29118), (631, 28986), (656, 28941), (705, 28869), (753, 28743),

Gene: AlexMinion\_38 Start: 24097, Stop: 22904, Start Num: 147

Candidate Starts for AlexMinion\_38:

(Start: 147 @24097 has 80 MA's), (365, 23668), (491, 23437), (552, 23338), (607, 23233), (614, 23221), (708, 23062), (760, 22933),

Gene: Alexphander\_45 Start: 32418, Stop: 33536, Start Num: 162

Candidate Starts for Alexphander\_45:

(Start: 162 @32418 has 317 MA's), (227, 32556), (244, 32589), (272, 32637), (340, 32790), (346, 32799), (402, 32880), (454, 32973), (471, 33012), (484, 33033), (492, 33045), (493, 33048), (497, 33060), (514, 33099), (520, 33105), (539, 33126), (573, 33162), (574, 33165), (593, 33201), (595, 33207), (599, 33222), (610, 33237), (663, 33306), (670, 33321), (690, 33339), (713, 33408), (716, 33417), (726, 33456), (731, 33474), (746, 33495), (755, 33510), (760, 33519), (762, 33522),

Gene: AlishaPH\_41 Start: 32751, Stop: 33839, Start Num: 162

Candidate Starts for AlishaPH\_41:

(Start: 162 @32751 has 317 MA's), (Start: 217 @32853 has 6 MA's), (226, 32877), (244, 32913), (317, 33051), (340, 33105), (408, 33189), (451, 33258), (452, 33261), (534, 33411), (598, 33516), (663, 33603), (701, 33651), (748, 33795),

Gene: Altostratus\_45 Start: 28384, Stop: 27227, Start Num: 144

Candidate Starts for Altostratus\_45:

(Start: 144 @28384 has 4 MA's), (Start: 177 @28333 has 3 MA's), (190, 28309), (208, 28264), (246, 28189), (278, 28126), (283, 28117), (335, 28012), (360, 27961), (365, 27949), (368, 27937), (370, 27928), (375, 27907), (410, 27838), (412, 27832), (415, 27823), (483, 27748), (500, 27706), (538, 27649), (555, 27637), (565, 27622), (594, 27568), (603, 27544), (616, 27526), (631, 27505), (643, 27481), (662, 27451), (700, 27400), (705, 27373), (715, 27337), (753, 27247),

Gene: AlumE\_39 Start: 31289, Stop: 32371, Start Num: 159

Candidate Starts for AlumE\_39:

(Start: 85 @31178 has 6 MA's), (Start: 159 @31289 has 56 MA's), (Start: 191 @31343 has 14 MA's), (252, 31463), (414, 31748), (452, 31808), (486, 31874), (497, 31898), (709, 32228), (728, 32303), (760, 32360),

Gene: Amelia\_36 Start: 24019, Stop: 22832, Start Num: 147

Candidate Starts for Amelia\_36:

(84, 24109), (Start: 147 @24019 has 80 MA's), (330, 23665), (365, 23590), (607, 23155), (700, 23020),

Gene: Amelie\_36 Start: 31976, Stop: 33070, Start Num: 162

Candidate Starts for Amelie\_36:

(28, 31625), (Start: 33 @31640 has 1 MA's), (46, 31733), (51, 31754), (79, 31847), (Start: 162 @31976 has 317 MA's), (Start: 191 @32027 has 14 MA's), (226, 32102), (244, 32138), (296, 32234), (304, 32252), (317, 32276), (337, 32324), (340, 32330), (432, 32462), (451, 32495), (471, 32540), (534,

32648), (598, 32753), (646, 32813), (701, 32888), (728, 32996), (748, 33032),

Gene: AmiCi24\_35 Start: 23912, Stop: 22719, Start Num: 147

Candidate Starts for AmiCi24\_35:

(Start: 147 @23912 has 80 MA's), (365, 23483), (384, 23426), (398, 23402), (533, 23174), (607, 23048), (614, 23036), (625, 23015), (708, 22877), (729, 22796), (760, 22748),

Gene: Amochick\_29 Start: 26484, Stop: 25291, Start Num: 181

Candidate Starts for Amochick\_29:

(Start: 155 @26526 has 3 MA's), (Start: 181 @26484 has 20 MA's), (211, 26418), (247, 26337), (266, 26298), (275, 26283), (277, 26277), (281, 26265), (293, 26238), (311, 26205), (339, 26148), (359, 26115), (360, 26112), (375, 26064), (401, 26022), (402, 26019), (412, 25995), (419, 25980), (429, 25956), (438, 25941), (462, 25902), (468, 25890), (488, 25851), (506, 25812), (528, 25764), (531, 25761), (580, 25689), (583, 25683), (588, 25671), (591, 25668), (593, 25662), (619, 25608), (630, 25590), (631, 25587), (645, 25560), (662, 25533), (701, 25491), (707, 25464), (709, 25458), (722, 25401), (759, 25338), (760, 25335),

Gene: Amphitrite\_36 Start: 23913, Stop: 22720, Start Num: 147

Candidate Starts for Amphitrite\_36:

(Start: 147 @23913 has 80 MA's), (365, 23484), (384, 23427), (398, 23403), (533, 23175), (607, 23049), (614, 23037), (625, 23016), (708, 22878), (729, 22797), (760, 22749),

Gene: Amymech\_29 Start: 26478, Stop: 25285, Start Num: 181

Candidate Starts for Amymech\_29:

(Start: 155 @26520 has 3 MA's), (Start: 181 @26478 has 20 MA's), (211, 26412), (247, 26331), (266, 26292), (275, 26277), (277, 26271), (281, 26259), (293, 26232), (311, 26199), (339, 26142), (359, 26109), (360, 26106), (375, 26058), (401, 26016), (402, 26013), (412, 25989), (419, 25974), (429, 25950), (438, 25935), (462, 25896), (468, 25884), (488, 25845), (506, 25806), (528, 25758), (531, 25755), (580, 25683), (583, 25677), (588, 25665), (591, 25662), (593, 25656), (619, 25602), (630, 25584), (631, 25581), (645, 25554), (656, 25536), (661, 25530), (662, 25527), (701, 25485), (707, 25458), (709, 25452), (722, 25395), (759, 25332), (760, 25329),

Gene: Anaya\_43 Start: 33089, Stop: 34177, Start Num: 162

Candidate Starts for Anaya\_43:

(Start: 162 @33089 has 317 MA's), (Start: 217 @33191 has 6 MA's), (226, 33215), (244, 33251), (304, 33365), (340, 33443), (408, 33527), (451, 33596), (452, 33599), (534, 33749), (598, 33854), (663, 33941), (701, 33989),

Gene: Andrew\_37 Start: 23839, Stop: 22646, Start Num: 147

Candidate Starts for Andrew\_37:

(Start: 147 @23839 has 80 MA's), (Start: 175 @23794 has 3 MA's), (398, 23329), (533, 23101), (607, 22975), (614, 22963), (705, 22813), (760, 22675),

Gene: Anekin\_37 Start: 26993, Stop: 25815, Start Num: 162

Candidate Starts for Anekin\_37:

(Start: 148 @27011 has 5 MA's), (Start: 162 @26993 has 317 MA's), (Start: 191 @26942 has 14 MA's), (221, 26876), (285, 26756), (328, 26660), (346, 26624), (402, 26546), (451, 26459), (456, 26450), (486, 26390), (508, 26342), (535, 26300), (603, 26189), (631, 26147), (703, 26030), (708, 26009), (709, 26006), (712, 25991), (762, 25871),

Gene: Angelica\_41 Start: 32708, Stop: 33796, Start Num: 162

Candidate Starts for Angelica\_41:

(Start: 162 @32708 has 317 MA's), (Start: 217 @32810 has 6 MA's), (221, 32819), (226, 32834), (244, 32870), (340, 33062), (408, 33146), (451, 33215), (452, 33218), (534, 33368), (598, 33473), (663, 33560), (701, 33608), (748, 33752),

Gene: Angelique\_39 Start: 30954, Stop: 32036, Start Num: 159

Candidate Starts for Angelique\_39:

(Start: 85 @30843 has 6 MA's), (Start: 159 @30954 has 56 MA's), (Start: 191 @31008 has 14 MA's), (252, 31128), (401, 31383), (414, 31413), (452, 31473), (486, 31539), (497, 31563), (573, 31668), (709, 31893), (715, 31920), (728, 31968), (760, 32025),

Gene: Anma\_43 Start: 33376, Stop: 34464, Start Num: 162

Candidate Starts for Anma\_43:

(51, 33154), (Start: 162 @33376 has 317 MA's), (Start: 191 @33427 has 14 MA's), (Start: 217 @33478 has 6 MA's), (226, 33502), (244, 33538), (304, 33652), (340, 33730), (408, 33814), (451, 33883), (452, 33886), (534, 34036), (598, 34141), (701, 34276), (748, 34420),

Gene: Annalisa\_36 Start: 28551, Stop: 29678, Start Num: 162

Candidate Starts for Annalisa\_36:

(53, 28332), (59, 28368), (Start: 162 @28551 has 317 MA's), (Start: 191 @28605 has 14 MA's), (240, 28728), (263, 28761), (307, 28851), (320, 28884), (451, 29079), (452, 29082), (471, 29124), (493, 29160), (678, 29457), (720, 29577), (726, 29604), (760, 29667),

Gene: Anselm\_35 Start: 26782, Stop: 25661, Start Num: 152

Candidate Starts for Anselm\_35:

(Start: 101 @26845 has 2 MA's), (Start: 152 @26782 has 120 MA's), (Start: 191 @26728 has 14 MA's), (Start: 217 @26659 has 6 MA's), (234, 26614), (317, 26458), (356, 26395), (408, 26326), (430, 26284), (449, 26260), (481, 26197), (534, 26107), (548, 26095), (593, 26020), (595, 26014), (603, 25993), (622, 25978), (633, 25960), (650, 25933), (704, 25822), (716, 25777), (717, 25774), (718, 25771), (724, 25744), (726, 25738), (729, 25726), (755, 25687),

Gene: Antonio\_39 Start: 30563, Stop: 31645, Start Num: 159

Candidate Starts for Antonio\_39:

(Start: 85 @30452 has 6 MA's), (Start: 159 @30563 has 56 MA's), (Start: 191 @30617 has 14 MA's), (252, 30737), (401, 30992), (414, 31022), (452, 31082), (486, 31148), (497, 31172), (709, 31502), (715, 31529), (760, 31634),

Gene: Antrice\_39 Start: 25191, Stop: 23998, Start Num: 147

Candidate Starts for Antrice\_39:

(Start: 147 @25191 has 80 MA's), (366, 24756), (552, 24429), (594, 24354), (607, 24324), (614, 24312), (617, 24306),

Gene: Anubis\_38 Start: 26676, Stop: 25531, Start Num: 152

Candidate Starts for Anubis\_38:

(Start: 152 @26676 has 120 MA's), (Start: 179 @26637 has 10 MA's), (204, 26589), (Start: 217 @26553 has 6 MA's), (234, 26508), (317, 26352), (328, 26325), (356, 26289), (402, 26232), (449, 26154), (462, 26130), (481, 26091), (515, 26019), (529, 26007), (534, 26001), (548, 25989), (593, 25914), (595, 25908), (603, 25887), (622, 25872), (633, 25854), (647, 25830), (704, 25716), (716, 25671), (717, 25668), (720, 25659), (724, 25638), (726, 25632), (729, 25620), (755, 25581),

Gene: Apocalypse\_44 Start: 33493, Stop: 34581, Start Num: 162

Candidate Starts for Apocalypse\_44:

(Start: 162 @33493 has 317 MA's), (Start: 217 @33595 has 6 MA's), (226, 33619), (244, 33655), (317, 33793), (340, 33847), (408, 33931), (451, 34000), (452, 34003), (534, 34153), (598, 34258), (663,

34345), (701, 34393), (748, 34537),

Gene: Apricot\_48 Start: 31405, Stop: 32475, Start Num: 162

Candidate Starts for Apricot\_48:

(Start: 118 @31360 has 1 MA's), (Start: 162 @31405 has 317 MA's), (Start: 191 @31456 has 14 MA's), (216, 31504), (227, 31534), (240, 31561), (289, 31648), (320, 31714), (322, 31720), (340, 31756), (346, 31765), (395, 31816), (408, 31840), (416, 31858), (456, 31921), (471, 31957), (492, 31990), (493, 31993), (497, 32005), (508, 32029), (605, 32173), (627, 32200), (675, 32272), (709, 32332), (715, 32359), (722, 32389), (728, 32407), (760, 32464),

Gene: ArV2\_29 Start: 22829, Stop: 21699, Start Num: 162

Candidate Starts for ArV2\_29:

(Start: 162 @22829 has 317 MA's), (Start: 191 @22778 has 14 MA's), (272, 22625), (304, 22550), (335, 22481), (350, 22454), (414, 22343), (427, 22319), (463, 22259), (464, 22256), (471, 22241), (593, 22046), (605, 22016), (618, 21998), (619, 21995), (631, 21977), (663, 21923), (670, 21908), (688, 21881), (713, 21809), (716, 21800), (720, 21788),

Gene: ArchiDore\_39 Start: 34244, Stop: 33075, Start Num: 147

Candidate Starts for ArchiDore\_39:

(Start: 147 @34244 has 80 MA's), (232, 34082), (364, 33818), (368, 33803), (384, 33758), (410, 33710), (419, 33689), (420, 33686), (467, 33650), (481, 33623), (492, 33602), (538, 33521), (565, 33500), (595, 33443), (631, 33371), (648, 33341), (700, 33284), (702, 33272), (753, 33131), (773, 33092), (780, 33083),

Gene: Ardmore\_36 Start: 30890, Stop: 32008, Start Num: 162

Candidate Starts for Ardmore\_36:

(Start: 162 @30890 has 317 MA's), (165, 30899), (244, 31061), (322, 31226), (340, 31262), (346, 31271), (454, 31445), (481, 31502), (484, 31505), (492, 31517), (493, 31520), (497, 31532), (514, 31571), (539, 31598), (573, 31634), (574, 31637), (593, 31673), (595, 31679), (598, 31691), (599, 31694), (663, 31778), (670, 31793), (690, 31811), (713, 31880), (716, 31889), (726, 31928), (731, 31946), (746, 31967), (755, 31982), (760, 31991), (762, 31994),

Gene: Arianna\_32 Start: 30114, Stop: 28903, Start Num: 159

Candidate Starts for Arianna\_32:

(Start: 159 @30114 has 56 MA's), (240, 29940), (312, 29799), (401, 29640), (472, 29490), (517, 29400), (663, 29136), (684, 29100), (690, 29094), (747, 28929), (756, 28914), (758, 28911),

Gene: Ariel\_86 Start: 50063, Stop: 51337, Start Num: 98

Candidate Starts for Ariel\_86:

(74, 50006), (Start: 90 @50048 has 1 MA's), (Start: 98 @50063 has 10 MA's), (99, 50066), (Start: 131 @50111 has 3 MA's), (Start: 160 @50150 has 1 MA's), (341, 50531), (395, 50615), (401, 50627), (402, 50630), (464, 50759), (545, 50879), (584, 50942), (592, 50960), (601, 50984), (639, 51056), (723, 51233), (724, 51236), (726, 51242), (731, 51260), (741, 51275), (747, 51284), (749, 51287), (773, 51332),

Gene: Asapag\_47 Start: 32537, Stop: 33631, Start Num: 162

Candidate Starts for Asapag\_47:

(94, 32450), (115, 32486), (Start: 162 @32537 has 317 MA's), (Start: 191 @32588 has 14 MA's), (225, 32660), (227, 32666), (240, 32693), (289, 32780), (322, 32852), (340, 32888), (346, 32897), (408, 32972), (416, 32990), (471, 33089), (492, 33122), (493, 33125), (497, 33137), (574, 33239), (605, 33305), (627, 33332), (675, 33404), (709, 33464), (715, 33491), (762, 33599),

Gene: Asayake\_41 Start: 32792, Stop: 33880, Start Num: 162

Candidate Starts for Asayake\_41:

(Start: 162 @32792 has 317 MA's), (Start: 217 @32894 has 6 MA's), (226, 32918), (244, 32954), (317, 33092), (408, 33230), (451, 33299), (452, 33302), (534, 33452), (598, 33557), (701, 33692),

Gene: Atiba\_41 Start: 32439, Stop: 33527, Start Num: 162

Candidate Starts for Atiba\_41:

(Start: 162 @32439 has 317 MA's), (Start: 191 @32490 has 14 MA's), (Start: 217 @32541 has 6 MA's), (226, 32565), (244, 32601), (317, 32739), (340, 32793), (408, 32877), (451, 32946), (452, 32949), (534, 33099), (587, 33177), (598, 33204), (663, 33291), (701, 33339),

Gene: Atlantica\_36 Start: 23914, Stop: 22721, Start Num: 147

Candidate Starts for Atlantica\_36:

(Start: 147 @23914 has 80 MA's), (365, 23485), (384, 23428), (398, 23404), (533, 23176), (607, 23050), (614, 23038), (625, 23017), (708, 22879), (729, 22798), (760, 22750),

Gene: Attis\_34 Start: 27696, Stop: 28778, Start Num: 159

Candidate Starts for Attis\_34:

(Start: 85 @27585 has 6 MA's), (Start: 159 @27696 has 56 MA's), (Start: 191 @27750 has 14 MA's), (252, 27870), (401, 28125), (414, 28155), (452, 28215), (486, 28281), (497, 28305), (709, 28635), (715, 28662), (760, 28767),

Gene: AugsMagnumOpus\_38 Start: 26782, Stop: 25637, Start Num: 152

Candidate Starts for AugsMagnumOpus\_38:

(Start: 152 @26782 has 120 MA's), (Start: 179 @26743 has 10 MA's), (204, 26695), (Start: 217 @26659 has 6 MA's), (234, 26614), (317, 26458), (328, 26431), (356, 26395), (402, 26338), (449, 26260), (462, 26236), (481, 26197), (515, 26125), (529, 26113), (534, 26107), (548, 26095), (593, 26020), (595, 26014), (603, 25993), (622, 25978), (633, 25960), (647, 25936), (704, 25822), (716, 25777), (717, 25774), (720, 25765), (724, 25744), (726, 25738), (729, 25726), (755, 25687),

Gene: Auxilium\_38 Start: 25309, Stop: 24170, Start Num: 162

Candidate Starts for Auxilium\_38:

(Start: 162 @25309 has 317 MA's), (Start: 191 @25258 has 14 MA's), (277, 25090), (285, 25072), (346, 24940), (402, 24862), (408, 24850), (451, 24775), (456, 24766), (486, 24706), (535, 24616), (599, 24511), (614, 24490), (631, 24463), (703, 24340), (709, 24316), (712, 24301), (733, 24226), (753, 24196),

Gene: Ayotoya\_39 Start: 32055, Stop: 30784, Start Num: 147

Candidate Starts for Ayotoya\_39:

(Start: 147 @32055 has 80 MA's), (Start: 157 @32040 has 10 MA's), (208, 31938), (230, 31896), (236, 31884), (276, 31809), (310, 31734), (315, 31725), (320, 31707), (368, 31608), (369, 31605), (410, 31515), (491, 31410), (535, 31314), (539, 31308), (631, 31146), (702, 31005), (713, 30960), (727, 30909), (729, 30900), (737, 30885), (748, 30873), (755, 30861), (781, 30822),

Gene: Azaz\_37 Start: 23984, Stop: 22791, Start Num: 147

Candidate Starts for Azaz\_37:

(Start: 147 @23984 has 80 MA's), (208, 23870), (365, 23555), (533, 23246), (607, 23120), (614, 23108), (625, 23087), (760, 22820),

Gene: B1\_31 Start: 25858, Stop: 24692, Start Num: 114

Candidate Starts for B1\_31:

(Start: 114 @25858 has 1 MA's), (Start: 152 @25816 has 120 MA's), (Start: 217 @25693 has 6 MA's), (234, 25648), (277, 25576), (300, 25528), (322, 25474), (328, 25465), (356, 25429), (402, 25372), (534, 25141), (548, 25129), (564, 25108), (593, 25054), (595, 25048), (603, 25027), (622, 25012),

(633, 24994), (650, 24967), (704, 24856), (717, 24808), (718, 24805), (724, 24778), (726, 24772), (729, 24760), (741, 24739), (755, 24721),

Gene: BAKA\_86 Start: 53552, Stop: 54781, Start Num: 116

Candidate Starts for BAKA\_86:

(Start: 116 @53552 has 29 MA's), (Start: 131 @53570 has 3 MA's), (Start: 160 @53609 has 1 MA's), (276, 53846), (322, 53954), (395, 54074), (396, 54077), (401, 54086), (408, 54101), (426, 54140), (464, 54218), (524, 54323), (532, 54335), (545, 54338), (553, 54347), (582, 54398), (584, 54401), (592, 54419), (639, 54515), (688, 54572), (723, 54692), (724, 54695), (731, 54719), (747, 54743), (749, 54746),

Gene: BEEST\_41 Start: 32792, Stop: 33880, Start Num: 162

Candidate Starts for BEEST\_41:

(Start: 162 @32792 has 317 MA's), (Start: 217 @32894 has 6 MA's), (226, 32918), (244, 32954), (317, 33092), (408, 33230), (451, 33299), (452, 33302), (534, 33452), (598, 33557), (701, 33692),

Gene: BENtherdunthat\_50 Start: 31782, Stop: 32852, Start Num: 162

Candidate Starts for BENtherdunthat\_50:

(120, 31740), (Start: 162 @31782 has 317 MA's), (Start: 191 @31833 has 14 MA's), (225, 31905), (227, 31911), (240, 31938), (340, 32133), (346, 32142), (395, 32193), (401, 32202), (402, 32205), (408, 32217), (433, 32262), (456, 32298), (471, 32334), (492, 32367), (493, 32370), (497, 32382), (605, 32550), (675, 32649), (709, 32709), (715, 32736), (716, 32739), (722, 32766), (724, 32772), (728, 32784), (760, 32841),

Gene: BGlluviae\_41 Start: 32595, Stop: 33683, Start Num: 162

Candidate Starts for BGlluviae\_41:

(16, 31992), (24, 32169), (42, 32334), (51, 32373), (Start: 162 @32595 has 317 MA's), (Start: 191 @32646 has 14 MA's), (Start: 217 @32697 has 6 MA's), (226, 32721), (244, 32757), (317, 32895), (408, 33033), (451, 33102), (452, 33105), (534, 33255), (598, 33360), (701, 33495),

Gene: Babushka\_33 Start: 23843, Stop: 22650, Start Num: 147

Candidate Starts for Babushka\_33:

(Start: 147 @23843 has 80 MA's), (384, 23357), (398, 23333), (533, 23105), (607, 22979), (614, 22967), (625, 22946), (708, 22808), (760, 22679),

Gene: BabyJohn\_32 Start: 26607, Stop: 25474, Start Num: 140

Candidate Starts for BabyJohn\_32:

(Start: 140 @26607 has 6 MA's), (Start: 195 @26526 has 8 MA's), (Start: 217 @26472 has 6 MA's), (234, 26427), (324, 26250), (328, 26244), (356, 26208), (402, 26151), (449, 26073), (534, 25920), (548, 25908), (593, 25833), (595, 25827), (603, 25806), (622, 25791), (633, 25773), (647, 25749), (717, 25587), (724, 25557), (726, 25551), (729, 25539), (755, 25500),

Gene: BabyRay\_33 Start: 26385, Stop: 25249, Start Num: 140

Candidate Starts for BabyRay\_33:

(Start: 140 @26385 has 6 MA's), (Start: 217 @26250 has 6 MA's), (324, 26028), (328, 26022), (335, 26007), (356, 25986), (402, 25929), (449, 25851), (534, 25698), (548, 25686), (593, 25611), (595, 25605), (603, 25584), (622, 25569), (633, 25551), (717, 25365), (724, 25335), (726, 25329), (729, 25317), (741, 25296), (755, 25278),

Gene: Bactobuster\_35 Start: 27867, Stop: 26860, Start Num: 217

Candidate Starts for Bactobuster\_35:

(Start: 152 @27987 has 120 MA's), (Start: 179 @27951 has 10 MA's), (Start: 217 @27867 has 6 MA's), (234, 27822), (320, 27654), (356, 27603), (430, 27492), (449, 27468), (466, 27435), (471,

27423), (497, 27375), (534, 27315), (536, 27312), (548, 27303), (593, 27228), (595, 27222), (603, 27201), (622, 27186), (633, 27168), (717, 26982), (724, 26952), (726, 26946), (729, 26934), (755, 26895), (770, 26871),

Gene: Baehexic\_34 Start: 26830, Stop: 25697, Start Num: 152

Candidate Starts for Baehexic\_34:

(Start: 152 @26830 has 120 MA's), (Start: 191 @26776 has 14 MA's), (Start: 217 @26707 has 6 MA's), (234, 26662), (317, 26506), (328, 26479), (356, 26443), (402, 26386), (471, 26263), (481, 26245), (534, 26155), (548, 26143), (593, 26068), (595, 26062), (603, 26041), (622, 26026), (633, 26008), (650, 25981), (653, 25972), (704, 25870), (717, 25822), (724, 25792), (726, 25786), (729, 25774), (755, 25735),

Gene: BaghaKamala\_40 Start: 31917, Stop: 33005, Start Num: 162

Candidate Starts for BaghaKamala\_40:

(51, 31695), (Start: 162 @31917 has 317 MA's), (Start: 191 @31968 has 14 MA's), (Start: 217 @32019 has 6 MA's), (226, 32043), (244, 32079), (317, 32217), (340, 32271), (408, 32355), (451, 32424), (452, 32427), (534, 32577), (598, 32682), (663, 32769), (701, 32817),

Gene: Bagrid\_82 Start: 52202, Stop: 53431, Start Num: 116

Candidate Starts for Bagrid\_82:

(Start: 116 @52202 has 29 MA's), (Start: 131 @52220 has 3 MA's), (Start: 160 @52259 has 1 MA's), (276, 52496), (322, 52604), (395, 52724), (396, 52727), (401, 52736), (408, 52751), (426, 52790), (464, 52868), (524, 52973), (532, 52985), (545, 52988), (553, 52997), (582, 53048), (584, 53051), (592, 53069), (639, 53165), (688, 53222), (723, 53342), (724, 53345), (731, 53369), (747, 53393), (749, 53396),

Gene: BangNhom\_33 Start: 26587, Stop: 25466, Start Num: 152

Candidate Starts for BangNhom\_33:

(Start: 110 @26632 has 3 MA's), (135, 26605), (Start: 152 @26587 has 120 MA's), (Start: 195 @26518 has 8 MA's), (Start: 217 @26464 has 6 MA's), (322, 26245), (328, 26236), (356, 26200), (394, 26158), (401, 26146), (402, 26143), (515, 25930), (534, 25912), (593, 25825), (595, 25819), (603, 25798), (622, 25783), (633, 25765), (704, 25627), (717, 25579), (724, 25549), (726, 25543), (729, 25531), (755, 25492),

Gene: Banquo\_37 Start: 27140, Stop: 26034, Start Num: 188

Candidate Starts for Banquo\_37:

(Start: 188 @27140 has 12 MA's), (344, 26819), (396, 26756), (402, 26744), (426, 26693), (507, 26531), (532, 26483), (610, 26354), (635, 26306), (691, 26210), (720, 26120), (726, 26093),

Gene: BarrelRoll\_41 Start: 32462, Stop: 33550, Start Num: 162

Candidate Starts for BarrelRoll\_41:

(Start: 162 @32462 has 317 MA's), (Start: 191 @32513 has 14 MA's), (Start: 217 @32564 has 6 MA's), (226, 32588), (244, 32624), (317, 32762), (340, 32816), (408, 32900), (451, 32969), (452, 32972), (534, 33122), (587, 33200), (598, 33227), (663, 33314), (701, 33362),

Gene: Basilisk\_34 Start: 24758, Stop: 23574, Start Num: 147

Candidate Starts for Basilisk\_34:

(Start: 147 @24758 has 80 MA's), (266, 24539), (330, 24404), (365, 24329), (369, 24314), (483, 24113), (599, 23906), (607, 23894), (617, 23876), (625, 23861), (700, 23759), (705, 23732), (708, 23723),

Gene: BasketStar\_41 Start: 28246, Stop: 27074, Start Num: 162

Candidate Starts for BasketStar\_41:

(Start: 162 @28246 has 317 MA's), (Start: 191 @28195 has 14 MA's), (277, 28027), (285, 28009), (346, 27877), (402, 27799), (408, 27787), (451, 27712), (456, 27703), (486, 27643), (535, 27553), (599, 27448), (614, 27427), (631, 27400), (703, 27277), (709, 27253), (712, 27238), (762, 27118), (776, 27091),

Gene: BatStarr\_39 Start: 31901, Stop: 33094, Start Num: 85

Candidate Starts for BatStarr\_39:

(Start: 85 @31901 has 6 MA's), (Start: 159 @32012 has 56 MA's), (Start: 191 @32066 has 14 MA's), (252, 32186), (395, 32432), (401, 32441), (414, 32471), (452, 32531), (486, 32597), (497, 32621), (709, 32951), (715, 32978), (760, 33083),

Gene: Batiatus\_43 Start: 33150, Stop: 34277, Start Num: 162

Candidate Starts for Batiatus\_43:

(86, 33048), (121, 33105), (Start: 162 @33150 has 317 MA's), (165, 33159), (244, 33321), (268, 33372), (277, 33390), (296, 33435), (340, 33531), (346, 33540), (402, 33621), (414, 33645), (454, 33714), (471, 33753), (481, 33771), (484, 33774), (492, 33786), (493, 33789), (497, 33801), (504, 33816), (514, 33840), (520, 33846), (539, 33867), (573, 33903), (574, 33906), (593, 33942), (595, 33948), (599, 33963), (610, 33978), (663, 34047), (670, 34062), (703, 34104), (713, 34149), (716, 34158), (726, 34197), (731, 34215), (746, 34236), (755, 34251), (760, 34260), (762, 34263),

Gene: Bauer\_39 Start: 26996, Stop: 28129, Start Num: 162

Candidate Starts for Bauer\_39:

(52, 26783), (57, 26819), (72, 26861), (142, 26984), (Start: 162 @26996 has 317 MA's), (213, 27089), (257, 27182), (346, 27359), (402, 27422), (408, 27434), (452, 27512), (458, 27524), (485, 27575), (527, 27656), (535, 27668), (562, 27695), (593, 27749), (662, 27869), (673, 27890), (709, 27962), (712, 27977), (731, 28049), (733, 28052), (753, 28082), (755, 28085), (773, 28118),

Gene: BaxterFox\_37 Start: 31379, Stop: 30117, Start Num: 147

Candidate Starts for BaxterFox\_37:

(Start: 147 @31379 has 80 MA's), (225, 31223), (318, 31040), (333, 31004), (365, 30944), (368, 30932), (384, 30887), (403, 30854), (420, 30812), (539, 30644), (544, 30641), (593, 30566), (598, 30548), (599, 30545), (631, 30488), (696, 30371), (700, 30359), (713, 30302), (729, 30242), (737, 30227), (748, 30215), (753, 30206), (773, 30167),

Gene: Beakin\_43 Start: 31583, Stop: 32701, Start Num: 162

Candidate Starts for Beakin\_43:

(Start: 162 @31583 has 317 MA's), (165, 31592), (244, 31754), (322, 31919), (340, 31955), (346, 31964), (414, 32069), (454, 32138), (471, 32177), (481, 32195), (484, 32198), (492, 32210), (493, 32213), (497, 32225), (504, 32240), (514, 32264), (520, 32270), (539, 32291), (573, 32327), (574, 32330), (593, 32366), (595, 32372), (599, 32387), (610, 32402), (663, 32471), (670, 32486), (703, 32528), (713, 32573), (716, 32582), (726, 32621), (731, 32639), (746, 32660), (755, 32675), (760, 32684), (762, 32687),

Gene: Beauxregard13\_36 Start: 26790, Stop: 25645, Start Num: 152

Candidate Starts for Beauxregard13\_36:

(Start: 152 @26790 has 120 MA's), (Start: 179 @26751 has 10 MA's), (204, 26703), (Start: 217 @26667 has 6 MA's), (234, 26622), (317, 26466), (328, 26439), (356, 26403), (402, 26346), (449, 26268), (462, 26244), (481, 26205), (515, 26133), (529, 26121), (534, 26115), (548, 26103), (593, 26028), (595, 26022), (603, 26001), (622, 25986), (633, 25968), (647, 25944), (704, 25830), (716, 25785), (717, 25782), (720, 25773), (724, 25752), (726, 25746), (729, 25734), (755, 25695),

Gene: Bedetta\_40 Start: 24167, Stop: 22980, Start Num: 147

Candidate Starts for Bedetta\_40:

(84, 24257), (Start: 147 @24167 has 80 MA's), (365, 23738), (607, 23303), (700, 23168),

Gene: BeeGee\_42 Start: 31829, Stop: 32935, Start Num: 162

Candidate Starts for BeeGee\_42:

(113, 31772), (Start: 162 @31829 has 317 MA's), (Start: 191 @31880 has 14 MA's), (240, 31985), (268, 32024), (405, 32258), (408, 32264), (451, 32333), (452, 32336), (466, 32366), (493, 32417), (497, 32429), (638, 32657), (679, 32717), (709, 32792), (716, 32822), (760, 32924),

Gene: Beem\_81 Start: 53063, Stop: 54292, Start Num: 116

Candidate Starts for Beem\_81:

(Start: 116 @53063 has 29 MA's), (Start: 131 @53081 has 3 MA's), (Start: 160 @53120 has 1 MA's), (276, 53357), (322, 53465), (395, 53585), (396, 53588), (401, 53597), (408, 53612), (426, 53651), (464, 53729), (524, 53834), (532, 53846), (545, 53849), (553, 53858), (582, 53909), (584, 53912), (592, 53930), (639, 54026), (688, 54083), (723, 54203), (724, 54206), (731, 54230), (747, 54254), (749, 54257),

Gene: Beenie\_33 Start: 29179, Stop: 30306, Start Num: 162

Candidate Starts for Beenie\_33:

(122, 29140), (Start: 162 @29179 has 317 MA's), (Start: 191 @29233 has 14 MA's), (240, 29356), (263, 29389), (307, 29479), (320, 29512), (451, 29707), (452, 29710), (471, 29752), (493, 29788), (678, 30085), (709, 30163), (715, 30190), (720, 30205), (726, 30232), (760, 30295),

Gene: Beezoo\_43 Start: 33442, Stop: 34530, Start Num: 162

Candidate Starts for Beezoo\_43:

(Start: 162 @33442 has 317 MA's), (Start: 217 @33544 has 6 MA's), (226, 33568), (244, 33604), (317, 33742), (340, 33796), (408, 33880), (451, 33949), (452, 33952), (534, 34102), (598, 34207), (663, 34294), (701, 34342), (748, 34486),

Gene: Bella96\_42 Start: 33333, Stop: 34421, Start Num: 162

Candidate Starts for Bella96\_42:

(Start: 162 @33333 has 317 MA's), (Start: 191 @33384 has 14 MA's), (Start: 217 @33435 has 6 MA's), (226, 33459), (244, 33495), (304, 33609), (317, 33633), (340, 33687), (408, 33771), (451, 33840), (534, 33993), (598, 34098), (663, 34185), (701, 34233), (748, 34377),

Gene: BellaJr\_39 Start: 28072, Stop: 29196, Start Num: 162

Candidate Starts for BellaJr\_39:

(Start: 162 @28072 has 317 MA's), (213, 28165), (257, 28258), (346, 28435), (402, 28498), (408, 28510), (452, 28588), (458, 28600), (485, 28651), (527, 28732), (562, 28771), (593, 28825), (631, 28894), (708, 29035), (709, 29038), (712, 29053), (723, 29098), (733, 29128), (753, 29158),

Gene: Belladonna\_41 Start: 32595, Stop: 33683, Start Num: 162

Candidate Starts for Belladonna\_41:

(16, 31992), (24, 32169), (42, 32334), (51, 32373), (Start: 162 @32595 has 317 MA's), (Start: 191 @32646 has 14 MA's), (Start: 217 @32697 has 6 MA's), (226, 32721), (244, 32757), (317, 32895), (408, 33033), (451, 33102), (452, 33105), (534, 33255), (598, 33360), (701, 33495),

Gene: BellusTerra\_33 Start: 26249, Stop: 25128, Start Num: 152

Candidate Starts for BellusTerra\_33:

(Start: 110 @26294 has 3 MA's), (135, 26267), (Start: 152 @26249 has 120 MA's), (Start: 195 @26180 has 8 MA's), (Start: 217 @26126 has 6 MA's), (322, 25907), (328, 25898), (356, 25862), (394, 25820), (401, 25808), (402, 25805), (449, 25727), (515, 25592), (534, 25574), (593, 25487), (603, 25460), (622, 25445), (633, 25427), (704, 25289), (717, 25241), (724, 25211), (726, 25205), (729, 25193), (755, 25154),

Gene: BenchScraper\_39 Start: 27267, Stop: 26128, Start Num: 162

Candidate Starts for BenchScraper\_39:

(Start: 162 @27267 has 317 MA's), (Start: 191 @27216 has 14 MA's), (277, 27048), (285, 27030), (346, 26898), (402, 26820), (408, 26808), (411, 26802), (451, 26733), (456, 26724), (486, 26664), (535, 26574), (599, 26469), (614, 26448), (631, 26421), (703, 26298), (709, 26274), (712, 26259), (733, 26184), (753, 26154),

Gene: BetterKatz\_39 Start: 31582, Stop: 30311, Start Num: 147

Candidate Starts for BetterKatz\_39:

(Start: 147 @31582 has 80 MA's), (Start: 157 @31567 has 10 MA's), (208, 31465), (230, 31423), (236, 31411), (276, 31336), (310, 31261), (315, 31252), (320, 31234), (368, 31135), (369, 31132), (410, 31042), (491, 30937), (539, 30835), (555, 30817), (631, 30673), (702, 30532), (713, 30487), (727, 30436), (729, 30427), (748, 30400), (755, 30388), (781, 30349),

Gene: Bhageatrice\_40 Start: 29135, Stop: 27957, Start Num: 162

Candidate Starts for Bhageatrice\_40:

(130, 29174), (Start: 162 @29135 has 317 MA's), (221, 29018), (285, 28898), (346, 28766), (402, 28688), (451, 28601), (456, 28592), (486, 28532), (535, 28442), (599, 28337), (603, 28331), (631, 28289), (703, 28172), (709, 28148), (712, 28133), (762, 28013),

Gene: Bialota\_37 Start: 31315, Stop: 32397, Start Num: 159

Candidate Starts for Bialota\_37:

(Start: 85 @31204 has 6 MA's), (Start: 159 @31315 has 56 MA's), (Start: 191 @31369 has 14 MA's), (252, 31489), (401, 31744), (414, 31774), (452, 31834), (486, 31900), (497, 31924), (709, 32254), (715, 32281), (760, 32386),

Gene: BiancaTri92\_35 Start: 27662, Stop: 26547, Start Num: 156

Candidate Starts for BiancaTri92\_35:

(127, 27692), (Start: 156 @27662 has 8 MA's), (Start: 191 @27611 has 14 MA's), (Start: 217 @27542 has 6 MA's), (234, 27497), (317, 27341), (318, 27338), (328, 27314), (356, 27278), (402, 27221), (449, 27143), (481, 27080), (534, 26990), (548, 26978), (593, 26903), (595, 26897), (603, 26876), (622, 26861), (633, 26843), (717, 26657), (724, 26627), (726, 26621), (729, 26609), (755, 26570),

Gene: BigPhil\_38 Start: 27903, Stop: 29021, Start Num: 162

Candidate Starts for BigPhil\_38:

(Start: 162 @27903 has 317 MA's), (244, 28074), (322, 28239), (340, 28275), (346, 28284), (402, 28365), (414, 28389), (454, 28458), (471, 28497), (481, 28515), (484, 28518), (492, 28530), (493, 28533), (497, 28545), (504, 28560), (514, 28584), (520, 28590), (539, 28611), (573, 28647), (574, 28650), (593, 28686), (595, 28692), (598, 28704), (599, 28707), (610, 28722), (663, 28791), (670, 28806), (703, 28848), (713, 28893), (716, 28902), (726, 28941), (731, 28959), (746, 28980), (755, 28995), (760, 29004), (762, 29007),

Gene: Bigflo\_36 Start: 26789, Stop: 25644, Start Num: 152

Candidate Starts for Bigflo\_36:

(Start: 152 @26789 has 120 MA's), (Start: 179 @26750 has 10 MA's), (204, 26702), (Start: 217 @26666 has 6 MA's), (234, 26621), (317, 26465), (328, 26438), (356, 26402), (402, 26345), (449, 26267), (462, 26243), (481, 26204), (515, 26132), (529, 26120), (534, 26114), (548, 26102), (593, 26027), (595, 26021), (603, 26000), (622, 25985), (633, 25967), (647, 25943), (704, 25829), (716, 25784), (717, 25781), (720, 25772), (724, 25751), (726, 25745), (729, 25733), (755, 25694),

Gene: Biglebops\_36 Start: 31976, Stop: 33070, Start Num: 162

Candidate Starts for Biglebops\_36:

(28, 31625), (Start: 33 @31640 has 1 MA's), (46, 31733), (51, 31754), (79, 31847), (Start: 162 @31976 has 317 MA's), (Start: 191 @32027 has 14 MA's), (226, 32102), (244, 32138), (296, 32234), (304, 32252), (317, 32276), (337, 32324), (340, 32330), (432, 32462), (451, 32495), (471, 32540), (534, 32648), (598, 32753), (646, 32813), (701, 32888), (728, 32996), (748, 33032),

Gene: BillyTP\_42 Start: 29080, Stop: 27908, Start Num: 162

Candidate Starts for BillyTP\_42:

(Start: 162 @29080 has 317 MA's), (221, 28963), (277, 28861), (285, 28843), (346, 28711), (402, 28633), (408, 28621), (451, 28546), (456, 28537), (486, 28477), (535, 28387), (599, 28282), (614, 28261), (627, 28237), (631, 28234), (672, 28165), (703, 28111), (709, 28087), (712, 28072), (762, 27952), (776, 27925),

Gene: Bipolar\_39 Start: 31381, Stop: 32499, Start Num: 162

Candidate Starts for Bipolar\_39:

(Start: 162 @31381 has 317 MA's), (227, 31519), (244, 31552), (272, 31600), (322, 31717), (340, 31753), (346, 31762), (414, 31867), (454, 31936), (471, 31975), (484, 31996), (492, 32008), (493, 32011), (497, 32023), (504, 32038), (514, 32062), (520, 32068), (539, 32089), (573, 32125), (574, 32128), (593, 32164), (595, 32170), (599, 32185), (663, 32269), (670, 32284), (690, 32302), (703, 32326), (713, 32371), (716, 32380), (726, 32419), (731, 32437), (746, 32458), (755, 32473), (760, 32482), (762, 32485),

Gene: Birdsong\_47 Start: 32758, Stop: 33852, Start Num: 162

Candidate Starts for Birdsong\_47:

(60, 32578), (72, 32617), (Start: 162 @32758 has 317 MA's), (Start: 191 @32809 has 14 MA's), (227, 32887), (240, 32914), (272, 32959), (289, 33001), (322, 33073), (340, 33109), (346, 33118), (401, 33178), (408, 33193), (416, 33211), (471, 33310), (484, 33331), (492, 33343), (493, 33346), (497, 33358), (508, 33382), (574, 33460), (627, 33553), (675, 33625), (709, 33685), (724, 33748), (728, 33760), (762, 33820),

Gene: Bjaner7\_34 Start: 27585, Stop: 28778, Start Num: 85

Candidate Starts for Bjaner7\_34:

(Start: 83 @27579 has 2 MA's), (Start: 85 @27585 has 6 MA's), (Start: 159 @27696 has 56 MA's), (Start: 191 @27750 has 14 MA's), (252, 27870), (401, 28125), (414, 28155), (452, 28215), (486, 28281), (497, 28305), (542, 28374), (573, 28410), (709, 28635), (715, 28662), (760, 28767),

Gene: BlackSpider\_36 Start: 26664, Stop: 27788, Start Num: 162

Candidate Starts for BlackSpider\_36:

(52, 26439), (57, 26475), (Start: 162 @26664 has 317 MA's), (257, 26850), (346, 27027), (402, 27090), (408, 27102), (452, 27180), (458, 27192), (485, 27243), (527, 27324), (535, 27336), (562, 27363), (593, 27417), (708, 27627), (709, 27630), (712, 27645), (723, 27690), (733, 27720), (753, 27750),

Gene: Blarby\_54 Start: 32907, Stop: 34010, Start Num: 162

Candidate Starts for Blarby\_54:

(Start: 162 @32907 has 317 MA's), (Start: 191 @32955 has 14 MA's), (227, 33036), (238, 33063), (340, 33276), (359, 33300), (402, 33348), (451, 33429), (486, 33498), (492, 33507), (514, 33561), (534, 33582), (587, 33660), (595, 33675), (638, 33735), (663, 33774), (670, 33789), (687, 33813), (703, 33840), (709, 33864), (713, 33885), (716, 33894), (728, 33939), (731, 33951),

Gene: Blizzard\_41 Start: 32792, Stop: 33880, Start Num: 162

Candidate Starts for Blizzard\_41:

(Start: 162 @32792 has 317 MA's), (Start: 217 @32894 has 6 MA's), (226, 32918), (244, 32954), (317, 33092), (408, 33230), (451, 33299), (452, 33302), (534, 33452), (598, 33557), (701, 33692),

Gene: BloominB\_29 Start: 26478, Stop: 25285, Start Num: 181

Candidate Starts for BloominB\_29:

(Start: 155 @26520 has 3 MA's), (Start: 181 @26478 has 20 MA's), (211, 26412), (247, 26331), (266, 26292), (275, 26277), (277, 26271), (281, 26259), (293, 26232), (311, 26199), (339, 26142), (359, 26109), (360, 26106), (375, 26058), (401, 26016), (402, 26013), (412, 25989), (419, 25974), (429, 25950), (438, 25935), (462, 25896), (468, 25884), (488, 25845), (506, 25806), (528, 25758), (531, 25755), (580, 25683), (583, 25677), (588, 25665), (591, 25662), (593, 25656), (619, 25602), (630, 25584), (631, 25581), (645, 25554), (656, 25536), (661, 25530), (662, 25527), (701, 25485), (707, 25458), (709, 25452), (722, 25395), (759, 25332), (760, 25329),

Gene: BlueBird\_34 Start: 26297, Stop: 25170, Start Num: 152

Candidate Starts for BlueBird\_34:

(Start: 152 @26297 has 120 MA's), (204, 26210), (Start: 217 @26174 has 6 MA's), (234, 26129), (317, 25973), (320, 25961), (322, 25955), (356, 25910), (401, 25856), (402, 25853), (449, 25775), (534, 25622), (548, 25610), (574, 25571), (593, 25535), (595, 25529), (603, 25508), (622, 25493), (633, 25475), (650, 25448), (704, 25337), (717, 25289), (724, 25259), (726, 25253), (729, 25241), (755, 25202),

Gene: BlueShadow\_39 Start: 27645, Stop: 26479, Start Num: 162

Candidate Starts for BlueShadow\_39:

(Start: 162 @27645 has 317 MA's), (277, 27426), (285, 27408), (346, 27276), (402, 27198), (408, 27186), (451, 27111), (456, 27102), (486, 27042), (535, 26952), (599, 26847), (614, 26826), (627, 26802), (631, 26799), (703, 26676), (708, 26655), (709, 26652), (712, 26637), (776, 26490),

Gene: Bluvara\_37 Start: 31878, Stop: 30676, Start Num: 169

Candidate Starts for Bluvara\_37:

(Start: 169 @31878 has 7 MA's), (207, 31803), (220, 31773), (233, 31749), (323, 31557), (325, 31554), (360, 31491), (420, 31356), (429, 31335), (462, 31281), (464, 31275), (525, 31152), (631, 30969), (633, 30966), (634, 30963), (645, 30942), (666, 30906), (700, 30879), (701, 30873), (709, 30840), (712, 30825), (729, 30759), (740, 30738),

Gene: BobaPhett\_43 Start: 33216, Stop: 34334, Start Num: 162

Candidate Starts for BobaPhett\_43:

(Start: 162 @33216 has 317 MA's), (227, 33354), (244, 33387), (272, 33435), (322, 33552), (340, 33588), (346, 33597), (414, 33702), (454, 33771), (484, 33831), (492, 33843), (493, 33846), (497, 33858), (504, 33873), (514, 33897), (520, 33903), (539, 33924), (573, 33960), (574, 33963), (593, 33999), (595, 34005), (598, 34017), (599, 34020), (663, 34104), (670, 34119), (703, 34161), (713, 34206), (716, 34215), (726, 34254), (731, 34272), (746, 34293), (755, 34308), (760, 34317), (762, 34320),

Gene: Bobby\_80 Start: 53134, Stop: 54363, Start Num: 116

Candidate Starts for Bobby\_80:

(Start: 116 @53134 has 29 MA's), (Start: 131 @53152 has 3 MA's), (Start: 160 @53191 has 1 MA's), (276, 53428), (322, 53536), (395, 53656), (396, 53659), (401, 53668), (408, 53683), (464, 53800), (532, 53917), (545, 53920), (553, 53929), (582, 53980), (584, 53983), (592, 54001), (639, 54097), (723, 54274), (724, 54277), (731, 54301), (747, 54325), (749, 54328),

Gene: Bobi\_46 Start: 33890, Stop: 35017, Start Num: 162

Candidate Starts for Bobi\_46:

(86, 33788), (121, 33845), (Start: 162 @33890 has 317 MA's), (165, 33899), (244, 34061), (268, 34112), (277, 34130), (296, 34175), (340, 34271), (346, 34280), (414, 34385), (454, 34454), (484, 34514), (492, 34526), (493, 34529), (497, 34541), (504, 34556), (514, 34580), (520, 34586), (539, 34607), (573, 34643), (574, 34646), (593, 34682), (595, 34688), (598, 34700), (599, 34703), (663,

34787), (670, 34802), (703, 34844), (713, 34889), (716, 34898), (726, 34937), (731, 34955), (746, 34976), (755, 34991), (760, 35000), (762, 35003),

Gene: Bock\_39 Start: 31274, Stop: 30003, Start Num: 147

Candidate Starts for Bock\_39:

(Start: 147 @31274 has 80 MA's), (Start: 157 @31259 has 10 MA's), (208, 31157), (230, 31115), (236, 31103), (276, 31028), (310, 30953), (315, 30944), (320, 30926), (368, 30827), (369, 30824), (410, 30734), (486, 30638), (491, 30629), (525, 30548), (539, 30527), (555, 30509), (595, 30434), (631, 30365), (702, 30224), (713, 30179), (727, 30128), (729, 30119), (748, 30092), (755, 30080), (781, 30041),

Gene: Boiiii\_41 Start: 32794, Stop: 33882, Start Num: 162

Candidate Starts for Boiiii\_41:

(Start: 162 @32794 has 317 MA's), (Start: 217 @32896 has 6 MA's), (226, 32920), (244, 32956), (317, 33094), (408, 33232), (451, 33301), (452, 33304), (534, 33454), (598, 33559), (701, 33694),

Gene: Bombitas\_71 Start: 50226, Stop: 51455, Start Num: 116

Candidate Starts for Bombitas\_71:

(Start: 116 @50226 has 29 MA's), (Start: 131 @50244 has 3 MA's), (Start: 160 @50283 has 1 MA's), (276, 50520), (322, 50628), (395, 50748), (396, 50751), (401, 50760), (408, 50775), (426, 50814), (464, 50892), (524, 50997), (532, 51009), (545, 51012), (553, 51021), (582, 51072), (584, 51075), (592, 51093), (639, 51189), (688, 51246), (723, 51366), (724, 51369), (731, 51393), (747, 51417), (749, 51420),

Gene: BoostSeason\_44 Start: 34144, Stop: 35244, Start Num: 162

Candidate Starts for BoostSeason\_44:

(Start: 162 @34144 has 317 MA's), (Start: 170 @34162 has 1 MA's), (Start: 191 @34195 has 14 MA's), (226, 34270), (244, 34306), (304, 34420), (317, 34444), (340, 34498), (438, 34639), (451, 34663), (452, 34666), (471, 34708), (534, 34816), (598, 34921), (636, 34966), (646, 34981), (728, 35173),

Gene: Bosnia\_39 Start: 32012, Stop: 33094, Start Num: 159

Candidate Starts for Bosnia\_39:

(Start: 85 @31901 has 6 MA's), (Start: 159 @32012 has 56 MA's), (Start: 191 @32066 has 14 MA's), (252, 32186), (307, 32297), (395, 32432), (452, 32531), (486, 32597), (497, 32621), (573, 32726), (709, 32951), (715, 32978), (728, 33026), (760, 33083),

Gene: BotCity\_49 Start: 32558, Stop: 33655, Start Num: 162

Candidate Starts for BotCity\_49:

(Start: 162 @32558 has 317 MA's), (Start: 191 @32609 has 14 MA's), (216, 32657), (227, 32687), (240, 32714), (289, 32801), (320, 32867), (322, 32873), (340, 32909), (346, 32918), (401, 32978), (408, 32993), (416, 33011), (433, 33038), (471, 33110), (492, 33143), (493, 33146), (497, 33158), (508, 33182), (605, 33326), (675, 33425), (709, 33485), (715, 33512), (728, 33560), (731, 33572), (762, 33620),

Gene: BoyNamedSue\_39 Start: 31289, Stop: 32371, Start Num: 159

Candidate Starts for BoyNamedSue\_39:

(Start: 85 @31178 has 6 MA's), (Start: 159 @31289 has 56 MA's), (Start: 191 @31343 has 14 MA's), (252, 31463), (414, 31748), (452, 31808), (486, 31874), (497, 31898), (709, 32228), (728, 32303), (760, 32360),

Gene: Bradissa\_36 Start: 31469, Stop: 32551, Start Num: 159

Candidate Starts for Bradissa\_36:

(Start: 159 @31469 has 56 MA's), (Start: 222 @31586 has 1 MA's), (272, 31679), (401, 31901), (418, 31937), (452, 31991), (488, 32060), (493, 32069), (709, 32408), (715, 32435), (760, 32540),

Gene: Bradman\_34 Start: 25599, Stop: 24475, Start Num: 152

Candidate Starts for Bradman\_34:

(Start: 152 @25599 has 120 MA's), (199, 25521), (Start: 217 @25476 has 6 MA's), (234, 25431), (272, 25371), (328, 25248), (356, 25212), (401, 25158), (402, 25155), (471, 25032), (473, 25029), (481, 25014), (529, 24930), (534, 24924), (564, 24891), (573, 24876), (593, 24837), (603, 24810), (622, 24795), (633, 24777), (650, 24750), (704, 24639), (717, 24591), (718, 24588), (720, 24582), (724, 24561), (726, 24555), (729, 24543), (755, 24504),

Gene: Bran\_28 Start: 25552, Stop: 24428, Start Num: 177

Candidate Starts for Bran\_28:

(Start: 177 @25552 has 3 MA's), (189, 25537), (201, 25513), (258, 25399), (278, 25360), (294, 25318), (313, 25285), (316, 25276), (327, 25249), (335, 25231), (405, 25132), (414, 25111), (426, 25087), (460, 25027), (497, 24985), (502, 24973), (506, 24967), (514, 24946), (548, 24892), (551, 24889), (554, 24886), (568, 24865), (608, 24781), (615, 24775), (623, 24757), (640, 24727), (686, 24670), (709, 24613), (712, 24598), (713, 24592), (716, 24583), (719, 24574), (720, 24571), (724, 24550), (726, 24544), (731, 24526), (747, 24502), (760, 24481), (762, 24478), (766, 24469),

Gene: BrayBeast\_32 Start: 24672, Stop: 23518, Start Num: 162

Candidate Starts for BrayBeast\_32:

(Start: 162 @24672 has 317 MA's), (192, 24618), (304, 24369), (322, 24324), (333, 24303), (335, 24300), (348, 24276), (408, 24177), (414, 24162), (463, 24078), (560, 23919), (593, 23865), (602, 23841), (612, 23823), (631, 23796), (646, 23769), (663, 23742), (670, 23727), (675, 23718), (712, 23634), (713, 23628), (716, 23619), (728, 23574), (743, 23544),

Gene: BreSam8\_36 Start: 26783, Stop: 25638, Start Num: 152

Candidate Starts for BreSam8\_36:

(Start: 152 @26783 has 120 MA's), (Start: 179 @26744 has 10 MA's), (204, 26696), (Start: 217 @26660 has 6 MA's), (234, 26615), (317, 26459), (328, 26432), (356, 26396), (402, 26339), (449, 26261), (462, 26237), (481, 26198), (515, 26126), (529, 26114), (534, 26108), (548, 26096), (593, 26021), (595, 26015), (603, 25994), (622, 25979), (633, 25961), (647, 25937), (704, 25823), (716, 25778), (717, 25775), (720, 25766), (724, 25745), (726, 25739), (729, 25727), (755, 25688),

Gene: Bridgette\_38 Start: 26661, Stop: 27803, Start Num: 162

Candidate Starts for Bridgette\_38:

(150, 26646), (Start: 158 @26655 has 1 MA's), (Start: 162 @26661 has 317 MA's), (337, 27015), (340, 27021), (351, 27039), (414, 27147), (451, 27207), (497, 27300), (574, 27420), (596, 27468), (612, 27498), (670, 27594), (716, 27702), (743, 27777),

Gene: Brocalys\_36 Start: 27204, Stop: 28322, Start Num: 162

Candidate Starts for Brocalys\_36:

(Start: 162 @27204 has 317 MA's), (165, 27213), (244, 27375), (322, 27540), (340, 27576), (346, 27585), (402, 27666), (414, 27690), (454, 27759), (471, 27798), (481, 27816), (484, 27819), (492, 27831), (493, 27834), (497, 27846), (504, 27861), (514, 27885), (520, 27891), (539, 27912), (573, 27948), (574, 27951), (593, 27987), (595, 27993), (599, 28008), (610, 28023), (663, 28092), (670, 28107), (703, 28149), (713, 28194), (716, 28203), (726, 28242), (731, 28260), (746, 28281), (755, 28296), (760, 28305), (762, 28308),

Gene: BronnyJames\_80 Start: 48466, Stop: 49740, Start Num: 98

Candidate Starts for BronnyJames\_80:

(74, 48409), (Start: 90 @48451 has 1 MA's), (Start: 98 @48466 has 10 MA's), (99, 48469), (Start: 131 @48514 has 3 MA's), (Start: 160 @48553 has 1 MA's), (341, 48934), (395, 49018), (401, 49030), (402, 49033), (464, 49162), (545, 49282), (584, 49345), (592, 49363), (601, 49387), (639, 49459), (723, 49636), (724, 49639), (726, 49645), (731, 49663), (741, 49678), (747, 49687), (749, 49690), (773, 49735),

Gene: Brookers\_39 Start: 30854, Stop: 31972, Start Num: 162

Candidate Starts for Brookers\_39:

(Start: 162 @30854 has 317 MA's), (244, 31025), (322, 31190), (340, 31226), (346, 31235), (402, 31316), (414, 31340), (454, 31409), (471, 31448), (481, 31466), (484, 31469), (492, 31481), (493, 31484), (497, 31496), (504, 31511), (514, 31535), (520, 31541), (539, 31562), (573, 31598), (574, 31601), (593, 31637), (595, 31643), (598, 31655), (599, 31658), (610, 31673), (663, 31742), (670, 31757), (703, 31799), (713, 31844), (716, 31853), (726, 31892), (731, 31910), (746, 31931), (755, 31946), (760, 31955), (762, 31958),

Gene: Brushbloom\_46 Start: 32847, Stop: 33965, Start Num: 162

Candidate Starts for Brushbloom\_46:

(Start: 162 @32847 has 317 MA's), (165, 32856), (227, 32985), (244, 33018), (272, 33066), (322, 33183), (340, 33219), (346, 33228), (414, 33333), (454, 33402), (484, 33462), (492, 33474), (493, 33477), (497, 33489), (504, 33504), (514, 33528), (520, 33534), (539, 33555), (573, 33591), (574, 33594), (593, 33630), (595, 33636), (598, 33648), (599, 33651), (663, 33735), (670, 33750), (703, 33792), (713, 33837), (716, 33846), (726, 33885), (731, 33903), (746, 33924), (755, 33939), (760, 33948), (762, 33951),

Gene: Brylie\_39 Start: 31322, Stop: 30051, Start Num: 147

Candidate Starts for Brylie\_39:

(Start: 147 @31322 has 80 MA's), (Start: 157 @31307 has 10 MA's), (208, 31205), (230, 31163), (236, 31151), (276, 31076), (310, 31001), (315, 30992), (320, 30974), (368, 30875), (369, 30872), (410, 30782), (491, 30677), (535, 30581), (539, 30575), (631, 30413), (702, 30272), (713, 30227), (727, 30176), (729, 30167), (737, 30152), (748, 30140), (755, 30128), (781, 30089),

Gene: Brynnie\_33 Start: 24636, Stop: 23452, Start Num: 147

Candidate Starts for Brynnie\_33:

(Start: 147 @24636 has 80 MA's), (266, 24417), (330, 24282), (365, 24207), (369, 24192), (483, 23991), (488, 23982), (599, 23784), (607, 23772), (617, 23754), (625, 23739), (700, 23637), (705, 23610), (708, 23601),

Gene: Budski\_49 Start: 33439, Stop: 34533, Start Num: 162

Candidate Starts for Budski\_49:

(117, 33394), (Start: 162 @33439 has 317 MA's), (Start: 191 @33490 has 14 MA's), (240, 33595), (272, 33640), (289, 33682), (340, 33790), (346, 33799), (395, 33850), (408, 33874), (416, 33892), (471, 33991), (492, 34024), (493, 34027), (497, 34039), (508, 34063), (603, 34204), (627, 34234), (675, 34306), (682, 34315), (709, 34366), (710, 34369), (716, 34396), (720, 34408), (762, 34501),

Gene: Bugatti\_33 Start: 26297, Stop: 25170, Start Num: 152

Candidate Starts for Bugatti\_33:

(Start: 152 @26297 has 120 MA's), (204, 26210), (Start: 217 @26174 has 6 MA's), (234, 26129), (317, 25973), (320, 25961), (322, 25955), (356, 25910), (401, 25856), (402, 25853), (449, 25775), (534, 25622), (548, 25610), (574, 25571), (593, 25535), (595, 25529), (603, 25508), (622, 25493), (633, 25475), (650, 25448), (704, 25337), (717, 25289), (724, 25259), (726, 25253), (729, 25241), (755, 25202),

Gene: Buggy\_36 Start: 26995, Stop: 25874, Start Num: 152

Candidate Starts for Buggy\_36:

(Start: 101 @27058 has 2 MA's), (Start: 152 @26995 has 120 MA's), (Start: 191 @26941 has 14 MA's), (Start: 217 @26872 has 6 MA's), (234, 26827), (302, 26701), (328, 26644), (356, 26608), (401, 26554), (402, 26551), (471, 26428), (481, 26410), (534, 26320), (548, 26308), (593, 26233), (595, 26227), (603, 26206), (622, 26191), (633, 26173), (717, 25987), (724, 25957), (726, 25951), (729, 25939), (755, 25900),

Gene: Bunnybear\_33 Start: 29696, Stop: 30778, Start Num: 159

Candidate Starts for Bunnybear\_33:

(Start: 85 @29585 has 6 MA's), (Start: 159 @29696 has 56 MA's), (Start: 191 @29750 has 14 MA's), (252, 29870), (414, 30155), (452, 30215), (486, 30281), (497, 30305), (573, 30410), (709, 30635), (715, 30662), (760, 30767),

Gene: Byougenkin\_40 Start: 32001, Stop: 33119, Start Num: 162

Candidate Starts for Byougenkin\_40:

(Start: 162 @32001 has 317 MA's), (227, 32139), (244, 32172), (272, 32220), (340, 32373), (346, 32382), (402, 32463), (454, 32556), (484, 32616), (492, 32628), (493, 32631), (514, 32682), (539, 32709), (573, 32745), (574, 32748), (593, 32784), (663, 32889), (670, 32904), (703, 32946), (713, 32991), (716, 33000), (726, 33039), (731, 33057), (746, 33078), (755, 33093), (760, 33102), (762, 33105),

Gene: C3\_31 Start: 26345, Stop: 25275, Start Num: 191

Candidate Starts for C3\_31:

(105, 26453), (Start: 152 @26399 has 120 MA's), (Start: 191 @26345 has 14 MA's), (Start: 217 @26276 has 6 MA's), (317, 26075), (328, 26048), (356, 26012), (401, 25958), (402, 25955), (414, 25928), (449, 25877), (466, 25844), (471, 25832), (481, 25814), (515, 25742), (534, 25724), (548, 25712), (574, 25673), (593, 25637), (595, 25631), (603, 25610), (622, 25595), (633, 25577), (650, 25550), (704, 25439), (717, 25391), (718, 25388), (724, 25361), (726, 25355), (729, 25343), (755, 25304),

Gene: CREW\_41 Start: 32595, Stop: 33683, Start Num: 162

Candidate Starts for CREW\_41:

(16, 31992), (24, 32169), (42, 32334), (51, 32373), (Start: 162 @32595 has 317 MA's), (Start: 191 @32646 has 14 MA's), (Start: 217 @32697 has 6 MA's), (226, 32721), (244, 32757), (317, 32895), (408, 33033), (451, 33102), (452, 33105), (534, 33255), (598, 33360), (701, 33495),

Gene: Cafasso\_35 Start: 30421, Stop: 29294, Start Num: 147

Candidate Starts for Cafasso\_35:

(12, 30901), (Start: 147 @30421 has 80 MA's), (180, 30367), (230, 30262), (318, 30091), (361, 30001), (371, 29965), (425, 29851), (479, 29812), (492, 29788), (555, 29692), (631, 29560), (656, 29515), (705, 29443), (753, 29317),

Gene: CallaLilly\_41 Start: 32518, Stop: 33606, Start Num: 162

Candidate Starts for CallaLilly\_41:

(16, 31915), (24, 32092), (42, 32257), (51, 32296), (Start: 162 @32518 has 317 MA's), (Start: 191 @32569 has 14 MA's), (Start: 217 @32620 has 6 MA's), (226, 32644), (244, 32680), (317, 32818), (408, 32956), (451, 33025), (452, 33028), (534, 33178), (598, 33283), (701, 33418),

Gene: Calvinny\_36 Start: 26589, Stop: 25498, Start Num: 191

Candidate Starts for Calvinny\_36:

(Start: 101 @26706 has 2 MA's), (Start: 152 @26643 has 120 MA's), (Start: 191 @26589 has 14 MA's), (Start: 217 @26520 has 6 MA's), (322, 26301), (328, 26292), (356, 26256), (402, 26199), (449, 26121), (466, 26088), (515, 25986), (534, 25968), (548, 25956), (593, 25881), (595, 25875), (603,

25854), (622, 25839), (633, 25821), (647, 25797), (716, 25638), (717, 25635), (724, 25605), (726, 25599), (729, 25587), (755, 25548),

Gene: Camara\_36 Start: 23916, Stop: 22723, Start Num: 147

Candidate Starts for Camara\_36:

(Start: 147 @23916 has 80 MA's), (365, 23487), (384, 23430), (398, 23406), (533, 23178), (607, 23052), (614, 23040), (625, 23019), (708, 22881), (729, 22800), (760, 22752),

Gene: Capricorn\_41 Start: 32595, Stop: 33683, Start Num: 162

Candidate Starts for Capricorn\_41:

(14, 31974), (16, 31992), (24, 32169), (42, 32334), (51, 32373), (Start: 162 @32595 has 317 MA's), (Start: 191 @32646 has 14 MA's), (Start: 217 @32697 has 6 MA's), (226, 32721), (244, 32757), (317, 32895), (408, 33033), (451, 33102), (452, 33105), (534, 33255), (598, 33360), (701, 33495),

Gene: CaptainTrips\_41 Start: 32330, Stop: 33448, Start Num: 162

Candidate Starts for CaptainTrips\_41:

(Start: 162 @32330 has 317 MA's), (165, 32339), (244, 32501), (272, 32549), (322, 32666), (340, 32702), (346, 32711), (414, 32816), (454, 32885), (471, 32924), (481, 32942), (484, 32945), (492, 32957), (493, 32960), (497, 32972), (514, 33011), (520, 33017), (539, 33038), (573, 33074), (574, 33077), (593, 33113), (595, 33119), (598, 33131), (599, 33134), (610, 33149), (663, 33218), (670, 33233), (690, 33251), (703, 33275), (713, 33320), (716, 33329), (726, 33368), (731, 33386), (746, 33407), (755, 33422), (760, 33431), (762, 33434),

Gene: Caraxes\_33 Start: 24997, Stop: 23882, Start Num: 157

Candidate Starts for Caraxes\_33:

(Start: 157 @24997 has 10 MA's), (Start: 191 @24949 has 14 MA's), (204, 24916), (Start: 217 @24880 has 6 MA's), (234, 24835), (320, 24667), (328, 24652), (356, 24616), (394, 24574), (401, 24562), (402, 24559), (454, 24472), (462, 24457), (534, 24328), (548, 24316), (564, 24295), (574, 24277), (593, 24241), (603, 24214), (622, 24199), (633, 24181), (650, 24154), (704, 24043), (717, 23995), (724, 23965), (726, 23959), (729, 23947), (755, 23908),

Gene: CaseJules\_42 Start: 32792, Stop: 33880, Start Num: 162

Candidate Starts for CaseJules\_42:

(Start: 162 @32792 has 317 MA's), (Start: 217 @32894 has 6 MA's), (226, 32918), (244, 32954), (317, 33092), (408, 33230), (451, 33299), (452, 33302), (534, 33452), (598, 33557), (701, 33692),

Gene: Cashline\_38 Start: 32110, Stop: 33216, Start Num: 162

Candidate Starts for Cashline\_38:

(113, 32053), (Start: 162 @32110 has 317 MA's), (Start: 191 @32161 has 14 MA's), (240, 32266), (268, 32305), (408, 32545), (451, 32614), (452, 32617), (456, 32623), (466, 32647), (493, 32698), (497, 32710), (638, 32938), (679, 32998), (709, 33073), (716, 33103), (760, 33205),

Gene: Cassini\_31 Start: 25264, Stop: 24098, Start Num: 162

Candidate Starts for Cassini\_31:

(Start: 162 @25264 has 317 MA's), (239, 25099), (277, 25045), (285, 25027), (336, 24913), (346, 24895), (402, 24817), (408, 24805), (451, 24730), (456, 24721), (486, 24661), (535, 24571), (598, 24469), (603, 24460), (614, 24445), (627, 24421), (631, 24418), (703, 24301), (709, 24277), (712, 24262), (731, 24190), (762, 24142), (776, 24115),

Gene: Caterpie\_44 Start: 40777, Stop: 39575, Start Num: 169

Candidate Starts for Caterpie\_44:

(Start: 169 @40777 has 7 MA's), (207, 40702), (220, 40672), (274, 40567), (323, 40456), (325, 40453), (360, 40390), (420, 40255), (429, 40234), (462, 40180), (525, 40051), (528, 40045), (631, 39868),

(633, 39865), (634, 39862), (645, 39841), (666, 39805), (709, 39739), (712, 39724), (729, 39658), (764, 39604),

Gene: Catfish\_37 Start: 28481, Stop: 27369, Start Num: 188

Candidate Starts for Catfish\_37:

(Start: 188 @28481 has 12 MA's), (204, 28439), (267, 28313), (385, 28112), (413, 28055), (426, 28028), (472, 27932), (490, 27899), (495, 27890), (566, 27782), (629, 27653), (716, 27467), (726, 27428), (747, 27389),

Gene: Centaur\_35 Start: 26808, Stop: 25675, Start Num: 152

Candidate Starts for Centaur\_35:

(Start: 152 @26808 has 120 MA's), (Start: 191 @26754 has 14 MA's), (Start: 217 @26685 has 6 MA's), (234, 26640), (317, 26484), (328, 26457), (356, 26421), (402, 26364), (471, 26241), (481, 26223), (534, 26133), (548, 26121), (593, 26046), (595, 26040), (603, 26019), (622, 26004), (633, 25986), (650, 25959), (653, 25950), (704, 25848), (717, 25800), (724, 25770), (726, 25764), (729, 25752), (755, 25713),

Gene: Cerasum\_38 Start: 27921, Stop: 29039, Start Num: 162

Candidate Starts for Cerasum\_38:

(Start: 162 @27921 has 317 MA's), (244, 28092), (322, 28257), (340, 28293), (346, 28302), (402, 28383), (414, 28407), (454, 28476), (471, 28515), (481, 28533), (484, 28536), (492, 28548), (493, 28551), (497, 28563), (504, 28578), (514, 28602), (520, 28608), (539, 28629), (573, 28665), (574, 28668), (593, 28704), (595, 28710), (598, 28722), (599, 28725), (610, 28740), (663, 28809), (670, 28824), (703, 28866), (713, 28911), (716, 28920), (726, 28959), (731, 28977), (746, 28998), (755, 29013), (760, 29022), (762, 29025),

Gene: Cerulean\_34 Start: 26519, Stop: 25467, Start Num: 195

Candidate Starts for Cerulean\_34:

(Start: 110 @26633 has 3 MA's), (135, 26606), (Start: 152 @26588 has 120 MA's), (Start: 195 @26519 has 8 MA's), (Start: 217 @26465 has 6 MA's), (322, 26246), (328, 26237), (356, 26201), (394, 26159), (401, 26147), (402, 26144), (515, 25931), (534, 25913), (593, 25826), (595, 25820), (603, 25799), (622, 25784), (633, 25766), (704, 25628), (717, 25580), (724, 25550), (726, 25544), (729, 25532), (755, 25493),

Gene: ChampagnePapi\_34 Start: 26518, Stop: 25466, Start Num: 195

Candidate Starts for ChampagnePapi\_34:

(135, 26605), (Start: 152 @26587 has 120 MA's), (Start: 195 @26518 has 8 MA's), (Start: 217 @26464 has 6 MA's), (322, 26245), (328, 26236), (356, 26200), (394, 26158), (401, 26146), (402, 26143), (515, 25930), (534, 25912), (593, 25825), (595, 25819), (603, 25798), (622, 25783), (633, 25765), (704, 25627), (717, 25579), (724, 25549), (726, 25543), (729, 25531), (755, 25492),

Gene: Chavito\_44 Start: 33649, Stop: 34740, Start Num: 162

Candidate Starts for Chavito\_44:

(34, 33316), (48, 33415), (50, 33424), (55, 33451), (68, 33499), (Start: 162 @33649 has 317 MA's), (Start: 191 @33700 has 14 MA's), (226, 33775), (244, 33811), (304, 33925), (317, 33949), (340, 34003), (408, 34087), (424, 34120), (451, 34156), (452, 34159), (471, 34201), (514, 34288), (534, 34309), (598, 34417), (646, 34477), (691, 34540), (701, 34552), (728, 34660), (748, 34696),

Gene: Che12\_36 Start: 25378, Stop: 24263, Start Num: 157

Candidate Starts for Che12\_36:

(Start: 157 @25378 has 10 MA's), (204, 25297), (Start: 217 @25261 has 6 MA's), (234, 25216), (284, 25129), (320, 25048), (356, 24997), (394, 24955), (401, 24943), (402, 24940), (449, 24862), (504, 24754), (515, 24727), (534, 24709), (548, 24697), (564, 24676), (593, 24622), (603, 24595), (622,

24580), (633, 24562), (650, 24535), (704, 24424), (717, 24376), (724, 24346), (726, 24340), (729, 24328), (755, 24289),

Gene: Che9c\_41 Start: 33550, Stop: 32348, Start Num: 169

Candidate Starts for Che9c\_41:

(Start: 169 @33550 has 7 MA's), (206, 33478), (207, 33475), (214, 33457), (220, 33445), (274, 33340), (323, 33229), (325, 33226), (360, 33163), (396, 33082), (420, 33028), (462, 32953), (499, 32878), (525, 32824), (528, 32818), (631, 32641), (633, 32638), (634, 32635), (645, 32614), (666, 32578), (709, 32512), (712, 32497), (729, 32431),

Gene: CheeseTouch\_54 Start: 30887, Stop: 31984, Start Num: 162

Candidate Starts for CheeseTouch\_54:

(57, 30722), (62, 30731), (129, 30857), (Start: 162 @30887 has 317 MA's), (Start: 191 @30938 has 14 MA's), (227, 31016), (240, 31043), (289, 31130), (320, 31196), (322, 31202), (401, 31307), (402, 31310), (408, 31322), (471, 31439), (484, 31460), (488, 31466), (497, 31487), (539, 31559), (595, 31643), (675, 31766), (706, 31817), (709, 31826), (715, 31853), (762, 31961), (771, 31976),

Gene: Cheesepuff\_46 Start: 33297, Stop: 34415, Start Num: 162

Candidate Starts for Cheesepuff\_46:

(Start: 162 @33297 has 317 MA's), (244, 33468), (322, 33633), (340, 33669), (346, 33678), (414, 33783), (454, 33852), (471, 33891), (484, 33912), (492, 33924), (493, 33927), (497, 33939), (514, 33978), (520, 33984), (539, 34005), (573, 34041), (574, 34044), (593, 34080), (595, 34086), (599, 34101), (610, 34116), (663, 34185), (670, 34200), (690, 34218), (703, 34242), (713, 34287), (716, 34296), (726, 34335), (731, 34353), (746, 34374), (755, 34389), (760, 34398), (762, 34401),

Gene: CheetoDust\_40 Start: 31967, Stop: 33055, Start Num: 162

Candidate Starts for CheetoDust\_40:

(51, 31745), (Start: 162 @31967 has 317 MA's), (Start: 191 @32018 has 14 MA's), (Start: 217 @32069 has 6 MA's), (226, 32093), (244, 32129), (317, 32267), (340, 32321), (408, 32405), (451, 32474), (452, 32477), (534, 32627), (598, 32732), (663, 32819), (701, 32867),

Gene: Chickaboom\_35 Start: 24249, Stop: 23065, Start Num: 147

Candidate Starts for Chickaboom\_35:

(Start: 147 @24249 has 80 MA's), (Start: 182 @24192 has 2 MA's), (266, 24030), (271, 24021), (330, 23895), (360, 23832), (365, 23820), (369, 23805), (410, 23715), (483, 23604), (533, 23511), (599, 23397), (607, 23385), (617, 23367), (705, 23223), (708, 23214),

Gene: Chicken\_33 Start: 24581, Stop: 23397, Start Num: 147

Candidate Starts for Chicken\_33:

(Start: 147 @24581 has 80 MA's), (266, 24362), (276, 24344), (365, 24152), (398, 24071), (552, 23822), (599, 23729), (607, 23717), (617, 23699), (700, 23582), (708, 23546),

Gene: ChipMunk\_36 Start: 28148, Stop: 27003, Start Num: 133

Candidate Starts for ChipMunk\_36:

(Start: 133 @28148 has 7 MA's), (Start: 148 @28130 has 5 MA's), (Start: 195 @28049 has 8 MA's), (Start: 217 @28001 has 6 MA's), (234, 27956), (317, 27800), (322, 27782), (328, 27773), (356, 27737), (394, 27695), (402, 27680), (408, 27668), (449, 27602), (466, 27569), (471, 27557), (481, 27539), (534, 27449), (548, 27437), (593, 27362), (595, 27356), (603, 27335), (622, 27320), (633, 27302), (650, 27275), (653, 27266), (704, 27164), (717, 27116), (718, 27113), (724, 27086), (726, 27080), (729, 27068), (755, 27029),

Gene: Chiqui\_32 Start: 26616, Stop: 25483, Start Num: 140

Candidate Starts for Chiqui\_32:

(Start: 140 @26616 has 6 MA's), (Start: 195 @26535 has 8 MA's), (Start: 217 @26481 has 6 MA's), (234, 26436), (324, 26259), (328, 26253), (356, 26217), (402, 26160), (449, 26082), (534, 25929), (548, 25917), (593, 25842), (595, 25836), (603, 25815), (622, 25800), (633, 25782), (647, 25758), (717, 25596), (724, 25566), (726, 25560), (729, 25548), (755, 25509),

Gene: Chop\_39 Start: 31803, Stop: 30532, Start Num: 147

Candidate Starts for Chop\_39:

(Start: 147 @31803 has 80 MA's), (Start: 157 @31788 has 10 MA's), (208, 31686), (230, 31644), (236, 31632), (276, 31557), (310, 31482), (315, 31473), (320, 31455), (368, 31356), (369, 31353), (410, 31263), (491, 31158), (535, 31062), (539, 31056), (631, 30894), (702, 30753), (713, 30708), (727, 30657), (729, 30648), (737, 30633), (748, 30621), (755, 30609), (781, 30570),

Gene: Chris\_43 Start: 33288, Stop: 34373, Start Num: 162

Candidate Starts for Chris\_43:

(Start: 162 @33288 has 317 MA's), (244, 33450), (275, 33495), (317, 33588), (335, 33630), (408, 33726), (414, 33741), (451, 33795), (452, 33798), (456, 33804), (471, 33840), (534, 33948), (598, 34053), (663, 34140), (691, 34176), (701, 34188), (728, 34296), (755, 34344),

Gene: ChuckDuck\_39 Start: 26485, Stop: 27627, Start Num: 162

Candidate Starts for ChuckDuck\_39:

(25, 26068), (27, 26098), (35, 26158), (38, 26188), (54, 26278), (64, 26314), (91, 26386), (96, 26395), (Start: 162 @26485 has 317 MA's), (337, 26839), (340, 26845), (351, 26863), (414, 26971), (451, 27031), (497, 27124), (574, 27244), (596, 27292), (612, 27322), (670, 27418), (716, 27526), (743, 27601),

Gene: Chymera\_32 Start: 24210, Stop: 22924, Start Num: 162

Candidate Starts for Chymera\_32:

(Start: 162 @24210 has 317 MA's), (165, 24201), (Start: 191 @24156 has 14 MA's), (310, 23862), (356, 23760), (376, 23730), (377, 23727), (462, 23547), (484, 23502), (486, 23499), (574, 23358), (578, 23352), (598, 23304), (716, 23067), (733, 23007), (750, 22983),

Gene: Clammy\_33 Start: 26297, Stop: 25170, Start Num: 152

Candidate Starts for Clammy\_33:

(Start: 152 @26297 has 120 MA's), (204, 26210), (Start: 217 @26174 has 6 MA's), (234, 26129), (317, 25973), (320, 25961), (322, 25955), (356, 25910), (401, 25856), (402, 25853), (449, 25775), (534, 25622), (548, 25610), (574, 25571), (593, 25535), (595, 25529), (603, 25508), (622, 25493), (633, 25475), (650, 25448), (704, 25337), (717, 25289), (724, 25259), (726, 25253), (729, 25241), (755, 25202),

Gene: Clank\_44 Start: 32173, Stop: 33291, Start Num: 162

Candidate Starts for Clank\_44:

(Start: 162 @32173 has 317 MA's), (227, 32311), (244, 32344), (272, 32392), (340, 32545), (346, 32554), (402, 32635), (454, 32728), (484, 32788), (492, 32800), (493, 32803), (504, 32830), (514, 32854), (539, 32881), (573, 32917), (574, 32920), (593, 32956), (610, 32992), (663, 33061), (670, 33076), (690, 33094), (713, 33163), (716, 33172), (726, 33211), (731, 33229), (746, 33250), (755, 33265), (760, 33274), (762, 33277),

Gene: Clap\_37 Start: 27875, Stop: 28957, Start Num: 159

Candidate Starts for Clap\_37:

(Start: 83 @27758 has 2 MA's), (Start: 85 @27764 has 6 MA's), (Start: 159 @27875 has 56 MA's), (Start: 191 @27929 has 14 MA's), (252, 28049), (401, 28304), (414, 28334), (452, 28394), (486, 28460), (497, 28484), (542, 28553), (573, 28589), (709, 28814), (715, 28841), (760, 28946),

Gene: Clark\_39 Start: 28996, Stop: 30123, Start Num: 162

Candidate Starts for Clark\_39:

(122, 28957), (Start: 162 @28996 has 317 MA's), (Start: 191 @29050 has 14 MA's), (240, 29173), (263, 29206), (307, 29296), (320, 29329), (451, 29524), (452, 29527), (471, 29569), (493, 29605), (678, 29902), (709, 29980), (715, 30007), (720, 30022), (726, 30049), (760, 30112),

Gene: Clifton\_35 Start: 27555, Stop: 28673, Start Num: 162

Candidate Starts for Clifton\_35:

(Start: 162 @27555 has 317 MA's), (165, 27564), (244, 27726), (322, 27891), (340, 27927), (346, 27936), (402, 28017), (414, 28041), (454, 28110), (471, 28149), (481, 28167), (484, 28170), (492, 28182), (493, 28185), (497, 28197), (504, 28212), (514, 28236), (520, 28242), (539, 28263), (573, 28299), (574, 28302), (593, 28338), (595, 28344), (599, 28359), (610, 28374), (663, 28443), (670, 28458), (703, 28500), (713, 28545), (716, 28554), (726, 28593), (731, 28611), (746, 28632), (755, 28647), (760, 28656), (762, 28659),

Gene: Clipper\_44 Start: 33113, Stop: 34201, Start Num: 162

Candidate Starts for Clipper\_44:

(Start: 162 @33113 has 317 MA's), (Start: 191 @33164 has 14 MA's), (Start: 217 @33215 has 6 MA's), (226, 33239), (244, 33275), (317, 33413), (408, 33551), (451, 33620), (452, 33623), (534, 33773), (598, 33878), (701, 34013),

Gene: ClownCar\_36 Start: 26581, Stop: 25490, Start Num: 191

Candidate Starts for ClownCar\_36:

(Start: 101 @26698 has 2 MA's), (Start: 152 @26635 has 120 MA's), (Start: 191 @26581 has 14 MA's), (Start: 217 @26512 has 6 MA's), (322, 26293), (328, 26284), (356, 26248), (402, 26191), (449, 26113), (466, 26080), (515, 25978), (534, 25960), (548, 25948), (593, 25873), (595, 25867), (603, 25846), (622, 25831), (633, 25813), (647, 25789), (716, 25630), (717, 25627), (724, 25597), (726, 25591), (729, 25579), (755, 25540),

Gene: Coco12\_40 Start: 31978, Stop: 33096, Start Num: 162

Candidate Starts for Coco12\_40:

(Start: 162 @31978 has 317 MA's), (244, 32149), (322, 32314), (340, 32350), (346, 32359), (402, 32440), (414, 32464), (454, 32533), (471, 32572), (481, 32590), (484, 32593), (492, 32605), (493, 32608), (497, 32620), (504, 32635), (514, 32659), (520, 32665), (539, 32686), (573, 32722), (574, 32725), (593, 32761), (595, 32767), (598, 32779), (599, 32782), (610, 32797), (663, 32866), (670, 32881), (703, 32923), (713, 32968), (716, 32977), (726, 33016), (731, 33034), (746, 33055), (755, 33070), (760, 33079), (762, 33082),

Gene: Colbster\_36 Start: 26790, Stop: 25645, Start Num: 152

Candidate Starts for Colbster\_36:

(Start: 152 @26790 has 120 MA's), (Start: 179 @26751 has 10 MA's), (204, 26703), (Start: 217 @26667 has 6 MA's), (234, 26622), (317, 26466), (328, 26439), (356, 26403), (402, 26346), (449, 26268), (462, 26244), (481, 26205), (515, 26133), (529, 26121), (534, 26115), (548, 26103), (593, 26028), (595, 26022), (603, 26001), (622, 25986), (633, 25968), (647, 25944), (704, 25830), (716, 25785), (717, 25782), (720, 25773), (724, 25752), (726, 25746), (729, 25734), (755, 25695),

Gene: Colin\_37 Start: 27841, Stop: 26711, Start Num: 154

Candidate Starts for Colin\_37:

(Start: 154 @27841 has 2 MA's), (Start: 217 @27721 has 6 MA's), (234, 27676), (322, 27502), (328, 27493), (356, 27457), (401, 27403), (402, 27400), (449, 27322), (466, 27289), (471, 27277), (534, 27169), (548, 27157), (593, 27082), (603, 27055), (622, 27040), (633, 27022), (650, 26995), (717, 26836), (724, 26806), (726, 26800), (729, 26788), (755, 26749),

Gene: Colleen\_32 Start: 30114, Stop: 28903, Start Num: 159

Candidate Starts for Colleen\_32:

(Start: 159 @30114 has 56 MA's), (240, 29940), (312, 29799), (401, 29640), (472, 29490), (517, 29400), (663, 29136), (684, 29100), (690, 29094), (747, 28929), (756, 28914), (758, 28911),

Gene: Colossa\_32 Start: 27893, Stop: 26754, Start Num: 147

Candidate Starts for Colossa\_32:

(Start: 147 @27893 has 80 MA's), (180, 27839), (266, 27671), (301, 27599), (339, 27512), (365, 27458), (368, 27446), (369, 27443), (371, 27431), (491, 27260), (492, 27257), (555, 27161), (657, 26984), (659, 26981), (703, 26924), (759, 26777),

Gene: Colusalem\_37 Start: 23996, Stop: 22809, Start Num: 147

Candidate Starts for Colusalem\_37:

(84, 24086), (Start: 147 @23996 has 80 MA's), (330, 23642), (365, 23567), (607, 23132), (700, 22997),

Gene: Commander\_33 Start: 26250, Stop: 25129, Start Num: 152

Candidate Starts for Commander\_33:

(Start: 110 @26295 has 3 MA's), (135, 26268), (Start: 152 @26250 has 120 MA's), (Start: 195 @26181 has 8 MA's), (Start: 217 @26127 has 6 MA's), (322, 25908), (328, 25899), (356, 25863), (394, 25821), (401, 25809), (402, 25806), (449, 25728), (515, 25593), (534, 25575), (593, 25488), (603, 25461), (622, 25446), (633, 25428), (704, 25290), (717, 25242), (724, 25212), (726, 25206), (729, 25194), (755, 25155),

Gene: Confidence\_37 Start: 29321, Stop: 30403, Start Num: 159

Candidate Starts for Confidence\_37:

(Start: 159 @29321 has 56 MA's), (Start: 222 @29438 has 1 MA's), (272, 29531), (401, 29753), (418, 29789), (452, 29843), (488, 29912), (709, 30260), (715, 30287), (724, 30323), (760, 30392),

Gene: Constance\_38 Start: 26814, Stop: 27956, Start Num: 162

Candidate Starts for Constance\_38:

(72, 26667), (78, 26679), (80, 26688), (95, 26721), (124, 26769), (137, 26784), (Start: 162 @26814 has 317 MA's), (340, 27174), (351, 27192), (414, 27300), (451, 27360), (497, 27453), (574, 27573), (596, 27621), (612, 27651), (670, 27747), (716, 27855), (743, 27930),

Gene: Constella\_68 Start: 47200, Stop: 48429, Start Num: 116

Candidate Starts for Constella\_68:

(Start: 116 @47200 has 29 MA's), (Start: 131 @47218 has 3 MA's), (Start: 160 @47257 has 1 MA's), (276, 47494), (322, 47602), (395, 47722), (396, 47725), (401, 47734), (408, 47749), (426, 47788), (464, 47866), (532, 47983), (545, 47986), (553, 47995), (582, 48046), (584, 48049), (592, 48067), (639, 48163), (688, 48220), (723, 48340), (724, 48343), (731, 48367), (747, 48391), (749, 48394),

Gene: CookieBear\_40 Start: 27769, Stop: 26630, Start Num: 162

Candidate Starts for CookieBear\_40:

(Start: 162 @27769 has 317 MA's), (Start: 191 @27718 has 14 MA's), (277, 27550), (285, 27532), (346, 27400), (394, 27337), (402, 27322), (408, 27310), (411, 27304), (451, 27235), (456, 27226), (486, 27166), (535, 27076), (599, 26971), (614, 26950), (631, 26923), (703, 26800), (709, 26776), (712, 26761), (733, 26686), (753, 26656),

Gene: Coral\_36 Start: 23868, Stop: 22681, Start Num: 147

Candidate Starts for Coral\_36:

(84, 23958), (Start: 147 @23868 has 80 MA's), (365, 23439), (607, 23004), (700, 22869),

Gene: Corium\_41 Start: 32428, Stop: 33546, Start Num: 162

Candidate Starts for Corium\_41:

(Start: 162 @32428 has 317 MA's), (165, 32437), (244, 32599), (322, 32764), (340, 32800), (346, 32809), (414, 32914), (454, 32983), (471, 33022), (481, 33040), (484, 33043), (492, 33055), (493, 33058), (497, 33070), (504, 33085), (514, 33109), (520, 33115), (539, 33136), (573, 33172), (574, 33175), (593, 33211), (595, 33217), (599, 33232), (610, 33247), (663, 33316), (670, 33331), (703, 33373), (713, 33418), (716, 33427), (720, 33439), (726, 33466), (731, 33484), (746, 33505), (755, 33520), (760, 33529), (762, 33532),

Gene: Cornucopia\_45 Start: 32843, Stop: 33970, Start Num: 162

Candidate Starts for Cornucopia\_45:

(86, 32741), (121, 32798), (Start: 162 @32843 has 317 MA's), (165, 32852), (244, 33014), (268, 33065), (277, 33083), (296, 33128), (340, 33224), (346, 33233), (402, 33314), (414, 33338), (454, 33407), (471, 33446), (484, 33467), (492, 33479), (493, 33482), (497, 33494), (504, 33509), (514, 33533), (539, 33560), (573, 33596), (574, 33599), (593, 33635), (610, 33671), (663, 33740), (670, 33755), (690, 33773), (703, 33797), (713, 33842), (716, 33851), (720, 33863), (726, 33890), (731, 33908), (746, 33929), (755, 33944), (760, 33953), (762, 33956),

Gene: CosmicBrownie\_38 Start: 27262, Stop: 26123, Start Num: 162

Candidate Starts for CosmicBrownie\_38:

(Start: 162 @27262 has 317 MA's), (322, 26941), (340, 26905), (348, 26893), (351, 26887), (408, 26794), (414, 26779), (451, 26719), (464, 26689), (497, 26626), (596, 26458), (607, 26437), (612, 26428), (670, 26332), (720, 26212), (743, 26149),

Gene: Cote\_38 Start: 24345, Stop: 23158, Start Num: 147

Candidate Starts for Cote\_38:

(84, 24435), (Start: 147 @24345 has 80 MA's), (365, 23916), (607, 23481), (700, 23346),

Gene: Courthouse\_82 Start: 49663, Stop: 50937, Start Num: 98

Candidate Starts for Courthouse\_82:

(74, 49606), (Start: 90 @49648 has 1 MA's), (Start: 98 @49663 has 10 MA's), (99, 49666), (Start: 131 @49711 has 3 MA's), (Start: 160 @49750 has 1 MA's), (341, 50131), (395, 50215), (401, 50227), (402, 50230), (464, 50359), (545, 50479), (584, 50542), (592, 50560), (601, 50584), (639, 50656), (723, 50833), (724, 50836), (726, 50842), (731, 50860), (741, 50875), (747, 50884), (749, 50887), (773, 50932),

Gene: Crater\_49 Start: 32565, Stop: 33662, Start Num: 162

Candidate Starts for Crater\_49:

(60, 32385), (72, 32424), (Start: 162 @32565 has 317 MA's), (Start: 191 @32616 has 14 MA's), (227, 32694), (240, 32721), (272, 32766), (286, 32799), (289, 32808), (401, 32985), (402, 32988), (456, 33081), (471, 33117), (492, 33150), (493, 33153), (497, 33165), (603, 33330), (627, 33360), (675, 33432), (703, 33468), (709, 33492), (715, 33519), (728, 33567), (731, 33579), (762, 33627),

Gene: Crescenzo\_39 Start: 27750, Stop: 26572, Start Num: 162

Candidate Starts for Crescenzo\_39:

(Start: 162 @27750 has 317 MA's), (Start: 191 @27699 has 14 MA's), (221, 27633), (285, 27513), (328, 27417), (346, 27381), (402, 27303), (451, 27216), (456, 27207), (486, 27147), (599, 26952), (603, 26946), (631, 26904), (703, 26787), (708, 26766), (709, 26763), (712, 26748), (762, 26628), (784, 26586),

Gene: CrimD\_41 Start: 32723, Stop: 33811, Start Num: 162

Candidate Starts for CrimD\_41:

(Start: 162 @32723 has 317 MA's), (Start: 217 @32825 has 6 MA's), (226, 32849), (244, 32885), (317, 33023), (340, 33077), (408, 33161), (451, 33230), (452, 33233), (534, 33383), (587, 33461), (598,

33488), (701, 33623), (748, 33767),

Gene: Croquant\_37 Start: 26788, Stop: 25643, Start Num: 152

Candidate Starts for Croquant\_37:

(Start: 152 @26788 has 120 MA's), (Start: 179 @26749 has 10 MA's), (204, 26701), (Start: 217 @26665 has 6 MA's), (234, 26620), (317, 26464), (328, 26437), (356, 26401), (402, 26344), (449, 26266), (462, 26242), (481, 26203), (515, 26131), (529, 26119), (534, 26113), (548, 26101), (593, 26026), (595, 26020), (603, 25999), (622, 25984), (633, 25966), (647, 25942), (704, 25828), (716, 25783), (717, 25780), (720, 25771), (724, 25750), (726, 25744), (729, 25732), (755, 25693),

Gene: Crucio\_34 Start: 26336, Stop: 25269, Start Num: 191

Candidate Starts for Crucio\_34:

(Start: 101 @26453 has 2 MA's), (Start: 152 @26390 has 120 MA's), (Start: 191 @26336 has 14 MA's), (Start: 217 @26267 has 6 MA's), (234, 26222), (302, 26096), (322, 26048), (328, 26039), (356, 26003), (401, 25949), (402, 25946), (471, 25823), (481, 25805), (497, 25775), (529, 25721), (534, 25715), (548, 25703), (593, 25628), (595, 25622), (603, 25601), (622, 25586), (633, 25568), (650, 25541), (704, 25430), (717, 25382), (724, 25352), (726, 25346), (729, 25334), (755, 25295),

Gene: Cullens\_36 Start: 26789, Stop: 25644, Start Num: 152

Candidate Starts for Cullens\_36:

(Start: 152 @26789 has 120 MA's), (Start: 179 @26750 has 10 MA's), (204, 26702), (Start: 217 @26666 has 6 MA's), (234, 26621), (317, 26465), (328, 26438), (356, 26402), (402, 26345), (449, 26267), (462, 26243), (481, 26204), (515, 26132), (529, 26120), (534, 26114), (548, 26102), (593, 26027), (595, 26021), (603, 26000), (622, 25985), (633, 25967), (647, 25943), (704, 25829), (716, 25784), (717, 25781), (720, 25772), (724, 25751), (726, 25745), (729, 25733), (755, 25694),

Gene: Cygnet\_36 Start: 24788, Stop: 23595, Start Num: 147

Candidate Starts for Cygnet\_36:

(Start: 147 @24788 has 80 MA's), (552, 24026), (594, 23951), (607, 23921), (614, 23909),

Gene: Cynthia\_37 Start: 27764, Stop: 28957, Start Num: 85

Candidate Starts for Cynthia\_37:

(Start: 83 @27758 has 2 MA's), (Start: 85 @27764 has 6 MA's), (Start: 159 @27875 has 56 MA's), (Start: 191 @27929 has 14 MA's), (252, 28049), (401, 28304), (414, 28334), (452, 28394), (486, 28460), (497, 28484), (573, 28589), (709, 28814), (715, 28841), (760, 28946),

Gene: D29\_33 Start: 26474, Stop: 25350, Start Num: 152

Candidate Starts for D29\_33:

(Start: 152 @26474 has 120 MA's), (Start: 191 @26420 has 14 MA's), (Start: 217 @26351 has 6 MA's), (317, 26150), (318, 26147), (328, 26123), (356, 26087), (402, 26030), (414, 26003), (449, 25952), (466, 25919), (471, 25907), (481, 25889), (515, 25817), (534, 25799), (548, 25787), (593, 25712), (595, 25706), (603, 25685), (622, 25670), (633, 25652), (650, 25625), (704, 25514), (717, 25466), (718, 25463), (724, 25436), (726, 25430), (729, 25418), (755, 25379),

Gene: D32\_37 Start: 26474, Stop: 25350, Start Num: 152

Candidate Starts for D32\_37:

(Start: 152 @26474 has 120 MA's), (Start: 191 @26420 has 14 MA's), (Start: 217 @26351 has 6 MA's), (317, 26150), (318, 26147), (328, 26123), (356, 26087), (402, 26030), (414, 26003), (449, 25952), (466, 25919), (471, 25907), (481, 25889), (515, 25817), (534, 25799), (548, 25787), (593, 25712), (595, 25706), (603, 25685), (622, 25670), (633, 25652), (650, 25625), (704, 25514), (717, 25466), (718, 25463), (724, 25436), (726, 25430), (729, 25418), (755, 25379),

Gene: DBQu4n\_37 Start: 26474, Stop: 25350, Start Num: 152

Candidate Starts for DBQu4n\_37:

(Start: 152 @26474 has 120 MA's), (Start: 191 @26420 has 14 MA's), (Start: 217 @26351 has 6 MA's), (317, 26150), (328, 26123), (356, 26087), (402, 26030), (414, 26003), (449, 25952), (466, 25919), (471, 25907), (481, 25889), (515, 25817), (534, 25799), (548, 25787), (574, 25748), (593, 25712), (595, 25706), (603, 25685), (622, 25670), (633, 25652), (650, 25625), (704, 25514), (717, 25466), (718, 25463), (724, 25436), (726, 25430), (729, 25418), (755, 25379),

Gene: DLane\_41 Start: 32255, Stop: 33373, Start Num: 162

Candidate Starts for DLane\_41:

(Start: 162 @32255 has 317 MA's), (244, 32426), (322, 32591), (340, 32627), (346, 32636), (454, 32810), (471, 32849), (484, 32870), (492, 32882), (493, 32885), (497, 32897), (514, 32936), (520, 32942), (539, 32963), (573, 32999), (574, 33002), (593, 33038), (595, 33044), (599, 33059), (663, 33143), (670, 33158), (703, 33200), (713, 33245), (716, 33254), (726, 33293), (731, 33311), (746, 33332), (755, 33347), (760, 33356), (762, 33359),

Gene: DRBy19\_43 Start: 32003, Stop: 33121, Start Num: 162

Candidate Starts for DRBy19\_43:

(Start: 162 @32003 has 317 MA's), (227, 32141), (244, 32174), (272, 32222), (322, 32339), (340, 32375), (346, 32384), (414, 32489), (454, 32558), (484, 32618), (492, 32630), (493, 32633), (497, 32645), (504, 32660), (514, 32684), (520, 32690), (539, 32711), (573, 32747), (574, 32750), (593, 32786), (595, 32792), (598, 32804), (599, 32807), (663, 32891), (670, 32906), (703, 32948), (713, 32993), (716, 33002), (726, 33041), (731, 33059), (746, 33080), (755, 33095), (760, 33104), (762, 33107),

Gene: DaHudson\_36 Start: 26782, Stop: 25637, Start Num: 152

Candidate Starts for DaHudson\_36:

(Start: 152 @26782 has 120 MA's), (Start: 179 @26743 has 10 MA's), (Start: 217 @26659 has 6 MA's), (234, 26614), (317, 26458), (328, 26431), (356, 26395), (402, 26338), (449, 26260), (462, 26236), (481, 26197), (515, 26125), (529, 26113), (534, 26107), (548, 26095), (593, 26020), (595, 26014), (603, 25993), (622, 25978), (633, 25960), (647, 25936), (704, 25822), (716, 25777), (717, 25774), (720, 25765), (724, 25744), (726, 25738), (729, 25726), (755, 25687),

Gene: Daegal\_30 Start: 26772, Stop: 25579, Start Num: 181

Candidate Starts for Daegal\_30:

(Start: 155 @26814 has 3 MA's), (Start: 181 @26772 has 20 MA's), (211, 26706), (247, 26625), (266, 26586), (275, 26571), (277, 26565), (281, 26553), (293, 26526), (311, 26493), (339, 26436), (359, 26403), (360, 26400), (375, 26352), (401, 26310), (402, 26307), (412, 26283), (419, 26268), (429, 26244), (438, 26229), (462, 26190), (468, 26178), (488, 26139), (506, 26100), (528, 26052), (531, 26049), (580, 25977), (583, 25971), (588, 25959), (591, 25956), (593, 25950), (619, 25896), (630, 25878), (631, 25875), (645, 25848), (662, 25821), (701, 25779), (707, 25752), (709, 25746), (722, 25689), (759, 25626), (760, 25623),

Gene: Dallas\_80 Start: 51984, Stop: 53213, Start Num: 116

Candidate Starts for Dallas\_80:

(Start: 116 @51984 has 29 MA's), (Start: 131 @52002 has 3 MA's), (Start: 160 @52041 has 1 MA's), (276, 52278), (322, 52386), (395, 52506), (396, 52509), (401, 52518), (408, 52533), (426, 52572), (464, 52650), (524, 52755), (532, 52767), (545, 52770), (553, 52779), (582, 52830), (584, 52833), (592, 52851), (639, 52947), (688, 53004), (723, 53124), (724, 53127), (731, 53151), (747, 53175), (749, 53178),

Gene: Dalmatian\_35 Start: 26758, Stop: 25637, Start Num: 152

Candidate Starts for Dalmatian\_35:

(Start: 101 @26821 has 2 MA's), (Start: 152 @26758 has 120 MA's), (Start: 191 @26704 has 14 MA's), (Start: 217 @26635 has 6 MA's), (234, 26590), (317, 26434), (356, 26371), (408, 26302), (430, 26260), (449, 26236), (481, 26173), (534, 26083), (548, 26071), (593, 25996), (595, 25990), (603, 25969), (622, 25954), (633, 25936), (650, 25909), (704, 25798), (716, 25753), (717, 25750), (718, 25747), (724, 25720), (726, 25714), (729, 25702), (755, 25663),

Gene: Dalmuri\_41 Start: 32595, Stop: 33683, Start Num: 162

Candidate Starts for Dalmuri\_41:

(16, 31992), (24, 32169), (42, 32334), (51, 32373), (Start: 162 @32595 has 317 MA's), (Start: 191 @32646 has 14 MA's), (Start: 217 @32697 has 6 MA's), (226, 32721), (244, 32757), (317, 32895), (408, 33033), (451, 33102), (452, 33105), (534, 33255), (598, 33360), (701, 33495),

Gene: DanHam62\_36 Start: 23913, Stop: 22720, Start Num: 147

Candidate Starts for DanHam62\_36:

(Start: 147 @23913 has 80 MA's), (365, 23484), (384, 23427), (398, 23403), (533, 23175), (607, 23049), (614, 23037), (625, 23016), (708, 22878), (729, 22797), (760, 22749),

Gene: Daob\_38 Start: 24353, Stop: 23166, Start Num: 147

Candidate Starts for Daob\_38:

(84, 24443), (Start: 147 @24353 has 80 MA's), (330, 23999), (365, 23924), (607, 23489), (700, 23354),

Gene: DartGoblin\_43 Start: 33327, Stop: 34415, Start Num: 162

Candidate Starts for DartGoblin\_43:

(Start: 162 @33327 has 317 MA's), (Start: 191 @33378 has 14 MA's), (Start: 217 @33429 has 6 MA's), (226, 33453), (244, 33489), (304, 33603), (317, 33627), (340, 33681), (408, 33765), (451, 33834), (534, 33987), (598, 34092), (663, 34179), (701, 34227), (748, 34371),

Gene: Dartin\_43 Start: 33014, Stop: 34105, Start Num: 162

Candidate Starts for Dartin\_43:

(11, 32333), (21, 32477), (34, 32681), (48, 32780), (50, 32789), (55, 32816), (68, 32864), (Start: 162 @33014 has 317 MA's), (Start: 191 @33065 has 14 MA's), (226, 33140), (244, 33176), (304, 33290), (317, 33314), (340, 33368), (408, 33452), (424, 33485), (451, 33521), (452, 33524), (471, 33566), (514, 33653), (534, 33674), (598, 33782), (646, 33842), (691, 33905), (701, 33917), (728, 34025), (748, 34061),

Gene: DarwinJr\_42 Start: 28654, Stop: 27527, Start Num: 191

Candidate Starts for DarwinJr\_42:

(Start: 148 @28723 has 5 MA's), (Start: 162 @28705 has 317 MA's), (Start: 191 @28654 has 14 MA's), (221, 28588), (285, 28468), (328, 28372), (346, 28336), (402, 28258), (451, 28171), (456, 28162), (486, 28102), (535, 28012), (599, 27907), (603, 27901), (631, 27859), (670, 27793), (703, 27742), (708, 27721), (709, 27718), (712, 27703), (762, 27583),

Gene: DeadP\_46 Start: 32604, Stop: 33707, Start Num: 162

Candidate Starts for DeadP\_46:

(Start: 162 @32604 has 317 MA's), (Start: 191 @32652 has 14 MA's), (227, 32733), (238, 32760), (340, 32973), (359, 32997), (402, 33045), (451, 33126), (486, 33195), (492, 33204), (504, 33234), (514, 33258), (534, 33279), (587, 33357), (595, 33372), (638, 33432), (663, 33471), (670, 33486), (687, 33510), (703, 33537), (709, 33561), (713, 33582), (716, 33591), (728, 33636), (731, 33648),

Gene: Deby\_41 Start: 32726, Stop: 33811, Start Num: 162

Candidate Starts for Deby\_41:

(Start: 162 @32726 has 317 MA's), (Start: 217 @32828 has 6 MA's), (221, 32837), (226, 32852), (244, 32888), (317, 33026), (340, 33080), (408, 33164), (451, 33233), (452, 33236), (534, 33386), (598,

33491), (663, 33578), (701, 33626), (748, 33770),

Gene: DeepSoil15\_29 Start: 26478, Stop: 25285, Start Num: 181

Candidate Starts for DeepSoil15\_29:

(Start: 155 @26520 has 3 MA's), (Start: 181 @26478 has 20 MA's), (211, 26412), (247, 26331), (266, 26292), (275, 26277), (277, 26271), (281, 26259), (293, 26232), (311, 26199), (339, 26142), (359, 26109), (360, 26106), (375, 26058), (401, 26016), (402, 26013), (412, 25989), (419, 25974), (429, 25950), (438, 25935), (462, 25896), (468, 25884), (488, 25845), (506, 25806), (528, 25758), (531, 25755), (580, 25683), (583, 25677), (588, 25665), (591, 25662), (593, 25656), (619, 25602), (630, 25584), (631, 25581), (645, 25554), (656, 25536), (661, 25530), (662, 25527), (701, 25485), (707, 25458), (709, 25452), (722, 25395), (759, 25332), (760, 25329),

Gene: DelRio\_40 Start: 32511, Stop: 31240, Start Num: 147

Candidate Starts for DelRio\_40:

(125, 32535), (Start: 147 @32511 has 80 MA's), (Start: 157 @32496 has 10 MA's), (208, 32394), (230, 32352), (236, 32340), (276, 32265), (310, 32190), (315, 32181), (320, 32163), (368, 32064), (369, 32061), (410, 31971), (486, 31875), (491, 31866), (535, 31770), (555, 31746), (631, 31602), (702, 31461), (713, 31416), (727, 31365), (729, 31356), (737, 31341), (748, 31329), (755, 31317), (781, 31278),

Gene: Denise\_35 Start: 27272, Stop: 28351, Start Num: 162

Candidate Starts for Denise\_35:

(Start: 162 @27272 has 317 MA's), (240, 27428), (333, 27608), (471, 27821), (494, 27860), (497, 27869), (595, 28025), (675, 28148), (709, 28208), (760, 28340),

Gene: Devera\_45 Start: 33261, Stop: 34349, Start Num: 162

Candidate Starts for Devera\_45:

(Start: 162 @33261 has 317 MA's), (Start: 217 @33363 has 6 MA's), (226, 33387), (244, 33423), (277, 33474), (304, 33537), (317, 33561), (340, 33615), (342, 33618), (408, 33699), (451, 33768), (452, 33771), (534, 33921), (587, 33999), (598, 34026), (701, 34161),

Gene: Dewey\_29 Start: 26478, Stop: 25285, Start Num: 181

Candidate Starts for Dewey\_29:

(Start: 155 @26520 has 3 MA's), (Start: 181 @26478 has 20 MA's), (211, 26412), (247, 26331), (266, 26292), (275, 26277), (277, 26271), (281, 26259), (293, 26232), (311, 26199), (339, 26142), (359, 26109), (360, 26106), (375, 26058), (401, 26016), (402, 26013), (412, 25989), (419, 25974), (429, 25950), (438, 25935), (462, 25896), (468, 25884), (488, 25845), (506, 25806), (528, 25758), (531, 25755), (580, 25683), (583, 25677), (588, 25665), (591, 25662), (593, 25656), (619, 25602), (630, 25584), (631, 25581), (645, 25554), (656, 25536), (661, 25530), (662, 25527), (701, 25485), (707, 25458), (709, 25452), (722, 25395), (759, 25332), (760, 25329),

Gene: Dieselweasel\_36 Start: 26792, Stop: 25647, Start Num: 152

Candidate Starts for Dieselweasel\_36:

(Start: 152 @26792 has 120 MA's), (Start: 179 @26753 has 10 MA's), (204, 26705), (Start: 217 @26669 has 6 MA's), (234, 26624), (317, 26468), (328, 26441), (356, 26405), (402, 26348), (449, 26270), (462, 26246), (481, 26207), (515, 26135), (529, 26123), (534, 26117), (548, 26105), (593, 26030), (595, 26024), (603, 26003), (622, 25988), (633, 25970), (647, 25946), (704, 25832), (716, 25787), (717, 25784), (720, 25775), (724, 25754), (726, 25748), (729, 25736), (755, 25697),

Gene: Dignity\_35 Start: 26759, Stop: 25632, Start Num: 148

Candidate Starts for Dignity\_35:

(Start: 133 @26777 has 7 MA's), (Start: 148 @26759 has 5 MA's), (Start: 195 @26675 has 8 MA's), (Start: 217 @26627 has 6 MA's), (234, 26582), (328, 26399), (356, 26363), (402, 26306), (408, 26294),

(466, 26195), (471, 26183), (481, 26165), (534, 26075), (593, 25988), (595, 25982), (603, 25961), (622, 25946), (633, 25928), (650, 25901), (704, 25790), (717, 25742), (718, 25739), (724, 25712), (726, 25706), (729, 25694), (755, 25655),

Gene: DillyDally\_29 Start: 24117, Stop: 22978, Start Num: 170

Candidate Starts for DillyDally\_29:

(61, 24321), (Start: 170 @24117 has 1 MA's), (Start: 217 @24021 has 6 MA's), (268, 23913), (272, 23907), (283, 23883), (307, 23829), (335, 23766), (343, 23754), (358, 23745), (384, 23724), (408, 23679), (426, 23640), (458, 23595), (462, 23586), (470, 23571), (548, 23451), (559, 23439), (598, 23361), (681, 23247), (713, 23160), (719, 23142), (755, 23058), (789, 22986),

Gene: Ding\_40 Start: 28134, Stop: 27007, Start Num: 162

Candidate Starts for Ding\_40:

(Start: 162 @28134 has 317 MA's), (Start: 191 @28083 has 14 MA's), (192, 28080), (277, 27918), (304, 27855), (322, 27810), (328, 27801), (394, 27690), (408, 27663), (414, 27648), (463, 27564), (471, 27546), (593, 27351), (612, 27309), (622, 27294), (631, 27282), (646, 27255), (663, 27228), (670, 27213), (688, 27189), (713, 27117), (716, 27108), (720, 27096), (731, 27051),

Gene: DinoDaryn\_38 Start: 27370, Stop: 26255, Start Num: 188

Candidate Starts for DinoDaryn\_38:

(Start: 188 @27370 has 12 MA's), (357, 27031), (385, 26998), (532, 26704), (549, 26692), (641, 26512), (720, 26341), (726, 26314),

Gene: DismalFunk\_43 Start: 34317, Stop: 35417, Start Num: 162

Candidate Starts for DismalFunk\_43:

(Start: 162 @34317 has 317 MA's), (Start: 170 @34335 has 1 MA's), (226, 34443), (244, 34479), (304, 34593), (317, 34617), (340, 34671), (438, 34812), (451, 34836), (452, 34839), (471, 34881), (534, 34989), (598, 35094), (636, 35139), (646, 35154), (728, 35346),

Gene: DismalStressor\_43 Start: 34317, Stop: 35417, Start Num: 162

Candidate Starts for DismalStressor\_43:

(Start: 162 @34317 has 317 MA's), (Start: 170 @34335 has 1 MA's), (226, 34443), (244, 34479), (304, 34593), (317, 34617), (340, 34671), (438, 34812), (451, 34836), (452, 34839), (471, 34881), (534, 34989), (598, 35094), (636, 35139), (646, 35154), (728, 35346),

Gene: DmpstrDiver\_82 Start: 52410, Stop: 53639, Start Num: 116

Candidate Starts for DmpstrDiver\_82:

(Start: 116 @52410 has 29 MA's), (Start: 131 @52428 has 3 MA's), (Start: 160 @52467 has 1 MA's), (276, 52704), (322, 52812), (395, 52932), (396, 52935), (401, 52944), (408, 52959), (426, 52998), (464, 53076), (524, 53181), (532, 53193), (545, 53196), (553, 53205), (582, 53256), (584, 53259), (592, 53277), (639, 53373), (688, 53430), (723, 53550), (724, 53553), (731, 53577), (747, 53601), (749, 53604),

Gene: DoRead\_44 Start: 32140, Stop: 33258, Start Num: 162

Candidate Starts for DoRead\_44:

(Start: 162 @32140 has 317 MA's), (227, 32278), (244, 32311), (272, 32359), (340, 32512), (346, 32521), (402, 32602), (454, 32695), (484, 32755), (492, 32767), (493, 32770), (504, 32797), (514, 32821), (539, 32848), (573, 32884), (574, 32887), (593, 32923), (610, 32959), (663, 33028), (670, 33043), (713, 33130), (716, 33139), (720, 33151), (726, 33178), (731, 33196), (746, 33217), (755, 33232), (760, 33241), (762, 33244),

Gene: DobbysSock\_31 Start: 27501, Stop: 28628, Start Num: 162

Candidate Starts for DobbysSock\_31:

(53, 27282), (59, 27318), (Start: 162 @27501 has 317 MA's), (Start: 191 @27555 has 14 MA's), (263, 27711), (307, 27801), (320, 27834), (451, 28029), (452, 28032), (471, 28074), (493, 28110), (678, 28407), (709, 28485), (720, 28527), (726, 28554), (760, 28617),

Gene: Dole\_44 Start: 33263, Stop: 34351, Start Num: 162

Candidate Starts for Dole\_44:

(Start: 162 @33263 has 317 MA's), (Start: 217 @33365 has 6 MA's), (226, 33389), (244, 33425), (277, 33476), (304, 33539), (317, 33563), (340, 33617), (342, 33620), (408, 33701), (451, 33770), (452, 33773), (534, 33923), (587, 34001), (598, 34028), (701, 34163),

Gene: Dolores\_40 Start: 29868, Stop: 30995, Start Num: 162

Candidate Starts for Dolores\_40:

(122, 29829), (Start: 162 @29868 has 317 MA's), (Start: 191 @29922 has 14 MA's), (240, 30045), (263, 30078), (307, 30168), (320, 30201), (451, 30396), (452, 30399), (471, 30441), (493, 30477), (678, 30774), (709, 30852), (715, 30879), (720, 30894), (726, 30921), (760, 30984),

Gene: Donkeykong\_41 Start: 32106, Stop: 33224, Start Num: 162

Candidate Starts for Donkeykong\_41:

(Start: 162 @32106 has 317 MA's), (165, 32115), (227, 32244), (244, 32277), (272, 32325), (322, 32442), (340, 32478), (346, 32487), (402, 32568), (414, 32592), (454, 32661), (471, 32700), (484, 32721), (492, 32733), (493, 32736), (497, 32748), (514, 32787), (520, 32793), (539, 32814), (573, 32850), (574, 32853), (593, 32889), (595, 32895), (598, 32907), (599, 32910), (663, 32994), (670, 33009), (690, 33027), (713, 33096), (716, 33105), (726, 33144), (731, 33162), (746, 33183), (755, 33198), (760, 33207), (762, 33210),

Gene: Doomslug\_48 Start: 31734, Stop: 32852, Start Num: 162

Candidate Starts for Doomslug\_48:

(Start: 162 @31734 has 317 MA's), (165, 31743), (244, 31905), (322, 32070), (340, 32106), (346, 32115), (402, 32196), (414, 32220), (454, 32289), (484, 32349), (492, 32361), (493, 32364), (497, 32376), (504, 32391), (514, 32415), (520, 32421), (539, 32442), (573, 32478), (574, 32481), (593, 32517), (595, 32523), (598, 32535), (599, 32538), (663, 32622), (670, 32637), (690, 32655), (710, 32706), (713, 32724), (716, 32733), (720, 32745), (726, 32772), (731, 32790), (746, 32811), (755, 32826), (760, 32835), (762, 32838),

Gene: Dori\_45 Start: 42022, Stop: 40820, Start Num: 169

Candidate Starts for Dori\_45:

(Start: 169 @42022 has 7 MA's), (207, 41947), (218, 41923), (220, 41917), (274, 41812), (323, 41701), (325, 41698), (360, 41635), (420, 41500), (429, 41479), (462, 41425), (525, 41296), (528, 41290), (631, 41113), (633, 41110), (634, 41107), (645, 41086), (666, 41050), (709, 40984), (712, 40969), (729, 40903), (748, 40879), (764, 40849),

Gene: Dorito\_34 Start: 27145, Stop: 28272, Start Num: 162

Candidate Starts for Dorito\_34:

(53, 26926), (59, 26962), (Start: 162 @27145 has 317 MA's), (Start: 191 @27199 has 14 MA's), (240, 27322), (263, 27355), (307, 27445), (320, 27478), (451, 27673), (452, 27676), (471, 27718), (493, 27754), (678, 28051), (709, 28129), (720, 28171), (726, 28198), (760, 28261),

Gene: DosHalletts\_40 Start: 31274, Stop: 32392, Start Num: 162

Candidate Starts for DosHalletts\_40:

(Start: 162 @31274 has 317 MA's), (244, 31445), (272, 31493), (340, 31646), (346, 31655), (402, 31736), (414, 31760), (454, 31829), (484, 31889), (492, 31901), (493, 31904), (497, 31916), (504, 31931), (514, 31955), (520, 31961), (539, 31982), (573, 32018), (574, 32021), (593, 32057), (595, 32063), (598, 32075), (599, 32078), (610, 32093), (663, 32162), (670, 32177), (703, 32219), (713,

32264), (716, 32273), (726, 32312), (731, 32330), (746, 32351), (755, 32366), (760, 32375), (762, 32378),

Gene: Doughnut\_44 Start: 34142, Stop: 35242, Start Num: 162

Candidate Starts for Doughnut\_44:

(Start: 162 @34142 has 317 MA's), (Start: 170 @34160 has 1 MA's), (Start: 191 @34193 has 14 MA's), (226, 34268), (244, 34304), (304, 34418), (317, 34442), (340, 34496), (438, 34637), (451, 34661), (452, 34664), (471, 34706), (534, 34814), (598, 34919), (636, 34964), (646, 34979), (728, 35171),

Gene: Dove\_67 Start: 48492, Stop: 49721, Start Num: 116

Candidate Starts for Dove\_67:

(Start: 116 @48492 has 29 MA's), (Start: 131 @48510 has 3 MA's), (Start: 160 @48549 has 1 MA's), (276, 48786), (322, 48894), (395, 49014), (396, 49017), (401, 49026), (408, 49041), (426, 49080), (464, 49158), (524, 49263), (532, 49275), (545, 49278), (553, 49287), (582, 49338), (584, 49341), (592, 49359), (639, 49455), (688, 49512), (723, 49632), (724, 49635), (731, 49659), (747, 49683), (749, 49686),

Gene: DrHayes\_42 Start: 33376, Stop: 34464, Start Num: 162

Candidate Starts for DrHayes\_42:

(51, 33154), (Start: 162 @33376 has 317 MA's), (Start: 191 @33427 has 14 MA's), (Start: 217 @33478 has 6 MA's), (226, 33502), (244, 33538), (304, 33652), (340, 33730), (408, 33814), (451, 33883), (452, 33886), (534, 34036), (598, 34141), (701, 34276), (748, 34420),

Gene: Drake55\_36 Start: 26836, Stop: 25769, Start Num: 191

Candidate Starts for Drake55\_36:

(Start: 101 @26953 has 2 MA's), (Start: 152 @26890 has 120 MA's), (Start: 191 @26836 has 14 MA's), (Start: 217 @26767 has 6 MA's), (234, 26722), (237, 26716), (277, 26650), (303, 26593), (356, 26503), (430, 26392), (449, 26368), (466, 26335), (471, 26323), (534, 26215), (536, 26212), (593, 26128), (595, 26122), (603, 26101), (622, 26086), (633, 26068), (717, 25882), (724, 25852), (726, 25846), (729, 25834), (755, 25795),

Gene: DreamEater\_35 Start: 28536, Stop: 27415, Start Num: 167

Candidate Starts for DreamEater\_35:

(Start: 167 @28536 has 2 MA's), (174, 28527), (249, 28365), (320, 28212), (340, 28170), (384, 28134), (408, 28089), (433, 28044), (462, 27996), (484, 27954), (486, 27951), (510, 27903), (534, 27870), (602, 27762), (712, 27570), (714, 27561), (762, 27450), (774, 27429),

Gene: DropBear\_33 Start: 26364, Stop: 25237, Start Num: 152

Candidate Starts for DropBear\_33:

(Start: 152 @26364 has 120 MA's), (204, 26277), (Start: 217 @26241 has 6 MA's), (234, 26196), (272, 26136), (317, 26040), (320, 26028), (322, 26022), (356, 25977), (401, 25923), (402, 25920), (413, 25896), (515, 25707), (534, 25689), (548, 25677), (574, 25638), (593, 25602), (595, 25596), (603, 25575), (622, 25560), (633, 25542), (704, 25404), (717, 25356), (724, 25326), (726, 25320), (729, 25308), (755, 25269),

Gene: DudeLittle\_33 Start: 26423, Stop: 25302, Start Num: 156

Candidate Starts for DudeLittle\_33:

(127, 26453), (Start: 156 @26423 has 8 MA's), (Start: 191 @26372 has 14 MA's), (Start: 217 @26303 has 6 MA's), (234, 26258), (317, 26102), (328, 26075), (356, 26039), (394, 25997), (402, 25982), (449, 25904), (466, 25871), (471, 25859), (481, 25841), (534, 25751), (548, 25739), (593, 25664), (595, 25658), (603, 25637), (622, 25622), (633, 25604), (650, 25577), (653, 25568), (717, 25418), (718, 25415), (724, 25388), (726, 25382), (729, 25370), (755, 25331),

Gene: Duke13\_85 Start: 52764, Stop: 53993, Start Num: 116

Candidate Starts for Duke13\_85:

(Start: 116 @52764 has 29 MA's), (Start: 131 @52782 has 3 MA's), (Start: 160 @52821 has 1 MA's), (276, 53058), (322, 53166), (395, 53286), (396, 53289), (401, 53298), (408, 53313), (426, 53352), (464, 53430), (524, 53535), (532, 53547), (545, 53550), (553, 53559), (582, 53610), (584, 53613), (592, 53631), (639, 53727), (688, 53784), (723, 53904), (724, 53907), (731, 53931), (747, 53955), (749, 53958),

Gene: DumpsterDude\_40 Start: 35157, Stop: 33988, Start Num: 147

Candidate Starts for DumpsterDude\_40:

(Start: 147 @35157 has 80 MA's), (225, 35001), (276, 34914), (314, 34833), (328, 34797), (357, 34743), (360, 34737), (365, 34725), (368, 34713), (410, 34620), (412, 34614), (425, 34584), (491, 34515), (492, 34512), (504, 34482), (506, 34479), (538, 34431), (593, 34359), (700, 34197), (702, 34185), (709, 34158), (724, 34098), (727, 34089), (753, 34044), (773, 34005),

Gene: Duplo\_37 Start: 26512, Stop: 25388, Start Num: 152

Candidate Starts for Duplo\_37:

(Start: 152 @26512 has 120 MA's), (Start: 191 @26458 has 14 MA's), (Start: 217 @26389 has 6 MA's), (317, 26188), (328, 26161), (356, 26125), (401, 26071), (402, 26068), (414, 26041), (449, 25990), (466, 25957), (471, 25945), (481, 25927), (515, 25855), (534, 25837), (548, 25825), (574, 25786), (593, 25750), (595, 25744), (603, 25723), (622, 25708), (633, 25690), (650, 25663), (704, 25552), (717, 25504), (718, 25501), (724, 25474), (726, 25468), (729, 25456), (755, 25417),

Gene: Durfee\_41 Start: 32792, Stop: 33880, Start Num: 162

Candidate Starts for Durfee\_41:

(Start: 162 @32792 has 317 MA's), (Start: 217 @32894 has 6 MA's), (226, 32918), (244, 32954), (317, 33092), (408, 33230), (451, 33299), (452, 33302), (534, 33452), (598, 33557), (701, 33692),

Gene: EMSquaredA\_37 Start: 30030, Stop: 31136, Start Num: 162

Candidate Starts for EMSquaredA\_37:

(113, 29973), (Start: 162 @30030 has 317 MA's), (Start: 191 @30081 has 14 MA's), (240, 30186), (245, 30195), (268, 30225), (405, 30459), (408, 30465), (451, 30534), (452, 30537), (466, 30567), (493, 30618), (497, 30630), (638, 30858), (679, 30918), (709, 30993), (716, 31023), (760, 31125),

Gene: Eagle\_32 Start: 26273, Stop: 25152, Start Num: 152

Candidate Starts for Eagle\_32:

(Start: 110 @26318 has 3 MA's), (135, 26291), (Start: 152 @26273 has 120 MA's), (Start: 195 @26204 has 8 MA's), (Start: 217 @26150 has 6 MA's), (322, 25931), (328, 25922), (356, 25886), (394, 25844), (401, 25832), (402, 25829), (449, 25751), (515, 25616), (534, 25598), (593, 25511), (595, 25505), (603, 25484), (622, 25469), (633, 25451), (704, 25313), (717, 25265), (724, 25235), (726, 25229), (729, 25217), (755, 25178),

Gene: Easley\_35 Start: 28370, Stop: 27201, Start Num: 147

Candidate Starts for Easley\_35:

(Start: 147 @28370 has 80 MA's), (276, 28127), (315, 28043), (328, 28010), (365, 27938), (368, 27926), (384, 27881), (410, 27833), (491, 27728), (492, 27725), (504, 27695), (508, 27686), (593, 27572), (630, 27500), (631, 27497), (643, 27473), (648, 27467), (655, 27455), (700, 27410), (702, 27398), (709, 27371), (737, 27278), (753, 27257), (773, 27218),

Gene: Ebert\_39 Start: 27799, Stop: 28881, Start Num: 159

Candidate Starts for Ebert\_39:

(Start: 83 @27682 has 2 MA's), (Start: 85 @27688 has 6 MA's), (Start: 159 @27799 has 56 MA's), (Start: 191 @27853 has 14 MA's), (252, 27973), (401, 28228), (414, 28258), (452, 28318), (486, 28384), (497, 28408), (542, 28477), (573, 28513), (709, 28738), (715, 28765), (760, 28870),

Gene: Ecliptus\_49 Start: 33668, Stop: 34762, Start Num: 162

Candidate Starts for Ecliptus\_49:

(113, 33623), (Start: 162 @33668 has 317 MA's), (Start: 191 @33719 has 14 MA's), (227, 33797), (240, 33824), (322, 33983), (340, 34019), (395, 34079), (401, 34088), (402, 34091), (408, 34103), (414, 34118), (416, 34121), (456, 34184), (471, 34220), (492, 34253), (493, 34256), (497, 34268), (514, 34307), (627, 34463), (675, 34535), (709, 34595), (724, 34658), (728, 34670), (762, 34730),

Gene: EdnaMode\_33 Start: 26384, Stop: 27466, Start Num: 159

Candidate Starts for EdnaMode\_33:

(Start: 85 @26273 has 6 MA's), (Start: 159 @26384 has 56 MA's), (Start: 191 @26438 has 14 MA's), (252, 26558), (401, 26813), (414, 26843), (452, 26903), (486, 26969), (497, 26993), (709, 27323), (715, 27350), (760, 27455),

Gene: Eesa\_33 Start: 25111, Stop: 23927, Start Num: 147

Candidate Starts for Eesa\_33:

(Start: 147 @25111 has 80 MA's), (266, 24892), (276, 24874), (330, 24757), (369, 24667), (552, 24352), (599, 24259), (607, 24247), (617, 24229), (700, 24112), (708, 24076),

Gene: Efra2\_44 Start: 32569, Stop: 33669, Start Num: 162

Candidate Starts for Efra2\_44:

(Start: 162 @32569 has 317 MA's), (Start: 191 @32620 has 14 MA's), (226, 32695), (244, 32731), (245, 32734), (304, 32845), (438, 33064), (451, 33088), (452, 33091), (514, 33220), (534, 33241), (598, 33346), (663, 33433), (701, 33481), (712, 33529),

Gene: Eileen\_34 Start: 24892, Stop: 26034, Start Num: 162

Candidate Starts for Eileen\_34:

(Start: 162 @24892 has 317 MA's), (337, 25246), (340, 25252), (350, 25267), (385, 25321), (414, 25378), (451, 25438), (452, 25441), (464, 25468), (497, 25531), (574, 25651), (596, 25699), (670, 25825), (677, 25837), (716, 25933), (743, 26008),

Gene: Ein37\_29 Start: 26478, Stop: 25285, Start Num: 181

Candidate Starts for Ein37\_29:

(Start: 155 @26520 has 3 MA's), (Start: 181 @26478 has 20 MA's), (211, 26412), (247, 26331), (266, 26292), (275, 26277), (277, 26271), (281, 26259), (293, 26232), (311, 26199), (339, 26142), (359, 26109), (360, 26106), (375, 26058), (401, 26016), (402, 26013), (412, 25989), (419, 25974), (429, 25950), (438, 25935), (462, 25896), (468, 25884), (488, 25845), (506, 25806), (528, 25758), (531, 25755), (580, 25683), (583, 25677), (588, 25665), (591, 25662), (593, 25656), (619, 25602), (630, 25584), (631, 25581), (645, 25554), (656, 25536), (661, 25530), (662, 25527), (701, 25485), (707, 25458), (709, 25452), (722, 25395), (759, 25332), (760, 25329),

Gene: Ejimix\_81 Start: 53852, Stop: 55081, Start Num: 116

Candidate Starts for Ejimix\_81:

(Start: 116 @53852 has 29 MA's), (Start: 131 @53870 has 3 MA's), (Start: 160 @53909 has 1 MA's), (276, 54146), (322, 54254), (395, 54374), (396, 54377), (401, 54386), (408, 54401), (426, 54440), (464, 54518), (532, 54635), (545, 54638), (553, 54647), (582, 54698), (584, 54701), (592, 54719), (639, 54815), (688, 54872), (723, 54992), (724, 54995), (731, 55019), (747, 55043), (749, 55046),

Gene: EleanorGeorge\_40 Start: 31639, Stop: 32757, Start Num: 162

Candidate Starts for EleanorGeorge\_40:

(Start: 162 @31639 has 317 MA's), (165, 31648), (244, 31810), (322, 31975), (340, 32011), (346, 32020), (414, 32125), (454, 32194), (471, 32233), (481, 32251), (484, 32254), (492, 32266), (493, 32269), (497, 32281), (504, 32296), (514, 32320), (520, 32326), (539, 32347), (573, 32383), (574, 32386), (593, 32422), (595, 32428), (599, 32443), (610, 32458), (663, 32527), (670, 32542), (703, 32584), (713, 32629), (716, 32638), (726, 32677), (731, 32695), (746, 32716), (755, 32731), (760, 32740), (762, 32743),

Gene: Emerson\_42 Start: 32470, Stop: 33558, Start Num: 162

Candidate Starts for Emerson\_42:

(Start: 162 @32470 has 317 MA's), (Start: 191 @32521 has 14 MA's), (Start: 217 @32572 has 6 MA's), (226, 32596), (244, 32632), (317, 32770), (340, 32824), (408, 32908), (451, 32977), (452, 32980), (534, 33130), (587, 33208), (598, 33235), (663, 33322), (701, 33370),

Gene: Emma\_44 Start: 32666, Stop: 33784, Start Num: 162

Candidate Starts for Emma\_44:

(Start: 162 @32666 has 317 MA's), (165, 32675), (244, 32837), (272, 32885), (322, 33002), (340, 33038), (346, 33047), (414, 33152), (454, 33221), (471, 33260), (481, 33278), (484, 33281), (492, 33293), (493, 33296), (497, 33308), (504, 33323), (514, 33347), (520, 33353), (539, 33374), (573, 33410), (574, 33413), (593, 33449), (595, 33455), (598, 33467), (599, 33470), (610, 33485), (663, 33554), (670, 33569), (690, 33587), (703, 33611), (713, 33656), (716, 33665), (726, 33704), (731, 33722), (746, 33743), (755, 33758), (760, 33767), (762, 33770),

Gene: EnalisNailo\_35 Start: 31003, Stop: 32085, Start Num: 159

Candidate Starts for EnalisNailo\_35:

(Start: 159 @31003 has 56 MA's), (Start: 222 @31120 has 1 MA's), (272, 31213), (401, 31435), (418, 31471), (452, 31525), (488, 31594), (493, 31603), (709, 31942), (715, 31969), (760, 32074),

Gene: Enby\_42 Start: 31168, Stop: 32286, Start Num: 162

Candidate Starts for Enby\_42:

(Start: 162 @31168 has 317 MA's), (165, 31177), (244, 31339), (322, 31504), (340, 31540), (346, 31549), (402, 31630), (414, 31654), (454, 31723), (471, 31762), (481, 31780), (484, 31783), (492, 31795), (493, 31798), (497, 31810), (514, 31849), (520, 31855), (539, 31876), (573, 31912), (574, 31915), (593, 31951), (595, 31957), (599, 31972), (663, 32056), (670, 32071), (690, 32089), (713, 32158), (716, 32167), (726, 32206), (731, 32224), (746, 32245), (755, 32260), (760, 32269), (762, 32272),

Gene: Enkosi\_39 Start: 34589, Stop: 35683, Start Num: 162

Candidate Starts for Enkosi\_39:

(28, 34238), (Start: 33 @34253 has 1 MA's), (46, 34346), (51, 34367), (79, 34460), (Start: 162 @34589 has 317 MA's), (Start: 191 @34640 has 14 MA's), (226, 34715), (244, 34751), (296, 34847), (304, 34865), (317, 34889), (337, 34937), (340, 34943), (432, 35075), (451, 35108), (471, 35153), (534, 35261), (598, 35366), (646, 35426), (701, 35501), (728, 35609), (748, 35645),

Gene: Enzomatic\_49 Start: 32594, Stop: 33712, Start Num: 162

Candidate Starts for Enzomatic\_49:

(Start: 162 @32594 has 317 MA's), (227, 32732), (244, 32765), (272, 32813), (340, 32966), (346, 32975), (414, 33080), (454, 33149), (484, 33209), (492, 33221), (493, 33224), (504, 33251), (514, 33275), (539, 33302), (573, 33338), (574, 33341), (593, 33377), (595, 33383), (598, 33395), (599, 33398), (663, 33482), (670, 33497), (703, 33539), (713, 33584), (716, 33593), (726, 33632), (731, 33650), (746, 33671), (755, 33686), (760, 33695), (762, 33698),

Gene: EpicPhail\_36 Start: 26790, Stop: 25645, Start Num: 152

Candidate Starts for EpicPhail\_36:

(Start: 152 @26790 has 120 MA's), (Start: 179 @26751 has 10 MA's), (204, 26703), (Start: 217 @26667 has 6 MA's), (234, 26622), (317, 26466), (328, 26439), (356, 26403), (402, 26346), (449, 26268), (462, 26244), (481, 26205), (515, 26133), (529, 26121), (534, 26115), (548, 26103), (593, 26028), (595, 26022), (603, 26001), (622, 25986), (633, 25968), (647, 25944), (704, 25830), (716, 25785), (717, 25782), (720, 25773), (724, 25752), (726, 25746), (729, 25734), (755, 25695),

Gene: Equemioh13\_35 Start: 26811, Stop: 25678, Start Num: 152

Candidate Starts for Equemioh13\_35:

(Start: 152 @26811 has 120 MA's), (Start: 191 @26757 has 14 MA's), (Start: 217 @26688 has 6 MA's), (234, 26643), (317, 26487), (328, 26460), (356, 26424), (402, 26367), (471, 26244), (481, 26226), (534, 26136), (548, 26124), (593, 26049), (595, 26043), (603, 26022), (622, 26007), (633, 25989), (650, 25962), (653, 25953), (704, 25851), (717, 25803), (724, 25773), (726, 25767), (729, 25755), (755, 25716),

Gene: EricMillard\_80 Start: 53055, Stop: 54284, Start Num: 116

Candidate Starts for EricMillard\_80:

(Start: 116 @53055 has 29 MA's), (Start: 131 @53073 has 3 MA's), (Start: 160 @53112 has 1 MA's), (276, 53349), (322, 53457), (395, 53577), (396, 53580), (401, 53589), (408, 53604), (426, 53643), (464, 53721), (524, 53826), (532, 53838), (545, 53841), (553, 53850), (582, 53901), (584, 53904), (592, 53922), (639, 54018), (688, 54075), (723, 54195), (724, 54198), (731, 54222), (747, 54246), (749, 54249),

Gene: Estave1\_43 Start: 31907, Stop: 33010, Start Num: 162

Candidate Starts for Estave1\_43:

(Start: 162 @31907 has 317 MA's), (Start: 191 @31955 has 14 MA's), (227, 32036), (238, 32063), (340, 32276), (359, 32300), (402, 32348), (451, 32429), (486, 32498), (492, 32507), (504, 32537), (514, 32561), (534, 32582), (587, 32660), (595, 32675), (638, 32735), (663, 32774), (670, 32789), (687, 32813), (703, 32840), (709, 32864), (713, 32885), (716, 32894), (728, 32939), (731, 32951),

Gene: Eudoria\_39 Start: 30563, Stop: 31645, Start Num: 159

Candidate Starts for Eudoria\_39:

(Start: 85 @30452 has 6 MA's), (Start: 159 @30563 has 56 MA's), (Start: 191 @30617 has 14 MA's), (252, 30737), (401, 30992), (414, 31022), (452, 31082), (486, 31148), (497, 31172), (709, 31502), (715, 31529), (760, 31634),

Gene: Eurydice\_33 Start: 26248, Stop: 25127, Start Num: 152

Candidate Starts for Eurydice\_33:

(Start: 110 @26293 has 3 MA's), (135, 26266), (Start: 152 @26248 has 120 MA's), (Start: 195 @26179 has 8 MA's), (Start: 217 @26125 has 6 MA's), (322, 25906), (328, 25897), (356, 25861), (394, 25819), (401, 25807), (402, 25804), (449, 25726), (515, 25591), (534, 25573), (593, 25486), (595, 25480), (603, 25459), (622, 25444), (633, 25426), (704, 25288), (717, 25240), (724, 25210), (726, 25204), (729, 25192), (755, 25153),

Gene: Evanesce\_29 Start: 26478, Stop: 25285, Start Num: 181

Candidate Starts for Evanesce\_29:

(Start: 155 @26520 has 3 MA's), (Start: 181 @26478 has 20 MA's), (211, 26412), (247, 26331), (266, 26292), (275, 26277), (277, 26271), (281, 26259), (293, 26232), (311, 26199), (339, 26142), (359, 26109), (360, 26106), (375, 26058), (401, 26016), (402, 26013), (412, 25989), (419, 25974), (429, 25950), (438, 25935), (462, 25896), (468, 25884), (488, 25845), (506, 25806), (528, 25758), (531, 25755), (580, 25683), (583, 25677), (588, 25665), (591, 25662), (593, 25656), (619, 25602), (630, 25584), (631, 25581), (645, 25554), (656, 25536), (661, 25530), (662, 25527), (701, 25485), (707, 25458), (709, 25452), (722, 25395), (759, 25332), (760, 25329),

Gene: EvePickles\_38 Start: 28599, Stop: 27466, Start Num: 162

Candidate Starts for EvePickles\_38:

(61, 28782), (69, 28752), (Start: 162 @28599 has 317 MA's), (Start: 191 @28548 has 14 MA's), (239, 28434), (272, 28392), (277, 28380), (285, 28362), (336, 28248), (346, 28230), (394, 28167), (402, 28152), (408, 28140), (451, 28065), (456, 28056), (486, 27996), (523, 27921), (535, 27906), (627, 27756), (631, 27753), (703, 27636), (709, 27612), (712, 27597), (726, 27543), (733, 27522), (753, 27492),

Gene: Eviarto\_39 Start: 31988, Stop: 33070, Start Num: 159

Candidate Starts for Eviarto\_39:

(Start: 85 @31877 has 6 MA's), (Start: 159 @31988 has 56 MA's), (Start: 191 @32042 has 14 MA's), (252, 32162), (395, 32408), (401, 32417), (414, 32447), (452, 32507), (486, 32573), (497, 32597), (709, 32927), (715, 32954), (760, 33059),

Gene: EvilGenius\_36 Start: 28005, Stop: 27007, Start Num: 217

Candidate Starts for EvilGenius\_36:

(Start: 133 @28152 has 7 MA's), (Start: 148 @28134 has 5 MA's), (Start: 195 @28053 has 8 MA's), (Start: 217 @28005 has 6 MA's), (234, 27960), (317, 27804), (328, 27777), (356, 27741), (402, 27684), (449, 27606), (466, 27573), (471, 27561), (481, 27543), (534, 27453), (548, 27441), (593, 27366), (595, 27360), (603, 27339), (622, 27324), (633, 27306), (650, 27279), (653, 27270), (704, 27168), (717, 27120), (718, 27117), (724, 27090), (726, 27084), (729, 27072), (755, 27033),

Gene: Faith5x5\_30 Start: 24997, Stop: 26145, Start Num: 103

Candidate Starts for Faith5x5\_30:

(Start: 103 @24997 has 1 MA's), (124, 25027), (Start: 155 @25060 has 3 MA's), (209, 25147), (240, 25219), (471, 25615), (493, 25651), (494, 25654), (497, 25663), (574, 25777), (675, 25942), (709, 26002), (728, 26077), (760, 26134),

Gene: Faja\_39 Start: 29043, Stop: 27904, Start Num: 162

Candidate Starts for Faja\_39:

(Start: 162 @29043 has 317 MA's), (Start: 191 @28992 has 14 MA's), (277, 28824), (285, 28806), (346, 28674), (402, 28596), (408, 28584), (411, 28578), (451, 28509), (456, 28500), (486, 28440), (535, 28350), (599, 28245), (614, 28224), (631, 28197), (703, 28074), (709, 28050), (712, 28035), (753, 27930),

Gene: Fameo\_34 Start: 26494, Stop: 25430, Start Num: 191

Candidate Starts for Fameo\_34:

(127, 26575), (Start: 156 @26545 has 8 MA's), (Start: 191 @26494 has 14 MA's), (Start: 217 @26425 has 6 MA's), (234, 26380), (317, 26224), (328, 26197), (356, 26161), (402, 26104), (449, 26026), (466, 25993), (471, 25981), (481, 25963), (534, 25873), (548, 25861), (595, 25780), (603, 25759), (622, 25744), (633, 25726), (650, 25699), (704, 25588), (716, 25543), (717, 25540), (718, 25537), (724, 25510), (726, 25504), (729, 25492), (755, 25453),

Gene: Farber\_36 Start: 26744, Stop: 25638, Start Num: 179

Candidate Starts for Farber\_36:

(Start: 152 @26783 has 120 MA's), (Start: 179 @26744 has 10 MA's), (Start: 217 @26660 has 6 MA's), (234, 26615), (317, 26459), (328, 26432), (356, 26396), (402, 26339), (449, 26261), (462, 26237), (481, 26198), (515, 26126), (529, 26114), (534, 26108), (548, 26096), (593, 26021), (595, 26015), (603, 25994), (622, 25979), (633, 25961), (647, 25937), (704, 25823), (716, 25778), (717, 25775), (720, 25766), (724, 25745), (726, 25739), (729, 25727), (755, 25688),

Gene: Farewell\_44 Start: 33396, Stop: 34574, Start Num: 163

Candidate Starts for Farewell\_44:

(Start: 163 @33396 has 2 MA's), (Start: 191 @33444 has 14 MA's), (223, 33510), (244, 33555), (320, 33705), (340, 33747), (408, 33861), (418, 33888), (451, 33936), (452, 33939), (493, 34020), (497, 34032), (571, 34137), (593, 34179), (597, 34194), (605, 34209), (631, 34233), (701, 34344), (715, 34404), (746, 34485), (753, 34497), (773, 34536),

Gene: Fernando\_36 Start: 26750, Stop: 25644, Start Num: 179

Candidate Starts for Fernando\_36:

(Start: 152 @26789 has 120 MA's), (Start: 179 @26750 has 10 MA's), (204, 26702), (Start: 217 @26666 has 6 MA's), (234, 26621), (317, 26465), (328, 26438), (356, 26402), (402, 26345), (449, 26267), (462, 26243), (481, 26204), (515, 26132), (529, 26120), (534, 26114), (548, 26102), (593, 26027), (595, 26021), (603, 26000), (622, 25985), (633, 25967), (647, 25943), (704, 25829), (716, 25784), (717, 25781), (720, 25772), (724, 25751), (726, 25745), (729, 25733), (755, 25694),

Gene: Filuzino\_41 Start: 31324, Stop: 32442, Start Num: 162

Candidate Starts for Filuzino\_41:

(Start: 162 @31324 has 317 MA's), (244, 31495), (322, 31660), (340, 31696), (346, 31705), (414, 31810), (454, 31879), (471, 31918), (484, 31939), (492, 31951), (493, 31954), (497, 31966), (504, 31981), (514, 32005), (520, 32011), (539, 32032), (573, 32068), (574, 32071), (593, 32107), (595, 32113), (599, 32128), (610, 32143), (663, 32212), (670, 32227), (690, 32245), (703, 32269), (713, 32314), (716, 32323), (726, 32362), (731, 32380), (746, 32401), (755, 32416), (760, 32425), (762, 32428),

Gene: Findley\_43 Start: 34310, Stop: 35410, Start Num: 162

Candidate Starts for Findley\_43:

(Start: 162 @34310 has 317 MA's), (Start: 170 @34328 has 1 MA's), (Start: 191 @34361 has 14 MA's), (226, 34436), (244, 34472), (304, 34586), (317, 34610), (340, 34664), (438, 34805), (451, 34829), (452, 34832), (471, 34874), (534, 34982), (598, 35087), (636, 35132), (646, 35147), (728, 35339),

Gene: Fingolfin\_36 Start: 23916, Stop: 22723, Start Num: 147

Candidate Starts for Fingolfin\_36:

(Start: 147 @23916 has 80 MA's), (365, 23487), (384, 23430), (398, 23406), (533, 23178), (607, 23052), (614, 23040), (625, 23019), (708, 22881), (729, 22800), (760, 22752),

Gene: Finkle\_45 Start: 32773, Stop: 31643, Start Num: 182

Candidate Starts for Finkle\_45:

(149, 32830), (Start: 182 @32773 has 2 MA's), (194, 32749), (205, 32716), (284, 32554), (347, 32419), (349, 32416), (385, 32350), (426, 32266), (431, 32257), (442, 32230), (461, 32188), (479, 32161), (534, 32056), (587, 31972), (649, 31870), (694, 31846), (710, 31795), (713, 31777), (719, 31759), (724, 31735), (728, 31723),

Gene: FiringLine\_34 Start: 26370, Stop: 25255, Start Num: 156

Candidate Starts for FiringLine\_34:

(127, 26400), (Start: 156 @26370 has 8 MA's), (Start: 217 @26250 has 6 MA's), (234, 26205), (317, 26049), (328, 26022), (356, 25986), (394, 25944), (402, 25929), (466, 25818), (471, 25806), (481, 25788), (534, 25698), (548, 25686), (593, 25611), (595, 25605), (603, 25584), (622, 25569), (633, 25551), (650, 25524), (653, 25515), (704, 25413), (716, 25368), (717, 25365), (718, 25362), (724, 25335), (726, 25329), (729, 25317), (755, 25278),

Gene: Flare16\_34 Start: 26449, Stop: 25382, Start Num: 191

Candidate Starts for Flare16\_34:

(Start: 101 @26566 has 2 MA's), (Start: 152 @26503 has 120 MA's), (Start: 191 @26449 has 14 MA's), (Start: 217 @26380 has 6 MA's), (234, 26335), (302, 26209), (328, 26152), (356, 26116), (401,

26062), (402, 26059), (471, 25936), (481, 25918), (534, 25828), (548, 25816), (593, 25741), (595, 25735), (603, 25714), (622, 25699), (633, 25681), (650, 25654), (717, 25495), (724, 25465), (726, 25459), (729, 25447), (755, 25408),

Gene: Flathead\_44 Start: 33580, Stop: 34698, Start Num: 162

Candidate Starts for Flathead\_44:

(Start: 162 @33580 has 317 MA's), (165, 33589), (244, 33751), (322, 33916), (340, 33952), (346, 33961), (414, 34066), (454, 34135), (471, 34174), (481, 34192), (484, 34195), (492, 34207), (493, 34210), (497, 34222), (504, 34237), (514, 34261), (520, 34267), (539, 34288), (573, 34324), (574, 34327), (593, 34363), (595, 34369), (598, 34381), (599, 34384), (663, 34468), (670, 34483), (690, 34501), (703, 34525), (713, 34570), (716, 34579), (726, 34618), (731, 34636), (746, 34657), (755, 34672), (760, 34681), (762, 34684),

Gene: Floral\_36 Start: 32103, Stop: 33209, Start Num: 162

Candidate Starts for Floral\_36:

(113, 32046), (Start: 162 @32103 has 317 MA's), (Start: 191 @32154 has 14 MA's), (240, 32259), (268, 32298), (408, 32538), (451, 32607), (452, 32610), (466, 32640), (493, 32691), (497, 32703), (638, 32931), (679, 32991), (709, 33066), (716, 33096), (760, 33198),

Gene: Footloose\_31 Start: 22512, Stop: 21292, Start Num: 126

Candidate Starts for Footloose\_31:

(Start: 126 @22512 has 1 MA's), (Start: 157 @22473 has 10 MA's), (168, 22455), (178, 22437), (203, 22386), (223, 22350), (279, 22254), (318, 22170), (329, 22143), (338, 22119), (377, 22077), (384, 22062), (408, 22017), (426, 21978), (451, 21945), (486, 21879), (488, 21876), (497, 21855), (535, 21789), (599, 21687), (605, 21678), (624, 21648), (637, 21621), (654, 21594), (668, 21567), (676, 21555), (689, 21537), (703, 21501), (709, 21477), (726, 21408), (731, 21390), (748, 21366), (762, 21342),

Gene: Forge\_29 Start: 26478, Stop: 25285, Start Num: 181

Candidate Starts for Forge\_29:

(Start: 155 @26520 has 3 MA's), (Start: 181 @26478 has 20 MA's), (211, 26412), (247, 26331), (266, 26292), (275, 26277), (277, 26271), (281, 26259), (293, 26232), (311, 26199), (339, 26142), (359, 26109), (360, 26106), (375, 26058), (401, 26016), (402, 26013), (412, 25989), (419, 25974), (429, 25950), (438, 25935), (462, 25896), (468, 25884), (488, 25845), (506, 25806), (528, 25758), (531, 25755), (580, 25683), (583, 25677), (588, 25665), (591, 25662), (593, 25656), (619, 25602), (630, 25584), (631, 25581), (645, 25554), (656, 25536), (661, 25530), (662, 25527), (701, 25485), (707, 25458), (709, 25452), (722, 25395), (759, 25332), (760, 25329),

Gene: FosterFrank\_40 Start: 26544, Stop: 27686, Start Num: 162

Candidate Starts for FosterFrank\_40:

(72, 26397), (78, 26409), (80, 26418), (95, 26451), (124, 26499), (137, 26514), (Start: 162 @26544 has 317 MA's), (337, 26898), (340, 26904), (351, 26922), (414, 27030), (451, 27090), (497, 27183), (574, 27303), (596, 27351), (612, 27381), (670, 27477), (716, 27585), (743, 27660),

Gene: Francois\_38 Start: 31405, Stop: 30134, Start Num: 147

Candidate Starts for Francois\_38:

(Start: 147 @31405 has 80 MA's), (Start: 157 @31390 has 10 MA's), (208, 31288), (230, 31246), (276, 31159), (310, 31084), (315, 31075), (320, 31057), (368, 30958), (369, 30955), (410, 30865), (486, 30769), (535, 30664), (539, 30658), (631, 30496), (702, 30355), (713, 30310), (727, 30259), (737, 30235), (748, 30223), (755, 30211), (781, 30172),

Gene: Fred313\_33 Start: 26049, Stop: 24922, Start Num: 152

Candidate Starts for Fred313\_33:

(Start: 152 @26049 has 120 MA's), (204, 25962), (Start: 217 @25926 has 6 MA's), (234, 25881), (272, 25821), (317, 25725), (320, 25713), (322, 25707), (356, 25662), (401, 25608), (402, 25605), (413, 25581), (515, 25392), (534, 25374), (548, 25362), (574, 25323), (593, 25287), (595, 25281), (603, 25260), (622, 25245), (633, 25227), (704, 25089), (717, 25041), (724, 25011), (726, 25005), (729, 24993), (755, 24954),

Gene: Frickyeah\_52 Start: 32012, Stop: 33106, Start Num: 162

Candidate Starts for Frickyeah\_52:

(94, 31925), (115, 31961), (Start: 162 @32012 has 317 MA's), (Start: 191 @32063 has 14 MA's), (225, 32135), (227, 32141), (240, 32168), (289, 32255), (322, 32327), (340, 32363), (346, 32372), (408, 32447), (416, 32465), (471, 32564), (492, 32597), (493, 32600), (497, 32612), (574, 32714), (605, 32780), (627, 32807), (675, 32879), (709, 32939), (715, 32966), (762, 33074),

Gene: FroggyToad\_38 Start: 30081, Stop: 28912, Start Num: 147

Candidate Starts for FroggyToad\_38:

(Start: 147 @30081 has 80 MA's), (276, 29838), (314, 29757), (328, 29721), (340, 29694), (357, 29667), (360, 29661), (365, 29649), (368, 29637), (407, 29553), (410, 29544), (412, 29538), (491, 29439), (492, 29436), (504, 29406), (538, 29355), (593, 29283), (605, 29253), (700, 29121), (702, 29109), (724, 29022), (727, 29013), (753, 28968), (773, 28929),

Gene: Fruitloop\_40 Start: 32560, Stop: 33678, Start Num: 162

Candidate Starts for Fruitloop\_40:

(Start: 162 @32560 has 317 MA's), (244, 32731), (322, 32896), (340, 32932), (346, 32941), (402, 33022), (414, 33046), (454, 33115), (471, 33154), (484, 33175), (492, 33187), (493, 33190), (497, 33202), (504, 33217), (514, 33241), (520, 33247), (539, 33268), (573, 33304), (574, 33307), (593, 33343), (595, 33349), (599, 33364), (610, 33379), (663, 33448), (670, 33463), (703, 33505), (713, 33550), (716, 33559), (726, 33598), (731, 33616), (746, 33637), (755, 33652), (760, 33661), (762, 33664),

Gene: GMA1\_30 Start: 24152, Stop: 23064, Start Num: 162

Candidate Starts for GMA1\_30:

(Start: 162 @24152 has 317 MA's), (318, 23858), (346, 23798), (402, 23723), (408, 23711), (440, 23663), (451, 23642), (454, 23636), (488, 23567), (493, 23558), (497, 23546), (522, 23498), (587, 23414), (614, 23363), (634, 23336), (646, 23315), (679, 23267), (699, 23249), (709, 23207), (712, 23192), (714, 23183), (715, 23180), (716, 23177), (731, 23120), (760, 23075),

Gene: GMA4\_29 Start: 26449, Stop: 25217, Start Num: 145

Candidate Starts for GMA4\_29:

(145, 26449), (262, 26212), (266, 26203), (269, 26197), (368, 25981), (386, 25924), (432, 25837), (491, 25753), (493, 25747), (508, 25711), (593, 25570), (630, 25498), (705, 25381), (724, 25309), (737, 25276), (738, 25273),

Gene: GUPitcher\_34 Start: 28767, Stop: 27628, Start Num: 167

Candidate Starts for GUPitcher\_34:

(Start: 167 @28767 has 2 MA's), (204, 28701), (231, 28626), (242, 28605), (268, 28560), (307, 28476), (332, 28419), (340, 28401), (384, 28365), (401, 28335), (408, 28320), (413, 28308), (423, 28287), (451, 28251), (452, 28248), (462, 28227), (484, 28185), (486, 28182), (497, 28158), (515, 28119), (534, 28101), (602, 27993), (646, 27942), (692, 27870), (712, 27801), (713, 27795), (714, 27792), (774, 27660), (779, 27654),

Gene: Gaia\_52 Start: 37562, Stop: 38833, Start Num: 98

Candidate Starts for Gaia\_52:

(Start: 98 @37562 has 10 MA's), (Start: 131 @37610 has 3 MA's), (Start: 160 @37649 has 1 MA's),  
(292, 37928), (353, 38045), (395, 38114), (396, 38117), (401, 38126), (414, 38156), (444, 38222),  
(464, 38258), (483, 38285), (484, 38288), (492, 38303), (497, 38309), (514, 38342), (522, 38357),  
(523, 38360), (524, 38363), (532, 38375), (545, 38393), (553, 38402), (578, 38444), (581, 38450),  
(582, 38453), (601, 38498), (639, 38570), (693, 38636), (703, 38663), (723, 38747), (724, 38750),  
(734, 38777), (747, 38798),

Gene: Galactic\_43 Start: 32779, Stop: 33897, Start Num: 162

Candidate Starts for Galactic\_43:

(Start: 162 @32779 has 317 MA's), (165, 32788), (244, 32950), (322, 33115), (340, 33151), (346,  
33160), (414, 33265), (454, 33334), (471, 33373), (481, 33391), (484, 33394), (492, 33406), (493,  
33409), (497, 33421), (504, 33436), (514, 33460), (520, 33466), (539, 33487), (573, 33523), (574,  
33526), (593, 33562), (595, 33568), (599, 33583), (610, 33598), (663, 33667), (670, 33682), (703,  
33724), (713, 33769), (716, 33778), (726, 33817), (731, 33835), (746, 33856), (755, 33871), (760,  
33880), (762, 33883),

Gene: Galaxy\_33 Start: 24046, Stop: 22862, Start Num: 147

Candidate Starts for Galaxy\_33:

(Start: 147 @24046 has 80 MA's), (330, 23692), (365, 23617), (369, 23602), (533, 23308), (552,  
23287), (570, 23260), (599, 23194), (607, 23182), (617, 23164), (705, 23020), (708, 23011),

Gene: Gallop\_33 Start: 28238, Stop: 27153, Start Num: 172

Candidate Starts for Gallop\_33:

(172, 28238), (198, 28190), (334, 27896), (402, 27815), (429, 27764), (514, 27599), (556, 27539),  
(578, 27500), (590, 27476), (604, 27440), (606, 27437), (620, 27410), (666, 27362), (709, 27293),  
(713, 27272), (714, 27269), (715, 27266), (724, 27230), (741, 27191), (747, 27182), (757, 27167),  
(761, 27161),

Gene: Gancho\_28 Start: 26243, Stop: 25008, Start Num: 155

Candidate Starts for Gancho\_28:

(Start: 155 @26243 has 3 MA's), (Start: 181 @26201 has 20 MA's), (211, 26135), (241, 26066), (247,  
26054), (266, 26015), (275, 26000), (277, 25994), (281, 25982), (311, 25922), (339, 25865), (359,  
25832), (360, 25829), (362, 25826), (412, 25712), (419, 25697), (429, 25673), (438, 25658), (445,  
25643), (462, 25619), (468, 25607), (488, 25568), (489, 25565), (506, 25529), (528, 25481), (531,  
25478), (580, 25406), (583, 25400), (588, 25388), (591, 25385), (593, 25379), (619, 25325), (631,  
25304), (645, 25277), (656, 25259), (661, 25253), (701, 25208), (707, 25181), (709, 25175), (716,  
25145), (722, 25118), (759, 25055),

Gene: Ganymede\_42 Start: 32781, Stop: 33869, Start Num: 162

Candidate Starts for Ganymede\_42:

(Start: 162 @32781 has 317 MA's), (Start: 217 @32883 has 6 MA's), (226, 32907), (244, 32943), (317,  
33081), (340, 33135), (408, 33219), (451, 33288), (452, 33291), (534, 33441), (598, 33546), (663,  
33633), (679, 33663), (701, 33681), (748, 33825),

Gene: GaugeLDP\_35 Start: 27254, Stop: 26070, Start Num: 101

Candidate Starts for GaugeLDP\_35:

(Start: 101 @27254 has 2 MA's), (Start: 152 @27191 has 120 MA's), (Start: 191 @27137 has 14  
MA's), (Start: 217 @27068 has 6 MA's), (234, 27023), (303, 26894), (356, 26804), (430, 26693), (534,  
26516), (548, 26504), (593, 26429), (595, 26423), (603, 26402), (622, 26387), (633, 26369), (704,  
26231), (717, 26183), (718, 26180), (724, 26153), (726, 26147), (729, 26135), (755, 26096),

Gene: GemG\_37 Start: 27875, Stop: 28957, Start Num: 159

Candidate Starts for GemG\_37:

(Start: 83 @27758 has 2 MA's), (Start: 85 @27764 has 6 MA's), (Start: 159 @27875 has 56 MA's), (Start: 191 @27929 has 14 MA's), (252, 28049), (401, 28304), (414, 28334), (452, 28394), (486, 28460), (497, 28484), (542, 28553), (573, 28589), (709, 28814), (715, 28841), (760, 28946),

Gene: Gemma\_35 Start: 26639, Stop: 25494, Start Num: 152

Candidate Starts for Gemma\_35:

(Start: 101 @26702 has 2 MA's), (Start: 152 @26639 has 120 MA's), (Start: 191 @26585 has 14 MA's), (Start: 217 @26516 has 6 MA's), (322, 26297), (328, 26288), (356, 26252), (402, 26195), (449, 26117), (466, 26084), (515, 25982), (534, 25964), (548, 25952), (593, 25877), (595, 25871), (603, 25850), (622, 25835), (633, 25817), (647, 25793), (716, 25634), (717, 25631), (724, 25601), (726, 25595), (729, 25583), (755, 25544),

Gene: Georgie2\_35 Start: 26415, Stop: 25300, Start Num: 156

Candidate Starts for Georgie2\_35:

(127, 26445), (Start: 156 @26415 has 8 MA's), (Start: 217 @26295 has 6 MA's), (234, 26250), (317, 26094), (328, 26067), (356, 26031), (394, 25989), (402, 25974), (449, 25896), (466, 25863), (471, 25851), (481, 25833), (534, 25743), (548, 25731), (593, 25656), (595, 25650), (603, 25629), (622, 25614), (633, 25596), (650, 25569), (704, 25458), (716, 25413), (717, 25410), (718, 25407), (724, 25380), (726, 25374), (729, 25362), (755, 25323),

Gene: Geraldini\_43 Start: 33527, Stop: 34615, Start Num: 162

Candidate Starts for Geraldini\_43:

(Start: 162 @33527 has 317 MA's), (Start: 217 @33629 has 6 MA's), (226, 33653), (244, 33689), (317, 33827), (340, 33881), (408, 33965), (451, 34034), (452, 34037), (534, 34187), (598, 34292), (663, 34379), (701, 34427), (748, 34571),

Gene: Getalong\_53 Start: 34783, Stop: 35853, Start Num: 162

Candidate Starts for Getalong\_53:

(Start: 162 @34783 has 317 MA's), (Start: 191 @34834 has 14 MA's), (227, 34912), (240, 34939), (340, 35134), (346, 35143), (395, 35194), (401, 35203), (402, 35206), (408, 35218), (433, 35263), (456, 35299), (471, 35335), (492, 35368), (493, 35371), (497, 35383), (605, 35551), (675, 35650), (709, 35710), (715, 35737), (716, 35740), (722, 35767), (724, 35773), (728, 35785), (760, 35842),

Gene: Gibbzilla\_37 Start: 25123, Stop: 23969, Start Num: 162

Candidate Starts for Gibbzilla\_37:

(Start: 162 @25123 has 317 MA's), (192, 25069), (304, 24820), (322, 24775), (333, 24754), (335, 24751), (408, 24628), (414, 24613), (462, 24532), (463, 24529), (466, 24523), (560, 24370), (593, 24316), (602, 24292), (612, 24274), (631, 24247), (663, 24193), (670, 24178), (713, 24079), (728, 24025), (743, 23995),

Gene: Giles\_29 Start: 26478, Stop: 25285, Start Num: 181

Candidate Starts for Giles\_29:

(Start: 155 @26520 has 3 MA's), (Start: 181 @26478 has 20 MA's), (211, 26412), (247, 26331), (266, 26292), (275, 26277), (277, 26271), (281, 26259), (293, 26232), (311, 26199), (339, 26142), (359, 26109), (360, 26106), (375, 26058), (401, 26016), (402, 26013), (412, 25989), (419, 25974), (429, 25950), (438, 25935), (462, 25896), (468, 25884), (488, 25845), (506, 25806), (528, 25758), (531, 25755), (580, 25683), (583, 25677), (588, 25665), (591, 25662), (593, 25656), (619, 25602), (630, 25584), (631, 25581), (645, 25554), (656, 25536), (661, 25530), (662, 25527), (701, 25485), (707, 25458), (709, 25452), (722, 25395), (759, 25332), (760, 25329),

Gene: GingkoMaracino\_36 Start: 26637, Stop: 25531, Start Num: 179

Candidate Starts for GingkoMaracino\_36:

(Start: 152 @26676 has 120 MA's), (Start: 179 @26637 has 10 MA's), (204, 26589), (Start: 217 @26553 has 6 MA's), (234, 26508), (317, 26352), (328, 26325), (356, 26289), (402, 26232), (449, 26154), (462, 26130), (481, 26091), (515, 26019), (529, 26007), (534, 26001), (548, 25989), (593, 25914), (595, 25908), (603, 25887), (622, 25872), (633, 25854), (647, 25830), (704, 25716), (716, 25671), (717, 25668), (720, 25659), (724, 25638), (726, 25632), (729, 25620), (755, 25581),

Gene: Giroux\_34 Start: 26296, Stop: 25169, Start Num: 152

Candidate Starts for Giroux\_34:

(Start: 152 @26296 has 120 MA's), (204, 26209), (Start: 217 @26173 has 6 MA's), (234, 26128), (317, 25972), (320, 25960), (322, 25954), (356, 25909), (401, 25855), (402, 25852), (413, 25828), (534, 25621), (548, 25609), (574, 25570), (593, 25534), (595, 25528), (603, 25507), (622, 25492), (633, 25474), (704, 25336), (717, 25288), (724, 25258), (726, 25252), (729, 25240), (755, 25201),

Gene: Gizermo\_37 Start: 27758, Stop: 28957, Start Num: 83

Candidate Starts for Gizermo\_37:

(Start: 83 @27758 has 2 MA's), (Start: 85 @27764 has 6 MA's), (Start: 159 @27875 has 56 MA's), (Start: 191 @27929 has 14 MA's), (252, 28049), (401, 28304), (414, 28334), (452, 28394), (486, 28460), (497, 28484), (542, 28553), (573, 28589), (709, 28814), (715, 28841), (760, 28946),

Gene: Globfish\_39 Start: 27492, Stop: 26353, Start Num: 162

Candidate Starts for Globfish\_39:

(Start: 162 @27492 has 317 MA's), (Start: 191 @27441 has 14 MA's), (239, 27327), (277, 27273), (285, 27255), (336, 27141), (346, 27123), (402, 27045), (408, 27033), (451, 26958), (456, 26949), (486, 26889), (535, 26799), (598, 26697), (603, 26688), (614, 26673), (627, 26649), (631, 26646), (703, 26529), (709, 26505), (712, 26490), (731, 26418), (733, 26415), (762, 26370),

Gene: GlobiWarming\_38 Start: 26068, Stop: 27210, Start Num: 162

Candidate Starts for GlobiWarming\_38:

(Start: 162 @26068 has 317 MA's), (337, 26422), (340, 26428), (351, 26446), (414, 26554), (451, 26614), (497, 26707), (574, 26827), (596, 26875), (612, 26905), (670, 27001), (716, 27109), (743, 27184),

Gene: Glotell\_37 Start: 24072, Stop: 22879, Start Num: 147

Candidate Starts for Glotell\_37:

(Start: 147 @24072 has 80 MA's), (365, 23643), (384, 23586), (398, 23562), (533, 23334), (607, 23208), (614, 23196), (625, 23175), (708, 23037), (729, 22956), (760, 22908),

Gene: Goib\_39 Start: 28036, Stop: 26921, Start Num: 188

Candidate Starts for Goib\_39:

(Start: 148 @28105 has 5 MA's), (Start: 188 @28036 has 12 MA's), (357, 27697), (385, 27664), (532, 27370), (549, 27358), (641, 27178), (726, 26980),

Gene: Gonephishing\_76 Start: 48662, Stop: 49951, Start Num: 90

Candidate Starts for Gonephishing\_76:

(74, 48620), (Start: 90 @48662 has 1 MA's), (Start: 98 @48677 has 10 MA's), (99, 48680), (Start: 131 @48725 has 3 MA's), (Start: 160 @48764 has 1 MA's), (341, 49145), (395, 49229), (402, 49244), (464, 49373), (545, 49493), (584, 49556), (592, 49574), (601, 49598), (639, 49670), (723, 49847), (724, 49850), (726, 49856), (731, 49874), (741, 49889), (747, 49898), (749, 49901), (773, 49946),

Gene: Gorge\_43 Start: 32137, Stop: 33255, Start Num: 162

Candidate Starts for Gorge\_43:

(Start: 162 @32137 has 317 MA's), (227, 32275), (244, 32308), (272, 32356), (322, 32473), (340, 32509), (346, 32518), (414, 32623), (454, 32692), (484, 32752), (492, 32764), (493, 32767), (497,

32779), (504, 32794), (514, 32818), (520, 32824), (539, 32845), (573, 32881), (574, 32884), (593, 32920), (595, 32926), (598, 32938), (599, 32941), (663, 33025), (670, 33040), (703, 33082), (713, 33127), (716, 33136), (726, 33175), (731, 33193), (746, 33214), (755, 33229), (760, 33238), (762, 33241),

Gene: Gorpy\_41 Start: 29001, Stop: 27862, Start Num: 162

Candidate Starts for Gorpy\_41:

(Start: 162 @29001 has 317 MA's), (Start: 191 @28950 has 14 MA's), (277, 28782), (285, 28764), (346, 28632), (402, 28554), (408, 28542), (411, 28536), (451, 28467), (456, 28458), (486, 28398), (535, 28308), (599, 28203), (614, 28182), (631, 28155), (703, 28032), (709, 28008), (712, 27993), (733, 27918), (753, 27888),

Gene: GrandSlam\_39 Start: 31803, Stop: 30532, Start Num: 147

Candidate Starts for GrandSlam\_39:

(Start: 147 @31803 has 80 MA's), (Start: 157 @31788 has 10 MA's), (208, 31686), (230, 31644), (236, 31632), (276, 31557), (310, 31482), (315, 31473), (320, 31455), (368, 31356), (369, 31353), (410, 31263), (491, 31158), (535, 31062), (539, 31056), (631, 30894), (702, 30753), (713, 30708), (727, 30657), (729, 30648), (737, 30633), (748, 30621), (755, 30609), (781, 30570),

Gene: Gratitude\_34 Start: 26757, Stop: 25678, Start Num: 191

Candidate Starts for Gratitude\_34:

(Start: 152 @26811 has 120 MA's), (Start: 191 @26757 has 14 MA's), (Start: 217 @26688 has 6 MA's), (234, 26643), (317, 26487), (328, 26460), (356, 26424), (402, 26367), (471, 26244), (481, 26226), (534, 26136), (548, 26124), (593, 26049), (595, 26043), (603, 26022), (622, 26007), (633, 25989), (650, 25962), (653, 25953), (704, 25851), (717, 25803), (724, 25773), (726, 25767), (729, 25755), (755, 25716),

Gene: Gravaillia\_29 Start: 26207, Stop: 25014, Start Num: 181

Candidate Starts for Gravaillia\_29:

(Start: 155 @26249 has 3 MA's), (Start: 181 @26207 has 20 MA's), (211, 26141), (241, 26072), (247, 26060), (266, 26021), (275, 26006), (277, 26000), (281, 25988), (311, 25928), (339, 25871), (359, 25838), (360, 25835), (362, 25832), (412, 25718), (419, 25703), (429, 25679), (438, 25664), (445, 25649), (462, 25625), (468, 25613), (488, 25574), (489, 25571), (506, 25535), (528, 25487), (531, 25484), (580, 25412), (583, 25406), (588, 25394), (591, 25391), (593, 25385), (619, 25331), (631, 25310), (645, 25283), (656, 25265), (661, 25259), (701, 25214), (707, 25187), (709, 25181), (716, 25151), (722, 25124), (759, 25061),

Gene: Gravel\_41 Start: 25089, Stop: 23905, Start Num: 147

Candidate Starts for Gravel\_41:

(Start: 147 @25089 has 80 MA's), (266, 24870), (276, 24852), (330, 24735), (365, 24660), (552, 24330), (599, 24237), (607, 24225), (617, 24207), (700, 24090), (708, 24054),

Gene: Grif\_36 Start: 26864, Stop: 25719, Start Num: 152

Candidate Starts for Grif\_36:

(Start: 152 @26864 has 120 MA's), (Start: 179 @26825 has 10 MA's), (204, 26777), (Start: 217 @26741 has 6 MA's), (234, 26696), (317, 26540), (328, 26513), (356, 26477), (402, 26420), (449, 26342), (462, 26318), (481, 26279), (515, 26207), (529, 26195), (534, 26189), (548, 26177), (593, 26102), (595, 26096), (603, 26075), (622, 26060), (633, 26042), (647, 26018), (704, 25904), (716, 25859), (717, 25856), (720, 25847), (724, 25826), (726, 25820), (729, 25808), (755, 25769),

Gene: Groupthink\_36 Start: 26643, Stop: 25498, Start Num: 152

Candidate Starts for Groupthink\_36:

(Start: 101 @26706 has 2 MA's), (Start: 152 @26643 has 120 MA's), (Start: 191 @26589 has 14 MA's), (Start: 217 @26520 has 6 MA's), (322, 26301), (328, 26292), (356, 26256), (402, 26199), (449, 26121), (466, 26088), (515, 25986), (534, 25968), (548, 25956), (593, 25881), (595, 25875), (603, 25854), (622, 25839), (633, 25821), (647, 25797), (716, 25638), (717, 25635), (724, 25605), (726, 25599), (729, 25587), (755, 25548),

Gene: Grub\_36 Start: 26782, Stop: 25637, Start Num: 152

Candidate Starts for Grub\_36:

(Start: 152 @26782 has 120 MA's), (Start: 179 @26743 has 10 MA's), (Start: 217 @26659 has 6 MA's), (234, 26614), (317, 26458), (328, 26431), (356, 26395), (402, 26338), (449, 26260), (462, 26236), (481, 26197), (515, 26125), (529, 26113), (534, 26107), (548, 26095), (593, 26020), (595, 26014), (603, 25993), (622, 25978), (633, 25960), (647, 25936), (704, 25822), (716, 25777), (717, 25774), (720, 25765), (724, 25744), (726, 25738), (729, 25726), (755, 25687),

Gene: Grum1\_36 Start: 26789, Stop: 25644, Start Num: 152

Candidate Starts for Grum1\_36:

(Start: 152 @26789 has 120 MA's), (Start: 179 @26750 has 10 MA's), (204, 26702), (Start: 217 @26666 has 6 MA's), (234, 26621), (317, 26465), (328, 26438), (356, 26402), (402, 26345), (449, 26267), (462, 26243), (481, 26204), (515, 26132), (529, 26120), (534, 26114), (548, 26102), (593, 26027), (595, 26021), (603, 26000), (622, 25985), (633, 25967), (647, 25943), (704, 25829), (716, 25784), (717, 25781), (720, 25772), (724, 25751), (726, 25745), (729, 25733), (755, 25694),

Gene: Gspu1\_28 Start: 24542, Stop: 23361, Start Num: 182

Candidate Starts for Gspu1\_28:

(Start: 140 @24608 has 6 MA's), (151, 24593), (164, 24572), (Start: 182 @24542 has 2 MA's), (197, 24506), (201, 24497), (202, 24494), (210, 24470), (268, 24359), (408, 24110), (426, 24071), (483, 23969), (522, 23891), (537, 23867), (550, 23852), (574, 23813), (584, 23795), (587, 23786), (606, 23744), (622, 23717), (643, 23675), (703, 23570), (713, 23525), (716, 23516), (719, 23507), (724, 23483), (774, 23387),

Gene: GtownJaz\_36 Start: 26791, Stop: 25646, Start Num: 152

Candidate Starts for GtownJaz\_36:

(Start: 152 @26791 has 120 MA's), (Start: 179 @26752 has 10 MA's), (Start: 217 @26668 has 6 MA's), (234, 26623), (317, 26467), (328, 26440), (356, 26404), (402, 26347), (449, 26269), (462, 26245), (481, 26206), (515, 26134), (529, 26122), (534, 26116), (548, 26104), (593, 26029), (595, 26023), (603, 26002), (622, 25987), (633, 25969), (647, 25945), (704, 25831), (716, 25786), (717, 25783), (720, 25774), (724, 25753), (726, 25747), (729, 25735), (755, 25696),

Gene: Guanica15\_44 Start: 32526, Stop: 33626, Start Num: 162

Candidate Starts for Guanica15\_44:

(67, 32376), (Start: 162 @32526 has 317 MA's), (Start: 191 @32577 has 14 MA's), (226, 32652), (244, 32688), (245, 32691), (304, 32802), (438, 33021), (451, 33045), (452, 33048), (514, 33177), (534, 33198), (598, 33303), (663, 33390), (701, 33438),

Gene: GumGum\_40 Start: 27604, Stop: 26465, Start Num: 162

Candidate Starts for GumGum\_40:

(Start: 162 @27604 has 317 MA's), (322, 27283), (340, 27247), (348, 27235), (351, 27229), (408, 27136), (414, 27121), (451, 27061), (464, 27031), (497, 26968), (596, 26800), (607, 26779), (612, 26770), (670, 26674), (716, 26566), (720, 26554), (743, 26491),

Gene: Guppsters\_43 Start: 32537, Stop: 33664, Start Num: 162

Candidate Starts for Guppsters\_43:

(86, 32435), (121, 32492), (Start: 162 @32537 has 317 MA's), (165, 32546), (244, 32708), (268, 32759), (277, 32777), (296, 32822), (340, 32918), (346, 32927), (402, 33008), (414, 33032), (454, 33101), (484, 33161), (492, 33173), (493, 33176), (497, 33188), (504, 33203), (514, 33227), (520, 33233), (539, 33254), (573, 33290), (574, 33293), (593, 33329), (595, 33335), (599, 33350), (663, 33434), (670, 33449), (703, 33491), (713, 33536), (716, 33545), (726, 33584), (731, 33602), (746, 33623), (755, 33638), (760, 33647), (762, 33650),

Gene: Gwennie\_35 Start: 26790, Stop: 25645, Start Num: 152

Candidate Starts for Gwennie\_35:

(Start: 152 @26790 has 120 MA's), (Start: 179 @26751 has 10 MA's), (204, 26703), (Start: 217 @26667 has 6 MA's), (234, 26622), (317, 26466), (328, 26439), (356, 26403), (402, 26346), (449, 26268), (462, 26244), (481, 26205), (515, 26133), (529, 26121), (534, 26115), (548, 26103), (593, 26028), (595, 26022), (603, 26001), (622, 25986), (633, 25968), (647, 25944), (704, 25830), (716, 25785), (717, 25782), (720, 25773), (724, 25752), (726, 25746), (729, 25734), (755, 25695),

Gene: HH92\_29 Start: 26478, Stop: 25285, Start Num: 181

Candidate Starts for HH92\_29:

(Start: 155 @26520 has 3 MA's), (Start: 181 @26478 has 20 MA's), (211, 26412), (247, 26331), (266, 26292), (275, 26277), (277, 26271), (281, 26259), (293, 26232), (311, 26199), (339, 26142), (359, 26109), (360, 26106), (375, 26058), (401, 26016), (402, 26013), (412, 25989), (419, 25974), (429, 25950), (438, 25935), (462, 25896), (468, 25884), (488, 25845), (506, 25806), (528, 25758), (531, 25755), (580, 25683), (583, 25677), (588, 25665), (591, 25662), (593, 25656), (619, 25602), (630, 25584), (631, 25581), (645, 25554), (656, 25536), (661, 25530), (662, 25527), (701, 25485), (707, 25458), (709, 25452), (722, 25395), (759, 25332), (760, 25329),

Gene: Hades\_43 Start: 31946, Stop: 33073, Start Num: 162

Candidate Starts for Hades\_43:

(86, 31844), (121, 31901), (Start: 162 @31946 has 317 MA's), (165, 31955), (244, 32117), (268, 32168), (277, 32186), (296, 32231), (340, 32327), (346, 32336), (402, 32417), (414, 32441), (454, 32510), (471, 32549), (484, 32570), (492, 32582), (493, 32585), (497, 32597), (504, 32612), (514, 32636), (520, 32642), (539, 32663), (573, 32699), (574, 32702), (593, 32738), (595, 32744), (598, 32756), (599, 32759), (610, 32774), (663, 32843), (670, 32858), (703, 32900), (713, 32945), (716, 32954), (720, 32966), (726, 32993), (731, 33011), (746, 33032), (755, 33047), (760, 33056), (762, 33059),

Gene: Hadrien\_29 Start: 26478, Stop: 25285, Start Num: 181

Candidate Starts for Hadrien\_29:

(Start: 155 @26520 has 3 MA's), (Start: 181 @26478 has 20 MA's), (211, 26412), (247, 26331), (266, 26292), (275, 26277), (277, 26271), (281, 26259), (293, 26232), (311, 26199), (339, 26142), (359, 26109), (360, 26106), (375, 26058), (401, 26016), (402, 26013), (412, 25989), (419, 25974), (429, 25950), (438, 25935), (462, 25896), (468, 25884), (488, 25845), (506, 25806), (528, 25758), (531, 25755), (580, 25683), (583, 25677), (588, 25665), (591, 25662), (593, 25656), (619, 25602), (630, 25584), (631, 25581), (645, 25554), (656, 25536), (661, 25530), (662, 25527), (701, 25485), (707, 25458), (709, 25452), (722, 25395), (759, 25332), (760, 25329),

Gene: Hail\_29 Start: 26478, Stop: 25285, Start Num: 181

Candidate Starts for Hail\_29:

(Start: 155 @26520 has 3 MA's), (Start: 181 @26478 has 20 MA's), (211, 26412), (247, 26331), (266, 26292), (275, 26277), (277, 26271), (281, 26259), (293, 26232), (311, 26199), (339, 26142), (359, 26109), (360, 26106), (375, 26058), (401, 26016), (402, 26013), (412, 25989), (419, 25974), (429, 25950), (438, 25935), (462, 25896), (468, 25884), (488, 25845), (506, 25806), (528, 25758), (531, 25755), (580, 25683), (583, 25677), (588, 25665), (591, 25662), (593, 25656), (619, 25602), (630, 25584), (631, 25581), (645, 25554), (656, 25536), (661, 25530), (662, 25527), (701, 25485), (707, 25458), (709, 25452), (722, 25395), (759, 25332), (760, 25329),

25458), (709, 25452), (722, 25395), (759, 25332), (760, 25329),

Gene: Haley23\_37 Start: 27875, Stop: 28957, Start Num: 159

Candidate Starts for Haley23\_37:

(Start: 83 @27758 has 2 MA's), (Start: 85 @27764 has 6 MA's), (Start: 159 @27875 has 56 MA's), (Start: 191 @27929 has 14 MA's), (252, 28049), (401, 28304), (414, 28334), (452, 28394), (486, 28460), (497, 28484), (542, 28553), (573, 28589), (709, 28814), (715, 28841), (760, 28946),

Gene: Halley\_83 Start: 53063, Stop: 54292, Start Num: 116

Candidate Starts for Halley\_83:

(Start: 116 @53063 has 29 MA's), (Start: 131 @53081 has 3 MA's), (Start: 160 @53120 has 1 MA's), (276, 53357), (322, 53465), (395, 53585), (396, 53588), (401, 53597), (408, 53612), (426, 53651), (464, 53729), (524, 53834), (532, 53846), (545, 53849), (553, 53858), (582, 53909), (584, 53912), (592, 53930), (639, 54026), (688, 54083), (723, 54203), (724, 54206), (731, 54230), (747, 54254), (749, 54257),

Gene: HamCheese\_36 Start: 23900, Stop: 22707, Start Num: 147

Candidate Starts for HamCheese\_36:

(Start: 147 @23900 has 80 MA's), (365, 23471), (384, 23414), (398, 23390), (533, 23162), (607, 23036), (614, 23024), (625, 23003), (708, 22865), (729, 22784), (760, 22736),

Gene: Hamood\_39 Start: 31803, Stop: 30532, Start Num: 147

Candidate Starts for Hamood\_39:

(Start: 147 @31803 has 80 MA's), (Start: 157 @31788 has 10 MA's), (208, 31686), (230, 31644), (236, 31632), (276, 31557), (310, 31482), (315, 31473), (320, 31455), (368, 31356), (369, 31353), (410, 31263), (491, 31158), (535, 31062), (539, 31056), (631, 30894), (702, 30753), (713, 30708), (727, 30657), (729, 30648), (737, 30633), (748, 30621), (755, 30609), (781, 30570),

Gene: Hannaconda\_75 Start: 47285, Stop: 48559, Start Num: 98

Candidate Starts for Hannaconda\_75:

(74, 47228), (Start: 90 @47270 has 1 MA's), (Start: 98 @47285 has 10 MA's), (99, 47288), (Start: 131 @47333 has 3 MA's), (Start: 160 @47372 has 1 MA's), (341, 47753), (395, 47837), (401, 47849), (402, 47852), (464, 47981), (545, 48101), (584, 48164), (592, 48182), (601, 48206), (639, 48278), (723, 48455), (724, 48458), (726, 48464), (731, 48482), (741, 48497), (747, 48506), (749, 48509), (773, 48554),

Gene: HannahPhantana\_37 Start: 24015, Stop: 22828, Start Num: 147

Candidate Starts for HannahPhantana\_37:

(84, 24105), (Start: 147 @24015 has 80 MA's), (365, 23586), (607, 23151), (700, 23016),

Gene: HarryHoudini\_36 Start: 26909, Stop: 25782, Start Num: 157

Candidate Starts for HarryHoudini\_36:

(109, 26963), (Start: 157 @26909 has 10 MA's), (Start: 179 @26876 has 10 MA's), (Start: 195 @26846 has 8 MA's), (Start: 217 @26792 has 6 MA's), (234, 26747), (328, 26564), (356, 26528), (402, 26471), (449, 26393), (471, 26348), (481, 26330), (534, 26240), (548, 26228), (564, 26207), (593, 26153), (595, 26147), (603, 26126), (622, 26111), (633, 26093), (650, 26066), (704, 25955), (716, 25910), (717, 25907), (718, 25904), (724, 25877), (726, 25871), (729, 25859), (755, 25820),

Gene: HaveUMetTed\_36 Start: 26636, Stop: 25491, Start Num: 152

Candidate Starts for HaveUMetTed\_36:

(Start: 101 @26699 has 2 MA's), (Start: 152 @26636 has 120 MA's), (Start: 191 @26582 has 14 MA's), (Start: 217 @26513 has 6 MA's), (322, 26294), (328, 26285), (356, 26249), (402, 26192), (449, 26114), (466, 26081), (515, 25979), (534, 25961), (548, 25949), (593, 25874), (595, 25868), (603,

25847), (622, 25832), (633, 25814), (716, 25631), (717, 25628), (724, 25598), (726, 25592), (729, 25580), (755, 25541),

Gene: Heathen\_33 Start: 26105, Stop: 24978, Start Num: 152

Candidate Starts for Heathen\_33:

(Start: 152 @26105 has 120 MA's), (204, 26018), (Start: 217 @25982 has 6 MA's), (234, 25937), (317, 25781), (320, 25769), (322, 25763), (356, 25718), (401, 25664), (402, 25661), (413, 25637), (515, 25448), (534, 25430), (548, 25418), (574, 25379), (593, 25343), (595, 25337), (603, 25316), (622, 25301), (633, 25283), (704, 25145), (717, 25097), (724, 25067), (726, 25061), (729, 25049), (755, 25010),

Gene: HedwigODU\_41 Start: 32479, Stop: 33567, Start Num: 162

Candidate Starts for HedwigODU\_41:

(Start: 162 @32479 has 317 MA's), (Start: 191 @32530 has 14 MA's), (Start: 217 @32581 has 6 MA's), (226, 32605), (244, 32641), (317, 32779), (340, 32833), (408, 32917), (451, 32986), (452, 32989), (534, 33139), (587, 33217), (598, 33244), (663, 33331), (701, 33379),

Gene: Heffalump\_35 Start: 27571, Stop: 26564, Start Num: 217

Candidate Starts for Heffalump\_35:

(Start: 139 @27706 has 1 MA's), (Start: 217 @27571 has 6 MA's), (230, 27535), (234, 27526), (303, 27397), (356, 27307), (430, 27196), (449, 27172), (466, 27139), (471, 27127), (534, 27019), (536, 27016), (593, 26932), (595, 26926), (603, 26905), (622, 26890), (633, 26872), (717, 26686), (724, 26656), (726, 26650), (729, 26638), (755, 26599), (770, 26575),

Gene: Hegedechwinu\_41 Start: 30918, Stop: 32036, Start Num: 162

Candidate Starts for Hegedechwinu\_41:

(Start: 162 @30918 has 317 MA's), (227, 31056), (244, 31089), (272, 31137), (322, 31254), (340, 31290), (346, 31299), (414, 31404), (454, 31473), (471, 31512), (481, 31530), (484, 31533), (492, 31545), (493, 31548), (497, 31560), (504, 31575), (514, 31599), (520, 31605), (539, 31626), (573, 31662), (574, 31665), (593, 31701), (595, 31707), (598, 31719), (599, 31722), (610, 31737), (663, 31806), (670, 31821), (703, 31863), (713, 31908), (716, 31917), (726, 31956), (731, 31974), (746, 31995), (755, 32010), (760, 32019), (762, 32022),

Gene: HelDan\_33 Start: 26357, Stop: 25230, Start Num: 152

Candidate Starts for HelDan\_33:

(Start: 152 @26357 has 120 MA's), (204, 26270), (Start: 217 @26234 has 6 MA's), (234, 26189), (317, 26033), (320, 26021), (322, 26015), (356, 25970), (401, 25916), (402, 25913), (413, 25889), (515, 25700), (534, 25682), (548, 25670), (574, 25631), (593, 25595), (595, 25589), (603, 25568), (622, 25553), (633, 25535), (704, 25397), (717, 25349), (724, 25319), (726, 25313), (729, 25301), (755, 25262),

Gene: Heliosoles\_35 Start: 26643, Stop: 25498, Start Num: 152

Candidate Starts for Heliosoles\_35:

(Start: 101 @26706 has 2 MA's), (Start: 152 @26643 has 120 MA's), (Start: 191 @26589 has 14 MA's), (Start: 217 @26520 has 6 MA's), (322, 26301), (328, 26292), (356, 26256), (402, 26199), (449, 26121), (466, 26088), (515, 25986), (534, 25968), (548, 25956), (593, 25881), (595, 25875), (603, 25854), (622, 25839), (633, 25821), (647, 25797), (716, 25638), (717, 25635), (724, 25605), (726, 25599), (729, 25587), (755, 25548),

Gene: Hercules11\_36 Start: 26798, Stop: 25653, Start Num: 152

Candidate Starts for Hercules11\_36:

(Start: 152 @26798 has 120 MA's), (Start: 179 @26759 has 10 MA's), (204, 26711), (Start: 217 @26675 has 6 MA's), (234, 26630), (317, 26474), (328, 26447), (356, 26411), (402, 26354), (449,

26276), (462, 26252), (481, 26213), (515, 26141), (529, 26129), (534, 26123), (548, 26111), (593, 26036), (595, 26030), (603, 26009), (622, 25994), (633, 25976), (647, 25952), (704, 25838), (716, 25793), (717, 25790), (720, 25781), (724, 25760), (726, 25754), (729, 25742), (755, 25703),

Gene: Herod\_39 Start: 31901, Stop: 33094, Start Num: 85

Candidate Starts for Herod\_39:

(Start: 85 @31901 has 6 MA's), (Start: 159 @32012 has 56 MA's), (Start: 191 @32066 has 14 MA's), (252, 32186), (395, 32432), (401, 32441), (414, 32471), (452, 32531), (486, 32597), (497, 32621), (709, 32951), (715, 32978), (760, 33083),

Gene: Hestia\_38 Start: 27099, Stop: 25888, Start Num: 138

Candidate Starts for Hestia\_38:

(Start: 131 @27108 has 3 MA's), (Start: 138 @27099 has 1 MA's), (172, 27051), (215, 26958), (317, 26742), (372, 26661), (412, 26598), (428, 26562), (443, 26535), (600, 26247), (618, 26214), (630, 26193), (720, 26019), (724, 25998), (736, 25968), (764, 25929),

Gene: Hidrated\_74 Start: 52276, Stop: 53448, Start Num: 160

Candidate Starts for Hidrated\_74:

(Start: 116 @52219 has 29 MA's), (Start: 131 @52237 has 3 MA's), (Start: 160 @52276 has 1 MA's), (276, 52513), (322, 52621), (395, 52741), (396, 52744), (401, 52753), (408, 52768), (464, 52885), (532, 53002), (545, 53005), (553, 53014), (582, 53065), (584, 53068), (592, 53086), (639, 53182), (688, 53239), (723, 53359), (724, 53362), (731, 53386), (747, 53410), (749, 53413),

Gene: Hillester\_40 Start: 27831, Stop: 26659, Start Num: 162

Candidate Starts for Hillester\_40:

(Start: 162 @27831 has 317 MA's), (Start: 191 @27780 has 14 MA's), (239, 27666), (277, 27612), (285, 27594), (318, 27522), (336, 27480), (346, 27462), (402, 27384), (408, 27372), (451, 27297), (456, 27288), (486, 27228), (535, 27138), (599, 27033), (614, 27012), (627, 26988), (631, 26985), (672, 26916), (703, 26862), (709, 26838), (712, 26823), (762, 26703), (776, 26676),

Gene: HippoHollow\_33 Start: 27726, Stop: 26545, Start Num: 148

Candidate Starts for HippoHollow\_33:

(Start: 133 @27744 has 7 MA's), (Start: 148 @27726 has 5 MA's), (178, 27678), (Start: 195 @27645 has 8 MA's), (Start: 217 @27597 has 6 MA's), (234, 27552), (356, 27333), (430, 27222), (449, 27198), (471, 27153), (534, 27045), (548, 27033), (593, 26958), (595, 26952), (603, 26931), (622, 26916), (717, 26712), (724, 26682), (726, 26676), (729, 26664), (755, 26625), (789, 26553),

Gene: Hlubikazi\_41 Start: 31787, Stop: 32905, Start Num: 162

Candidate Starts for Hlubikazi\_41:

(Start: 162 @31787 has 317 MA's), (244, 31958), (322, 32123), (340, 32159), (346, 32168), (414, 32273), (454, 32342), (471, 32381), (484, 32402), (492, 32414), (493, 32417), (497, 32429), (514, 32468), (520, 32474), (539, 32495), (573, 32531), (574, 32534), (593, 32570), (595, 32576), (598, 32588), (599, 32591), (610, 32606), (663, 32675), (670, 32690), (690, 32708), (713, 32777), (716, 32786), (726, 32825), (731, 32843), (746, 32864), (755, 32879), (760, 32888), (762, 32891),

Gene: HokkenD\_73 Start: 51332, Stop: 52561, Start Num: 116

Candidate Starts for HokkenD\_73:

(Start: 116 @51332 has 29 MA's), (Start: 131 @51350 has 3 MA's), (Start: 160 @51389 has 1 MA's), (276, 51626), (322, 51734), (395, 51854), (396, 51857), (401, 51866), (408, 51881), (426, 51920), (464, 51998), (524, 52103), (532, 52115), (545, 52118), (553, 52127), (582, 52178), (584, 52181), (592, 52199), (639, 52295), (688, 52352), (723, 52472), (724, 52475), (731, 52499), (747, 52523), (749, 52526),

Gene: Holliday\_48 Start: 32014, Stop: 33084, Start Num: 162

Candidate Starts for Holliday\_48:

(142, 31993), (Start: 162 @32014 has 317 MA's), (Start: 191 @32065 has 14 MA's), (216, 32113), (240, 32170), (272, 32215), (408, 32449), (416, 32467), (471, 32566), (492, 32599), (493, 32602), (497, 32614), (605, 32782), (675, 32881), (682, 32890), (709, 32941), (715, 32968), (722, 32998), (724, 33004), (728, 33016), (760, 33073),

Gene: Homura\_41 Start: 32595, Stop: 33683, Start Num: 162

Candidate Starts for Homura\_41:

(16, 31992), (24, 32169), (42, 32334), (51, 32373), (Start: 162 @32595 has 317 MA's), (Start: 191 @32646 has 14 MA's), (Start: 217 @32697 has 6 MA's), (226, 32721), (244, 32757), (317, 32895), (408, 33033), (451, 33102), (452, 33105), (534, 33255), (598, 33360), (701, 33495),

Gene: Hortense\_40 Start: 32549, Stop: 33676, Start Num: 162

Candidate Starts for Hortense\_40:

(122, 32510), (Start: 162 @32549 has 317 MA's), (Start: 191 @32603 has 14 MA's), (240, 32726), (263, 32759), (307, 32849), (320, 32882), (451, 33077), (452, 33080), (471, 33122), (493, 33158), (678, 33455), (709, 33533), (715, 33560), (720, 33575), (726, 33602), (760, 33665),

Gene: Horus\_48 Start: 33163, Stop: 34260, Start Num: 162

Candidate Starts for Horus\_48:

(60, 32983), (72, 33022), (Start: 162 @33163 has 317 MA's), (Start: 191 @33214 has 14 MA's), (227, 33292), (240, 33319), (272, 33364), (286, 33397), (289, 33406), (401, 33583), (402, 33586), (456, 33679), (471, 33715), (492, 33748), (493, 33751), (497, 33763), (603, 33928), (627, 33958), (675, 34030), (703, 34066), (709, 34090), (715, 34117), (728, 34165), (731, 34177), (762, 34225),

Gene: Howe\_40 Start: 32549, Stop: 33676, Start Num: 162

Candidate Starts for Howe\_40:

(122, 32510), (Start: 162 @32549 has 317 MA's), (Start: 191 @32603 has 14 MA's), (240, 32726), (263, 32759), (307, 32849), (320, 32882), (451, 33077), (452, 33080), (471, 33122), (493, 33158), (678, 33455), (709, 33533), (715, 33560), (720, 33575), (726, 33602), (760, 33665),

Gene: Huffy\_38 Start: 27370, Stop: 26255, Start Num: 188

Candidate Starts for Huffy\_38:

(Start: 188 @27370 has 12 MA's), (357, 27031), (385, 26998), (532, 26704), (549, 26692), (641, 26512), (720, 26341), (726, 26314),

Gene: Hughesyang\_81 Start: 53021, Stop: 54250, Start Num: 116

Candidate Starts for Hughesyang\_81:

(Start: 116 @53021 has 29 MA's), (Start: 131 @53039 has 3 MA's), (Start: 160 @53078 has 1 MA's), (276, 53315), (322, 53423), (395, 53543), (396, 53546), (401, 53555), (408, 53570), (426, 53609), (464, 53687), (524, 53792), (532, 53804), (545, 53807), (553, 53816), (582, 53867), (584, 53870), (592, 53888), (639, 53984), (688, 54041), (723, 54161), (724, 54164), (731, 54188), (747, 54212), (749, 54215),

Gene: Hugley\_36 Start: 32011, Stop: 33093, Start Num: 159

Candidate Starts for Hugley\_36:

(Start: 85 @31900 has 6 MA's), (Start: 159 @32011 has 56 MA's), (Start: 191 @32065 has 14 MA's), (252, 32185), (395, 32431), (401, 32440), (414, 32470), (452, 32530), (486, 32596), (497, 32620), (709, 32950), (715, 32977), (760, 33082),

Gene: Hum25\_34 Start: 25182, Stop: 24091, Start Num: 161

Candidate Starts for Hum25\_34:

(Start: 144 @25206 has 4 MA's), (Start: 161 @25182 has 1 MA's), (254, 25011), (266, 24984), (289, 24945), (320, 24876), (330, 24855), (335, 24846), (364, 24789), (367, 24777), (368, 24774), (370, 24765), (373, 24753), (402, 24693), (406, 24684), (415, 24669), (483, 24603), (497, 24570), (510, 24543), (558, 24489), (570, 24468), (594, 24420), (595, 24417), (598, 24405), (603, 24396), (616, 24378), (617, 24375), (619, 24369), (631, 24357), (652, 24324), (700, 24270), (705, 24243), (724, 24171), (753, 24117),

Gene: Hyperbowlee\_41 Start: 32792, Stop: 33880, Start Num: 162

Candidate Starts for Hyperbowlee\_41:

(Start: 162 @32792 has 317 MA's), (Start: 217 @32894 has 6 MA's), (226, 32918), (244, 32954), (317, 33092), (408, 33230), (451, 33299), (452, 33302), (534, 33452), (598, 33557), (701, 33692),

Gene: Hyzer\_43 Start: 33426, Stop: 34508, Start Num: 159

Candidate Starts for Hyzer\_43:

(Start: 159 @33426 has 56 MA's), (Start: 191 @33480 has 14 MA's), (252, 33600), (401, 33855), (414, 33885), (452, 33945), (486, 34011), (497, 34035), (709, 34365), (728, 34440), (760, 34497),

Gene: IMpilo\_40 Start: 31720, Stop: 32838, Start Num: 162

Candidate Starts for IMpilo\_40:

(Start: 162 @31720 has 317 MA's), (165, 31729), (244, 31891), (322, 32056), (340, 32092), (346, 32101), (414, 32206), (454, 32275), (471, 32314), (484, 32335), (492, 32347), (493, 32350), (497, 32362), (504, 32377), (514, 32401), (520, 32407), (539, 32428), (573, 32464), (574, 32467), (593, 32503), (595, 32509), (598, 32521), (599, 32524), (610, 32539), (663, 32608), (670, 32623), (713, 32710), (716, 32719), (726, 32758), (731, 32776), (746, 32797), (755, 32812), (760, 32821), (762, 32824),

Gene: Idleandcovert\_33 Start: 26297, Stop: 25170, Start Num: 152

Candidate Starts for Idleandcovert\_33:

(Start: 152 @26297 has 120 MA's), (204, 26210), (Start: 217 @26174 has 6 MA's), (234, 26129), (317, 25973), (320, 25961), (322, 25955), (356, 25910), (401, 25856), (402, 25853), (449, 25775), (534, 25622), (548, 25610), (574, 25571), (593, 25535), (595, 25529), (603, 25508), (622, 25493), (633, 25475), (650, 25448), (704, 25337), (717, 25289), (724, 25259), (726, 25253), (729, 25241), (755, 25202),

Gene: Illumine\_44 Start: 33263, Stop: 34351, Start Num: 162

Candidate Starts for Illumine\_44:

(Start: 162 @33263 has 317 MA's), (Start: 217 @33365 has 6 MA's), (226, 33389), (244, 33425), (277, 33476), (304, 33539), (317, 33563), (340, 33617), (342, 33620), (408, 33701), (451, 33770), (452, 33773), (534, 33923), (587, 34001), (598, 34028), (701, 34163),

Gene: InLimbo\_35 Start: 26674, Stop: 27702, Start Num: 191

Candidate Starts for InLimbo\_35:

(Start: 159 @26620 has 56 MA's), (Start: 191 @26674 has 14 MA's), (252, 26794), (401, 27049), (452, 27139), (486, 27205), (497, 27229), (709, 27559), (712, 27574), (715, 27586), (728, 27634), (760, 27691),

Gene: Inky\_41 Start: 32595, Stop: 33683, Start Num: 162

Candidate Starts for Inky\_41:

(16, 31992), (24, 32169), (42, 32334), (51, 32373), (Start: 162 @32595 has 317 MA's), (Start: 191 @32646 has 14 MA's), (Start: 217 @32697 has 6 MA's), (226, 32721), (244, 32757), (317, 32895), (408, 33033), (451, 33102), (452, 33105), (534, 33255), (598, 33360), (701, 33495),

Gene: Invectra\_41 Start: 30570, Stop: 31697, Start Num: 162

Candidate Starts for Invectra\_41:

(89, 30474), (129, 30537), (Start: 162 @30570 has 317 MA's), (Start: 191 @30624 has 14 MA's), (307, 30870), (320, 30903), (451, 31098), (452, 31101), (471, 31143), (493, 31179), (678, 31476), (709, 31554), (715, 31581), (720, 31596), (726, 31623), (760, 31686),

Gene: IrishSherpFalk\_41 Start: 32488, Stop: 33606, Start Num: 162

Candidate Starts for IrishSherpFalk\_41:

(Start: 162 @32488 has 317 MA's), (165, 32497), (244, 32659), (346, 32869), (402, 32950), (414, 32974), (454, 33043), (484, 33103), (492, 33115), (493, 33118), (497, 33130), (504, 33145), (514, 33169), (520, 33175), (539, 33196), (573, 33232), (574, 33235), (593, 33271), (595, 33277), (599, 33292), (663, 33376), (670, 33391), (703, 33433), (713, 33478), (716, 33487), (726, 33526), (731, 33544), (746, 33565), (755, 33580), (760, 33589), (762, 33592),

Gene: IronMan\_36 Start: 28052, Stop: 26925, Start Num: 148

Candidate Starts for IronMan\_36:

(Start: 133 @28070 has 7 MA's), (Start: 148 @28052 has 5 MA's), (Start: 217 @27923 has 6 MA's), (234, 27878), (328, 27695), (356, 27659), (402, 27602), (408, 27590), (481, 27461), (534, 27371), (548, 27359), (593, 27284), (603, 27257), (622, 27242), (633, 27224), (644, 27203), (704, 27086), (716, 27041), (717, 27038), (718, 27035), (724, 27008), (726, 27002), (729, 26990), (755, 26951),

Gene: Isca\_33 Start: 26066, Stop: 24942, Start Num: 152

Candidate Starts for Isca\_33:

(Start: 114 @26108 has 1 MA's), (Start: 152 @26066 has 120 MA's), (Start: 179 @26027 has 10 MA's), (204, 25979), (Start: 217 @25943 has 6 MA's), (234, 25898), (254, 25868), (303, 25769), (356, 25679), (430, 25568), (449, 25544), (471, 25499), (534, 25391), (548, 25379), (564, 25358), (593, 25304), (595, 25298), (603, 25277), (622, 25262), (633, 25244), (650, 25217), (704, 25106), (717, 25058), (718, 25055), (724, 25028), (726, 25022), (729, 25010), (741, 24989), (755, 24971),

Gene: Isolde\_41 Start: 27878, Stop: 26739, Start Num: 162

Candidate Starts for Isolde\_41:

(Start: 162 @27878 has 317 MA's), (Start: 191 @27827 has 14 MA's), (277, 27659), (285, 27641), (346, 27509), (402, 27431), (408, 27419), (451, 27344), (456, 27335), (486, 27275), (535, 27185), (599, 27080), (614, 27059), (631, 27032), (703, 26909), (709, 26885), (712, 26870), (753, 26765),

Gene: Iwokeuplikedis\_34 Start: 26178, Stop: 25060, Start Num: 152

Candidate Starts for Iwokeuplikedis\_34:

(Start: 152 @26178 has 120 MA's), (Start: 217 @26055 has 6 MA's), (234, 26010), (318, 25851), (328, 25827), (356, 25791), (402, 25734), (449, 25656), (471, 25611), (481, 25593), (534, 25503), (548, 25491), (593, 25416), (603, 25389), (622, 25374), (633, 25356), (650, 25329), (704, 25218), (716, 25173), (717, 25170), (718, 25167), (724, 25140), (726, 25134), (729, 25122), (755, 25083),

Gene: JAWS\_41 Start: 32469, Stop: 33557, Start Num: 162

Candidate Starts for JAWS\_41:

(Start: 162 @32469 has 317 MA's), (Start: 217 @32571 has 6 MA's), (226, 32595), (244, 32631), (317, 32769), (408, 32907), (451, 32976), (452, 32979), (534, 33129), (598, 33234), (663, 33321), (701, 33369),

Gene: JCole\_37 Start: 29060, Stop: 27801, Start Num: 147

Candidate Starts for JCole\_37:

(Start: 147 @29060 has 80 MA's), (315, 28730), (333, 28685), (365, 28625), (368, 28613), (384, 28568), (420, 28496), (539, 28328), (544, 28325), (598, 28232), (631, 28172), (696, 28055), (700, 28043), (705, 28016), (713, 27986), (729, 27926), (737, 27911), (748, 27899), (753, 27890), (773, 27851),

Gene: JF2\_33 Start: 25816, Stop: 24692, Start Num: 152

Candidate Starts for JF2\_33:

(Start: 114 @25858 has 1 MA's), (Start: 152 @25816 has 120 MA's), (Start: 217 @25693 has 6 MA's), (234, 25648), (277, 25576), (300, 25528), (322, 25474), (328, 25465), (356, 25429), (402, 25372), (534, 25141), (548, 25129), (564, 25108), (593, 25054), (595, 25048), (603, 25027), (622, 25012), (633, 24994), (650, 24967), (704, 24856), (717, 24808), (718, 24805), (724, 24778), (726, 24772), (729, 24760), (741, 24739), (755, 24721),

Gene: JF4\_33 Start: 25816, Stop: 24692, Start Num: 152

Candidate Starts for JF4\_33:

(Start: 114 @25858 has 1 MA's), (Start: 152 @25816 has 120 MA's), (Start: 217 @25693 has 6 MA's), (234, 25648), (277, 25576), (300, 25528), (322, 25474), (328, 25465), (356, 25429), (402, 25372), (534, 25141), (548, 25129), (564, 25108), (593, 25054), (595, 25048), (603, 25027), (622, 25012), (633, 24994), (650, 24967), (704, 24856), (717, 24808), (718, 24805), (724, 24778), (726, 24772), (729, 24760), (741, 24739), (755, 24721),

Gene: JHC117\_36 Start: 26788, Stop: 25643, Start Num: 152

Candidate Starts for JHC117\_36:

(Start: 152 @26788 has 120 MA's), (Start: 179 @26749 has 10 MA's), (204, 26701), (Start: 217 @26665 has 6 MA's), (234, 26620), (317, 26464), (328, 26437), (356, 26401), (402, 26344), (449, 26266), (462, 26242), (481, 26203), (515, 26131), (529, 26119), (534, 26113), (548, 26101), (593, 26026), (595, 26020), (603, 25999), (622, 25984), (633, 25966), (647, 25942), (704, 25828), (716, 25783), (717, 25780), (720, 25771), (724, 25750), (726, 25744), (729, 25732), (755, 25693),

Gene: Jaan\_37 Start: 28459, Stop: 27326, Start Num: 140

Candidate Starts for Jaan\_37:

(Start: 140 @28459 has 6 MA's), (Start: 217 @28324 has 6 MA's), (234, 28279), (237, 28273), (260, 28234), (317, 28123), (328, 28096), (356, 28060), (394, 28018), (401, 28006), (402, 28003), (462, 27901), (534, 27772), (548, 27760), (593, 27685), (595, 27679), (603, 27658), (622, 27643), (633, 27625), (663, 27574), (704, 27487), (717, 27439), (724, 27409), (726, 27403), (729, 27391), (755, 27352),

Gene: Jablanski\_39 Start: 31311, Stop: 32393, Start Num: 159

Candidate Starts for Jablanski\_39:

(Start: 85 @31200 has 6 MA's), (Start: 159 @31311 has 56 MA's), (Start: 191 @31365 has 14 MA's), (252, 31485), (414, 31770), (452, 31830), (486, 31896), (497, 31920), (709, 32250), (715, 32277), (760, 32382),

Gene: JakeTheSnake\_41 Start: 28491, Stop: 27319, Start Num: 162

Candidate Starts for JakeTheSnake\_41:

(Start: 148 @28509 has 5 MA's), (Start: 162 @28491 has 317 MA's), (221, 28374), (277, 28272), (285, 28254), (346, 28122), (394, 28059), (402, 28044), (408, 28032), (451, 27957), (456, 27948), (486, 27888), (535, 27798), (614, 27672), (627, 27648), (631, 27645), (703, 27522), (709, 27498), (712, 27483), (762, 27363), (776, 27336),

Gene: Jalleen\_36 Start: 27514, Stop: 28596, Start Num: 159

Candidate Starts for Jalleen\_36:

(Start: 83 @27397 has 2 MA's), (Start: 85 @27403 has 6 MA's), (Start: 159 @27514 has 56 MA's), (Start: 191 @27568 has 14 MA's), (252, 27688), (401, 27943), (414, 27973), (452, 28033), (486, 28099), (497, 28123), (573, 28228), (709, 28453), (715, 28480), (760, 28585),

Gene: James\_43 Start: 32094, Stop: 33212, Start Num: 162

Candidate Starts for James\_43:

(Start: 162 @32094 has 317 MA's), (227, 32232), (244, 32265), (272, 32313), (322, 32430), (340, 32466), (346, 32475), (414, 32580), (454, 32649), (484, 32709), (492, 32721), (493, 32724), (497, 32736), (504, 32751), (514, 32775), (520, 32781), (539, 32802), (573, 32838), (574, 32841), (593, 32877), (595, 32883), (598, 32895), (599, 32898), (663, 32982), (670, 32997), (703, 33039), (713, 33084), (716, 33093), (726, 33132), (731, 33150), (746, 33171), (755, 33186), (760, 33195), (762, 33198),

Gene: Jamun\_33 Start: 24299, Stop: 23115, Start Num: 147

Candidate Starts for Jamun\_33:

(Start: 147 @24299 has 80 MA's), (266, 24080), (271, 24071), (330, 23945), (369, 23855), (599, 23447), (607, 23435), (617, 23417), (705, 23273), (708, 23264),

Gene: Jant\_44 Start: 33079, Stop: 33984, Start Num: 268

Candidate Starts for Jant\_44:

(86, 32755), (121, 32812), (Start: 162 @32857 has 317 MA's), (165, 32866), (244, 33028), (268, 33079), (277, 33097), (296, 33142), (340, 33238), (346, 33247), (414, 33352), (454, 33421), (484, 33481), (492, 33493), (493, 33496), (497, 33508), (504, 33523), (514, 33547), (520, 33553), (539, 33574), (573, 33610), (574, 33613), (593, 33649), (595, 33655), (599, 33670), (663, 33754), (670, 33769), (690, 33787), (703, 33811), (713, 33856), (716, 33865), (726, 33904), (731, 33922), (746, 33943), (755, 33958), (760, 33967), (762, 33970),

Gene: Jarvi\_41 Start: 32595, Stop: 33683, Start Num: 162

Candidate Starts for Jarvi\_41:

(16, 31992), (24, 32169), (42, 32334), (51, 32373), (Start: 162 @32595 has 317 MA's), (Start: 191 @32646 has 14 MA's), (Start: 217 @32697 has 6 MA's), (226, 32721), (244, 32757), (317, 32895), (408, 33033), (451, 33102), (452, 33105), (534, 33255), (598, 33360), (701, 33495),

Gene: Jayhawk\_42 Start: 32477, Stop: 33565, Start Num: 162

Candidate Starts for Jayhawk\_42:

(Start: 162 @32477 has 317 MA's), (Start: 191 @32528 has 14 MA's), (Start: 217 @32579 has 6 MA's), (226, 32603), (244, 32639), (317, 32777), (340, 32831), (408, 32915), (451, 32984), (452, 32987), (534, 33137), (587, 33215), (598, 33242), (663, 33329), (701, 33377),

Gene: JeanClaude\_32 Start: 23615, Stop: 22461, Start Num: 162

Candidate Starts for JeanClaude\_32:

(107, 23678), (Start: 162 @23615 has 317 MA's), (Start: 191 @23564 has 14 MA's), (192, 23561), (200, 23537), (304, 23312), (322, 23267), (333, 23246), (335, 23243), (348, 23219), (408, 23120), (414, 23105), (462, 23024), (508, 22931), (560, 22862), (593, 22808), (602, 22784), (612, 22766), (631, 22739), (663, 22685), (670, 22670), (675, 22661), (712, 22577), (713, 22571), (716, 22562), (728, 22517), (743, 22487),

Gene: Jeckyll\_41 Start: 32595, Stop: 33683, Start Num: 162

Candidate Starts for Jeckyll\_41:

(16, 31992), (24, 32169), (42, 32334), (51, 32373), (Start: 162 @32595 has 317 MA's), (Start: 191 @32646 has 14 MA's), (Start: 217 @32697 has 6 MA's), (226, 32721), (244, 32757), (317, 32895), (408, 33033), (451, 33102), (452, 33105), (534, 33255), (598, 33360), (701, 33495),

Gene: JellyBread\_36 Start: 26251, Stop: 25067, Start Num: 162

Candidate Starts for JellyBread\_36:

(96, 26341), (105, 26320), (Start: 162 @26251 has 317 MA's), (Start: 191 @26200 has 14 MA's), (277, 26032), (285, 26014), (346, 25882), (395, 25816), (402, 25804), (408, 25792), (451, 25717), (456, 25708), (486, 25648), (535, 25558), (614, 25432), (627, 25408), (631, 25405), (703, 25282), (709,

25258), (712, 25243), (762, 25123),

Gene: JenCasNa\_36 Start: 26750, Stop: 25644, Start Num: 179

Candidate Starts for JenCasNa\_36:

(Start: 152 @26789 has 120 MA's), (Start: 179 @26750 has 10 MA's), (204, 26702), (Start: 217 @26666 has 6 MA's), (234, 26621), (317, 26465), (328, 26438), (356, 26402), (402, 26345), (449, 26267), (462, 26243), (481, 26204), (515, 26132), (529, 26120), (534, 26114), (548, 26102), (593, 26027), (595, 26021), (603, 26000), (622, 25985), (633, 25967), (647, 25943), (704, 25829), (716, 25784), (717, 25781), (720, 25772), (724, 25751), (726, 25745), (729, 25733), (755, 25694),

Gene: Jennelsea\_37 Start: 28858, Stop: 29976, Start Num: 162

Candidate Starts for Jennelsea\_37:

(Start: 162 @28858 has 317 MA's), (227, 28996), (244, 29029), (272, 29077), (322, 29194), (340, 29230), (346, 29239), (414, 29344), (454, 29413), (484, 29473), (492, 29485), (493, 29488), (497, 29500), (504, 29515), (514, 29539), (520, 29545), (539, 29566), (573, 29602), (574, 29605), (593, 29641), (595, 29647), (598, 29659), (599, 29662), (663, 29746), (670, 29761), (703, 29803), (713, 29848), (716, 29857), (726, 29896), (731, 29914), (746, 29935), (755, 29950), (760, 29959), (762, 29962),

Gene: JeppNRM\_36 Start: 26642, Stop: 25497, Start Num: 152

Candidate Starts for JeppNRM\_36:

(Start: 101 @26705 has 2 MA's), (Start: 152 @26642 has 120 MA's), (Start: 191 @26588 has 14 MA's), (Start: 217 @26519 has 6 MA's), (322, 26300), (328, 26291), (356, 26255), (402, 26198), (449, 26120), (462, 26096), (466, 26087), (515, 25985), (534, 25967), (548, 25955), (593, 25880), (595, 25874), (603, 25853), (622, 25838), (633, 25820), (647, 25796), (716, 25637), (717, 25634), (724, 25604), (726, 25598), (729, 25586), (755, 25547),

Gene: Jerm\_35 Start: 26752, Stop: 25625, Start Num: 148

Candidate Starts for Jerm\_35:

(Start: 133 @26770 has 7 MA's), (Start: 148 @26752 has 5 MA's), (Start: 195 @26668 has 8 MA's), (Start: 217 @26620 has 6 MA's), (234, 26575), (328, 26392), (356, 26356), (402, 26299), (408, 26287), (466, 26188), (471, 26176), (481, 26158), (534, 26068), (593, 25981), (595, 25975), (603, 25954), (622, 25939), (633, 25921), (650, 25894), (704, 25783), (717, 25735), (718, 25732), (724, 25705), (726, 25699), (729, 25687), (755, 25648),

Gene: Jerole\_37 Start: 24138, Stop: 22951, Start Num: 147

Candidate Starts for Jerole\_37:

(84, 24228), (Start: 147 @24138 has 80 MA's), (330, 23784), (365, 23709), (607, 23274), (700, 23139),

Gene: Jobu08\_35 Start: 26620, Stop: 25475, Start Num: 152

Candidate Starts for Jobu08\_35:

(Start: 152 @26620 has 120 MA's), (Start: 179 @26581 has 10 MA's), (204, 26533), (Start: 217 @26497 has 6 MA's), (234, 26452), (317, 26296), (328, 26269), (356, 26233), (402, 26176), (449, 26098), (462, 26074), (481, 26035), (515, 25963), (529, 25951), (534, 25945), (548, 25933), (593, 25858), (595, 25852), (603, 25831), (622, 25816), (633, 25798), (704, 25660), (716, 25615), (717, 25612), (720, 25603), (724, 25582), (726, 25576), (729, 25564), (755, 25525),

Gene: JohnLord\_45 Start: 41082, Stop: 39886, Start Num: 169

Candidate Starts for JohnLord\_45:

(Start: 169 @41082 has 7 MA's), (207, 41007), (218, 40983), (220, 40977), (323, 40761), (325, 40758), (360, 40695), (420, 40560), (429, 40539), (462, 40485), (528, 40350), (631, 40173), (633, 40170), (634, 40167), (645, 40146), (666, 40110), (709, 40044), (712, 40029), (729, 39963),

Gene: JoshKayV\_35 Start: 26714, Stop: 25599, Start Num: 156

Candidate Starts for JoshKayV\_35:

(Start: 156 @26714 has 8 MA's), (Start: 217 @26594 has 6 MA's), (234, 26549), (317, 26393), (328, 26366), (356, 26330), (402, 26273), (408, 26261), (449, 26195), (481, 26132), (534, 26042), (593, 25955), (595, 25949), (603, 25928), (622, 25913), (633, 25895), (663, 25844), (704, 25757), (717, 25709), (724, 25679), (726, 25673), (729, 25661), (755, 25622),

Gene: Journey13\_31 Start: 25582, Stop: 24464, Start Num: 152

Candidate Starts for Journey13\_31:

(65, 25732), (Start: 102 @25642 has 3 MA's), (Start: 152 @25582 has 120 MA's), (Start: 191 @25528 has 14 MA's), (Start: 217 @25459 has 6 MA's), (224, 25441), (265, 25366), (268, 25360), (317, 25258), (320, 25246), (356, 25195), (402, 25138), (414, 25111), (504, 24952), (534, 24907), (548, 24895), (593, 24820), (595, 24814), (603, 24793), (622, 24778), (633, 24760), (650, 24733), (704, 24622), (717, 24574), (718, 24571), (724, 24544), (726, 24538), (729, 24526), (755, 24487),

Gene: Joy99\_41 Start: 32524, Stop: 33612, Start Num: 162

Candidate Starts for Joy99\_41:

(16, 31921), (24, 32098), (42, 32263), (51, 32302), (Start: 162 @32524 has 317 MA's), (Start: 191 @32575 has 14 MA's), (Start: 217 @32626 has 6 MA's), (226, 32650), (244, 32686), (252, 32695), (317, 32824), (408, 32962), (451, 33031), (452, 33034), (534, 33184), (598, 33289), (701, 33424),

Gene: Jsquared\_34 Start: 25672, Stop: 24548, Start Num: 152

Candidate Starts for Jsquared\_34:

(Start: 152 @25672 has 120 MA's), (199, 25594), (Start: 217 @25549 has 6 MA's), (234, 25504), (272, 25444), (328, 25321), (356, 25285), (401, 25231), (402, 25228), (449, 25150), (471, 25105), (473, 25102), (481, 25087), (497, 25057), (529, 25003), (534, 24997), (564, 24964), (593, 24910), (603, 24883), (622, 24868), (633, 24850), (650, 24823), (704, 24712), (717, 24664), (718, 24661), (720, 24655), (724, 24634), (726, 24628), (729, 24616), (755, 24577),

Gene: Judy\_39 Start: 26980, Stop: 28122, Start Num: 162

Candidate Starts for Judy\_39:

(Start: 162 @26980 has 317 MA's), (337, 27334), (340, 27340), (350, 27355), (385, 27409), (414, 27466), (451, 27526), (452, 27529), (464, 27556), (497, 27619), (574, 27739), (596, 27787), (670, 27913), (677, 27925), (716, 28021), (743, 28096),

Gene: Juice456\_44 Start: 33520, Stop: 34638, Start Num: 162

Candidate Starts for Juice456\_44:

(Start: 162 @33520 has 317 MA's), (227, 33658), (244, 33691), (272, 33739), (322, 33856), (340, 33892), (346, 33901), (414, 34006), (454, 34075), (471, 34114), (481, 34132), (484, 34135), (492, 34147), (493, 34150), (497, 34162), (504, 34177), (514, 34201), (520, 34207), (539, 34228), (573, 34264), (574, 34267), (593, 34303), (595, 34309), (598, 34321), (599, 34324), (610, 34339), (663, 34408), (670, 34423), (703, 34465), (713, 34510), (716, 34519), (726, 34558), (731, 34576), (746, 34597), (755, 34612), (760, 34621), (762, 34624),

Gene: Juicebox\_26 Start: 25055, Stop: 23880, Start Num: 175

Candidate Starts for Juicebox\_26:

(Start: 175 @25055 has 3 MA's), (196, 25028), (251, 24917), (288, 24833), (316, 24773), (325, 24749), (385, 24671), (396, 24650), (401, 24641), (446, 24545), (459, 24518), (476, 24485), (505, 24428), (509, 24419), (513, 24410), (516, 24401), (518, 24398), (521, 24392), (526, 24380), (574, 24314), (602, 24266), (617, 24242), (638, 24200), (640, 24197), (642, 24194), (660, 24173), (692, 24125), (703, 24092), (712, 24053), (716, 24038), (724, 24005), (767, 23921), (783, 23897),

Gene: JuicyJay\_79 Start: 54197, Stop: 55426, Start Num: 116

Candidate Starts for JuicyJay\_79:

(Start: 116 @54197 has 29 MA's), (Start: 131 @54215 has 3 MA's), (Start: 160 @54254 has 1 MA's), (276, 54491), (322, 54599), (395, 54719), (396, 54722), (401, 54731), (408, 54746), (426, 54785), (464, 54863), (524, 54968), (532, 54980), (545, 54983), (553, 54992), (582, 55043), (584, 55046), (592, 55064), (639, 55160), (688, 55217), (723, 55337), (724, 55340), (731, 55364), (747, 55388), (749, 55391),

Gene: Juniper1\_40 Start: 31679, Stop: 32797, Start Num: 162

Candidate Starts for Juniper1\_40:

(Start: 162 @31679 has 317 MA's), (244, 31850), (272, 31898), (340, 32051), (346, 32060), (402, 32141), (454, 32234), (484, 32294), (492, 32306), (493, 32309), (504, 32336), (514, 32360), (539, 32387), (573, 32423), (574, 32426), (593, 32462), (610, 32498), (663, 32567), (670, 32582), (690, 32600), (713, 32669), (716, 32678), (726, 32717), (731, 32735), (755, 32771), (760, 32780), (762, 32783),

Gene: Juno112\_35 Start: 23916, Stop: 22723, Start Num: 147

Candidate Starts for Juno112\_35:

(Start: 147 @23916 has 80 MA's), (365, 23487), (384, 23430), (398, 23406), (533, 23178), (607, 23052), (614, 23040), (625, 23019), (708, 22881), (729, 22800), (760, 22752),

Gene: KHumphrey\_36 Start: 23915, Stop: 22722, Start Num: 147

Candidate Starts for KHumphrey\_36:

(Start: 147 @23915 has 80 MA's), (365, 23486), (384, 23429), (398, 23405), (533, 23177), (607, 23051), (614, 23039), (625, 23018), (708, 22880), (729, 22799), (760, 22751),

Gene: Kabloowy\_40 Start: 27949, Stop: 26810, Start Num: 162

Candidate Starts for Kabloowy\_40:

(Start: 162 @27949 has 317 MA's), (Start: 191 @27898 has 14 MA's), (277, 27730), (285, 27712), (322, 27625), (346, 27580), (402, 27502), (451, 27415), (456, 27406), (535, 27256), (599, 27151), (614, 27130), (631, 27103), (703, 26980), (709, 26956), (712, 26941), (733, 26866), (753, 26836),

Gene: Kachowdy\_33 Start: 26270, Stop: 25230, Start Num: 204

Candidate Starts for Kachowdy\_33:

(Start: 152 @26357 has 120 MA's), (204, 26270), (Start: 217 @26234 has 6 MA's), (234, 26189), (317, 26033), (320, 26021), (322, 26015), (356, 25970), (401, 25916), (402, 25913), (413, 25889), (515, 25700), (534, 25682), (548, 25670), (574, 25631), (593, 25595), (595, 25589), (603, 25568), (622, 25553), (633, 25535), (704, 25397), (717, 25349), (724, 25319), (726, 25313), (729, 25301), (755, 25262),

Gene: Kalah2\_76 Start: 52356, Stop: 53585, Start Num: 116

Candidate Starts for Kalah2\_76:

(Start: 116 @52356 has 29 MA's), (Start: 131 @52374 has 3 MA's), (Start: 160 @52413 has 1 MA's), (276, 52650), (322, 52758), (395, 52878), (396, 52881), (401, 52890), (408, 52905), (426, 52944), (464, 53022), (524, 53127), (532, 53139), (545, 53142), (553, 53151), (582, 53202), (584, 53205), (592, 53223), (639, 53319), (688, 53376), (723, 53496), (724, 53499), (731, 53523), (747, 53547), (749, 53550),

Gene: Kalb97\_36 Start: 26642, Stop: 25497, Start Num: 152

Candidate Starts for Kalb97\_36:

(Start: 101 @26705 has 2 MA's), (Start: 152 @26642 has 120 MA's), (Start: 191 @26588 has 14 MA's), (Start: 217 @26519 has 6 MA's), (322, 26300), (328, 26291), (356, 26255), (402, 26198), (449, 26120), (466, 26087), (515, 25985), (534, 25967), (548, 25955), (593, 25880), (595, 25874), (603, 25853), (622, 25838), (633, 25820), (647, 25796), (716, 25637), (717, 25634), (724, 25604), (726,

25598), (729, 25586), (755, 25547),

Gene: Kalnoky\_36 Start: 26643, Stop: 25498, Start Num: 152

Candidate Starts for Kalnoky\_36:

(Start: 101 @26706 has 2 MA's), (Start: 152 @26643 has 120 MA's), (Start: 191 @26589 has 14 MA's), (Start: 217 @26520 has 6 MA's), (322, 26301), (328, 26292), (356, 26256), (402, 26199), (449, 26121), (466, 26088), (515, 25986), (534, 25968), (548, 25956), (593, 25881), (595, 25875), (603, 25854), (622, 25839), (633, 25821), (647, 25797), (716, 25638), (717, 25635), (724, 25605), (726, 25599), (729, 25587), (755, 25548),

Gene: Kalpine\_35 Start: 27525, Stop: 26410, Start Num: 154

Candidate Starts for Kalpine\_35:

(Start: 154 @27525 has 2 MA's), (Start: 217 @27405 has 6 MA's), (234, 27360), (277, 27288), (322, 27186), (328, 27177), (356, 27141), (395, 27096), (401, 27087), (402, 27084), (466, 26973), (471, 26961), (534, 26853), (548, 26841), (584, 26784), (593, 26766), (595, 26760), (603, 26739), (622, 26724), (633, 26706), (650, 26679), (704, 26568), (717, 26520), (724, 26490), (726, 26484), (729, 26472), (755, 26433),

Gene: Kamaru\_44 Start: 31555, Stop: 32652, Start Num: 162

Candidate Starts for Kamaru\_44:

(31, 31219), (46, 31315), (109, 31498), (Start: 162 @31555 has 317 MA's), (Start: 191 @31606 has 14 MA's), (225, 31678), (227, 31684), (240, 31711), (272, 31756), (289, 31798), (340, 31906), (401, 31975), (408, 31990), (452, 32065), (471, 32107), (492, 32140), (493, 32143), (497, 32155), (574, 32257), (627, 32350), (675, 32422), (703, 32458), (709, 32482), (715, 32509), (728, 32557), (762, 32617),

Gene: Kamy\_33 Start: 26181, Stop: 25129, Start Num: 195

Candidate Starts for Kamy\_33:

(Start: 110 @26295 has 3 MA's), (135, 26268), (Start: 152 @26250 has 120 MA's), (Start: 195 @26181 has 8 MA's), (Start: 217 @26127 has 6 MA's), (322, 25908), (328, 25899), (356, 25863), (394, 25821), (401, 25809), (402, 25806), (449, 25728), (515, 25593), (534, 25575), (593, 25488), (595, 25482), (603, 25461), (622, 25446), (633, 25428), (704, 25290), (717, 25242), (724, 25212), (726, 25206), (729, 25194), (755, 25155),

Gene: KashFlow\_76 Start: 48091, Stop: 49320, Start Num: 116

Candidate Starts for KashFlow\_76:

(Start: 116 @48091 has 29 MA's), (Start: 131 @48109 has 3 MA's), (Start: 160 @48148 has 1 MA's), (276, 48385), (322, 48493), (395, 48613), (396, 48616), (401, 48625), (408, 48640), (426, 48679), (464, 48757), (532, 48874), (545, 48877), (553, 48886), (582, 48937), (584, 48940), (592, 48958), (639, 49054), (688, 49111), (723, 49231), (724, 49234), (731, 49258), (747, 49282), (749, 49285),

Gene: KayMoney\_38 Start: 26157, Stop: 27299, Start Num: 162

Candidate Starts for KayMoney\_38:

(Start: 155 @26148 has 3 MA's), (Start: 162 @26157 has 317 MA's), (340, 26517), (351, 26535), (414, 26643), (451, 26703), (497, 26796), (574, 26916), (596, 26964), (612, 26994), (670, 27090), (716, 27198), (743, 27273),

Gene: KendraB23\_42 Start: 25277, Stop: 24093, Start Num: 147

Candidate Starts for KendraB23\_42:

(Start: 147 @25277 has 80 MA's), (266, 25058), (276, 25040), (330, 24923), (365, 24848), (366, 24845), (552, 24518), (599, 24425), (607, 24413), (617, 24395), (700, 24278), (708, 24242),

Gene: Kenna\_49 Start: 32526, Stop: 33596, Start Num: 162

Candidate Starts for Kenna\_49:

(Start: 162 @32526 has 317 MA's), (Start: 191 @32577 has 14 MA's), (227, 32655), (240, 32682), (340, 32877), (346, 32886), (395, 32937), (401, 32946), (402, 32949), (408, 32961), (433, 33006), (456, 33042), (471, 33078), (492, 33111), (493, 33114), (497, 33126), (605, 33294), (675, 33393), (709, 33453), (715, 33480), (716, 33483), (722, 33510), (724, 33516), (728, 33528), (760, 33585),

Gene: Kenuha5\_39 Start: 31177, Stop: 32295, Start Num: 162

Candidate Starts for Kenuha5\_39:

(Start: 162 @31177 has 317 MA's), (244, 31348), (322, 31513), (340, 31549), (346, 31558), (414, 31663), (454, 31732), (471, 31771), (484, 31792), (492, 31804), (493, 31807), (497, 31819), (504, 31834), (514, 31858), (520, 31864), (539, 31885), (573, 31921), (574, 31924), (593, 31960), (595, 31966), (599, 31981), (610, 31996), (663, 32065), (670, 32080), (703, 32122), (713, 32167), (716, 32176), (726, 32215), (731, 32233), (746, 32254), (755, 32269), (760, 32278), (762, 32281),

Gene: Kepler\_38 Start: 24761, Stop: 23574, Start Num: 147

Candidate Starts for Kepler\_38:

(84, 24851), (Start: 147 @24761 has 80 MA's), (330, 24407), (365, 24332), (607, 23897), (700, 23762), (751, 23612),

Gene: Kerberos\_37 Start: 26420, Stop: 25350, Start Num: 191

Candidate Starts for Kerberos\_37:

(Start: 152 @26474 has 120 MA's), (Start: 191 @26420 has 14 MA's), (Start: 217 @26351 has 6 MA's), (317, 26150), (328, 26123), (356, 26087), (402, 26030), (414, 26003), (449, 25952), (466, 25919), (471, 25907), (481, 25889), (515, 25817), (534, 25799), (548, 25787), (574, 25748), (593, 25712), (595, 25706), (603, 25685), (622, 25670), (633, 25652), (650, 25625), (704, 25514), (717, 25466), (718, 25463), (724, 25436), (726, 25430), (729, 25418), (755, 25379),

Gene: Khuang\_45 Start: 28583, Stop: 27426, Start Num: 144

Candidate Starts for Khuang\_45:

(Start: 144 @28583 has 4 MA's), (Start: 177 @28532 has 3 MA's), (190, 28508), (246, 28388), (266, 28349), (276, 28331), (278, 28325), (283, 28316), (315, 28259), (360, 28160), (368, 28136), (370, 28127), (410, 28037), (412, 28031), (415, 28022), (500, 27905), (555, 27836), (594, 27767), (616, 27725), (625, 27707), (631, 27704), (643, 27680), (662, 27650), (700, 27599), (714, 27539), (715, 27536), (753, 27446),

Gene: KiSi\_45 Start: 33691, Stop: 34776, Start Num: 162

Candidate Starts for KiSi\_45:

(1, 32323), (2, 32353), (3, 32512), (4, 32560), (5, 32629), (6, 32653), (7, 32734), (8, 32743), (9, 32767), (10, 32887), (17, 33088), (19, 33106), (22, 33184), (32, 33355), (43, 33430), (51, 33469), (64, 33523), (Start: 162 @33691 has 317 MA's), (228, 33826), (244, 33853), (317, 33991), (335, 34033), (340, 34045), (408, 34129), (451, 34198), (452, 34201), (471, 34243), (534, 34351), (598, 34456), (663, 34543), (701, 34591), (728, 34699), (755, 34747),

Gene: Kimona\_30 Start: 24408, Stop: 23293, Start Num: 152

Candidate Starts for Kimona\_30:

(123, 24435), (135, 24426), (Start: 152 @24408 has 120 MA's), (199, 24330), (Start: 217 @24285 has 6 MA's), (322, 24066), (328, 24057), (356, 24021), (401, 23967), (402, 23964), (449, 23886), (534, 23733), (536, 23730), (593, 23646), (603, 23619), (622, 23604), (633, 23586), (650, 23559), (704, 23448), (717, 23400), (724, 23370), (726, 23364), (729, 23352), (741, 23331), (755, 23313),

Gene: Kinbote\_29 Start: 26478, Stop: 25285, Start Num: 181

Candidate Starts for Kinbote\_29:

(Start: 155 @26520 has 3 MA's), (Start: 181 @26478 has 20 MA's), (211, 26412), (247, 26331), (266, 26292), (275, 26277), (277, 26271), (281, 26259), (293, 26232), (311, 26199), (339, 26142), (359, 26109), (360, 26106), (375, 26058), (401, 26016), (402, 26013), (412, 25989), (419, 25974), (429, 25950), (438, 25935), (462, 25896), (468, 25884), (488, 25845), (506, 25806), (528, 25758), (531, 25755), (580, 25683), (583, 25677), (588, 25665), (591, 25662), (593, 25656), (619, 25602), (630, 25584), (631, 25581), (645, 25554), (656, 25536), (661, 25530), (662, 25527), (701, 25485), (707, 25458), (709, 25452), (722, 25395), (759, 25332), (760, 25329),

Gene: KingCyrus\_36 Start: 28129, Stop: 27002, Start Num: 148

Candidate Starts for KingCyrus\_36:

(Start: 133 @28147 has 7 MA's), (Start: 148 @28129 has 5 MA's), (Start: 195 @28048 has 8 MA's), (Start: 217 @28000 has 6 MA's), (234, 27955), (317, 27799), (328, 27772), (356, 27736), (402, 27679), (408, 27667), (449, 27601), (466, 27568), (471, 27556), (481, 27538), (534, 27448), (548, 27436), (593, 27361), (595, 27355), (603, 27334), (622, 27319), (633, 27301), (647, 27277), (650, 27274), (653, 27265), (704, 27163), (717, 27115), (718, 27112), (724, 27085), (726, 27079), (729, 27067), (755, 27028),

Gene: KingJulian\_42 Start: 32428, Stop: 33546, Start Num: 162

Candidate Starts for KingJulian\_42:

(Start: 162 @32428 has 317 MA's), (165, 32437), (244, 32599), (322, 32764), (340, 32800), (346, 32809), (414, 32914), (454, 32983), (471, 33022), (481, 33040), (484, 33043), (492, 33055), (493, 33058), (497, 33070), (504, 33085), (514, 33109), (520, 33115), (539, 33136), (573, 33172), (574, 33175), (593, 33211), (595, 33217), (599, 33232), (610, 33247), (663, 33316), (670, 33331), (703, 33373), (713, 33418), (716, 33427), (720, 33439), (726, 33466), (731, 33484), (746, 33505), (755, 33520), (760, 33529), (762, 33532),

Gene: Kingsley\_38 Start: 30711, Stop: 31829, Start Num: 162

Candidate Starts for Kingsley\_38:

(Start: 162 @30711 has 317 MA's), (244, 30882), (322, 31047), (340, 31083), (346, 31092), (402, 31173), (414, 31197), (454, 31266), (471, 31305), (481, 31323), (484, 31326), (492, 31338), (493, 31341), (497, 31353), (504, 31368), (514, 31392), (520, 31398), (539, 31419), (573, 31455), (574, 31458), (593, 31494), (595, 31500), (598, 31512), (599, 31515), (610, 31530), (663, 31599), (670, 31614), (703, 31656), (713, 31701), (716, 31710), (726, 31749), (731, 31767), (746, 31788), (755, 31803), (760, 31812), (762, 31815),

Gene: Kita\_40 Start: 30461, Stop: 31654, Start Num: 85

Candidate Starts for Kita\_40:

(Start: 85 @30461 has 6 MA's), (Start: 159 @30572 has 56 MA's), (Start: 191 @30626 has 14 MA's), (252, 30746), (401, 31001), (414, 31031), (452, 31091), (486, 31157), (497, 31181), (709, 31511), (715, 31538), (760, 31643),

Gene: Klein\_81 Start: 51782, Stop: 53011, Start Num: 116

Candidate Starts for Klein\_81:

(Start: 116 @51782 has 29 MA's), (Start: 131 @51800 has 3 MA's), (Start: 160 @51839 has 1 MA's), (276, 52076), (322, 52184), (395, 52304), (396, 52307), (401, 52316), (408, 52331), (426, 52370), (464, 52448), (524, 52553), (532, 52565), (545, 52568), (553, 52577), (582, 52628), (584, 52631), (592, 52649), (639, 52745), (688, 52802), (723, 52922), (724, 52925), (731, 52949), (747, 52973), (749, 52976),

Gene: Koduck\_34 Start: 25409, Stop: 24294, Start Num: 157

Candidate Starts for Koduck\_34:

(Start: 157 @25409 has 10 MA's), (204, 25328), (Start: 217 @25292 has 6 MA's), (234, 25247), (284, 25160), (317, 25091), (320, 25079), (328, 25064), (335, 25049), (356, 25028), (401, 24974), (402,

24971), (515, 24758), (529, 24746), (534, 24740), (548, 24728), (564, 24707), (593, 24653), (603, 24626), (622, 24611), (633, 24593), (650, 24566), (717, 24407), (724, 24377), (726, 24371), (729, 24359), (755, 24320),

Gene: KristaRAM\_43 Start: 33503, Stop: 34630, Start Num: 162

Candidate Starts for KristaRAM\_43:

(86, 33401), (121, 33458), (Start: 162 @33503 has 317 MA's), (165, 33512), (244, 33674), (268, 33725), (277, 33743), (296, 33788), (340, 33884), (346, 33893), (402, 33974), (414, 33998), (454, 34067), (471, 34106), (484, 34127), (492, 34139), (493, 34142), (497, 34154), (504, 34169), (514, 34193), (520, 34199), (539, 34220), (573, 34256), (574, 34259), (593, 34295), (595, 34301), (598, 34313), (599, 34316), (610, 34331), (663, 34400), (670, 34415), (703, 34457), (713, 34502), (716, 34511), (726, 34550), (731, 34568), (746, 34589), (755, 34604), (760, 34613), (762, 34616),

Gene: Kudrefre\_6 Start: 2520, Stop: 1432, Start Num: 184

Candidate Starts for Kudrefre\_6:

(112, 2625), (171, 2541), (Start: 184 @2520 has 4 MA's), (270, 2349), (313, 2259), (320, 2235), (482, 1983), (502, 1950), (522, 1908), (530, 1893), (546, 1872), (554, 1863), (559, 1857), (602, 1773), (613, 1758), (660, 1671), (683, 1638), (715, 1545), (723, 1512), (726, 1503), (728, 1497),

Gene: Kukla\_36 Start: 28255, Stop: 27116, Start Num: 167

Candidate Starts for Kukla\_36:

(Start: 167 @28255 has 2 MA's), (204, 28189), (231, 28114), (242, 28093), (268, 28048), (307, 27964), (332, 27907), (340, 27889), (384, 27853), (401, 27823), (408, 27808), (413, 27796), (423, 27775), (451, 27739), (452, 27736), (462, 27715), (484, 27673), (486, 27670), (497, 27646), (534, 27589), (602, 27481), (646, 27430), (692, 27358), (712, 27289), (714, 27280), (774, 27148), (779, 27142),

Gene: Kuleana\_37 Start: 24189, Stop: 23008, Start Num: 147

Candidate Starts for Kuleana\_37:

(Start: 147 @24189 has 80 MA's), (322, 23850), (607, 23325),

Gene: Kumotta\_30 Start: 23663, Stop: 24967, Start Num: 131

Candidate Starts for Kumotta\_30:

(Start: 131 @23663 has 3 MA's), (172, 23720), (212, 23807), (215, 23816), (224, 23837), (273, 23939), (295, 23993), (299, 23999), (321, 24044), (325, 24053), (345, 24092), (452, 24338), (600, 24611), (631, 24668), (700, 24764), (705, 24791), (718, 24839), (724, 24866), (736, 24896), (748, 24911), (755, 24923),

Gene: L5\_33 Start: 25369, Stop: 24254, Start Num: 157

Candidate Starts for L5\_33:

(Start: 157 @25369 has 10 MA's), (204, 25288), (Start: 217 @25252 has 6 MA's), (234, 25207), (284, 25120), (317, 25051), (320, 25039), (328, 25024), (335, 25009), (356, 24988), (401, 24934), (402, 24931), (515, 24718), (529, 24706), (534, 24700), (548, 24688), (564, 24667), (593, 24613), (603, 24586), (622, 24571), (633, 24553), (650, 24526), (717, 24367), (724, 24337), (726, 24331), (729, 24319), (755, 24280),

Gene: LBerry\_36 Start: 26790, Stop: 25645, Start Num: 152

Candidate Starts for LBerry\_36:

(Start: 152 @26790 has 120 MA's), (Start: 179 @26751 has 10 MA's), (204, 26703), (Start: 217 @26667 has 6 MA's), (234, 26622), (317, 26466), (328, 26439), (356, 26403), (402, 26346), (449, 26268), (462, 26244), (481, 26205), (515, 26133), (529, 26121), (534, 26115), (548, 26103), (593, 26028), (595, 26022), (603, 26001), (622, 25986), (633, 25968), (647, 25944), (704, 25830), (716, 25785), (717, 25782), (720, 25773), (724, 25752), (726, 25746), (729, 25734), (755, 25695),

Gene: LHTSCC\_34 Start: 26518, Stop: 25466, Start Num: 195

Candidate Starts for LHTSCC\_34:

(135, 26605), (Start: 152 @26587 has 120 MA's), (Start: 195 @26518 has 8 MA's), (Start: 217 @26464 has 6 MA's), (322, 26245), (328, 26236), (356, 26200), (394, 26158), (401, 26146), (402, 26143), (515, 25930), (534, 25912), (593, 25825), (595, 25819), (603, 25798), (622, 25783), (633, 25765), (704, 25627), (717, 25579), (724, 25549), (726, 25543), (729, 25531), (755, 25492),

Gene: Lamberg\_33 Start: 26384, Stop: 27466, Start Num: 159

Candidate Starts for Lamberg\_33:

(Start: 83 @26267 has 2 MA's), (Start: 85 @26273 has 6 MA's), (Start: 159 @26384 has 56 MA's), (Start: 191 @26438 has 14 MA's), (252, 26558), (401, 26813), (414, 26843), (452, 26903), (486, 26969), (497, 26993), (542, 27062), (573, 27098), (709, 27323), (715, 27350), (760, 27455),

Gene: Landor\_35 Start: 28009, Stop: 26867, Start Num: 139

Candidate Starts for Landor\_35:

(Start: 139 @28009 has 1 MA's), (Start: 217 @27874 has 6 MA's), (234, 27829), (237, 27823), (260, 27784), (303, 27700), (320, 27661), (356, 27610), (430, 27499), (466, 27442), (471, 27430), (497, 27382), (534, 27322), (536, 27319), (593, 27235), (595, 27229), (603, 27208), (622, 27193), (633, 27175), (717, 26989), (724, 26959), (726, 26953), (729, 26941), (755, 26902), (770, 26878),

Gene: Laphuphu24k\_35 Start: 23900, Stop: 22707, Start Num: 147

Candidate Starts for Laphuphu24k\_35:

(Start: 147 @23900 has 80 MA's), (365, 23471), (384, 23414), (398, 23390), (533, 23162), (607, 23036), (614, 23024), (625, 23003), (708, 22865), (729, 22784), (760, 22736),

Gene: Larenn\_35 Start: 26836, Stop: 25694, Start Num: 133

Candidate Starts for Larenn\_35:

(Start: 133 @26836 has 7 MA's), (Start: 148 @26818 has 5 MA's), (Start: 217 @26689 has 6 MA's), (234, 26644), (322, 26470), (328, 26461), (356, 26425), (402, 26368), (449, 26290), (466, 26257), (471, 26245), (481, 26227), (534, 26137), (548, 26125), (593, 26050), (595, 26044), (603, 26023), (622, 26008), (633, 25990), (650, 25963), (704, 25852), (717, 25804), (718, 25801), (724, 25774), (726, 25768), (729, 25756), (755, 25717),

Gene: Lasker\_39 Start: 27772, Stop: 26633, Start Num: 162

Candidate Starts for Lasker\_39:

(150, 27787), (Start: 162 @27772 has 317 MA's), (Start: 191 @27721 has 14 MA's), (277, 27553), (285, 27535), (346, 27403), (402, 27325), (408, 27313), (411, 27307), (451, 27238), (456, 27229), (486, 27169), (535, 27079), (599, 26974), (614, 26953), (631, 26926), (703, 26803), (709, 26779), (712, 26764), (733, 26689), (753, 26659),

Gene: LastJedi\_34 Start: 27598, Stop: 28716, Start Num: 162

Candidate Starts for LastJedi\_34:

(Start: 162 @27598 has 317 MA's), (165, 27607), (244, 27769), (322, 27934), (340, 27970), (346, 27979), (402, 28060), (414, 28084), (454, 28153), (471, 28192), (481, 28210), (484, 28213), (492, 28225), (493, 28228), (497, 28240), (504, 28255), (514, 28279), (520, 28285), (539, 28306), (573, 28342), (574, 28345), (593, 28381), (595, 28387), (599, 28402), (610, 28417), (663, 28486), (670, 28501), (703, 28543), (713, 28588), (716, 28597), (726, 28636), (731, 28654), (746, 28675), (755, 28690), (760, 28699), (762, 28702),

Gene: LaterM\_42 Start: 33376, Stop: 34464, Start Num: 162

Candidate Starts for LaterM\_42:

(Start: 162 @33376 has 317 MA's), (Start: 217 @33478 has 6 MA's), (226, 33502), (244, 33538), (277, 33589), (304, 33652), (317, 33676), (340, 33730), (342, 33733), (408, 33814), (451, 33883), (452,

33886), (466, 33916), (534, 34036), (587, 34114), (598, 34141), (701, 34276),

Gene: Lawnathon\_40 Start: 27623, Stop: 26484, Start Num: 162

Candidate Starts for Lawnathon\_40:

(Start: 162 @27623 has 317 MA's), (Start: 191 @27572 has 14 MA's), (277, 27404), (285, 27386), (346, 27254), (402, 27176), (408, 27164), (411, 27158), (451, 27089), (456, 27080), (486, 27020), (535, 26930), (599, 26825), (614, 26804), (631, 26777), (703, 26654), (709, 26630), (712, 26615), (733, 26540), (753, 26510),

Gene: LeBruni\_37 Start: 27007, Stop: 25868, Start Num: 162

Candidate Starts for LeBruni\_37:

(142, 27031), (Start: 162 @27007 has 317 MA's), (183, 26968), (Start: 191 @26956 has 14 MA's), (277, 26788), (285, 26770), (346, 26638), (402, 26560), (408, 26548), (451, 26473), (456, 26464), (486, 26404), (535, 26314), (631, 26161), (672, 26092), (703, 26038), (709, 26014), (712, 25999), (753, 25894),

Gene: LeMond\_45 Start: 33694, Stop: 34779, Start Num: 162

Candidate Starts for LeMond\_45:

(64, 33526), (Start: 162 @33694 has 317 MA's), (228, 33829), (244, 33856), (317, 33994), (335, 34036), (340, 34048), (408, 34132), (451, 34201), (452, 34204), (471, 34246), (534, 34354), (598, 34459), (663, 34546), (701, 34594), (728, 34702), (755, 34750),

Gene: Lederberg\_27 Start: 25613, Stop: 24285, Start Num: 102

Candidate Starts for Lederberg\_27:

(Start: 102 @25613 has 3 MA's), (128, 25577), (136, 25568), (Start: 175 @25511 has 3 MA's), (283, 25301), (284, 25298), (329, 25199), (337, 25181), (393, 25115), (396, 25109), (402, 25097), (480, 24932), (503, 24887), (513, 24866), (518, 24854), (530, 24830), (548, 24806), (554, 24800), (576, 24764), (619, 24668), (651, 24611), (677, 24566), (693, 24542), (700, 24527), (715, 24461), (716, 24458), (722, 24431), (728, 24413), (762, 24353), (788, 24299),

Gene: LeoAvram\_33 Start: 26179, Stop: 25127, Start Num: 195

Candidate Starts for LeoAvram\_33:

(Start: 110 @26293 has 3 MA's), (135, 26266), (Start: 152 @26248 has 120 MA's), (Start: 195 @26179 has 8 MA's), (Start: 217 @26125 has 6 MA's), (322, 25906), (328, 25897), (356, 25861), (394, 25819), (401, 25807), (402, 25804), (449, 25726), (515, 25591), (534, 25573), (593, 25486), (595, 25480), (603, 25459), (622, 25444), (633, 25426), (704, 25288), (717, 25240), (724, 25210), (726, 25204), (729, 25192), (755, 25153),

Gene: Leogania\_35 Start: 28027, Stop: 26906, Start Num: 152

Candidate Starts for Leogania\_35:

(Start: 101 @28090 has 2 MA's), (Start: 152 @28027 has 120 MA's), (Start: 191 @27973 has 14 MA's), (Start: 217 @27904 has 6 MA's), (234, 27859), (356, 27640), (430, 27529), (471, 27460), (534, 27352), (536, 27349), (548, 27340), (593, 27265), (595, 27259), (603, 27238), (622, 27223), (633, 27205), (704, 27067), (717, 27019), (718, 27016), (724, 26989), (726, 26983), (729, 26971), (755, 26932),

Gene: Leona\_35 Start: 23984, Stop: 22791, Start Num: 147

Candidate Starts for Leona\_35:

(Start: 147 @23984 has 80 MA's), (208, 23870), (365, 23555), (533, 23246), (607, 23120), (614, 23108), (625, 23087), (760, 22820),

Gene: Leroy\_50 Start: 33450, Stop: 34544, Start Num: 162

Candidate Starts for Leroy\_50:

(Start: 162 @33450 has 317 MA's), (Start: 191 @33501 has 14 MA's), (225, 33573), (227, 33579), (240, 33606), (272, 33651), (289, 33693), (322, 33765), (401, 33870), (408, 33885), (433, 33930), (471, 34002), (492, 34035), (493, 34038), (497, 34050), (603, 34215), (709, 34377), (710, 34380), (716, 34407), (720, 34419), (762, 34512),

Gene: Leviathan\_35 Start: 26826, Stop: 25681, Start Num: 133

Candidate Starts for Leviathan\_35:

(Start: 133 @26826 has 7 MA's), (Start: 148 @26808 has 5 MA's), (Start: 195 @26724 has 8 MA's), (Start: 217 @26676 has 6 MA's), (234, 26631), (328, 26448), (356, 26412), (402, 26355), (408, 26343), (466, 26244), (481, 26214), (534, 26124), (548, 26112), (593, 26037), (595, 26031), (603, 26010), (622, 25995), (633, 25977), (650, 25950), (704, 25839), (717, 25791), (718, 25788), (724, 25761), (726, 25755), (729, 25743), (755, 25704),

Gene: LilHazelnut\_29 Start: 26478, Stop: 25285, Start Num: 181

Candidate Starts for LilHazelnut\_29:

(Start: 155 @26520 has 3 MA's), (Start: 181 @26478 has 20 MA's), (211, 26412), (247, 26331), (266, 26292), (275, 26277), (277, 26271), (281, 26259), (293, 26232), (311, 26199), (339, 26142), (359, 26109), (360, 26106), (375, 26058), (401, 26016), (402, 26013), (412, 25989), (419, 25974), (429, 25950), (438, 25935), (462, 25896), (468, 25884), (488, 25845), (506, 25806), (528, 25758), (531, 25755), (580, 25683), (583, 25677), (588, 25665), (591, 25662), (593, 25656), (619, 25602), (630, 25584), (631, 25581), (645, 25554), (656, 25536), (661, 25530), (662, 25527), (701, 25485), (707, 25458), (709, 25452), (722, 25395), (759, 25332), (760, 25329),

Gene: LilJank\_9 Start: 3475, Stop: 2372, Start Num: 188

Candidate Starts for LilJank\_9:

(173, 3502), (Start: 188 @3475 has 12 MA's), (193, 3463), (211, 3409), (Start: 222 @3394 has 1 MA's), (229, 3370), (250, 3343), (314, 3217), (360, 3145), (402, 3082), (408, 3070), (426, 3031), (467, 2947), (477, 2926), (496, 2890), (520, 2839), (574, 2770), (637, 2638), (672, 2578), (695, 2542), (703, 2527), (712, 2488), (722, 2446),

Gene: LilPharaoh\_36 Start: 31976, Stop: 33070, Start Num: 162

Candidate Starts for LilPharaoh\_36:

(28, 31625), (Start: 33 @31640 has 1 MA's), (46, 31733), (51, 31754), (79, 31847), (Start: 162 @31976 has 317 MA's), (Start: 191 @32027 has 14 MA's), (226, 32102), (244, 32138), (296, 32234), (304, 32252), (317, 32276), (337, 32324), (340, 32330), (432, 32462), (451, 32495), (471, 32540), (534, 32648), (598, 32753), (646, 32813), (701, 32888), (728, 32996), (748, 33032),

Gene: LilSpotty\_38 Start: 27607, Stop: 28713, Start Num: 162

Candidate Starts for LilSpotty\_38:

(Start: 162 @27607 has 317 MA's), (238, 27766), (256, 27802), (340, 27979), (408, 28063), (433, 28108), (451, 28132), (464, 28162), (466, 28165), (486, 28201), (492, 28210), (493, 28213), (514, 28264), (534, 28285), (587, 28363), (595, 28378), (638, 28438), (663, 28477), (670, 28492), (703, 28543), (709, 28567), (713, 28588),

Gene: LilTurb\_34 Start: 26659, Stop: 25508, Start Num: 133

Candidate Starts for LilTurb\_34:

(Start: 133 @26659 has 7 MA's), (Start: 148 @26641 has 5 MA's), (Start: 195 @26557 has 8 MA's), (Start: 217 @26509 has 6 MA's), (234, 26464), (328, 26281), (356, 26245), (402, 26188), (408, 26176), (414, 26161), (466, 26077), (471, 26065), (481, 26047), (534, 25957), (548, 25945), (593, 25870), (595, 25864), (603, 25843), (622, 25828), (633, 25810), (650, 25783), (704, 25672), (717, 25624), (718, 25621), (724, 25594), (726, 25588), (729, 25576), (755, 25537),

Gene: Lilas\_38 Start: 32714, Stop: 33796, Start Num: 159

Candidate Starts for Lilas\_38:

(Start: 159 @32714 has 56 MA's), (Start: 222 @32831 has 1 MA's), (272, 32924), (401, 33146), (418, 33182), (452, 33236), (488, 33305), (493, 33314), (709, 33653), (715, 33680), (760, 33785),

Gene: Lilit\_36 Start: 26744, Stop: 25638, Start Num: 179

Candidate Starts for Lilit\_36:

(Start: 152 @26783 has 120 MA's), (Start: 179 @26744 has 10 MA's), (Start: 217 @26660 has 6 MA's), (234, 26615), (317, 26459), (328, 26432), (356, 26396), (402, 26339), (449, 26261), (462, 26237), (481, 26198), (515, 26126), (529, 26114), (534, 26108), (548, 26096), (593, 26021), (595, 26015), (603, 25994), (622, 25979), (633, 25961), (647, 25937), (704, 25823), (716, 25778), (717, 25775), (720, 25766), (724, 25745), (726, 25739), (729, 25727), (755, 25688),

Gene: LilyBell\_38 Start: 26387, Stop: 27529, Start Num: 162

Candidate Starts for LilyBell\_38:

(63, 26210), (76, 26249), (91, 26288), (96, 26297), (Start: 162 @26387 has 317 MA's), (337, 26741), (340, 26747), (351, 26765), (414, 26873), (451, 26933), (497, 27026), (574, 27146), (596, 27194), (607, 27215), (612, 27224), (670, 27320), (710, 27401), (713, 27419), (716, 27428), (743, 27503),

Gene: LindNT\_41 Start: 32665, Stop: 33753, Start Num: 162

Candidate Starts for LindNT\_41:

(70, 32518), (Start: 162 @32665 has 317 MA's), (Start: 217 @32767 has 6 MA's), (226, 32791), (244, 32827), (317, 32965), (340, 33019), (408, 33103), (451, 33172), (452, 33175), (534, 33325), (598, 33430), (663, 33517), (701, 33565), (748, 33709),

Gene: LionsBait\_35 Start: 27714, Stop: 26557, Start Num: 152

Candidate Starts for LionsBait\_35:

(Start: 152 @27714 has 120 MA's), (Start: 217 @27591 has 6 MA's), (224, 27573), (234, 27546), (328, 27363), (356, 27327), (402, 27270), (449, 27192), (534, 27039), (548, 27027), (593, 26952), (595, 26946), (603, 26925), (622, 26910), (633, 26892), (644, 26871), (704, 26754), (717, 26706), (718, 26703), (724, 26676), (726, 26670), (729, 26658), (755, 26619), (775, 26589),

Gene: LitninMcQueen\_43 Start: 31304, Stop: 32401, Start Num: 162

Candidate Starts for LitninMcQueen\_43:

(31, 30968), (46, 31064), (109, 31247), (Start: 162 @31304 has 317 MA's), (Start: 191 @31355 has 14 MA's), (225, 31427), (227, 31433), (240, 31460), (272, 31505), (289, 31547), (340, 31655), (401, 31724), (408, 31739), (452, 31814), (471, 31856), (492, 31889), (493, 31892), (497, 31904), (574, 32006), (627, 32099), (675, 32171), (703, 32207), (709, 32231), (715, 32258), (728, 32306), (762, 32366),

Gene: LittleE\_82 Start: 51604, Stop: 52791, Start Num: 160

Candidate Starts for LittleE\_82:

(74, 51460), (Start: 90 @51502 has 1 MA's), (Start: 98 @51517 has 10 MA's), (99, 51520), (Start: 131 @51565 has 3 MA's), (Start: 160 @51604 has 1 MA's), (341, 51985), (395, 52069), (401, 52081), (402, 52084), (464, 52213), (545, 52333), (584, 52396), (592, 52414), (601, 52438), (639, 52510), (723, 52687), (724, 52690), (726, 52696), (731, 52714), (741, 52729), (747, 52738), (749, 52741), (773, 52786),

Gene: LittleRon\_36 Start: 25766, Stop: 26908, Start Num: 162

Candidate Starts for LittleRon\_36:

(Start: 162 @25766 has 317 MA's), (337, 26120), (340, 26126), (350, 26141), (385, 26195), (414, 26252), (451, 26312), (452, 26315), (464, 26342), (497, 26405), (574, 26525), (596, 26573), (670, 26699), (677, 26711), (716, 26807), (743, 26882),

Gene: LittleTokyo\_36 Start: 23859, Stop: 22669, Start Num: 147

Candidate Starts for LittleTokyo\_36:

(Start: 147 @23859 has 80 MA's), (365, 23427), (533, 23118), (607, 22992), (614, 22980), (755, 22701),

Gene: Llorens\_41 Start: 32595, Stop: 33683, Start Num: 162

Candidate Starts for Llorens\_41:

(16, 31992), (24, 32169), (42, 32334), (51, 32373), (Start: 162 @32595 has 317 MA's), (Start: 191 @32646 has 14 MA's), (Start: 217 @32697 has 6 MA's), (226, 32721), (244, 32757), (317, 32895), (408, 33033), (451, 33102), (452, 33105), (534, 33255), (598, 33360), (701, 33495),

Gene: LonelyBoi\_38 Start: 32508, Stop: 33590, Start Num: 159

Candidate Starts for LonelyBoi\_38:

(Start: 159 @32508 has 56 MA's), (Start: 191 @32562 has 14 MA's), (252, 32682), (414, 32967), (452, 33027), (497, 33117), (573, 33222), (709, 33447), (715, 33474), (760, 33579),

Gene: LordFarquaad\_35 Start: 27696, Stop: 28778, Start Num: 159

Candidate Starts for LordFarquaad\_35:

(Start: 85 @27585 has 6 MA's), (Start: 159 @27696 has 56 MA's), (Start: 191 @27750 has 14 MA's), (252, 27870), (401, 28125), (414, 28155), (452, 28215), (486, 28281), (497, 28305), (709, 28635), (715, 28662), (760, 28767),

Gene: LordVader\_38 Start: 26840, Stop: 27946, Start Num: 162

Candidate Starts for LordVader\_38:

(145, 26822), (Start: 162 @26840 has 317 MA's), (238, 26999), (256, 27035), (335, 27200), (340, 27212), (408, 27296), (413, 27308), (433, 27341), (451, 27365), (486, 27434), (492, 27443), (493, 27446), (514, 27497), (534, 27518), (587, 27596), (595, 27611), (638, 27671), (663, 27710), (670, 27725), (687, 27749), (703, 27776), (709, 27800), (713, 27821), (716, 27830), (731, 27887),

Gene: Lorde\_42 Start: 31143, Stop: 32261, Start Num: 162

Candidate Starts for Lorde\_42:

(Start: 162 @31143 has 317 MA's), (165, 31152), (244, 31314), (322, 31479), (340, 31515), (346, 31524), (402, 31605), (414, 31629), (454, 31698), (471, 31737), (481, 31755), (484, 31758), (492, 31770), (493, 31773), (497, 31785), (514, 31824), (520, 31830), (539, 31851), (573, 31887), (574, 31890), (593, 31926), (595, 31932), (599, 31947), (663, 32031), (670, 32046), (690, 32064), (713, 32133), (716, 32142), (726, 32181), (731, 32199), (746, 32220), (755, 32235), (760, 32244), (762, 32247),

Gene: Lowa\_36 Start: 26782, Stop: 25637, Start Num: 152

Candidate Starts for Lowa\_36:

(Start: 152 @26782 has 120 MA's), (Start: 179 @26743 has 10 MA's), (Start: 217 @26659 has 6 MA's), (234, 26614), (317, 26458), (328, 26431), (356, 26395), (402, 26338), (449, 26260), (462, 26236), (481, 26197), (515, 26125), (529, 26113), (534, 26107), (548, 26095), (593, 26020), (595, 26014), (603, 25993), (622, 25978), (633, 25960), (647, 25936), (704, 25822), (716, 25777), (717, 25774), (720, 25765), (724, 25744), (726, 25738), (729, 25726), (755, 25687),

Gene: Lton\_34 Start: 25220, Stop: 26299, Start Num: 162

Candidate Starts for Lton\_34:

(Start: 162 @25220 has 317 MA's), (240, 25376), (333, 25556), (452, 25727), (471, 25769), (494, 25808), (497, 25817), (595, 25973), (675, 26096), (709, 26156), (715, 26183), (724, 26219), (728, 26231), (760, 26288),

Gene: Lucky10\_35 Start: 28235, Stop: 29314, Start Num: 162

Candidate Starts for Lucky10\_35:

(23, 27794), (39, 27947), (45, 27989), (95, 28145), (Start: 131 @28199 has 3 MA's), (Start: 162 @28235 has 317 MA's), (240, 28391), (452, 28742), (471, 28784), (494, 28823), (497, 28832), (595, 28988), (675, 29111), (709, 29171), (728, 29246), (760, 29303),

Gene: Lucky2013\_84 Start: 50079, Stop: 51353, Start Num: 98

Candidate Starts for Lucky2013\_84:

(74, 50022), (Start: 90 @50064 has 1 MA's), (Start: 98 @50079 has 10 MA's), (99, 50082), (Start: 131 @50127 has 3 MA's), (Start: 160 @50166 has 1 MA's), (341, 50547), (395, 50631), (401, 50643), (402, 50646), (464, 50775), (545, 50895), (584, 50958), (592, 50976), (601, 51000), (639, 51072), (723, 51249), (724, 51252), (726, 51258), (731, 51276), (741, 51291), (747, 51300), (749, 51303), (773, 51348),

Gene: LugYA\_38 Start: 26790, Stop: 25645, Start Num: 152

Candidate Starts for LugYA\_38:

(Start: 152 @26790 has 120 MA's), (Start: 179 @26751 has 10 MA's), (204, 26703), (Start: 217 @26667 has 6 MA's), (234, 26622), (317, 26466), (328, 26439), (356, 26403), (402, 26346), (449, 26268), (462, 26244), (481, 26205), (515, 26133), (529, 26121), (534, 26115), (548, 26103), (593, 26028), (595, 26022), (603, 26001), (622, 25986), (633, 25968), (647, 25944), (704, 25830), (716, 25785), (717, 25782), (720, 25773), (724, 25752), (726, 25746), (729, 25734), (755, 25695),

Gene: Luke\_29 Start: 26433, Stop: 25240, Start Num: 181

Candidate Starts for Luke\_29:

(Start: 155 @26475 has 3 MA's), (Start: 181 @26433 has 20 MA's), (211, 26367), (247, 26286), (266, 26247), (275, 26232), (277, 26226), (281, 26214), (293, 26187), (311, 26154), (339, 26097), (359, 26064), (360, 26061), (375, 26013), (401, 25971), (402, 25968), (412, 25944), (419, 25929), (429, 25905), (438, 25890), (462, 25851), (468, 25839), (488, 25800), (506, 25761), (528, 25713), (531, 25710), (580, 25638), (583, 25632), (588, 25620), (591, 25617), (593, 25611), (619, 25557), (630, 25539), (631, 25536), (645, 25509), (656, 25491), (661, 25485), (662, 25482), (701, 25440), (707, 25413), (709, 25407), (722, 25350), (759, 25287), (760, 25284),

Gene: Luna22\_29 Start: 26478, Stop: 25285, Start Num: 181

Candidate Starts for Luna22\_29:

(Start: 155 @26520 has 3 MA's), (Start: 181 @26478 has 20 MA's), (211, 26412), (247, 26331), (266, 26292), (275, 26277), (277, 26271), (281, 26259), (293, 26232), (311, 26199), (339, 26142), (359, 26109), (360, 26106), (375, 26058), (401, 26016), (402, 26013), (412, 25989), (419, 25974), (429, 25950), (438, 25935), (462, 25896), (468, 25884), (488, 25845), (506, 25806), (528, 25758), (531, 25755), (580, 25683), (583, 25677), (588, 25665), (591, 25662), (593, 25656), (619, 25602), (630, 25584), (631, 25581), (645, 25554), (656, 25536), (661, 25530), (662, 25527), (701, 25485), (707, 25458), (709, 25452), (722, 25395), (759, 25332), (760, 25329),

Gene: LunaBlu\_46 Start: 33438, Stop: 34556, Start Num: 162

Candidate Starts for LunaBlu\_46:

(Start: 162 @33438 has 317 MA's), (165, 33447), (244, 33609), (322, 33774), (340, 33810), (346, 33819), (414, 33924), (454, 33993), (471, 34032), (481, 34050), (484, 34053), (492, 34065), (493, 34068), (497, 34080), (504, 34095), (514, 34119), (520, 34125), (539, 34146), (573, 34182), (574, 34185), (593, 34221), (595, 34227), (599, 34242), (610, 34257), (663, 34326), (670, 34341), (703, 34383), (713, 34428), (716, 34437), (726, 34476), (731, 34494), (746, 34515), (755, 34530), (760, 34539), (762, 34542),

Gene: LunaStella\_42 Start: 31631, Stop: 32749, Start Num: 162

Candidate Starts for LunaStella\_42:

(Start: 162 @31631 has 317 MA's), (165, 31640), (227, 31769), (244, 31802), (272, 31850), (340, 32003), (346, 32012), (402, 32093), (454, 32186), (484, 32246), (492, 32258), (493, 32261), (504, 32288), (514, 32312), (539, 32339), (573, 32375), (574, 32378), (593, 32414), (610, 32450), (663, 32519), (670, 32534), (690, 32552), (713, 32621), (716, 32630), (726, 32669), (731, 32687), (746, 32708), (755, 32723),

Gene: Lunahalos\_41 Start: 32595, Stop: 33683, Start Num: 162

Candidate Starts for Lunahalos\_41:

(16, 31992), (24, 32169), (42, 32334), (51, 32373), (Start: 162 @32595 has 317 MA's), (Start: 191 @32646 has 14 MA's), (Start: 217 @32697 has 6 MA's), (226, 32721), (244, 32757), (317, 32895), (408, 33033), (451, 33102), (452, 33105), (534, 33255), (598, 33360), (701, 33495),

Gene: Lunar\_38 Start: 24679, Stop: 23492, Start Num: 147

Candidate Starts for Lunar\_38:

(84, 24769), (Start: 147 @24679 has 80 MA's), (607, 23815), (700, 23680), (762, 23512),

Gene: Lutum\_50 Start: 32526, Stop: 33596, Start Num: 162

Candidate Starts for Lutum\_50:

(Start: 162 @32526 has 317 MA's), (Start: 191 @32577 has 14 MA's), (227, 32655), (240, 32682), (340, 32877), (346, 32886), (395, 32937), (401, 32946), (402, 32949), (408, 32961), (433, 33006), (456, 33042), (471, 33078), (492, 33111), (493, 33114), (497, 33126), (605, 33294), (675, 33393), (709, 33453), (715, 33480), (716, 33483), (722, 33510), (724, 33516), (728, 33528), (760, 33585),

Gene: MA5\_33 Start: 25943, Stop: 24819, Start Num: 152

Candidate Starts for MA5\_33:

(Start: 152 @25943 has 120 MA's), (Start: 217 @25820 has 6 MA's), (234, 25775), (277, 25703), (322, 25601), (328, 25592), (356, 25556), (402, 25499), (449, 25421), (534, 25268), (548, 25256), (584, 25199), (593, 25181), (595, 25175), (603, 25154), (622, 25139), (633, 25121), (717, 24935), (724, 24905), (726, 24899), (729, 24887), (755, 24848),

Gene: MK4\_33 Start: 26050, Stop: 24926, Start Num: 152

Candidate Starts for MK4\_33:

(Start: 114 @26092 has 1 MA's), (Start: 152 @26050 has 120 MA's), (Start: 217 @25927 has 6 MA's), (234, 25882), (277, 25810), (300, 25762), (322, 25708), (328, 25699), (356, 25663), (402, 25606), (534, 25375), (548, 25363), (564, 25342), (593, 25288), (595, 25282), (603, 25261), (622, 25246), (633, 25228), (650, 25201), (704, 25090), (717, 25042), (718, 25039), (724, 25012), (726, 25006), (729, 24994), (741, 24973), (755, 24955),

Gene: MUWow\_39 Start: 27853, Stop: 26681, Start Num: 162

Candidate Starts for MUWow\_39:

(Start: 162 @27853 has 317 MA's), (221, 27736), (226, 27721), (285, 27616), (328, 27520), (346, 27484), (402, 27406), (451, 27319), (456, 27310), (486, 27250), (614, 27034), (627, 27010), (631, 27007), (703, 26884), (709, 26860), (712, 26845), (762, 26725), (776, 26698),

Gene: MadMarie\_36 Start: 26792, Stop: 25647, Start Num: 152

Candidate Starts for MadMarie\_36:

(Start: 152 @26792 has 120 MA's), (Start: 179 @26753 has 10 MA's), (204, 26705), (Start: 217 @26669 has 6 MA's), (234, 26624), (317, 26468), (328, 26441), (356, 26405), (402, 26348), (449, 26270), (462, 26246), (481, 26207), (515, 26135), (529, 26123), (534, 26117), (548, 26105), (593, 26030), (595, 26024), (603, 26003), (622, 25988), (633, 25970), (647, 25946), (704, 25832), (716, 25787), (717, 25784), (720, 25775), (724, 25754), (726, 25748), (729, 25736), (755, 25697),

Gene: Madavieve\_34 Start: 30231, Stop: 31313, Start Num: 159

Candidate Starts for Madavieve\_34:

(Start: 85 @30120 has 6 MA's), (Start: 159 @30231 has 56 MA's), (185, 30276), (Start: 191 @30285 has 14 MA's), (252, 30405), (414, 30690), (452, 30750), (486, 30816), (497, 30840), (573, 30945), (603, 31011), (709, 31170), (715, 31197), (728, 31245), (760, 31302), (762, 31305),

Gene: Madeline\_35 Start: 31541, Stop: 30279, Start Num: 147

Candidate Starts for Madeline\_35:

(Start: 147 @31541 has 80 MA's), (225, 31385), (318, 31202), (333, 31166), (365, 31106), (368, 31094), (384, 31049), (403, 31016), (420, 30974), (504, 30860), (539, 30806), (544, 30803), (593, 30728), (598, 30710), (599, 30707), (631, 30650), (696, 30533), (700, 30521), (709, 30482), (713, 30464), (729, 30404), (737, 30389), (748, 30377), (753, 30368), (773, 30329), (787, 30299),

Gene: Mainiac\_36 Start: 26783, Stop: 25638, Start Num: 152

Candidate Starts for Mainiac\_36:

(Start: 152 @26783 has 120 MA's), (Start: 179 @26744 has 10 MA's), (204, 26696), (Start: 217 @26660 has 6 MA's), (234, 26615), (317, 26459), (328, 26432), (356, 26396), (402, 26339), (449, 26261), (462, 26237), (481, 26198), (515, 26126), (529, 26114), (534, 26108), (548, 26096), (593, 26021), (595, 26015), (603, 25994), (622, 25979), (633, 25961), (647, 25937), (704, 25823), (716, 25778), (717, 25775), (720, 25766), (724, 25745), (726, 25739), (729, 25727), (755, 25688),

Gene: MajorMajor\_34 Start: 25599, Stop: 24475, Start Num: 152

Candidate Starts for MajorMajor\_34:

(Start: 152 @25599 has 120 MA's), (199, 25521), (Start: 217 @25476 has 6 MA's), (234, 25431), (272, 25371), (328, 25248), (356, 25212), (401, 25158), (402, 25155), (471, 25032), (473, 25029), (481, 25014), (529, 24930), (534, 24924), (564, 24891), (573, 24876), (593, 24837), (603, 24810), (622, 24795), (633, 24777), (650, 24750), (704, 24639), (717, 24591), (718, 24588), (720, 24582), (724, 24561), (726, 24555), (729, 24543), (755, 24504),

Gene: MakCheese\_48 Start: 36086, Stop: 34929, Start Num: 162

Candidate Starts for MakCheese\_48:

(Start: 162 @36086 has 317 MA's), (298, 35825), (328, 35759), (335, 35744), (340, 35732), (354, 35702), (401, 35588), (414, 35558), (452, 35498), (497, 35408), (514, 35369), (599, 35243), (603, 35237), (605, 35234), (631, 35204), (634, 35198), (646, 35174), (709, 35072), (728, 34997), (760, 34940),

Gene: Malec\_36 Start: 27350, Stop: 26235, Start Num: 162

Candidate Starts for Malec\_36:

(65, 27515), (128, 27389), (Start: 162 @27350 has 317 MA's), (Start: 179 @27317 has 10 MA's), (204, 27269), (Start: 217 @27233 has 6 MA's), (234, 27188), (258, 27146), (260, 27143), (317, 27032), (328, 27005), (356, 26969), (408, 26900), (430, 26858), (471, 26789), (481, 26771), (534, 26681), (593, 26594), (595, 26588), (603, 26567), (622, 26552), (633, 26534), (650, 26507), (704, 26396), (716, 26351), (717, 26348), (718, 26345), (720, 26339), (724, 26318), (726, 26312), (729, 26300), (755, 26261),

Gene: Malibo\_40 Start: 32774, Stop: 31605, Start Num: 147

Candidate Starts for Malibo\_40:

(Start: 147 @32774 has 80 MA's), (315, 32450), (320, 32432), (365, 32345), (368, 32333), (384, 32288), (410, 32240), (412, 32234), (419, 32219), (420, 32216), (425, 32204), (492, 32132), (538, 32051), (631, 31901), (648, 31871), (700, 31814), (702, 31802), (709, 31775), (737, 31682), (753, 31661), (773, 31622), (780, 31613),

Gene: Malinsilva\_38 Start: 26743, Stop: 25637, Start Num: 179

Candidate Starts for Malinsilva\_38:

(Start: 152 @26782 has 120 MA's), (Start: 179 @26743 has 10 MA's), (Start: 217 @26659 has 6 MA's), (234, 26614), (317, 26458), (328, 26431), (356, 26395), (402, 26338), (449, 26260), (462, 26236), (481, 26197), (515, 26125), (529, 26113), (534, 26107), (548, 26095), (593, 26020), (595, 26014), (603, 25993), (622, 25978), (633, 25960), (647, 25936), (704, 25822), (716, 25777), (717, 25774), (720, 25765), (724, 25744), (726, 25738), (729, 25726), (755, 25687),

Gene: Manasvini\_39 Start: 30564, Stop: 31646, Start Num: 159

Candidate Starts for Manasvini\_39:

(Start: 85 @30453 has 6 MA's), (Start: 159 @30564 has 56 MA's), (Start: 191 @30618 has 14 MA's), (252, 30738), (401, 30993), (414, 31023), (452, 31083), (486, 31149), (497, 31173), (709, 31503), (715, 31530), (760, 31635),

Gene: Mandlovu\_40 Start: 31729, Stop: 32847, Start Num: 162

Candidate Starts for Mandlovu\_40:

(Start: 162 @31729 has 317 MA's), (244, 31900), (322, 32065), (340, 32101), (346, 32110), (414, 32215), (454, 32284), (471, 32323), (484, 32344), (492, 32356), (493, 32359), (497, 32371), (514, 32410), (520, 32416), (539, 32437), (573, 32473), (574, 32476), (593, 32512), (595, 32518), (598, 32530), (599, 32533), (610, 32548), (663, 32617), (670, 32632), (690, 32650), (713, 32719), (716, 32728), (726, 32767), (731, 32785), (746, 32806), (755, 32821), (760, 32830), (762, 32833),

Gene: Manu\_36 Start: 26643, Stop: 25498, Start Num: 152

Candidate Starts for Manu\_36:

(Start: 101 @26706 has 2 MA's), (Start: 152 @26643 has 120 MA's), (Start: 191 @26589 has 14 MA's), (Start: 217 @26520 has 6 MA's), (322, 26301), (328, 26292), (356, 26256), (402, 26199), (449, 26121), (466, 26088), (515, 25986), (534, 25968), (548, 25956), (593, 25881), (595, 25875), (603, 25854), (622, 25839), (633, 25821), (647, 25797), (716, 25638), (717, 25635), (724, 25605), (726, 25599), (729, 25587), (755, 25548),

Gene: Mao1\_43 Start: 40085, Stop: 38883, Start Num: 169

Candidate Starts for Mao1\_43:

(Start: 169 @40085 has 7 MA's), (207, 40010), (218, 39986), (220, 39980), (274, 39875), (323, 39764), (325, 39761), (360, 39698), (420, 39563), (429, 39542), (462, 39488), (499, 39413), (528, 39353), (633, 39173), (634, 39170), (645, 39149), (709, 39047), (712, 39032), (729, 38966), (748, 38942), (764, 38912),

Gene: Mapleville\_40 Start: 27702, Stop: 26563, Start Num: 162

Candidate Starts for Mapleville\_40:

(Start: 162 @27702 has 317 MA's), (Start: 191 @27651 has 14 MA's), (277, 27483), (285, 27465), (346, 27333), (402, 27255), (408, 27243), (411, 27237), (451, 27168), (456, 27159), (486, 27099), (535, 27009), (599, 26904), (614, 26883), (631, 26856), (703, 26733), (709, 26709), (712, 26694), (733, 26619), (753, 26589),

Gene: MarQuardt\_36 Start: 26791, Stop: 25646, Start Num: 152

Candidate Starts for MarQuardt\_36:

(Start: 152 @26791 has 120 MA's), (Start: 179 @26752 has 10 MA's), (204, 26704), (Start: 217 @26668 has 6 MA's), (234, 26623), (317, 26467), (328, 26440), (356, 26404), (402, 26347), (449, 26269), (462, 26245), (481, 26206), (515, 26134), (529, 26122), (534, 26116), (548, 26104), (593, 26029), (595, 26023), (603, 26002), (622, 25987), (633, 25969), (647, 25945), (704, 25831), (716, 25786), (717, 25783), (720, 25774), (724, 25753), (726, 25747), (729, 25735), (755, 25696),

Gene: Marchesa\_33 Start: 26268, Stop: 25228, Start Num: 204

Candidate Starts for Marchesa\_33:

(Start: 152 @26355 has 120 MA's), (204, 26268), (Start: 217 @26232 has 6 MA's), (234, 26187), (272, 26127), (317, 26031), (320, 26019), (322, 26013), (356, 25968), (401, 25914), (402, 25911), (413, 25887), (515, 25698), (534, 25680), (548, 25668), (574, 25629), (593, 25593), (595, 25587), (603, 25566), (622, 25551), (633, 25533), (704, 25395), (717, 25347), (724, 25317), (726, 25311), (729, 25299), (755, 25260),

Gene: Marcoliusprime\_43 Start: 34317, Stop: 35417, Start Num: 162

Candidate Starts for Marcoliusprime\_43:

(Start: 162 @34317 has 317 MA's), (Start: 170 @34335 has 1 MA's), (226, 34443), (244, 34479), (304, 34593), (317, 34617), (340, 34671), (438, 34812), (451, 34836), (452, 34839), (471, 34881), (534, 34989), (598, 35094), (636, 35139), (646, 35154), (728, 35346),

Gene: MargaretKali\_30 Start: 23298, Stop: 24602, Start Num: 131

Candidate Starts for MargaretKali\_30:

(Start: 131 @23298 has 3 MA's), (172, 23355), (212, 23442), (215, 23451), (224, 23472), (273, 23574), (295, 23628), (299, 23634), (321, 23679), (325, 23688), (345, 23727), (452, 23973), (600, 24246), (631, 24303), (700, 24399), (705, 24426), (718, 24474), (724, 24501), (736, 24531), (748, 24546), (755, 24558),

Gene: Maridalia\_39 Start: 30563, Stop: 31645, Start Num: 159

Candidate Starts for Maridalia\_39:

(Start: 85 @30452 has 6 MA's), (Start: 159 @30563 has 56 MA's), (Start: 191 @30617 has 14 MA's), (252, 30737), (452, 31082), (497, 31172), (573, 31277), (709, 31502), (715, 31529), (728, 31577), (760, 31634), (762, 31637),

Gene: Marie\_36 Start: 26789, Stop: 25644, Start Num: 152

Candidate Starts for Marie\_36:

(Start: 152 @26789 has 120 MA's), (Start: 179 @26750 has 10 MA's), (204, 26702), (Start: 217 @26666 has 6 MA's), (234, 26621), (317, 26465), (328, 26438), (356, 26402), (402, 26345), (449, 26267), (462, 26243), (481, 26204), (515, 26132), (529, 26120), (534, 26114), (548, 26102), (593, 26027), (595, 26021), (603, 26000), (622, 25985), (633, 25967), (647, 25943), (704, 25829), (716, 25784), (717, 25781), (720, 25772), (724, 25751), (726, 25745), (729, 25733), (755, 25694),

Gene: Marius\_36 Start: 26643, Stop: 25498, Start Num: 152

Candidate Starts for Marius\_36:

(Start: 101 @26706 has 2 MA's), (Start: 152 @26643 has 120 MA's), (Start: 191 @26589 has 14 MA's), (Start: 217 @26520 has 6 MA's), (322, 26301), (328, 26292), (356, 26256), (402, 26199), (449, 26121), (466, 26088), (515, 25986), (534, 25968), (548, 25956), (593, 25881), (595, 25875), (603, 25854), (622, 25839), (633, 25821), (647, 25797), (716, 25638), (717, 25635), (724, 25605), (726, 25599), (729, 25587), (755, 25548),

Gene: MarkPhew\_44 Start: 33135, Stop: 34214, Start Num: 162

Candidate Starts for MarkPhew\_44:

(17, 32601), (19, 32619), (20, 32631), (22, 32697), (51, 32913), (64, 32967), (73, 32994), (Start: 162 @33135 has 317 MA's), (244, 33297), (252, 33306), (275, 33339), (317, 33432), (335, 33474), (340, 33486), (408, 33570), (414, 33585), (451, 33639), (452, 33642), (471, 33684), (534, 33792), (598, 33897), (663, 33984), (701, 34032), (728, 34140), (755, 34188),

Gene: Marleymoo\_72 Start: 50924, Stop: 52153, Start Num: 116

Candidate Starts for Marleymoo\_72:

(Start: 116 @50924 has 29 MA's), (Start: 131 @50942 has 3 MA's), (Start: 160 @50981 has 1 MA's), (276, 51218), (322, 51326), (395, 51446), (396, 51449), (401, 51458), (408, 51473), (464, 51590), (532, 51707), (545, 51710), (553, 51719), (582, 51770), (584, 51773), (592, 51791), (639, 51887),

(723, 52064), (724, 52067), (731, 52091), (747, 52115), (749, 52118),

Gene: Marshawn\_44 Start: 33433, Stop: 34515, Start Num: 162

Candidate Starts for Marshawn\_44:

(Start: 162 @33433 has 317 MA's), (Start: 191 @33484 has 14 MA's), (226, 33559), (244, 33595), (337, 33781), (340, 33787), (408, 33871), (451, 33940), (452, 33943), (471, 33985), (534, 34093), (598, 34198), (663, 34285), (701, 34333), (755, 34489), (768, 34510),

Gene: Marteena\_36 Start: 30030, Stop: 31136, Start Num: 162

Candidate Starts for Marteena\_36:

(113, 29973), (Start: 162 @30030 has 317 MA's), (Start: 191 @30081 has 14 MA's), (240, 30186), (245, 30195), (268, 30225), (405, 30459), (408, 30465), (451, 30534), (452, 30537), (466, 30567), (493, 30618), (497, 30630), (638, 30858), (679, 30918), (709, 30993), (716, 31023), (760, 31125),

Gene: Maruru\_30 Start: 28338, Stop: 29489, Start Num: 162

Candidate Starts for Maruru\_30:

(18, 27732), (56, 28143), (127, 28296), (Start: 162 @28338 has 317 MA's), (165, 28347), (221, 28449), (252, 28515), (277, 28551), (352, 28692), (402, 28764), (504, 28959), (677, 29247), (712, 29343), (715, 29355), (716, 29358),

Gene: Mask\_46 Start: 43255, Stop: 42053, Start Num: 169

Candidate Starts for Mask\_46:

(Start: 169 @43255 has 7 MA's), (207, 43180), (218, 43156), (220, 43150), (274, 43045), (323, 42934), (325, 42931), (360, 42868), (420, 42733), (429, 42712), (462, 42658), (525, 42529), (528, 42523), (631, 42346), (633, 42343), (634, 42340), (645, 42319), (666, 42283), (709, 42217), (712, 42202), (729, 42136), (748, 42112), (764, 42082),

Gene: MaterMagnus\_40 Start: 27779, Stop: 26640, Start Num: 162

Candidate Starts for MaterMagnus\_40:

(Start: 162 @27779 has 317 MA's), (Start: 191 @27728 has 14 MA's), (277, 27560), (285, 27542), (346, 27410), (402, 27332), (408, 27320), (411, 27314), (451, 27245), (456, 27236), (486, 27176), (535, 27086), (599, 26981), (614, 26960), (631, 26933), (703, 26810), (709, 26786), (712, 26771), (733, 26696), (753, 26666),

Gene: Matteo\_30 Start: 25426, Stop: 26508, Start Num: 159

Candidate Starts for Matteo\_30:

(Start: 83 @25309 has 2 MA's), (Start: 85 @25315 has 6 MA's), (Start: 159 @25426 has 56 MA's), (Start: 191 @25480 has 14 MA's), (252, 25600), (401, 25855), (414, 25885), (452, 25945), (486, 26011), (497, 26035), (573, 26140), (709, 26365), (715, 26392), (760, 26497),

Gene: Mattes\_43 Start: 32094, Stop: 33212, Start Num: 162

Candidate Starts for Mattes\_43:

(Start: 162 @32094 has 317 MA's), (227, 32232), (244, 32265), (272, 32313), (322, 32430), (340, 32466), (346, 32475), (414, 32580), (454, 32649), (484, 32709), (492, 32721), (493, 32724), (497, 32736), (504, 32751), (514, 32775), (520, 32781), (539, 32802), (573, 32838), (574, 32841), (593, 32877), (595, 32883), (598, 32895), (599, 32898), (663, 32982), (670, 32997), (703, 33039), (713, 33084), (716, 33093), (726, 33132), (731, 33150), (746, 33171), (755, 33186), (760, 33195), (762, 33198),

Gene: Maxo\_33 Start: 26250, Stop: 25129, Start Num: 152

Candidate Starts for Maxo\_33:

(Start: 110 @26295 has 3 MA's), (135, 26268), (Start: 152 @26250 has 120 MA's), (Start: 195 @26181 has 8 MA's), (Start: 217 @26127 has 6 MA's), (322, 25908), (328, 25899), (356, 25863), (394, 25821),

(401, 25809), (402, 25806), (449, 25728), (515, 25593), (534, 25575), (593, 25488), (595, 25482), (603, 25461), (622, 25446), (633, 25428), (704, 25290), (717, 25242), (724, 25212), (726, 25206), (729, 25194), (755, 25155),

Gene: Mbo4\_31 Start: 29712, Stop: 28447, Start Num: 147

Candidate Starts for Mbo4\_31:

(Start: 147 @29712 has 80 MA's), (Start: 157 @29697 has 10 MA's), (180, 29658), (208, 29595), (235, 29538), (243, 29523), (280, 29448), (283, 29439), (296, 29412), (328, 29346), (346, 29310), (351, 29301), (365, 29265), (366, 29262), (368, 29253), (370, 29244), (374, 29226), (375, 29223), (384, 29208), (415, 29142), (421, 29127), (425, 29121), (451, 29076), (463, 29052), (468, 29043), (478, 29022), (486, 29007), (491, 28998), (499, 28974), (504, 28965), (508, 28956), (555, 28893), (567, 28875), (569, 28872), (593, 28830), (595, 28824), (599, 28809), (603, 28803), (618, 28779), (630, 28758), (658, 28707), (666, 28692), (697, 28674), (705, 28638), (709, 28626), (712, 28611), (724, 28563), (726, 28557), (729, 28545), (737, 28530), (748, 28518), (762, 28494), (765, 28488),

Gene: McMater\_43 Start: 33014, Stop: 34105, Start Num: 162

Candidate Starts for McMater\_43:

(11, 32333), (21, 32477), (34, 32681), (48, 32780), (50, 32789), (55, 32816), (68, 32864), (Start: 162 @33014 has 317 MA's), (Start: 191 @33065 has 14 MA's), (226, 33140), (244, 33176), (304, 33290), (317, 33314), (340, 33368), (408, 33452), (424, 33485), (451, 33521), (452, 33524), (471, 33566), (514, 33653), (534, 33674), (598, 33782), (646, 33842), (691, 33905), (701, 33917), (728, 34025), (748, 34061),

Gene: Mcklovin\_36 Start: 33917, Stop: 35044, Start Num: 162

Candidate Starts for Mcklovin\_36:

(53, 33698), (59, 33734), (Start: 162 @33917 has 317 MA's), (Start: 191 @33971 has 14 MA's), (263, 34127), (307, 34217), (320, 34250), (451, 34445), (452, 34448), (471, 34490), (493, 34526), (678, 34823), (709, 34901), (720, 34943), (726, 34970), (760, 35033),

Gene: Mdavu\_37 Start: 31629, Stop: 33059, Start Num: 33

Candidate Starts for Mdavu\_37:

(28, 31614), (Start: 33 @31629 has 1 MA's), (46, 31722), (51, 31743), (79, 31836), (Start: 162 @31965 has 317 MA's), (Start: 191 @32016 has 14 MA's), (226, 32091), (244, 32127), (296, 32223), (304, 32241), (317, 32265), (337, 32313), (340, 32319), (432, 32451), (451, 32484), (471, 32529), (534, 32637), (598, 32742), (646, 32802), (701, 32877), (728, 32985), (748, 33021),

Gene: MeaningOfLife\_42 Start: 33409, Stop: 34497, Start Num: 162

Candidate Starts for MeaningOfLife\_42:

(Start: 162 @33409 has 317 MA's), (Start: 217 @33511 has 6 MA's), (226, 33535), (244, 33571), (317, 33709), (340, 33763), (408, 33847), (451, 33916), (452, 33919), (475, 33967), (534, 34069), (598, 34174), (663, 34261), (701, 34309), (748, 34453),

Gene: Medindi\_40 Start: 31479, Stop: 32597, Start Num: 162

Candidate Starts for Medindi\_40:

(Start: 162 @31479 has 317 MA's), (165, 31488), (244, 31650), (322, 31815), (340, 31851), (346, 31860), (414, 31965), (454, 32034), (471, 32073), (484, 32094), (492, 32106), (493, 32109), (497, 32121), (504, 32136), (514, 32160), (520, 32166), (539, 32187), (573, 32223), (574, 32226), (593, 32262), (595, 32268), (598, 32280), (599, 32283), (610, 32298), (663, 32367), (670, 32382), (703, 32424), (713, 32469), (716, 32478), (726, 32517), (731, 32535), (746, 32556), (755, 32571), (760, 32580), (762, 32583),

Gene: Medusa\_33 Start: 26128, Stop: 25130, Start Num: 217

Candidate Starts for Medusa\_33:

(Start: 110 @26296 has 3 MA's), (135, 26269), (Start: 152 @26251 has 120 MA's), (Start: 195 @26182 has 8 MA's), (Start: 217 @26128 has 6 MA's), (322, 25909), (328, 25900), (356, 25864), (394, 25822), (401, 25810), (402, 25807), (449, 25729), (515, 25594), (534, 25576), (593, 25489), (603, 25462), (622, 25447), (633, 25429), (704, 25291), (717, 25243), (724, 25213), (726, 25207), (729, 25195), (755, 25156),

Gene: Megsy\_42 Start: 32724, Stop: 33812, Start Num: 162

Candidate Starts for Megsy\_42:

(Start: 162 @32724 has 317 MA's), (Start: 217 @32826 has 6 MA's), (226, 32850), (244, 32886), (317, 33024), (340, 33078), (408, 33162), (451, 33231), (452, 33234), (534, 33384), (587, 33462), (598, 33489), (701, 33624), (748, 33768),

Gene: Melissauren88\_42 Start: 32565, Stop: 33683, Start Num: 162

Candidate Starts for Melissauren88\_42:

(Start: 162 @32565 has 317 MA's), (165, 32574), (244, 32736), (322, 32901), (340, 32937), (346, 32946), (414, 33051), (454, 33120), (471, 33159), (484, 33180), (492, 33192), (493, 33195), (497, 33207), (514, 33246), (520, 33252), (539, 33273), (573, 33309), (574, 33312), (593, 33348), (595, 33354), (599, 33369), (610, 33384), (663, 33453), (670, 33468), (703, 33510), (713, 33555), (716, 33564), (726, 33603), (731, 33621), (746, 33642), (755, 33657), (760, 33666), (762, 33669),

Gene: Melons\_38 Start: 24495, Stop: 23308, Start Num: 147

Candidate Starts for Melons\_38:

(84, 24585), (Start: 147 @24495 has 80 MA's), (330, 24141), (360, 24078), (365, 24066), (607, 23631), (700, 23496), (702, 23484), (762, 23328),

Gene: Melvin\_33 Start: 26249, Stop: 25128, Start Num: 152

Candidate Starts for Melvin\_33:

(Start: 110 @26294 has 3 MA's), (135, 26267), (Start: 152 @26249 has 120 MA's), (Start: 195 @26180 has 8 MA's), (Start: 217 @26126 has 6 MA's), (322, 25907), (328, 25898), (356, 25862), (394, 25820), (401, 25808), (402, 25805), (449, 25727), (515, 25592), (534, 25574), (593, 25487), (603, 25460), (622, 25445), (633, 25427), (704, 25289), (717, 25241), (724, 25211), (726, 25205), (729, 25193), (755, 25154),

Gene: Merpity\_34 Start: 25482, Stop: 24364, Start Num: 144

Candidate Starts for Merpity\_34:

(77, 25599), (Start: 144 @25482 has 4 MA's), (254, 25287), (266, 25260), (330, 25131), (364, 25065), (367, 25053), (368, 25050), (373, 25029), (415, 24945), (483, 24879), (497, 24846), (504, 24831), (508, 24822), (558, 24765), (570, 24744), (594, 24696), (595, 24693), (598, 24681), (603, 24672), (616, 24654), (617, 24651), (619, 24645), (631, 24633), (700, 24546), (724, 24447), (753, 24393),

Gene: MiaZeal\_87 Start: 50735, Stop: 52009, Start Num: 98

Candidate Starts for MiaZeal\_87:

(74, 50678), (Start: 90 @50720 has 1 MA's), (Start: 98 @50735 has 10 MA's), (99, 50738), (Start: 131 @50783 has 3 MA's), (Start: 160 @50822 has 1 MA's), (341, 51203), (395, 51287), (401, 51299), (402, 51302), (464, 51431), (545, 51551), (584, 51614), (592, 51632), (601, 51656), (639, 51728), (723, 51905), (724, 51908), (726, 51914), (731, 51932), (741, 51947), (747, 51956), (749, 51959), (773, 52004),

Gene: MichaelScott\_40 Start: 30472, Stop: 31599, Start Num: 162

Candidate Starts for MichaelScott\_40:

(122, 30433), (Start: 162 @30472 has 317 MA's), (Start: 191 @30526 has 14 MA's), (240, 30649), (263, 30682), (307, 30772), (320, 30805), (451, 31000), (452, 31003), (471, 31045), (493, 31081), (678, 31378), (709, 31456), (715, 31483), (720, 31498), (726, 31525), (760, 31588),

Gene: Microwolf\_36 Start: 26752, Stop: 25646, Start Num: 179

Candidate Starts for Microwolf\_36:

(Start: 152 @26791 has 120 MA's), (Start: 179 @26752 has 10 MA's), (Start: 217 @26668 has 6 MA's), (234, 26623), (317, 26467), (328, 26440), (356, 26404), (402, 26347), (449, 26269), (462, 26245), (481, 26206), (515, 26134), (529, 26122), (534, 26116), (548, 26104), (593, 26029), (595, 26023), (603, 26002), (622, 25987), (633, 25969), (647, 25945), (704, 25831), (716, 25786), (717, 25783), (720, 25774), (724, 25753), (726, 25747), (729, 25735), (755, 25696),

Gene: MiculUcigas\_34 Start: 26502, Stop: 25381, Start Num: 152

Candidate Starts for MiculUcigas\_34:

(Start: 101 @26565 has 2 MA's), (Start: 152 @26502 has 120 MA's), (Start: 191 @26448 has 14 MA's), (Start: 217 @26379 has 6 MA's), (234, 26334), (302, 26208), (328, 26151), (356, 26115), (401, 26061), (402, 26058), (471, 25935), (481, 25917), (534, 25827), (548, 25815), (593, 25740), (595, 25734), (603, 25713), (622, 25698), (633, 25680), (650, 25653), (717, 25494), (724, 25464), (726, 25458), (729, 25446), (755, 25407),

Gene: MidnightRain\_42 Start: 28565, Stop: 27426, Start Num: 162

Candidate Starts for MidnightRain\_42:

(Start: 162 @28565 has 317 MA's), (Start: 191 @28514 has 14 MA's), (277, 28346), (285, 28328), (346, 28196), (402, 28118), (408, 28106), (451, 28031), (456, 28022), (486, 27962), (535, 27872), (599, 27767), (614, 27746), (631, 27719), (703, 27596), (709, 27572), (712, 27557), (733, 27482), (753, 27452),

Gene: MilanaBonita\_37 Start: 29110, Stop: 30237, Start Num: 162

Candidate Starts for MilanaBonita\_37:

(86, 29008), (121, 29065), (Start: 162 @29110 has 317 MA's), (165, 29119), (244, 29281), (268, 29332), (277, 29350), (296, 29395), (340, 29491), (346, 29500), (414, 29605), (454, 29674), (471, 29713), (484, 29734), (492, 29746), (493, 29749), (497, 29761), (514, 29800), (520, 29806), (539, 29827), (573, 29863), (574, 29866), (593, 29902), (595, 29908), (598, 29920), (599, 29923), (610, 29938), (663, 30007), (670, 30022), (690, 30040), (703, 30064), (713, 30109), (716, 30118), (720, 30130), (726, 30157), (731, 30175), (746, 30196), (755, 30211), (760, 30220), (762, 30223),

Gene: MilleniumForce\_42 Start: 32868, Stop: 33986, Start Num: 162

Candidate Starts for MilleniumForce\_42:

(Start: 162 @32868 has 317 MA's), (165, 32877), (244, 33039), (322, 33204), (340, 33240), (346, 33249), (402, 33330), (414, 33354), (454, 33423), (481, 33480), (484, 33483), (492, 33495), (493, 33498), (497, 33510), (514, 33549), (539, 33576), (573, 33612), (574, 33615), (593, 33651), (595, 33657), (599, 33672), (663, 33756), (670, 33771), (703, 33813), (713, 33858), (716, 33867), (726, 33906), (731, 33924), (746, 33945), (755, 33960), (760, 33969), (762, 33972),

Gene: Milly\_43 Start: 34290, Stop: 35390, Start Num: 162

Candidate Starts for Milly\_43:

(Start: 162 @34290 has 317 MA's), (Start: 170 @34308 has 1 MA's), (Start: 191 @34341 has 14 MA's), (226, 34416), (244, 34452), (304, 34566), (317, 34590), (340, 34644), (438, 34785), (451, 34809), (452, 34812), (471, 34854), (534, 34962), (598, 35067), (636, 35112), (646, 35127), (728, 35319),

Gene: Minerva\_84 Start: 53196, Stop: 54425, Start Num: 116

Candidate Starts for Minerva\_84:

(Start: 116 @53196 has 29 MA's), (Start: 131 @53214 has 3 MA's), (Start: 160 @53253 has 1 MA's), (276, 53490), (322, 53598), (395, 53718), (396, 53721), (401, 53730), (408, 53745), (426, 53784), (464, 53862), (524, 53967), (532, 53979), (545, 53982), (553, 53991), (582, 54042), (584, 54045),

(592, 54063), (639, 54159), (688, 54216), (723, 54336), (724, 54339), (731, 54363), (747, 54387), (749, 54390),

Gene: MinionDave\_43 Start: 33105, Stop: 34223, Start Num: 162

Candidate Starts for MinionDave\_43:

(Start: 162 @33105 has 317 MA's), (165, 33114), (244, 33276), (272, 33324), (322, 33441), (340, 33477), (346, 33486), (414, 33591), (454, 33660), (471, 33699), (481, 33717), (484, 33720), (492, 33732), (493, 33735), (497, 33747), (514, 33786), (520, 33792), (539, 33813), (573, 33849), (574, 33852), (593, 33888), (595, 33894), (598, 33906), (599, 33909), (610, 33924), (663, 33993), (670, 34008), (690, 34026), (703, 34050), (713, 34095), (716, 34104), (726, 34143), (731, 34161), (746, 34182), (755, 34197), (760, 34206), (762, 34209),

Gene: Minnie\_43 Start: 32650, Stop: 33768, Start Num: 162

Candidate Starts for Minnie\_43:

(Start: 162 @32650 has 317 MA's), (227, 32788), (244, 32821), (272, 32869), (340, 33022), (346, 33031), (402, 33112), (454, 33205), (471, 33244), (481, 33262), (484, 33265), (492, 33277), (493, 33280), (497, 33292), (504, 33307), (514, 33331), (520, 33337), (539, 33358), (573, 33394), (574, 33397), (593, 33433), (595, 33439), (599, 33454), (610, 33469), (663, 33538), (670, 33553), (703, 33595), (713, 33640), (716, 33649), (726, 33688), (731, 33706), (746, 33727), (755, 33742), (760, 33751), (762, 33754),

Gene: MissWhite\_33 Start: 25561, Stop: 24443, Start Num: 152

Candidate Starts for MissWhite\_33:

(Start: 152 @25561 has 120 MA's), (178, 25525), (Start: 191 @25507 has 14 MA's), (Start: 217 @25438 has 6 MA's), (224, 25420), (265, 25345), (268, 25339), (317, 25237), (320, 25225), (328, 25210), (356, 25174), (401, 25120), (534, 24886), (548, 24874), (593, 24799), (595, 24793), (603, 24772), (622, 24757), (633, 24739), (650, 24712), (717, 24553), (718, 24550), (724, 24523), (726, 24517), (729, 24505), (755, 24466), (762, 24454),

Gene: Mocha12\_37 Start: 27875, Stop: 28957, Start Num: 159

Candidate Starts for Mocha12\_37:

(Start: 83 @27758 has 2 MA's), (Start: 85 @27764 has 6 MA's), (Start: 159 @27875 has 56 MA's), (Start: 191 @27929 has 14 MA's), (252, 28049), (401, 28304), (414, 28334), (452, 28394), (486, 28460), (497, 28484), (542, 28553), (573, 28589), (709, 28814), (715, 28841), (760, 28946),

Gene: ModicumRichard\_35 Start: 30420, Stop: 29293, Start Num: 147

Candidate Starts for ModicumRichard\_35:

(12, 30900), (Start: 147 @30420 has 80 MA's), (180, 30366), (230, 30261), (318, 30090), (361, 30000), (371, 29964), (425, 29850), (479, 29811), (492, 29787), (555, 29691), (631, 29559), (656, 29514), (705, 29442), (753, 29316),

Gene: MoneyMay\_36 Start: 26789, Stop: 25644, Start Num: 152

Candidate Starts for MoneyMay\_36:

(Start: 152 @26789 has 120 MA's), (Start: 179 @26750 has 10 MA's), (204, 26702), (Start: 217 @26666 has 6 MA's), (234, 26621), (317, 26465), (328, 26438), (356, 26402), (402, 26345), (449, 26267), (462, 26243), (481, 26204), (515, 26132), (529, 26120), (534, 26114), (548, 26102), (593, 26027), (595, 26021), (603, 26000), (622, 25985), (633, 25967), (647, 25943), (704, 25829), (716, 25784), (717, 25781), (720, 25772), (724, 25751), (726, 25745), (729, 25733), (755, 25694),

Gene: Montavir\_35 Start: 26751, Stop: 25645, Start Num: 179

Candidate Starts for Montavir\_35:

(Start: 152 @26790 has 120 MA's), (Start: 179 @26751 has 10 MA's), (204, 26703), (Start: 217 @26667 has 6 MA's), (234, 26622), (317, 26466), (328, 26439), (356, 26403), (402, 26346), (449,

26268), (462, 26244), (481, 26205), (515, 26133), (529, 26121), (534, 26115), (548, 26103), (593, 26028), (595, 26022), (603, 26001), (622, 25986), (633, 25968), (647, 25944), (704, 25830), (716, 25785), (717, 25782), (720, 25773), (724, 25752), (726, 25746), (729, 25734), (755, 25695),

Gene: MooMoo\_41 Start: 31904, Stop: 33025, Start Num: 162

Candidate Starts for MooMoo\_41:

(Start: 162 @31904 has 317 MA's), (224, 32033), (244, 32075), (277, 32135), (296, 32180), (340, 32276), (346, 32285), (454, 32462), (484, 32522), (492, 32534), (493, 32537), (494, 32540), (497, 32549), (514, 32588), (520, 32594), (539, 32615), (573, 32651), (574, 32654), (593, 32690), (610, 32726), (631, 32741), (663, 32795), (670, 32810), (679, 32825), (713, 32897), (716, 32906), (720, 32918), (726, 32945), (731, 32963), (746, 32984), (755, 32999),

Gene: Moonbeam\_41 Start: 32622, Stop: 33740, Start Num: 162

Candidate Starts for Moonbeam\_41:

(Start: 162 @32622 has 317 MA's), (165, 32631), (244, 32793), (272, 32841), (322, 32958), (340, 32994), (346, 33003), (414, 33108), (454, 33177), (471, 33216), (481, 33234), (484, 33237), (492, 33249), (493, 33252), (497, 33264), (504, 33279), (514, 33303), (520, 33309), (539, 33330), (573, 33366), (574, 33369), (593, 33405), (595, 33411), (598, 33423), (599, 33426), (610, 33441), (663, 33510), (670, 33525), (690, 33543), (703, 33567), (713, 33612), (716, 33621), (726, 33660), (731, 33678), (746, 33699), (755, 33714), (760, 33723), (762, 33726),

Gene: Moosehead\_35 Start: 25354, Stop: 26436, Start Num: 155

Candidate Starts for Moosehead\_35:

(Start: 155 @25354 has 3 MA's), (240, 25513), (272, 25558), (286, 25591), (452, 25864), (471, 25906), (493, 25942), (494, 25945), (497, 25954), (675, 26233), (709, 26293), (760, 26425),

Gene: Morgana\_35 Start: 30175, Stop: 29048, Start Num: 147

Candidate Starts for Morgana\_35:

(12, 30832), (15, 30778), (Start: 147 @30175 has 80 MA's), (180, 30121), (318, 29845), (361, 29755), (371, 29719), (425, 29605), (479, 29566), (492, 29542), (555, 29446), (631, 29314), (656, 29269), (705, 29197), (753, 29071),

Gene: Morkie\_33 Start: 26172, Stop: 27254, Start Num: 159

Candidate Starts for Morkie\_33:

(Start: 159 @26172 has 56 MA's), (Start: 191 @26226 has 14 MA's), (252, 26346), (401, 26601), (452, 26691), (486, 26757), (497, 26781), (603, 26952), (709, 27111), (715, 27138), (728, 27186), (760, 27243),

Gene: Morrow\_33 Start: 26255, Stop: 25116, Start Num: 152

Candidate Starts for Morrow\_33:

(Start: 110 @26300 has 3 MA's), (135, 26273), (Start: 152 @26255 has 120 MA's), (Start: 195 @26186 has 8 MA's), (Start: 217 @26132 has 6 MA's), (322, 25913), (328, 25904), (356, 25868), (394, 25826), (401, 25814), (402, 25811), (449, 25733), (515, 25598), (534, 25580), (593, 25493), (595, 25487), (603, 25466), (622, 25451), (633, 25433), (704, 25295), (717, 25247), (724, 25217), (726, 25211), (729, 25199), (755, 25160), (770, 25136), (772, 25130),

Gene: Mova\_42 Start: 31760, Stop: 32878, Start Num: 162

Candidate Starts for Mova\_42:

(Start: 162 @31760 has 317 MA's), (227, 31898), (244, 31931), (272, 31979), (340, 32132), (346, 32141), (402, 32222), (454, 32315), (471, 32354), (484, 32375), (492, 32387), (493, 32390), (497, 32402), (504, 32417), (514, 32441), (520, 32447), (539, 32468), (573, 32504), (574, 32507), (593, 32543), (599, 32564), (610, 32579), (663, 32648), (670, 32663), (690, 32681), (703, 32705), (713, 32750), (716, 32759), (720, 32771), (726, 32798), (731, 32816), (746, 32837), (755, 32852), (760,

32861), (762, 32864),

Gene: Mozy\_51 Start: 34630, Stop: 35748, Start Num: 162

Candidate Starts for Mozy\_51:

(Start: 162 @34630 has 317 MA's), (165, 34639), (244, 34801), (322, 34966), (340, 35002), (346, 35011), (414, 35116), (454, 35185), (471, 35224), (484, 35245), (492, 35257), (493, 35260), (497, 35272), (514, 35311), (520, 35317), (539, 35338), (573, 35374), (574, 35377), (593, 35413), (595, 35419), (599, 35434), (663, 35518), (670, 35533), (703, 35575), (713, 35620), (716, 35629), (726, 35668), (731, 35686), (746, 35707), (755, 35722), (760, 35731), (762, 35734),

Gene: MrSmee\_34 Start: 25508, Stop: 24390, Start Num: 144

Candidate Starts for MrSmee\_34:

(Start: 144 @25508 has 4 MA's), (254, 25313), (267, 25283), (271, 25277), (289, 25247), (307, 25211), (320, 25178), (322, 25172), (330, 25157), (335, 25148), (364, 25091), (367, 25079), (368, 25076), (370, 25067), (373, 25055), (375, 25046), (406, 24986), (415, 24971), (483, 24905), (491, 24890), (497, 24872), (508, 24848), (510, 24845), (555, 24794), (570, 24770), (594, 24722), (598, 24707), (612, 24686), (616, 24680), (631, 24659), (753, 24419),

Gene: Ms6\_36 Start: 27630, Stop: 28748, Start Num: 162

Candidate Starts for Ms6\_36:

(Start: 162 @27630 has 317 MA's), (165, 27639), (244, 27801), (322, 27966), (340, 28002), (346, 28011), (414, 28116), (454, 28185), (471, 28224), (484, 28245), (492, 28257), (493, 28260), (497, 28272), (514, 28311), (520, 28317), (539, 28338), (573, 28374), (574, 28377), (593, 28413), (595, 28419), (598, 28431), (599, 28434), (610, 28449), (663, 28518), (670, 28533), (713, 28620), (716, 28629), (726, 28668), (731, 28686), (746, 28707), (755, 28722), (760, 28731), (762, 28734),

Gene: MuchMore\_38 Start: 26782, Stop: 25637, Start Num: 152

Candidate Starts for MuchMore\_38:

(Start: 152 @26782 has 120 MA's), (Start: 179 @26743 has 10 MA's), (204, 26695), (Start: 217 @26659 has 6 MA's), (234, 26614), (317, 26458), (328, 26431), (356, 26395), (402, 26338), (449, 26260), (462, 26236), (481, 26197), (515, 26125), (529, 26113), (534, 26107), (548, 26095), (593, 26020), (595, 26014), (603, 25993), (622, 25978), (633, 25960), (647, 25936), (704, 25822), (716, 25777), (717, 25774), (720, 25765), (724, 25744), (726, 25738), (729, 25726), (755, 25687),

Gene: Mufasa\_44 Start: 34136, Stop: 35236, Start Num: 162

Candidate Starts for Mufasa\_44:

(Start: 162 @34136 has 317 MA's), (Start: 170 @34154 has 1 MA's), (Start: 191 @34187 has 14 MA's), (226, 34262), (244, 34298), (304, 34412), (317, 34436), (340, 34490), (359, 34514), (438, 34631), (451, 34655), (452, 34658), (471, 34700), (534, 34808), (598, 34913), (636, 34958), (646, 34973), (728, 35165),

Gene: Mufasa8\_27 Start: 25316, Stop: 26536, Start Num: 162

Candidate Starts for Mufasa8\_27:

(Start: 162 @25316 has 317 MA's), (227, 25445), (272, 25517), (277, 25529), (330, 25634), (342, 25658), (352, 25670), (385, 25712), (452, 25832), (458, 25844), (464, 25859), (484, 25895), (486, 25898), (497, 25922), (512, 25952), (527, 25976), (528, 25979), (535, 25988), (538, 25991), (587, 26063), (593, 26072), (595, 26078), (614, 26114), (631, 26144), (646, 26171), (670, 26213), (677, 26225),

Gene: Mulch\_39 Start: 31322, Stop: 30051, Start Num: 147

Candidate Starts for Mulch\_39:

(Start: 147 @31322 has 80 MA's), (Start: 157 @31307 has 10 MA's), (208, 31205), (230, 31163), (236, 31151), (276, 31076), (310, 31001), (315, 30992), (320, 30974), (368, 30875), (369, 30872), (410,

30782), (491, 30677), (535, 30581), (539, 30575), (631, 30413), (702, 30272), (713, 30227), (727, 30176), (729, 30167), (737, 30152), (748, 30140), (755, 30128), (781, 30089),

Gene: MurphyJoseph\_36 Start: 26546, Stop: 25368, Start Num: 162

Candidate Starts for MurphyJoseph\_36:

(Start: 162 @26546 has 317 MA's), (221, 26429), (285, 26309), (328, 26213), (346, 26177), (402, 26099), (451, 26012), (456, 26003), (486, 25943), (508, 25895), (603, 25742), (631, 25700), (703, 25583), (708, 25562), (709, 25559), (712, 25544), (762, 25424),

Gene: Murucutumbu\_42 Start: 33469, Stop: 34557, Start Num: 162

Candidate Starts for Murucutumbu\_42:

(Start: 162 @33469 has 317 MA's), (Start: 217 @33571 has 6 MA's), (226, 33595), (244, 33631), (277, 33682), (304, 33745), (317, 33769), (340, 33823), (342, 33826), (408, 33907), (451, 33976), (452, 33979), (466, 34009), (534, 34129), (587, 34207), (598, 34234), (701, 34369),

Gene: Mutaforma13\_45 Start: 33170, Stop: 34288, Start Num: 162

Candidate Starts for Mutaforma13\_45:

(Start: 162 @33170 has 317 MA's), (165, 33179), (227, 33308), (244, 33341), (272, 33389), (322, 33506), (340, 33542), (346, 33551), (414, 33656), (454, 33725), (484, 33785), (492, 33797), (493, 33800), (497, 33812), (504, 33827), (514, 33851), (520, 33857), (539, 33878), (573, 33914), (574, 33917), (593, 33953), (595, 33959), (598, 33971), (599, 33974), (663, 34058), (670, 34073), (703, 34115), (713, 34160), (716, 34169), (726, 34208), (731, 34226), (746, 34247), (755, 34262), (760, 34271), (762, 34274),

Gene: Mynx\_42 Start: 32799, Stop: 33887, Start Num: 162

Candidate Starts for Mynx\_42:

(Start: 162 @32799 has 317 MA's), (Start: 217 @32901 has 6 MA's), (226, 32925), (244, 32961), (317, 33099), (340, 33153), (408, 33237), (451, 33306), (452, 33309), (475, 33357), (534, 33459), (598, 33564), (663, 33651), (701, 33699), (748, 33843),

Gene: NaSiaTalie\_34 Start: 26377, Stop: 25379, Start Num: 217

Candidate Starts for NaSiaTalie\_34:

(Start: 101 @26563 has 2 MA's), (Start: 152 @26500 has 120 MA's), (Start: 191 @26446 has 14 MA's), (Start: 217 @26377 has 6 MA's), (234, 26332), (302, 26206), (328, 26149), (356, 26113), (401, 26059), (402, 26056), (471, 25933), (481, 25915), (534, 25825), (548, 25813), (593, 25738), (595, 25732), (603, 25711), (622, 25696), (633, 25678), (650, 25651), (717, 25492), (724, 25462), (726, 25456), (729, 25444), (755, 25405),

Gene: Nadeem\_39 Start: 31322, Stop: 30051, Start Num: 147

Candidate Starts for Nadeem\_39:

(Start: 147 @31322 has 80 MA's), (Start: 157 @31307 has 10 MA's), (208, 31205), (230, 31163), (236, 31151), (276, 31076), (310, 31001), (315, 30992), (320, 30974), (368, 30875), (369, 30872), (410, 30782), (491, 30677), (535, 30581), (539, 30575), (631, 30413), (702, 30272), (713, 30227), (727, 30176), (729, 30167), (737, 30152), (748, 30140), (755, 30128), (781, 30089),

Gene: Naji\_37 Start: 26474, Stop: 25350, Start Num: 152

Candidate Starts for Naji\_37:

(Start: 152 @26474 has 120 MA's), (Start: 191 @26420 has 14 MA's), (Start: 217 @26351 has 6 MA's), (317, 26150), (318, 26147), (328, 26123), (356, 26087), (402, 26030), (414, 26003), (449, 25952), (466, 25919), (471, 25907), (481, 25889), (515, 25817), (534, 25799), (548, 25787), (593, 25712), (595, 25706), (603, 25685), (622, 25670), (633, 25652), (650, 25625), (704, 25514), (717, 25466), (718, 25463), (724, 25436), (726, 25430), (729, 25418), (755, 25379),

Gene: NancyRae\_39 Start: 31331, Stop: 30060, Start Num: 147

Candidate Starts for NancyRae\_39:

(Start: 147 @31331 has 80 MA's), (Start: 157 @31316 has 10 MA's), (208, 31214), (230, 31172), (236, 31160), (276, 31085), (310, 31010), (315, 31001), (320, 30983), (368, 30884), (369, 30881), (410, 30791), (491, 30686), (539, 30584), (555, 30566), (631, 30422), (702, 30281), (713, 30236), (727, 30185), (729, 30176), (748, 30149), (755, 30137), (781, 30098),

Gene: Nebkiss\_56 Start: 37263, Stop: 38534, Start Num: 98

Candidate Starts for Nebkiss\_56:

(Start: 98 @37263 has 10 MA's), (Start: 131 @37311 has 3 MA's), (Start: 160 @37350 has 1 MA's), (292, 37629), (353, 37746), (395, 37815), (396, 37818), (401, 37827), (414, 37857), (444, 37923), (464, 37959), (483, 37986), (484, 37989), (492, 38004), (497, 38010), (514, 38043), (522, 38058), (523, 38061), (524, 38064), (532, 38076), (545, 38094), (553, 38103), (578, 38145), (581, 38151), (582, 38154), (601, 38199), (639, 38271), (693, 38337), (703, 38364), (723, 38448), (724, 38451), (734, 38478), (747, 38499),

Gene: Nebs\_33 Start: 26248, Stop: 25127, Start Num: 152

Candidate Starts for Nebs\_33:

(Start: 110 @26293 has 3 MA's), (135, 26266), (Start: 152 @26248 has 120 MA's), (Start: 195 @26179 has 8 MA's), (Start: 217 @26125 has 6 MA's), (322, 25906), (328, 25897), (356, 25861), (394, 25819), (401, 25807), (402, 25804), (449, 25726), (515, 25591), (534, 25573), (593, 25486), (595, 25480), (603, 25459), (622, 25444), (633, 25426), (704, 25288), (717, 25240), (724, 25210), (726, 25204), (729, 25192), (755, 25153),

Gene: Nekros\_81 Start: 51195, Stop: 52469, Start Num: 98

Candidate Starts for Nekros\_81:

(74, 51138), (Start: 90 @51180 has 1 MA's), (Start: 98 @51195 has 10 MA's), (99, 51198), (Start: 131 @51243 has 3 MA's), (Start: 160 @51282 has 1 MA's), (341, 51663), (395, 51747), (401, 51759), (402, 51762), (464, 51891), (545, 52011), (584, 52074), (592, 52092), (601, 52116), (639, 52188), (723, 52365), (724, 52368), (726, 52374), (731, 52392), (741, 52407), (747, 52416), (749, 52419), (773, 52464),

Gene: Neobush\_39 Start: 30557, Stop: 31639, Start Num: 159

Candidate Starts for Neobush\_39:

(Start: 85 @30446 has 6 MA's), (Start: 159 @30557 has 56 MA's), (Start: 191 @30611 has 14 MA's), (252, 30731), (401, 30986), (414, 31016), (452, 31076), (486, 31142), (497, 31166), (709, 31496), (715, 31523), (760, 31628),

Gene: Nettuno\_33 Start: 26384, Stop: 27466, Start Num: 159

Candidate Starts for Nettuno\_33:

(Start: 83 @26267 has 2 MA's), (Start: 85 @26273 has 6 MA's), (Start: 159 @26384 has 56 MA's), (Start: 191 @26438 has 14 MA's), (252, 26558), (401, 26813), (414, 26843), (452, 26903), (486, 26969), (497, 26993), (573, 27098), (709, 27323), (715, 27350), (760, 27455),

Gene: Neville\_8 Start: 3425, Stop: 2322, Start Num: 188

Candidate Starts for Neville\_8:

(173, 3452), (Start: 188 @3425 has 12 MA's), (193, 3413), (211, 3359), (Start: 222 @3344 has 1 MA's), (229, 3320), (250, 3293), (314, 3167), (360, 3095), (402, 3032), (408, 3020), (426, 2981), (467, 2897), (477, 2876), (520, 2789), (574, 2720), (581, 2708), (626, 2612), (637, 2588), (672, 2528), (695, 2492), (703, 2477), (712, 2438), (722, 2396),

Gene: NewHope4\_45 Start: 32740, Stop: 33858, Start Num: 162

Candidate Starts for NewHope4\_45:

(Start: 162 @32740 has 317 MA's), (227, 32878), (244, 32911), (272, 32959), (340, 33112), (346, 33121), (414, 33226), (454, 33295), (484, 33355), (492, 33367), (493, 33370), (504, 33397), (514, 33421), (539, 33448), (573, 33484), (574, 33487), (593, 33523), (595, 33529), (598, 33541), (599, 33544), (663, 33628), (670, 33643), (703, 33685), (713, 33730), (716, 33739), (726, 33778), (731, 33796), (746, 33817), (755, 33832), (760, 33841), (762, 33844),

Gene: NewKitty\_38 Start: 26896, Stop: 25718, Start Num: 162

Candidate Starts for NewKitty\_38:

(Start: 162 @26896 has 317 MA's), (221, 26779), (226, 26764), (285, 26659), (328, 26563), (346, 26527), (402, 26449), (451, 26362), (456, 26353), (486, 26293), (535, 26203), (599, 26098), (603, 26092), (631, 26050), (670, 25984), (703, 25933), (708, 25912), (709, 25909), (712, 25894), (762, 25774),

Gene: Nibb\_43 Start: 32855, Stop: 33940, Start Num: 162

Candidate Starts for Nibb\_43:

(Start: 162 @32855 has 317 MA's), (228, 32990), (244, 33017), (335, 33197), (340, 33209), (408, 33293), (451, 33362), (452, 33365), (534, 33515), (598, 33620), (663, 33707), (701, 33755), (728, 33863), (755, 33911),

Gene: Nibley\_75 Start: 48028, Stop: 49317, Start Num: 90

Candidate Starts for Nibley\_75:

(74, 47986), (Start: 90 @48028 has 1 MA's), (Start: 98 @48043 has 10 MA's), (99, 48046), (Start: 131 @48091 has 3 MA's), (Start: 160 @48130 has 1 MA's), (341, 48511), (395, 48595), (401, 48607), (402, 48610), (464, 48739), (545, 48859), (584, 48922), (592, 48940), (601, 48964), (639, 49036), (723, 49213), (724, 49216), (726, 49222), (731, 49240), (741, 49255), (747, 49264), (749, 49267), (773, 49312),

Gene: NicoleTera\_37 Start: 27751, Stop: 26633, Start Num: 152

Candidate Starts for NicoleTera\_37:

(Start: 152 @27751 has 120 MA's), (Start: 191 @27697 has 14 MA's), (Start: 217 @27628 has 6 MA's), (317, 27427), (328, 27400), (356, 27364), (394, 27322), (402, 27307), (449, 27229), (471, 27184), (534, 27076), (548, 27064), (574, 27025), (593, 26989), (595, 26983), (603, 26962), (622, 26947), (633, 26929), (650, 26902), (704, 26791), (717, 26743), (718, 26740), (724, 26713), (726, 26707), (729, 26695), (755, 26656),

Gene: NidoQ\_33 Start: 25490, Stop: 26632, Start Num: 162

Candidate Starts for NidoQ\_33:

(64, 25322), (71, 25346), (73, 25349), (Start: 162 @25490 has 317 MA's), (337, 25844), (340, 25850), (351, 25868), (414, 25976), (451, 26036), (497, 26129), (574, 26249), (596, 26297), (612, 26327), (670, 26423), (716, 26531), (743, 26606),

Gene: NihilNomen\_82 Start: 53150, Stop: 54379, Start Num: 116

Candidate Starts for NihilNomen\_82:

(Start: 116 @53150 has 29 MA's), (Start: 131 @53168 has 3 MA's), (Start: 160 @53207 has 1 MA's), (276, 53444), (322, 53552), (395, 53672), (396, 53675), (401, 53684), (408, 53699), (426, 53738), (464, 53816), (524, 53921), (532, 53933), (545, 53936), (553, 53945), (582, 53996), (584, 53999), (592, 54017), (639, 54113), (688, 54170), (723, 54290), (724, 54293), (731, 54317), (747, 54341), (749, 54344),

Gene: Nikao\_39 Start: 34589, Stop: 35683, Start Num: 162

Candidate Starts for Nikao\_39:

(28, 34238), (Start: 33 @34253 has 1 MA's), (46, 34346), (51, 34367), (79, 34460), (Start: 162 @34589 has 317 MA's), (Start: 191 @34640 has 14 MA's), (226, 34715), (244, 34751), (296, 34847), (304,

34865), (317, 34889), (337, 34937), (340, 34943), (432, 35075), (451, 35108), (471, 35153), (534, 35261), (598, 35366), (646, 35426), (701, 35501), (728, 35609), (748, 35645),

Gene: Niklas\_43 Start: 33040, Stop: 34131, Start Num: 162

Candidate Starts for Niklas\_43:

(34, 32707), (48, 32806), (50, 32815), (55, 32842), (68, 32890), (Start: 162 @33040 has 317 MA's), (226, 33166), (244, 33202), (304, 33316), (317, 33340), (340, 33394), (408, 33478), (424, 33511), (451, 33547), (452, 33550), (471, 33592), (514, 33679), (534, 33700), (598, 33808), (646, 33868), (691, 33931), (701, 33943), (728, 34051), (748, 34087),

Gene: NothingSpecial\_35 Start: 27853, Stop: 26801, Start Num: 195

Candidate Starts for NothingSpecial\_35:

(135, 27940), (Start: 152 @27922 has 120 MA's), (Start: 195 @27853 has 8 MA's), (199, 27844), (Start: 217 @27799 has 6 MA's), (224, 27781), (234, 27754), (298, 27637), (317, 27598), (322, 27580), (328, 27571), (356, 27535), (394, 27493), (400, 27484), (402, 27478), (449, 27400), (471, 27355), (534, 27247), (548, 27235), (593, 27160), (595, 27154), (603, 27133), (622, 27118), (633, 27100), (704, 26962), (717, 26914), (724, 26884), (726, 26878), (729, 26866), (755, 26827),

Gene: Nutello\_36 Start: 31976, Stop: 33070, Start Num: 162

Candidate Starts for Nutello\_36:

(28, 31625), (Start: 33 @31640 has 1 MA's), (46, 31733), (51, 31754), (79, 31847), (Start: 162 @31976 has 317 MA's), (Start: 191 @32027 has 14 MA's), (226, 32102), (244, 32138), (296, 32234), (304, 32252), (317, 32276), (337, 32324), (340, 32330), (432, 32462), (451, 32495), (471, 32540), (534, 32648), (598, 32753), (646, 32813), (701, 32888), (728, 32996), (748, 33032),

Gene: Nyilah\_36 Start: 25981, Stop: 24842, Start Num: 162

Candidate Starts for Nyilah\_36:

(149, 25996), (Start: 162 @25981 has 317 MA's), (322, 25660), (340, 25624), (348, 25612), (351, 25606), (408, 25513), (414, 25498), (451, 25438), (464, 25408), (497, 25345), (514, 25306), (596, 25177), (607, 25156), (612, 25147), (670, 25051), (716, 24943), (720, 24931), (743, 24868),

Gene: Nymphadora\_39 Start: 32012, Stop: 33094, Start Num: 159

Candidate Starts for Nymphadora\_39:

(Start: 85 @31901 has 6 MA's), (Start: 159 @32012 has 56 MA's), (Start: 191 @32066 has 14 MA's), (252, 32186), (395, 32432), (401, 32441), (414, 32471), (452, 32531), (486, 32597), (497, 32621), (709, 32951), (715, 32978), (760, 33083),

Gene: OBUpride\_29 Start: 26514, Stop: 25279, Start Num: 155

Candidate Starts for OBUpride\_29:

(Start: 155 @26514 has 3 MA's), (Start: 181 @26472 has 20 MA's), (211, 26406), (247, 26325), (266, 26286), (275, 26271), (277, 26265), (281, 26253), (293, 26226), (311, 26193), (339, 26136), (359, 26103), (360, 26100), (375, 26052), (401, 26010), (402, 26007), (412, 25983), (419, 25968), (429, 25944), (438, 25929), (462, 25890), (468, 25878), (488, 25839), (506, 25800), (528, 25752), (531, 25749), (580, 25677), (583, 25671), (588, 25659), (591, 25656), (593, 25650), (619, 25596), (630, 25578), (631, 25575), (645, 25548), (656, 25530), (661, 25524), (662, 25521), (701, 25479), (707, 25452), (709, 25446), (722, 25389), (759, 25326), (760, 25323),

Gene: ODay\_52 Start: 33934, Stop: 35028, Start Num: 162

Candidate Starts for ODay\_52:

(Start: 162 @33934 has 317 MA's), (Start: 191 @33985 has 14 MA's), (216, 34033), (227, 34063), (240, 34090), (286, 34168), (289, 34177), (408, 34369), (416, 34387), (471, 34486), (492, 34519), (493, 34522), (497, 34534), (574, 34636), (605, 34702), (627, 34729), (631, 34732), (675, 34801), (682, 34810), (709, 34861), (710, 34864), (716, 34891), (720, 34903), (762, 34996),

Gene: ObLaDi\_35 Start: 30398, Stop: 29271, Start Num: 147

Candidate Starts for ObLaDi\_35:

(Start: 147 @30398 has 80 MA's), (180, 30344), (230, 30239), (318, 30068), (361, 29978), (371, 29942), (479, 29789), (492, 29765), (555, 29669), (631, 29537), (656, 29492), (705, 29420), (753, 29294),

Gene: Obama12\_34 Start: 26520, Stop: 25468, Start Num: 195

Candidate Starts for Obama12\_34:

(Start: 110 @26634 has 3 MA's), (135, 26607), (Start: 152 @26589 has 120 MA's), (Start: 195 @26520 has 8 MA's), (Start: 217 @26466 has 6 MA's), (322, 26247), (328, 26238), (356, 26202), (394, 26160), (401, 26148), (402, 26145), (515, 25932), (534, 25914), (593, 25827), (595, 25821), (603, 25800), (622, 25785), (633, 25767), (704, 25629), (717, 25581), (724, 25551), (726, 25545), (729, 25533), (755, 25494),

Gene: Octobien14\_6 Start: 2858, Stop: 1764, Start Num: 184

Candidate Starts for Octobien14\_6:

(81, 3011), (Start: 184 @2858 has 4 MA's), (316, 2582), (379, 2495), (502, 2282), (512, 2264), (530, 2225), (587, 2141), (602, 2105), (616, 2084), (618, 2078), (660, 2003), (694, 1952), (713, 1883), (716, 1874), (723, 1844), (724, 1841),

Gene: Odette\_80 Start: 52249, Stop: 53421, Start Num: 160

Candidate Starts for Odette\_80:

(Start: 116 @52192 has 29 MA's), (Start: 131 @52210 has 3 MA's), (Start: 160 @52249 has 1 MA's), (276, 52486), (322, 52594), (395, 52714), (396, 52717), (401, 52726), (408, 52741), (426, 52780), (464, 52858), (524, 52963), (532, 52975), (545, 52978), (553, 52987), (582, 53038), (584, 53041), (592, 53059), (639, 53155), (688, 53212), (723, 53332), (724, 53335), (731, 53359), (747, 53383), (749, 53386),

Gene: Odin\_33 Start: 25191, Stop: 24076, Start Num: 157

Candidate Starts for Odin\_33:

(Start: 157 @25191 has 10 MA's), (Start: 191 @25143 has 14 MA's), (204, 25110), (Start: 217 @25074 has 6 MA's), (234, 25029), (320, 24861), (328, 24846), (356, 24810), (394, 24768), (401, 24756), (402, 24753), (466, 24642), (534, 24522), (548, 24510), (564, 24489), (593, 24435), (603, 24408), (622, 24393), (633, 24375), (650, 24348), (717, 24189), (724, 24159), (726, 24153), (729, 24141), (755, 24102), (760, 24093),

Gene: Ohfah\_33 Start: 26248, Stop: 25127, Start Num: 152

Candidate Starts for Ohfah\_33:

(Start: 110 @26293 has 3 MA's), (135, 26266), (Start: 152 @26248 has 120 MA's), (Start: 195 @26179 has 8 MA's), (Start: 217 @26125 has 6 MA's), (322, 25906), (328, 25897), (356, 25861), (394, 25819), (401, 25807), (402, 25804), (449, 25726), (515, 25591), (534, 25573), (593, 25486), (595, 25480), (603, 25459), (622, 25444), (633, 25426), (704, 25288), (717, 25240), (724, 25210), (726, 25204), (729, 25192), (755, 25153),

Gene: Ohgeesy\_38 Start: 32336, Stop: 31074, Start Num: 147

Candidate Starts for Ohgeesy\_38:

(Start: 147 @32336 has 80 MA's), (225, 32180), (318, 31997), (333, 31961), (365, 31901), (368, 31889), (384, 31844), (403, 31811), (420, 31769), (539, 31601), (544, 31598), (593, 31523), (598, 31505), (599, 31502), (631, 31445), (696, 31328), (700, 31316), (713, 31259), (729, 31199), (737, 31184), (748, 31172), (753, 31163), (773, 31124),

Gene: Okabe\_39 Start: 27938, Stop: 29056, Start Num: 162

Candidate Starts for Okabe\_39:

(Start: 162 @27938 has 317 MA's), (244, 28109), (322, 28274), (340, 28310), (346, 28319), (414, 28424), (454, 28493), (471, 28532), (484, 28553), (492, 28565), (493, 28568), (497, 28580), (514, 28619), (520, 28625), (539, 28646), (573, 28682), (574, 28685), (593, 28721), (595, 28727), (599, 28742), (610, 28757), (663, 28826), (670, 28841), (690, 28859), (713, 28928), (716, 28937), (726, 28976), (731, 28994), (746, 29015), (755, 29030), (760, 29039), (762, 29042),

Gene: OlanP\_35 Start: 26824, Stop: 25679, Start Num: 152

Candidate Starts for OlanP\_35:

(Start: 101 @26887 has 2 MA's), (Start: 152 @26824 has 120 MA's), (Start: 191 @26770 has 14 MA's), (Start: 217 @26701 has 6 MA's), (283, 26572), (300, 26536), (322, 26482), (328, 26473), (356, 26437), (402, 26380), (449, 26302), (466, 26269), (515, 26167), (534, 26149), (548, 26137), (593, 26062), (595, 26056), (603, 26035), (622, 26020), (633, 26002), (663, 25951), (716, 25819), (717, 25816), (724, 25786), (726, 25780), (729, 25768), (755, 25729),

Gene: Ollie\_36 Start: 26621, Stop: 25515, Start Num: 179

Candidate Starts for Ollie\_36:

(Start: 152 @26660 has 120 MA's), (Start: 179 @26621 has 10 MA's), (Start: 217 @26537 has 6 MA's), (234, 26492), (317, 26336), (328, 26309), (356, 26273), (402, 26216), (449, 26138), (462, 26114), (481, 26075), (515, 26003), (529, 25991), (534, 25985), (548, 25973), (593, 25898), (595, 25892), (603, 25871), (622, 25856), (633, 25838), (704, 25700), (716, 25655), (717, 25652), (720, 25643), (724, 25622), (726, 25616), (729, 25604), (755, 25565),

Gene: Omega\_85 Start: 53296, Stop: 54570, Start Num: 98

Candidate Starts for Omega\_85:

(74, 53239), (Start: 90 @53281 has 1 MA's), (Start: 98 @53296 has 10 MA's), (99, 53299), (Start: 131 @53344 has 3 MA's), (Start: 160 @53383 has 1 MA's), (341, 53764), (395, 53848), (401, 53860), (402, 53863), (464, 53992), (545, 54112), (584, 54175), (592, 54193), (601, 54217), (639, 54289), (723, 54466), (724, 54469), (726, 54475), (731, 54493), (741, 54508), (747, 54517), (749, 54520), (773, 54565),

Gene: OneDirection\_30 Start: 24794, Stop: 25876, Start Num: 159

Candidate Starts for OneDirection\_30:

(Start: 85 @24683 has 6 MA's), (Start: 159 @24794 has 56 MA's), (174, 24821), (Start: 191 @24848 has 14 MA's), (252, 24968), (401, 25223), (452, 25313), (486, 25379), (497, 25403), (709, 25733), (712, 25748), (715, 25760), (728, 25808), (760, 25865),

Gene: OnionKnight\_30 Start: 24231, Stop: 22948, Start Num: 118

Candidate Starts for OnionKnight\_30:

(Start: 118 @24231 has 1 MA's), (168, 24165), (240, 24003), (291, 23898), (356, 23781), (378, 23754), (390, 23733), (399, 23718), (465, 23586), (487, 23544), (519, 23478), (523, 23469), (561, 23418), (571, 23400), (585, 23370), (591, 23361), (602, 23331), (629, 23286), (679, 23193), (701, 23151), (704, 23133), (709, 23118), (716, 23088), (720, 23076), (725, 23052), (739, 23019), (747, 23007), (752, 22998), (754, 22995), (777, 22953),

Gene: Oppalora\_35 Start: 23914, Stop: 22721, Start Num: 147

Candidate Starts for Oppalora\_35:

(Start: 147 @23914 has 80 MA's), (365, 23485), (384, 23428), (398, 23404), (533, 23176), (607, 23050), (614, 23038), (625, 23017), (708, 22879), (729, 22798), (760, 22750),

Gene: Optimus\_79 Start: 51901, Stop: 53130, Start Num: 116

Candidate Starts for Optimus\_79:

(Start: 116 @51901 has 29 MA's), (Start: 131 @51919 has 3 MA's), (Start: 160 @51958 has 1 MA's), (276, 52195), (322, 52303), (395, 52423), (396, 52426), (401, 52435), (408, 52450), (426, 52489), (464, 52567), (524, 52672), (532, 52684), (545, 52687), (553, 52696), (582, 52747), (584, 52750), (592, 52768), (639, 52864), (688, 52921), (723, 53041), (724, 53044), (731, 53068), (747, 53092), (749, 53095),

Gene: Orcanus\_34 Start: 24639, Stop: 23455, Start Num: 147

Candidate Starts for Orcanus\_34:

(Start: 147 @24639 has 80 MA's), (266, 24420), (276, 24402), (330, 24285), (365, 24210), (368, 24198), (552, 23880), (599, 23787), (607, 23775), (617, 23757), (700, 23640), (708, 23604),

Gene: Oregano\_39 Start: 29184, Stop: 30311, Start Num: 162

Candidate Starts for Oregano\_39:

(53, 28965), (59, 29001), (Start: 162 @29184 has 317 MA's), (Start: 191 @29238 has 14 MA's), (240, 29361), (263, 29394), (307, 29484), (320, 29517), (451, 29712), (452, 29715), (471, 29757), (493, 29793), (678, 30090), (720, 30210), (726, 30237), (760, 30300),

Gene: Oscar\_45 Start: 33597, Stop: 34682, Start Num: 162

Candidate Starts for Oscar\_45:

(17, 32994), (19, 33012), (22, 33090), (32, 33261), (43, 33336), (51, 33375), (64, 33429), (Start: 162 @33597 has 317 MA's), (228, 33732), (244, 33759), (317, 33897), (335, 33939), (340, 33951), (408, 34035), (451, 34104), (452, 34107), (471, 34149), (534, 34257), (598, 34362), (663, 34449), (701, 34497), (728, 34605), (755, 34653),

Gene: OtsoOtso\_37 Start: 23869, Stop: 22682, Start Num: 147

Candidate Starts for OtsoOtso\_37:

(84, 23959), (Start: 147 @23869 has 80 MA's), (365, 23440), (607, 23005), (700, 22870),

Gene: Ovechkin\_41 Start: 32949, Stop: 34067, Start Num: 162

Candidate Starts for Ovechkin\_41:

(Start: 162 @32949 has 317 MA's), (165, 32958), (244, 33120), (322, 33285), (340, 33321), (346, 33330), (414, 33435), (454, 33504), (481, 33561), (484, 33564), (492, 33576), (493, 33579), (497, 33591), (514, 33630), (539, 33657), (573, 33693), (574, 33696), (593, 33732), (595, 33738), (599, 33753), (610, 33768), (663, 33837), (670, 33852), (703, 33894), (713, 33939), (716, 33948), (726, 33987), (731, 34005), (746, 34026), (755, 34041), (760, 34050), (762, 34053),

Gene: P28Green\_36 Start: 26792, Stop: 25647, Start Num: 152

Candidate Starts for P28Green\_36:

(Start: 152 @26792 has 120 MA's), (Start: 179 @26753 has 10 MA's), (204, 26705), (Start: 217 @26669 has 6 MA's), (234, 26624), (317, 26468), (328, 26441), (356, 26405), (402, 26348), (449, 26270), (462, 26246), (481, 26207), (515, 26135), (529, 26123), (534, 26117), (548, 26105), (593, 26030), (595, 26024), (603, 26003), (622, 25988), (633, 25970), (647, 25946), (704, 25832), (716, 25787), (717, 25784), (720, 25775), (724, 25754), (726, 25748), (729, 25736), (755, 25697),

Gene: PFR1\_26 Start: 22175, Stop: 21039, Start Num: 179

Candidate Starts for PFR1\_26:

(128, 22253), (Start: 179 @22175 has 10 MA's), (186, 22166), (245, 22031), (248, 22025), (261, 21998), (268, 21986), (270, 21983), (278, 21965), (306, 21902), (357, 21818), (366, 21797), (410, 21728), (453, 21638), (466, 21614), (491, 21566), (514, 21509), (529, 21482), (543, 21464), (567, 21437), (586, 21398), (609, 21350), (664, 21263), (680, 21251), (700, 21233), (710, 21191), (712, 21179), (715, 21167), (719, 21155), (721, 21140),

Gene: PFR2\_28 Start: 23744, Stop: 22608, Start Num: 179

Candidate Starts for PFR2\_28:

(128, 23822), (Start: 179 @23744 has 10 MA's), (186, 23735), (245, 23600), (248, 23594), (261, 23567), (268, 23555), (270, 23552), (278, 23534), (306, 23471), (357, 23387), (366, 23366), (410, 23297), (453, 23207), (466, 23183), (491, 23135), (514, 23078), (529, 23051), (543, 23033), (567, 23006), (586, 22967), (609, 22919), (664, 22832), (680, 22820), (700, 22802), (710, 22760), (712, 22748), (715, 22736), (719, 22724), (721, 22709),

Gene: PGHhamlin\_38 Start: 26782, Stop: 25637, Start Num: 152

Candidate Starts for PGHhamlin\_38:

(Start: 152 @26782 has 120 MA's), (Start: 179 @26743 has 10 MA's), (Start: 217 @26659 has 6 MA's), (234, 26614), (317, 26458), (328, 26431), (356, 26395), (402, 26338), (449, 26260), (462, 26236), (481, 26197), (515, 26125), (529, 26113), (534, 26107), (548, 26095), (593, 26020), (595, 26014), (603, 25993), (622, 25978), (633, 25960), (647, 25936), (704, 25822), (716, 25777), (717, 25774), (720, 25765), (724, 25744), (726, 25738), (729, 25726), (755, 25687),

Gene: Padfoot\_41 Start: 32792, Stop: 33880, Start Num: 162

Candidate Starts for Padfoot\_41:

(Start: 162 @32792 has 317 MA's), (Start: 217 @32894 has 6 MA's), (226, 32918), (244, 32954), (317, 33092), (408, 33230), (451, 33299), (452, 33302), (534, 33452), (598, 33557), (701, 33692),

Gene: Padpat\_42 Start: 32470, Stop: 33558, Start Num: 162

Candidate Starts for Padpat\_42:

(Start: 162 @32470 has 317 MA's), (Start: 191 @32521 has 14 MA's), (Start: 217 @32572 has 6 MA's), (226, 32596), (244, 32632), (317, 32770), (340, 32824), (408, 32908), (451, 32977), (452, 32980), (534, 33130), (587, 33208), (598, 33235), (663, 33322), (701, 33370),

Gene: PantheRoc\_37 Start: 30354, Stop: 29092, Start Num: 147

Candidate Starts for PantheRoc\_37:

(Start: 147 @30354 has 80 MA's), (225, 30198), (318, 30015), (333, 29979), (365, 29919), (368, 29907), (384, 29862), (403, 29829), (420, 29787), (539, 29619), (544, 29616), (593, 29541), (598, 29523), (599, 29520), (631, 29463), (696, 29346), (700, 29334), (713, 29277), (729, 29217), (737, 29202), (748, 29190), (753, 29181), (773, 29142),

Gene: Parada\_39 Start: 31322, Stop: 30051, Start Num: 147

Candidate Starts for Parada\_39:

(Start: 147 @31322 has 80 MA's), (Start: 157 @31307 has 10 MA's), (208, 31205), (230, 31163), (236, 31151), (276, 31076), (310, 31001), (315, 30992), (320, 30974), (368, 30875), (369, 30872), (410, 30782), (491, 30677), (535, 30581), (539, 30575), (631, 30413), (702, 30272), (713, 30227), (727, 30176), (729, 30167), (737, 30152), (748, 30140), (755, 30128), (781, 30089),

Gene: PatoPoderoso\_41 Start: 32437, Stop: 33546, Start Num: 165

Candidate Starts for PatoPoderoso\_41:

(Start: 162 @32428 has 317 MA's), (165, 32437), (244, 32599), (322, 32764), (340, 32800), (346, 32809), (414, 32914), (454, 32983), (471, 33022), (481, 33040), (484, 33043), (492, 33055), (493, 33058), (497, 33070), (504, 33085), (514, 33109), (520, 33115), (539, 33136), (573, 33172), (574, 33175), (593, 33211), (595, 33217), (599, 33232), (610, 33247), (663, 33316), (670, 33331), (703, 33373), (713, 33418), (716, 33427), (720, 33439), (726, 33466), (731, 33484), (746, 33505), (755, 33520), (760, 33529), (762, 33532),

Gene: Pawn\_35 Start: 26644, Stop: 25499, Start Num: 152

Candidate Starts for Pawn\_35:

(Start: 101 @26707 has 2 MA's), (Start: 152 @26644 has 120 MA's), (Start: 191 @26590 has 14 MA's), (Start: 217 @26521 has 6 MA's), (322, 26302), (328, 26293), (356, 26257), (402, 26200), (449,

26122), (466, 26089), (515, 25987), (534, 25969), (548, 25957), (593, 25882), (595, 25876), (603, 25855), (622, 25840), (633, 25822), (647, 25798), (716, 25639), (717, 25636), (724, 25606), (726, 25600), (729, 25588), (755, 25549),

Gene: Peanam\_43 Start: 33014, Stop: 34105, Start Num: 162

Candidate Starts for Peanam\_43:

(11, 32333), (21, 32477), (34, 32681), (48, 32780), (50, 32789), (55, 32816), (68, 32864), (Start: 162 @33014 has 317 MA's), (226, 33140), (244, 33176), (304, 33290), (317, 33314), (340, 33368), (408, 33452), (424, 33485), (451, 33521), (452, 33524), (471, 33566), (514, 33653), (534, 33674), (598, 33782), (646, 33842), (691, 33905), (701, 33917), (728, 34025), (748, 34061),

Gene: Peas\_35 Start: 27040, Stop: 28182, Start Num: 162

Candidate Starts for Peas\_35:

(Start: 162 @27040 has 317 MA's), (337, 27394), (340, 27400), (350, 27415), (385, 27469), (414, 27526), (451, 27586), (464, 27616), (497, 27679), (574, 27799), (596, 27847), (670, 27973), (677, 27985), (716, 28081), (743, 28156),

Gene: Peel\_41 Start: 32597, Stop: 33685, Start Num: 162

Candidate Starts for Peel\_41:

(16, 31994), (24, 32171), (42, 32336), (51, 32375), (Start: 162 @32597 has 317 MA's), (Start: 191 @32648 has 14 MA's), (Start: 217 @32699 has 6 MA's), (226, 32723), (244, 32759), (317, 32897), (408, 33035), (451, 33104), (452, 33107), (534, 33257), (598, 33362), (701, 33497),

Gene: Pelletreau\_41 Start: 25089, Stop: 23905, Start Num: 147

Candidate Starts for Pelletreau\_41:

(Start: 147 @25089 has 80 MA's), (266, 24870), (276, 24852), (330, 24735), (365, 24660), (552, 24330), (599, 24237), (607, 24225), (617, 24207), (700, 24090), (708, 24054),

Gene: Pembroke\_36 Start: 26791, Stop: 25646, Start Num: 152

Candidate Starts for Pembroke\_36:

(Start: 152 @26791 has 120 MA's), (Start: 179 @26752 has 10 MA's), (Start: 217 @26668 has 6 MA's), (234, 26623), (317, 26467), (328, 26440), (356, 26404), (402, 26347), (449, 26269), (462, 26245), (481, 26206), (515, 26134), (529, 26122), (534, 26116), (548, 26104), (593, 26029), (595, 26023), (603, 26002), (622, 25987), (633, 25969), (647, 25945), (704, 25831), (716, 25786), (717, 25783), (720, 25774), (724, 25753), (726, 25747), (729, 25735), (755, 25696),

Gene: Penny1\_36 Start: 26790, Stop: 25645, Start Num: 152

Candidate Starts for Penny1\_36:

(Start: 152 @26790 has 120 MA's), (Start: 179 @26751 has 10 MA's), (204, 26703), (Start: 217 @26667 has 6 MA's), (234, 26622), (317, 26466), (328, 26439), (356, 26403), (402, 26346), (449, 26268), (462, 26244), (481, 26205), (515, 26133), (529, 26121), (534, 26115), (548, 26103), (593, 26028), (595, 26022), (603, 26001), (622, 25986), (633, 25968), (647, 25944), (704, 25830), (716, 25785), (717, 25782), (720, 25773), (724, 25752), (726, 25746), (729, 25734), (755, 25695),

Gene: Pepperoni\_31 Start: 25939, Stop: 27021, Start Num: 159

Candidate Starts for Pepperoni\_31:

(Start: 159 @25939 has 56 MA's), (Start: 191 @25993 has 14 MA's), (252, 26113), (414, 26398), (452, 26458), (486, 26524), (497, 26548), (573, 26653), (603, 26719), (709, 26878), (715, 26905), (728, 26953), (760, 27010),

Gene: Periwinkle\_57 Start: 34837, Stop: 35922, Start Num: 162

Candidate Starts for Periwinkle\_57:

(94, 34750), (115, 34786), (Start: 162 @34837 has 317 MA's), (Start: 191 @34888 has 14 MA's), (216, 34936), (227, 34966), (240, 34993), (289, 35080), (322, 35152), (340, 35188), (346, 35197), (408, 35272), (416, 35290), (471, 35389), (492, 35422), (493, 35425), (497, 35437), (530, 35488), (574, 35539), (605, 35605), (675, 35704), (709, 35764), (715, 35791), (726, 35833), (762, 35899),

Gene: Persistence\_35 Start: 26237, Stop: 25068, Start Num: 162

Candidate Starts for Persistence\_35:

(87, 26342), (108, 26303), (Start: 162 @26237 has 317 MA's), (Start: 191 @26186 has 14 MA's), (277, 26018), (285, 26000), (328, 25904), (346, 25868), (402, 25790), (451, 25703), (456, 25694), (486, 25634), (535, 25544), (599, 25439), (603, 25433), (631, 25391), (703, 25274), (708, 25253), (709, 25250), (712, 25235), (726, 25181), (781, 25085),

Gene: PetriParty\_38 Start: 28492, Stop: 27353, Start Num: 167

Candidate Starts for PetriParty\_38:

(Start: 167 @28492 has 2 MA's), (204, 28426), (231, 28351), (242, 28330), (268, 28285), (307, 28201), (332, 28144), (340, 28126), (384, 28090), (401, 28060), (408, 28045), (413, 28033), (423, 28012), (451, 27976), (452, 27973), (462, 27952), (484, 27910), (486, 27907), (497, 27883), (515, 27844), (534, 27826), (602, 27718), (646, 27667), (692, 27595), (712, 27526), (713, 27520), (714, 27517), (732, 27454), (774, 27385), (779, 27379),

Gene: Ph8s\_35 Start: 25309, Stop: 24314, Start Num: 217

Candidate Starts for Ph8s\_35:

(Start: 157 @25426 has 10 MA's), (204, 25345), (Start: 217 @25309 has 6 MA's), (234, 25264), (320, 25096), (328, 25081), (356, 25045), (394, 25003), (401, 24991), (402, 24988), (413, 24964), (464, 24880), (515, 24775), (534, 24757), (548, 24745), (564, 24724), (593, 24670), (603, 24643), (622, 24628), (633, 24610), (650, 24583), (704, 24472), (717, 24424), (724, 24394), (726, 24388), (729, 24376), (755, 24337),

Gene: Phabuloso\_48 Start: 32389, Stop: 33486, Start Num: 162

Candidate Starts for Phabuloso\_48:

(Start: 162 @32389 has 317 MA's), (Start: 191 @32440 has 14 MA's), (227, 32518), (240, 32545), (289, 32632), (322, 32704), (340, 32740), (346, 32749), (408, 32824), (416, 32842), (433, 32869), (471, 32941), (492, 32974), (493, 32977), (497, 32989), (675, 33256), (709, 33316), (715, 33343), (728, 33391), (731, 33403), (762, 33451),

Gene: Phaded\_37 Start: 28341, Stop: 27214, Start Num: 152

Candidate Starts for Phaded\_37:

(Start: 152 @28341 has 120 MA's), (Start: 179 @28305 has 10 MA's), (Start: 217 @28221 has 6 MA's), (234, 28176), (303, 28047), (320, 28008), (356, 27957), (430, 27846), (449, 27822), (466, 27789), (471, 27777), (534, 27669), (536, 27666), (593, 27582), (595, 27576), (603, 27555), (622, 27540), (633, 27522), (717, 27336), (724, 27306), (726, 27300), (729, 27288), (755, 27249), (770, 27225),

Gene: Phalconet\_41 Start: 31939, Stop: 33057, Start Num: 162

Candidate Starts for Phalconet\_41:

(Start: 162 @31939 has 317 MA's), (165, 31948), (244, 32110), (322, 32275), (340, 32311), (346, 32320), (454, 32494), (471, 32533), (484, 32554), (492, 32566), (493, 32569), (497, 32581), (514, 32620), (520, 32626), (539, 32647), (573, 32683), (574, 32686), (593, 32722), (595, 32728), (599, 32743), (663, 32827), (670, 32842), (690, 32860), (713, 32929), (716, 32938), (726, 32977), (731, 32995), (746, 33016), (755, 33031), (760, 33040), (762, 33043),

Gene: Phanphagia\_37 Start: 31053, Stop: 32171, Start Num: 162

Candidate Starts for Phanphagia\_37:

(Start: 162 @31053 has 317 MA's), (165, 31062), (244, 31224), (322, 31389), (340, 31425), (346, 31434), (414, 31539), (454, 31608), (471, 31647), (481, 31665), (484, 31668), (492, 31680), (493, 31683), (497, 31695), (504, 31710), (514, 31734), (520, 31740), (539, 31761), (573, 31797), (574, 31800), (593, 31836), (595, 31842), (599, 31857), (610, 31872), (663, 31941), (670, 31956), (703, 31998), (713, 32043), (716, 32052), (720, 32064), (726, 32091), (731, 32109), (746, 32130), (755, 32145), (760, 32154), (762, 32157),

Gene: Phantastic\_33 Start: 26109, Stop: 24964, Start Num: 134

Candidate Starts for Phantastic\_33:

(Start: 134 @26109 has 2 MA's), (Start: 140 @26100 has 6 MA's), (Start: 217 @25965 has 6 MA's), (234, 25920), (324, 25743), (328, 25737), (335, 25722), (356, 25701), (402, 25644), (449, 25566), (481, 25503), (534, 25413), (548, 25401), (593, 25326), (603, 25299), (622, 25284), (633, 25266), (647, 25242), (704, 25128), (717, 25080), (724, 25050), (726, 25044), (729, 25032), (741, 25011), (755, 24993),

Gene: Pharaoh\_32 Start: 27018, Stop: 25882, Start Num: 140

Candidate Starts for Pharaoh\_32:

(109, 27054), (111, 27051), (Start: 140 @27018 has 6 MA's), (Start: 195 @26937 has 8 MA's), (Start: 217 @26883 has 6 MA's), (234, 26838), (328, 26655), (356, 26619), (401, 26565), (402, 26562), (408, 26550), (449, 26484), (464, 26454), (471, 26439), (515, 26349), (534, 26331), (548, 26319), (593, 26244), (595, 26238), (603, 26217), (622, 26202), (633, 26184), (644, 26163), (650, 26157), (704, 26046), (717, 25998), (724, 25968), (726, 25962), (729, 25950), (755, 25911),

Gene: Phelipe\_33 Start: 26296, Stop: 25130, Start Num: 110

Candidate Starts for Phelipe\_33:

(Start: 110 @26296 has 3 MA's), (135, 26269), (Start: 152 @26251 has 120 MA's), (Start: 195 @26182 has 8 MA's), (199, 26173), (Start: 217 @26128 has 6 MA's), (322, 25909), (328, 25900), (356, 25864), (394, 25822), (401, 25810), (402, 25807), (449, 25729), (515, 25594), (534, 25576), (593, 25489), (603, 25462), (622, 25447), (633, 25429), (704, 25291), (717, 25243), (724, 25213), (726, 25207), (729, 25195), (755, 25156),

Gene: PhesterPhotato\_44 Start: 32894, Stop: 34012, Start Num: 162

Candidate Starts for PhesterPhotato\_44:

(Start: 162 @32894 has 317 MA's), (165, 32903), (244, 33065), (322, 33230), (340, 33266), (346, 33275), (454, 33449), (471, 33488), (484, 33509), (492, 33521), (493, 33524), (497, 33536), (514, 33575), (520, 33581), (539, 33602), (573, 33638), (574, 33641), (593, 33677), (595, 33683), (599, 33698), (663, 33782), (670, 33797), (690, 33815), (713, 33884), (716, 33893), (726, 33932), (731, 33950), (746, 33971), (755, 33986), (760, 33995), (762, 33998),

Gene: Philus\_43 Start: 31979, Stop: 33097, Start Num: 162

Candidate Starts for Philus\_43:

(Start: 162 @31979 has 317 MA's), (227, 32117), (244, 32150), (272, 32198), (322, 32315), (340, 32351), (346, 32360), (414, 32465), (454, 32534), (484, 32594), (492, 32606), (493, 32609), (497, 32621), (504, 32636), (514, 32660), (520, 32666), (539, 32687), (573, 32723), (574, 32726), (593, 32762), (595, 32768), (598, 32780), (599, 32783), (663, 32867), (670, 32882), (703, 32924), (713, 32969), (716, 32978), (726, 33017), (731, 33035), (746, 33056), (755, 33071), (760, 33080), (762, 33083),

Gene: PhishRPhriends\_34 Start: 25821, Stop: 24682, Start Num: 152

Candidate Starts for PhishRPhriends\_34:

(Start: 101 @25884 has 2 MA's), (Start: 152 @25821 has 120 MA's), (Start: 191 @25767 has 14 MA's), (Start: 217 @25698 has 6 MA's), (322, 25479), (328, 25470), (356, 25434), (402, 25377), (449, 25299), (466, 25266), (515, 25164), (534, 25146), (548, 25134), (593, 25059), (595, 25053), (603,

25032), (622, 25017), (633, 24999), (647, 24975), (716, 24816), (717, 24813), (724, 24783), (726, 24777), (729, 24765), (755, 24726),

Gene: Phistory\_51 Start: 33096, Stop: 34193, Start Num: 162

Candidate Starts for Phistory\_51:

(94, 33009), (115, 33045), (Start: 162 @33096 has 317 MA's), (Start: 191 @33147 has 14 MA's), (227, 33225), (240, 33252), (272, 33297), (289, 33339), (408, 33531), (416, 33549), (433, 33576), (471, 33648), (484, 33669), (488, 33675), (497, 33696), (539, 33768), (595, 33852), (675, 33975), (706, 34026), (709, 34035), (715, 34062), (762, 34170), (771, 34185),

Gene: PhluffyCoco\_36 Start: 23912, Stop: 22719, Start Num: 147

Candidate Starts for PhluffyCoco\_36:

(Start: 147 @23912 has 80 MA's), (365, 23483), (384, 23426), (533, 23174), (607, 23048), (614, 23036), (708, 22877), (729, 22796), (760, 22748),

Gene: Phoebe\_36 Start: 26782, Stop: 25637, Start Num: 152

Candidate Starts for Phoebe\_36:

(Start: 152 @26782 has 120 MA's), (Start: 179 @26743 has 10 MA's), (204, 26695), (Start: 217 @26659 has 6 MA's), (234, 26614), (317, 26458), (328, 26431), (356, 26395), (402, 26338), (449, 26260), (462, 26236), (481, 26197), (515, 26125), (529, 26113), (534, 26107), (548, 26095), (593, 26020), (595, 26014), (603, 25993), (622, 25978), (633, 25960), (647, 25936), (704, 25822), (716, 25777), (717, 25774), (720, 25765), (724, 25744), (726, 25738), (729, 25726), (755, 25687),

Gene: Phoebus\_84 Start: 54332, Stop: 55561, Start Num: 116

Candidate Starts for Phoebus\_84:

(Start: 116 @54332 has 29 MA's), (Start: 131 @54350 has 3 MA's), (Start: 160 @54389 has 1 MA's), (276, 54626), (322, 54734), (395, 54854), (396, 54857), (401, 54866), (408, 54881), (426, 54920), (464, 54998), (524, 55103), (532, 55115), (545, 55118), (553, 55127), (582, 55178), (584, 55181), (592, 55199), (639, 55295), (688, 55352), (723, 55472), (724, 55475), (731, 55499), (747, 55523), (749, 55526),

Gene: PhorbesPhlower\_33 Start: 25600, Stop: 26682, Start Num: 159

Candidate Starts for PhorbesPhlower\_33:

(Start: 85 @25489 has 6 MA's), (Start: 159 @25600 has 56 MA's), (Start: 191 @25654 has 14 MA's), (252, 25774), (322, 25921), (452, 26119), (486, 26185), (497, 26209), (709, 26539), (715, 26566), (760, 26671), (762, 26674),

Gene: Phrank15\_39 Start: 27192, Stop: 26020, Start Num: 162

Candidate Starts for Phrank15\_39:

(Start: 114 @27249 has 1 MA's), (Start: 162 @27192 has 317 MA's), (Start: 191 @27141 has 14 MA's), (277, 26973), (285, 26955), (346, 26823), (402, 26745), (408, 26733), (411, 26727), (451, 26658), (456, 26649), (486, 26589), (535, 26499), (599, 26394), (614, 26373), (631, 26346), (703, 26223), (709, 26199), (712, 26184), (762, 26064), (776, 26037),

Gene: Phranny\_36 Start: 26629, Stop: 25490, Start Num: 152

Candidate Starts for Phranny\_36:

(Start: 101 @26692 has 2 MA's), (Start: 152 @26629 has 120 MA's), (Start: 191 @26575 has 14 MA's), (Start: 217 @26506 has 6 MA's), (322, 26287), (328, 26278), (356, 26242), (402, 26185), (449, 26107), (466, 26074), (515, 25972), (534, 25954), (548, 25942), (593, 25867), (595, 25861), (603, 25840), (622, 25825), (633, 25807), (647, 25783), (716, 25624), (717, 25621), (724, 25591), (726, 25585), (729, 25573), (755, 25534),

Gene: Phrappuccino\_38 Start: 20588, Stop: 21727, Start Num: 162

Candidate Starts for Phrappuccino\_38:

(Start: 162 @20588 has 317 MA's), (192, 20642), (Start: 222 @20714 has 1 MA's), (340, 20966), (346, 20975), (401, 21065), (408, 21080), (451, 21158), (486, 21227), (493, 21239), (534, 21311), (578, 21362), (579, 21365), (595, 21401), (634, 21452), (663, 21500), (665, 21506), (670, 21515), (712, 21596), (744, 21689), (753, 21701), (760, 21713),

Gene: PhriskyACE\_36 Start: 30974, Stop: 29805, Start Num: 147

Candidate Starts for PhriskyACE\_36:

(Start: 147 @30974 has 80 MA's), (232, 30812), (315, 30650), (320, 30632), (355, 30566), (364, 30548), (365, 30545), (368, 30533), (384, 30488), (407, 30449), (410, 30440), (419, 30419), (420, 30416), (492, 30332), (493, 30329), (520, 30272), (612, 30137), (631, 30101), (648, 30071), (700, 30014), (702, 30002), (705, 29987), (729, 29897), (737, 29882), (753, 29861), (773, 29822), (780, 29813),

Gene: Piatt\_41 Start: 32792, Stop: 33880, Start Num: 162

Candidate Starts for Piatt\_41:

(Start: 162 @32792 has 317 MA's), (Start: 217 @32894 has 6 MA's), (226, 32918), (244, 32954), (317, 33092), (408, 33230), (451, 33299), (452, 33302), (534, 33452), (598, 33557), (701, 33692),

Gene: Pickett\_32 Start: 24860, Stop: 25942, Start Num: 159

Candidate Starts for Pickett\_32:

(Start: 159 @24860 has 56 MA's), (Start: 191 @24914 has 14 MA's), (252, 25034), (414, 25319), (452, 25379), (486, 25445), (497, 25469), (709, 25799), (715, 25826), (760, 25931),

Gene: Pigu\_32 Start: 23069, Stop: 24265, Start Num: 138

Candidate Starts for Pigu\_32:

(29, 22745), (30, 22754), (36, 22775), (57, 22910), (87, 22994), (Start: 138 @23069 has 1 MA's), (172, 23120), (190, 23153), (215, 23216), (254, 23300), (287, 23372), (297, 23396), (314, 23423), (321, 23444), (372, 23507), (406, 23555), (412, 23570), (428, 23606), (443, 23633), (520, 23786), (600, 23921), (667, 24041), (706, 24098), (724, 24170), (755, 24221),

Gene: Pimento\_39 Start: 30980, Stop: 29709, Start Num: 147

Candidate Starts for Pimento\_39:

(125, 31004), (Start: 147 @30980 has 80 MA's), (Start: 157 @30965 has 10 MA's), (208, 30863), (230, 30821), (236, 30809), (276, 30734), (310, 30659), (315, 30650), (320, 30632), (368, 30533), (369, 30530), (410, 30440), (486, 30344), (491, 30335), (535, 30239), (555, 30215), (631, 30071), (702, 29930), (713, 29885), (727, 29834), (729, 29825), (737, 29810), (748, 29798), (755, 29786), (781, 29747),

Gene: Pineda\_38 Start: 24165, Stop: 22978, Start Num: 147

Candidate Starts for Pineda\_38:

(84, 24255), (Start: 147 @24165 has 80 MA's), (365, 23736), (607, 23301), (700, 23166),

Gene: Pippy\_38 Start: 29161, Stop: 30279, Start Num: 162

Candidate Starts for Pippy\_38:

(Start: 162 @29161 has 317 MA's), (165, 29170), (244, 29332), (322, 29497), (340, 29533), (346, 29542), (402, 29623), (414, 29647), (454, 29716), (471, 29755), (481, 29773), (484, 29776), (492, 29788), (493, 29791), (497, 29803), (504, 29818), (514, 29842), (520, 29848), (539, 29869), (573, 29905), (574, 29908), (593, 29944), (595, 29950), (599, 29965), (610, 29980), (663, 30049), (670, 30064), (703, 30106), (713, 30151), (716, 30160), (726, 30199), (731, 30217), (746, 30238), (755, 30253), (760, 30262), (762, 30265),

Gene: Piro94\_34 Start: 26723, Stop: 25590, Start Num: 152

Candidate Starts for Piro94\_34:

(Start: 139 @26741 has 1 MA's), (Start: 152 @26723 has 120 MA's), (Start: 179 @26684 has 10 MA's), (Start: 191 @26669 has 14 MA's), (Start: 217 @26600 has 6 MA's), (234, 26555), (268, 26501), (324, 26378), (356, 26336), (389, 26300), (401, 26282), (462, 26177), (515, 26066), (534, 26048), (548, 26036), (593, 25961), (603, 25934), (622, 25919), (633, 25901), (650, 25874), (704, 25763), (716, 25718), (717, 25715), (724, 25685), (726, 25679), (729, 25667), (755, 25628),

Gene: Pisa1\_41 Start: 33768, Stop: 34856, Start Num: 162

Candidate Starts for Pisa1\_41:

(Start: 162 @33768 has 317 MA's), (Start: 217 @33870 has 6 MA's), (226, 33894), (244, 33930), (277, 33981), (304, 34044), (317, 34068), (340, 34122), (408, 34206), (451, 34275), (452, 34278), (534, 34428), (587, 34506), (598, 34533), (701, 34668), (748, 34812),

Gene: Pistachio\_34 Start: 25844, Stop: 24717, Start Num: 152

Candidate Starts for Pistachio\_34:

(Start: 152 @25844 has 120 MA's), (204, 25757), (Start: 217 @25721 has 6 MA's), (234, 25676), (317, 25520), (320, 25508), (322, 25502), (356, 25457), (401, 25403), (402, 25400), (449, 25322), (534, 25169), (548, 25157), (574, 25118), (593, 25082), (595, 25076), (603, 25055), (622, 25040), (633, 25022), (650, 24995), (704, 24884), (717, 24836), (724, 24806), (726, 24800), (729, 24788), (755, 24749),

Gene: Pitbull\_33 Start: 24636, Stop: 23518, Start Num: 144

Candidate Starts for Pitbull\_33:

(119, 24666), (141, 24639), (Start: 144 @24636 has 4 MA's), (Start: 161 @24612 has 1 MA's), (254, 24441), (266, 24414), (320, 24306), (330, 24285), (335, 24276), (355, 24237), (364, 24219), (367, 24207), (368, 24204), (373, 24183), (402, 24123), (415, 24099), (483, 24033), (491, 24018), (508, 23976), (570, 23898), (594, 23850), (598, 23835), (612, 23814), (616, 23808), (631, 23787), (724, 23601), (753, 23547),

Gene: Pokerus\_40 Start: 32516, Stop: 33604, Start Num: 162

Candidate Starts for Pokerus\_40:

(Start: 162 @32516 has 317 MA's), (Start: 217 @32618 has 6 MA's), (226, 32642), (244, 32678), (317, 32816), (340, 32870), (408, 32954), (451, 33023), (452, 33026), (534, 33176), (598, 33281), (663, 33368), (701, 33416), (748, 33560),

Gene: Polka\_36 Start: 23869, Stop: 22682, Start Num: 147

Candidate Starts for Polka\_36:

(84, 23959), (Start: 147 @23869 has 80 MA's), (365, 23440), (607, 23005), (700, 22870),

Gene: Pollux\_38 Start: 32103, Stop: 33209, Start Num: 162

Candidate Starts for Pollux\_38:

(113, 32046), (Start: 162 @32103 has 317 MA's), (Start: 191 @32154 has 14 MA's), (240, 32259), (268, 32298), (408, 32538), (451, 32607), (452, 32610), (466, 32640), (493, 32691), (497, 32703), (638, 32931), (679, 32991), (709, 33066), (716, 33096), (760, 33198),

Gene: Polly\_36 Start: 30006, Stop: 31088, Start Num: 159

Candidate Starts for Polly\_36:

(Start: 85 @29895 has 6 MA's), (Start: 159 @30006 has 56 MA's), (Start: 191 @30060 has 14 MA's), (252, 30180), (401, 30435), (414, 30465), (452, 30525), (486, 30591), (497, 30615), (709, 30945), (715, 30972), (760, 31077),

Gene: Polo2Bam\_48 Start: 32594, Stop: 33712, Start Num: 162

Candidate Starts for Polo2Bam\_48:

(Start: 162 @32594 has 317 MA's), (227, 32732), (244, 32765), (272, 32813), (340, 32966), (346, 32975), (414, 33080), (454, 33149), (484, 33209), (492, 33221), (493, 33224), (504, 33251), (514, 33275), (539, 33302), (573, 33338), (574, 33341), (593, 33377), (595, 33383), (598, 33395), (599, 33398), (663, 33482), (670, 33497), (703, 33539), (713, 33584), (716, 33593), (726, 33632), (731, 33650), (746, 33671), (755, 33686), (760, 33695), (762, 33698),

Gene: Polymorphads\_33 Start: 26248, Stop: 25127, Start Num: 152

Candidate Starts for Polymorphads\_33:

(Start: 110 @26293 has 3 MA's), (135, 26266), (Start: 152 @26248 has 120 MA's), (Start: 195 @26179 has 8 MA's), (Start: 217 @26125 has 6 MA's), (322, 25906), (328, 25897), (356, 25861), (394, 25819), (401, 25807), (402, 25804), (449, 25726), (515, 25591), (534, 25573), (593, 25486), (595, 25480), (603, 25459), (622, 25444), (633, 25426), (704, 25288), (717, 25240), (724, 25210), (726, 25204), (729, 25192), (755, 25153),

Gene: Pomar16\_37 Start: 26461, Stop: 25391, Start Num: 191

Candidate Starts for Pomar16\_37:

(Start: 152 @26515 has 120 MA's), (Start: 191 @26461 has 14 MA's), (Start: 217 @26392 has 6 MA's), (317, 26191), (328, 26164), (356, 26128), (402, 26071), (414, 26044), (449, 25993), (466, 25960), (471, 25948), (481, 25930), (534, 25840), (548, 25828), (574, 25789), (593, 25753), (595, 25747), (603, 25726), (622, 25711), (633, 25693), (650, 25666), (704, 25555), (717, 25507), (718, 25504), (724, 25477), (726, 25471), (729, 25459), (755, 25420),

Gene: Porcelain\_86 Start: 50735, Stop: 52009, Start Num: 98

Candidate Starts for Porcelain\_86:

(74, 50678), (Start: 90 @50720 has 1 MA's), (Start: 98 @50735 has 10 MA's), (99, 50738), (Start: 131 @50783 has 3 MA's), (Start: 160 @50822 has 1 MA's), (341, 51203), (395, 51287), (401, 51299), (402, 51302), (464, 51431), (545, 51551), (584, 51614), (592, 51632), (601, 51656), (639, 51728), (723, 51905), (724, 51908), (726, 51914), (731, 51932), (741, 51947), (747, 51956), (749, 51959), (773, 52004),

Gene: Posh\_42 Start: 32975, Stop: 34057, Start Num: 159

Candidate Starts for Posh\_42:

(Start: 85 @32864 has 6 MA's), (Start: 159 @32975 has 56 MA's), (Start: 191 @33029 has 14 MA's), (252, 33149), (452, 33494), (497, 33584), (573, 33689), (709, 33914), (715, 33941), (760, 34046),

Gene: PotatoSplit\_37 Start: 26790, Stop: 25645, Start Num: 152

Candidate Starts for PotatoSplit\_37:

(Start: 152 @26790 has 120 MA's), (Start: 179 @26751 has 10 MA's), (204, 26703), (Start: 217 @26667 has 6 MA's), (234, 26622), (317, 26466), (328, 26439), (356, 26403), (402, 26346), (449, 26268), (462, 26244), (481, 26205), (515, 26133), (529, 26121), (534, 26115), (548, 26103), (593, 26028), (595, 26022), (603, 26001), (622, 25986), (633, 25968), (647, 25944), (704, 25830), (716, 25785), (717, 25782), (720, 25773), (724, 25752), (726, 25746), (729, 25734), (755, 25695),

Gene: Pound\_82 Start: 54468, Stop: 55697, Start Num: 116

Candidate Starts for Pound\_82:

(Start: 116 @54468 has 29 MA's), (Start: 131 @54486 has 3 MA's), (Start: 160 @54525 has 1 MA's), (276, 54762), (322, 54870), (395, 54990), (396, 54993), (401, 55002), (408, 55017), (426, 55056), (464, 55134), (524, 55239), (532, 55251), (545, 55254), (553, 55263), (582, 55314), (584, 55317), (592, 55335), (639, 55431), (688, 55488), (723, 55608), (724, 55611), (731, 55635), (747, 55659), (749, 55662),

Gene: Poushou\_32 Start: 29943, Stop: 28732, Start Num: 159

Candidate Starts for Poushou\_32:

(Start: 159 @29943 has 56 MA's), (240, 29769), (312, 29628), (401, 29469), (472, 29319), (517, 29229), (663, 28965), (684, 28929), (690, 28923), (747, 28758), (756, 28743), (758, 28740),

Gene: Power\_33 Start: 26423, Stop: 25227, Start Num: 156

Candidate Starts for Power\_33:

(127, 26453), (Start: 156 @26423 has 8 MA's), (Start: 217 @26303 has 6 MA's), (234, 26258), (317, 26102), (328, 26075), (356, 26039), (394, 25997), (402, 25982), (449, 25904), (466, 25871), (471, 25859), (481, 25841), (534, 25751), (548, 25739), (593, 25664), (595, 25658), (603, 25637), (622, 25622), (633, 25604), (650, 25577), (704, 25466), (717, 25418), (718, 25415), (724, 25388), (726, 25382), (729, 25370), (755, 25331), (786, 25277),

Gene: Powerball\_37 Start: 30563, Stop: 29394, Start Num: 147

Candidate Starts for Powerball\_37:

(Start: 147 @30563 has 80 MA's), (276, 30320), (328, 30203), (357, 30149), (360, 30143), (365, 30131), (368, 30119), (410, 30026), (412, 30020), (425, 29990), (491, 29921), (492, 29918), (504, 29888), (538, 29837), (593, 29765), (700, 29603), (702, 29591), (724, 29504), (727, 29495), (753, 29450), (773, 29411),

Gene: Prithvi\_42 Start: 32665, Stop: 33753, Start Num: 162

Candidate Starts for Prithvi\_42:

(70, 32518), (Start: 162 @32665 has 317 MA's), (Start: 217 @32767 has 6 MA's), (226, 32791), (244, 32827), (317, 32965), (340, 33019), (408, 33103), (451, 33172), (452, 33175), (534, 33325), (598, 33430), (663, 33517), (701, 33565), (748, 33709),

Gene: Pukovnik\_35 Start: 27554, Stop: 26421, Start Num: 140

Candidate Starts for Pukovnik\_35:

(Start: 140 @27554 has 6 MA's), (Start: 217 @27419 has 6 MA's), (234, 27374), (237, 27368), (260, 27329), (317, 27218), (328, 27191), (356, 27155), (394, 27113), (401, 27101), (402, 27098), (534, 26867), (548, 26855), (593, 26780), (595, 26774), (603, 26753), (622, 26738), (633, 26720), (663, 26669), (704, 26582), (717, 26534), (724, 26504), (726, 26498), (729, 26486), (741, 26465), (755, 26447),

Gene: Puppy\_34 Start: 25914, Stop: 24787, Start Num: 152

Candidate Starts for Puppy\_34:

(Start: 152 @25914 has 120 MA's), (204, 25827), (Start: 217 @25791 has 6 MA's), (234, 25746), (317, 25590), (320, 25578), (322, 25572), (356, 25527), (401, 25473), (402, 25470), (413, 25446), (515, 25257), (534, 25239), (548, 25227), (574, 25188), (593, 25152), (595, 25146), (603, 25125), (622, 25110), (633, 25092), (704, 24954), (717, 24906), (724, 24876), (726, 24870), (729, 24858), (755, 24819),

Gene: PurpleHaze\_35 Start: 26642, Stop: 25497, Start Num: 152

Candidate Starts for PurpleHaze\_35:

(Start: 101 @26705 has 2 MA's), (Start: 152 @26642 has 120 MA's), (Start: 191 @26588 has 14 MA's), (Start: 217 @26519 has 6 MA's), (322, 26300), (328, 26291), (356, 26255), (402, 26198), (449, 26120), (466, 26087), (515, 25985), (534, 25967), (548, 25955), (593, 25880), (595, 25874), (603, 25853), (622, 25838), (633, 25820), (647, 25796), (716, 25637), (717, 25634), (724, 25604), (726, 25598), (729, 25586), (755, 25547),

Gene: Pytheas\_39 Start: 31310, Stop: 32392, Start Num: 159

Candidate Starts for Pytheas\_39:

(Start: 85 @31199 has 6 MA's), (Start: 159 @31310 has 56 MA's), (Start: 191 @31364 has 14 MA's), (252, 31484), (414, 31769), (452, 31829), (486, 31895), (497, 31919), (709, 32249), (715, 32276), (760, 32381),

Gene: QueenB2\_34 Start: 26488, Stop: 25370, Start Num: 152

Candidate Starts for QueenB2\_34:

(Start: 101 @26551 has 2 MA's), (Start: 152 @26488 has 120 MA's), (Start: 191 @26434 has 14 MA's), (Start: 217 @26365 has 6 MA's), (234, 26320), (317, 26164), (318, 26161), (328, 26137), (356, 26101), (402, 26044), (449, 25966), (466, 25933), (471, 25921), (481, 25903), (534, 25813), (548, 25801), (595, 25720), (603, 25699), (622, 25684), (633, 25666), (650, 25639), (704, 25528), (717, 25480), (718, 25477), (724, 25450), (726, 25444), (729, 25432), (755, 25393),

Gene: QueenBeesly\_34 Start: 26370, Stop: 25255, Start Num: 156

Candidate Starts for QueenBeesly\_34:

(127, 26400), (Start: 156 @26370 has 8 MA's), (Start: 217 @26250 has 6 MA's), (234, 26205), (317, 26049), (328, 26022), (356, 25986), (394, 25944), (402, 25929), (466, 25818), (471, 25806), (481, 25788), (534, 25698), (548, 25686), (593, 25611), (595, 25605), (603, 25584), (622, 25569), (633, 25551), (650, 25524), (653, 25515), (704, 25413), (716, 25368), (717, 25365), (718, 25362), (724, 25335), (726, 25329), (729, 25317), (755, 25278),

Gene: QuincyRose\_40 Start: 32781, Stop: 33869, Start Num: 162

Candidate Starts for QuincyRose\_40:

(Start: 162 @32781 has 317 MA's), (Start: 217 @32883 has 6 MA's), (226, 32907), (244, 32943), (317, 33081), (340, 33135), (408, 33219), (451, 33288), (452, 33291), (534, 33441), (598, 33546), (663, 33633), (679, 33663), (701, 33681), (748, 33825),

Gene: Quokka\_33 Start: 25599, Stop: 24475, Start Num: 152

Candidate Starts for Quokka\_33:

(Start: 152 @25599 has 120 MA's), (199, 25521), (Start: 217 @25476 has 6 MA's), (234, 25431), (272, 25371), (328, 25248), (356, 25212), (401, 25158), (402, 25155), (471, 25032), (473, 25029), (481, 25014), (529, 24930), (534, 24924), (564, 24891), (573, 24876), (593, 24837), (603, 24810), (622, 24795), (633, 24777), (650, 24750), (704, 24639), (717, 24591), (718, 24588), (720, 24582), (724, 24561), (726, 24555), (729, 24543), (755, 24504),

Gene: REQ2\_38 Start: 31529, Stop: 30324, Start Num: 169

Candidate Starts for REQ2\_38:

(166, 31535), (Start: 169 @31529 has 7 MA's), (207, 31454), (238, 31382), (282, 31292), (319, 31220), (339, 31178), (362, 31139), (392, 31070), (396, 31061), (401, 31052), (412, 31025), (420, 31007), (429, 30986), (448, 30950), (508, 30833), (539, 30776), (580, 30716), (583, 30710), (591, 30695), (631, 30614), (709, 30485), (720, 30443), (764, 30353), (774, 30335),

Gene: REQ3\_01 Start: 1320, Stop: 82, Start Num: 147

Candidate Starts for REQ3\_01:

(93, 1395), (Start: 147 @1320 has 80 MA's), (208, 1203), (238, 1137), (266, 1083), (271, 1074), (275, 1068), (304, 1002), (340, 927), (368, 861), (375, 831), (384, 816), (386, 807), (410, 765), (417, 747), (436, 702), (437, 699), (451, 669), (463, 642), (468, 633), (489, 591), (491, 588), (504, 555), (547, 492), (567, 465), (593, 423), (595, 417), (599, 402), (603, 396), (618, 378), (630, 360), (631, 357), (638, 342), (655, 315), (666, 294), (705, 240), (722, 171), (724, 165), (755, 108), (762, 96),

Gene: Rabbitrun\_10 Start: 3920, Stop: 2817, Start Num: 188

Candidate Starts for Rabbitrun\_10:

(Start: 188 @3920 has 12 MA's), (193, 3908), (211, 3854), (219, 3845), (Start: 222 @3839 has 1 MA's), (229, 3815), (314, 3662), (360, 3590), (392, 3548), (402, 3527), (408, 3515), (423, 3482), (467, 3392), (477, 3371), (520, 3284), (547, 3257), (581, 3203), (637, 3083), (695, 2987), (703, 2972), (712, 2933), (722, 2891),

Gene: RadFad\_40 Start: 27831, Stop: 26659, Start Num: 162

Candidate Starts for RadFad\_40:

(Start: 162 @27831 has 317 MA's), (Start: 191 @27780 has 14 MA's), (239, 27666), (277, 27612), (285, 27594), (318, 27522), (336, 27480), (346, 27462), (402, 27384), (408, 27372), (451, 27297), (456, 27288), (486, 27228), (535, 27138), (599, 27033), (614, 27012), (627, 26988), (631, 26985), (672, 26916), (703, 26862), (709, 26838), (712, 26823), (762, 26703), (776, 26676),

Gene: Ramen\_41 Start: 32481, Stop: 33569, Start Num: 162

Candidate Starts for Ramen\_41:

(Start: 162 @32481 has 317 MA's), (Start: 217 @32583 has 6 MA's), (226, 32607), (244, 32643), (317, 32781), (340, 32835), (408, 32919), (451, 32988), (452, 32991), (534, 33141), (587, 33219), (598, 33246), (663, 33333), (701, 33381),

Gene: Raphaella\_40 Start: 27703, Stop: 26564, Start Num: 162

Candidate Starts for Raphaella\_40:

(Start: 162 @27703 has 317 MA's), (Start: 191 @27652 has 14 MA's), (277, 27484), (285, 27466), (346, 27334), (402, 27256), (408, 27244), (411, 27238), (451, 27169), (456, 27160), (486, 27100), (535, 27010), (599, 26905), (614, 26884), (631, 26857), (703, 26734), (709, 26710), (712, 26695), (733, 26620), (753, 26590),

Gene: Rapunzel97\_41 Start: 32477, Stop: 33565, Start Num: 162

Candidate Starts for Rapunzel97\_41:

(Start: 162 @32477 has 317 MA's), (Start: 191 @32528 has 14 MA's), (Start: 217 @32579 has 6 MA's), (226, 32603), (244, 32639), (317, 32777), (340, 32831), (408, 32915), (451, 32984), (452, 32987), (534, 33137), (587, 33215), (598, 33242), (663, 33329), (701, 33377),

Gene: Raqqa\_32 Start: 24809, Stop: 23658, Start Num: 175

Candidate Starts for Raqqa\_32:

(Start: 162 @24836 has 317 MA's), (Start: 175 @24809 has 3 MA's), (Start: 191 @24785 has 14 MA's), (285, 24599), (328, 24503), (346, 24467), (402, 24389), (451, 24302), (456, 24293), (486, 24233), (535, 24143), (599, 24038), (603, 24032), (670, 23924), (703, 23873), (709, 23849), (712, 23834), (733, 23759), (762, 23714),

Gene: Rattail\_36 Start: 23998, Stop: 22805, Start Num: 147

Candidate Starts for Rattail\_36:

(Start: 147 @23998 has 80 MA's), (365, 23569), (384, 23512), (533, 23260), (607, 23134), (614, 23122), (708, 22963), (729, 22882), (760, 22834),

Gene: RavenCo17\_41 Start: 31793, Stop: 32899, Start Num: 162

Candidate Starts for RavenCo17\_41:

(113, 31736), (Start: 162 @31793 has 317 MA's), (Start: 191 @31844 has 14 MA's), (240, 31949), (268, 31988), (408, 32228), (451, 32297), (452, 32300), (466, 32330), (493, 32381), (497, 32393), (638, 32621), (679, 32681), (682, 32684), (709, 32756), (716, 32786), (760, 32888),

Gene: Rearden\_78 Start: 49030, Stop: 50319, Start Num: 90

Candidate Starts for Rearden\_78:

(74, 48988), (Start: 90 @49030 has 1 MA's), (Start: 98 @49045 has 10 MA's), (99, 49048), (Start: 131 @49093 has 3 MA's), (Start: 160 @49132 has 1 MA's), (341, 49513), (395, 49597), (401, 49609), (402, 49612), (464, 49741), (545, 49861), (584, 49924), (592, 49942), (601, 49966), (639, 50038), (723, 50215), (724, 50218), (726, 50224), (731, 50242), (741, 50257), (747, 50266), (749, 50269), (773, 50314),

Gene: Reba\_36 Start: 26302, Stop: 25163, Start Num: 152

Candidate Starts for Reba\_36:

(Start: 101 @26365 has 2 MA's), (Start: 152 @26302 has 120 MA's), (Start: 191 @26248 has 14 MA's), (Start: 217 @26179 has 6 MA's), (322, 25960), (328, 25951), (356, 25915), (402, 25858), (449, 25780), (466, 25747), (515, 25645), (534, 25627), (548, 25615), (593, 25540), (595, 25534), (603, 25513), (622, 25498), (633, 25480), (647, 25456), (716, 25297), (717, 25294), (724, 25264), (726, 25258), (729, 25246), (755, 25207),

Gene: RedFox\_36 Start: 23911, Stop: 22718, Start Num: 147

Candidate Starts for RedFox\_36:

(Start: 147 @23911 has 80 MA's), (365, 23482), (384, 23425), (398, 23401), (533, 23173), (607, 23047), (614, 23035), (625, 23014), (708, 22876), (729, 22795), (760, 22747),

Gene: Redno2\_78 Start: 49946, Stop: 51175, Start Num: 116

Candidate Starts for Redno2\_78:

(Start: 116 @49946 has 29 MA's), (Start: 131 @49964 has 3 MA's), (Start: 160 @50003 has 1 MA's), (276, 50240), (322, 50348), (395, 50468), (396, 50471), (401, 50480), (408, 50495), (426, 50534), (464, 50612), (524, 50717), (532, 50729), (545, 50732), (553, 50741), (582, 50792), (584, 50795), (592, 50813), (639, 50909), (688, 50966), (723, 51086), (724, 51089), (731, 51113), (747, 51137), (749, 51140),

Gene: Renaud18\_46 Start: 32683, Stop: 33786, Start Num: 162

Candidate Starts for Renaud18\_46:

(Start: 162 @32683 has 317 MA's), (Start: 191 @32731 has 14 MA's), (227, 32812), (238, 32839), (340, 33052), (359, 33076), (402, 33124), (451, 33205), (486, 33274), (492, 33283), (504, 33313), (514, 33337), (534, 33358), (587, 33436), (595, 33451), (638, 33511), (663, 33550), (670, 33565), (687, 33589), (703, 33616), (709, 33640), (713, 33661), (716, 33670), (728, 33715), (731, 33727),

Gene: Renna12\_35 Start: 23953, Stop: 22760, Start Num: 147

Candidate Starts for Renna12\_35:

(Start: 147 @23953 has 80 MA's), (278, 23710), (365, 23524), (384, 23467), (398, 23443), (533, 23215), (607, 23089), (614, 23077), (760, 22789),

Gene: Retro23\_35 Start: 26753, Stop: 25632, Start Num: 152

Candidate Starts for Retro23\_35:

(Start: 101 @26816 has 2 MA's), (Start: 152 @26753 has 120 MA's), (Start: 191 @26699 has 14 MA's), (Start: 217 @26630 has 6 MA's), (234, 26585), (317, 26429), (356, 26366), (408, 26297), (430, 26255), (449, 26231), (481, 26168), (534, 26078), (548, 26066), (593, 25991), (595, 25985), (603, 25964), (622, 25949), (633, 25931), (650, 25904), (704, 25793), (716, 25748), (717, 25745), (718, 25742), (724, 25715), (726, 25709), (729, 25697), (755, 25658),

Gene: Rialto\_46 Start: 34385, Stop: 35503, Start Num: 162

Candidate Starts for Rialto\_46:

(Start: 162 @34385 has 317 MA's), (244, 34556), (322, 34721), (340, 34757), (346, 34766), (414, 34871), (454, 34940), (471, 34979), (484, 35000), (492, 35012), (493, 35015), (497, 35027), (514, 35066), (520, 35072), (539, 35093), (573, 35129), (574, 35132), (593, 35168), (595, 35174), (599, 35189), (610, 35204), (663, 35273), (670, 35288), (713, 35375), (716, 35384), (726, 35423), (731, 35441), (746, 35462), (755, 35477), (760, 35486), (762, 35489),

Gene: Richie\_40 Start: 27784, Stop: 26645, Start Num: 162

Candidate Starts for Richie\_40:

(Start: 162 @27784 has 317 MA's), (Start: 191 @27733 has 14 MA's), (277, 27565), (285, 27547), (340, 27424), (346, 27415), (402, 27337), (408, 27325), (411, 27319), (451, 27250), (456, 27241), (486, 27181), (535, 27091), (599, 26986), (614, 26965), (631, 26938), (703, 26815), (709, 26791),

(712, 26776), (733, 26701), (753, 26671),

Gene: Richo\_43 Start: 33014, Stop: 34105, Start Num: 162

Candidate Starts for Richo\_43:

(11, 32333), (21, 32477), (34, 32681), (48, 32780), (50, 32789), (55, 32816), (68, 32864), (Start: 162 @33014 has 317 MA's), (Start: 191 @33065 has 14 MA's), (226, 33140), (244, 33176), (304, 33290), (317, 33314), (340, 33368), (408, 33452), (424, 33485), (451, 33521), (452, 33524), (471, 33566), (514, 33653), (534, 33674), (598, 33782), (646, 33842), (691, 33905), (701, 33917), (728, 34025), (748, 34061),

Gene: Rita\_44 Start: 31945, Stop: 33063, Start Num: 162

Candidate Starts for Rita\_44:

(Start: 162 @31945 has 317 MA's), (227, 32083), (244, 32116), (272, 32164), (340, 32317), (346, 32326), (402, 32407), (454, 32500), (484, 32560), (492, 32572), (493, 32575), (504, 32602), (514, 32626), (539, 32653), (573, 32689), (574, 32692), (593, 32728), (610, 32764), (663, 32833), (670, 32848), (690, 32866), (713, 32935), (716, 32944), (720, 32956), (726, 32983), (731, 33001), (746, 33022), (755, 33037), (760, 33046), (762, 33049),

Gene: Rizz\_40 Start: 29782, Stop: 30909, Start Num: 162

Candidate Starts for Rizz\_40:

(122, 29743), (Start: 162 @29782 has 317 MA's), (Start: 191 @29836 has 14 MA's), (240, 29959), (263, 29992), (307, 30082), (320, 30115), (451, 30310), (452, 30313), (471, 30355), (493, 30391), (678, 30688), (709, 30766), (715, 30793), (720, 30808), (726, 30835), (760, 30898),

Gene: Rockstar\_33 Start: 26058, Stop: 24934, Start Num: 152

Candidate Starts for Rockstar\_33:

(Start: 114 @26100 has 1 MA's), (Start: 152 @26058 has 120 MA's), (Start: 179 @26019 has 10 MA's), (204, 25971), (Start: 217 @25935 has 6 MA's), (234, 25890), (322, 25716), (356, 25671), (394, 25629), (408, 25602), (449, 25536), (471, 25491), (534, 25383), (548, 25371), (564, 25350), (593, 25296), (595, 25290), (603, 25269), (622, 25254), (633, 25236), (650, 25209), (704, 25098), (717, 25050), (718, 25047), (724, 25020), (726, 25014), (729, 25002), (741, 24981), (755, 24963),

Gene: Roimos\_33 Start: 26186, Stop: 25146, Start Num: 204

Candidate Starts for Roimos\_33:

(Start: 152 @26273 has 120 MA's), (204, 26186), (Start: 217 @26150 has 6 MA's), (234, 26105), (272, 26045), (317, 25949), (320, 25937), (322, 25931), (356, 25886), (401, 25832), (402, 25829), (413, 25805), (515, 25616), (534, 25598), (548, 25586), (574, 25547), (593, 25511), (595, 25505), (603, 25484), (622, 25469), (633, 25451), (704, 25313), (717, 25265), (724, 25235), (726, 25229), (729, 25217), (755, 25178),

Gene: RootBeer\_29 Start: 22941, Stop: 24083, Start Num: 162

Candidate Starts for RootBeer\_29:

(Start: 162 @22941 has 317 MA's), (Start: 191 @22992 has 14 MA's), (200, 23019), (337, 23295), (340, 23301), (351, 23319), (414, 23427), (451, 23487), (497, 23580), (574, 23700), (596, 23748), (612, 23778), (670, 23874), (716, 23982), (743, 24057),

Gene: Rooter\_31 Start: 23761, Stop: 22631, Start Num: 162

Candidate Starts for Rooter\_31:

(Start: 162 @23761 has 317 MA's), (Start: 191 @23710 has 14 MA's), (192, 23707), (304, 23482), (322, 23437), (333, 23416), (335, 23413), (348, 23389), (408, 23290), (414, 23275), (462, 23194), (463, 23191), (593, 22978), (598, 22960), (602, 22954), (612, 22936), (631, 22909), (646, 22882), (663, 22855), (670, 22840), (675, 22831), (688, 22813), (712, 22747), (713, 22741), (716, 22732), (728, 22687), (743, 22657),

Gene: Rosmarinus\_41 Start: 32583, Stop: 33671, Start Num: 162

Candidate Starts for Rosmarinus\_41:

(16, 31980), (24, 32157), (42, 32322), (51, 32361), (Start: 162 @32583 has 317 MA's), (Start: 191 @32634 has 14 MA's), (Start: 217 @32685 has 6 MA's), (226, 32709), (244, 32745), (317, 32883), (408, 33021), (451, 33090), (452, 33093), (534, 33243), (598, 33348), (701, 33483),

Gene: Ruchi\_33 Start: 24704, Stop: 23520, Start Num: 147

Candidate Starts for Ruchi\_33:

(Start: 147 @24704 has 80 MA's), (266, 24485), (330, 24350), (365, 24275), (369, 24260), (483, 24059), (599, 23852), (607, 23840), (617, 23822), (625, 23807), (700, 23705), (705, 23678), (708, 23669),

Gene: RunningOnE\_7 Start: 3145, Stop: 1910, Start Num: 157

Candidate Starts for RunningOnE\_7:

(104, 3208), (109, 3199), (Start: 157 @3145 has 10 MA's), (288, 2884), (404, 2689), (455, 2575), (476, 2554), (498, 2521), (580, 2383), (608, 2320), (613, 2317), (631, 2281), (706, 2134), (728, 2050), (789, 1933),

Gene: Ruthy\_39 Start: 33142, Stop: 31883, Start Num: 147

Candidate Starts for Ruthy\_39:

(Start: 147 @33142 has 80 MA's), (310, 32821), (365, 32707), (368, 32695), (410, 32602), (420, 32578), (539, 32410), (544, 32407), (598, 32314), (599, 32311), (631, 32254), (696, 32137), (700, 32125), (713, 32068), (737, 31993), (748, 31981), (773, 31933),

Gene: SG4\_40 Start: 31653, Stop: 32771, Start Num: 162

Candidate Starts for SG4\_40:

(Start: 162 @31653 has 317 MA's), (165, 31662), (244, 31824), (322, 31989), (340, 32025), (346, 32034), (402, 32115), (414, 32139), (454, 32208), (471, 32247), (481, 32265), (484, 32268), (492, 32280), (493, 32283), (497, 32295), (514, 32334), (520, 32340), (539, 32361), (573, 32397), (574, 32400), (593, 32436), (595, 32442), (599, 32457), (663, 32541), (670, 32556), (690, 32574), (713, 32643), (716, 32652), (726, 32691), (731, 32709), (746, 32730), (755, 32745), (760, 32754), (762, 32757),

Gene: SPB78\_39 Start: 30658, Stop: 29387, Start Num: 118

Candidate Starts for SPB78\_39:

(Start: 118 @30658 has 1 MA's), (168, 30592), (264, 30403), (322, 30268), (334, 30244), (356, 30220), (380, 30190), (383, 30181), (387, 30175), (390, 30172), (465, 30025), (474, 30007), (519, 29917), (523, 29908), (591, 29800), (602, 29770), (629, 29722), (659, 29665), (679, 29629), (701, 29587), (704, 29569), (720, 29512), (725, 29488), (754, 29431), (769, 29404),

Gene: Saal\_43 Start: 31957, Stop: 33075, Start Num: 162

Candidate Starts for Saal\_43:

(Start: 162 @31957 has 317 MA's), (227, 32095), (244, 32128), (272, 32176), (322, 32293), (340, 32329), (346, 32338), (414, 32443), (454, 32512), (484, 32572), (492, 32584), (493, 32587), (497, 32599), (504, 32614), (514, 32638), (520, 32644), (539, 32665), (573, 32701), (574, 32704), (593, 32740), (595, 32746), (598, 32758), (599, 32761), (663, 32845), (670, 32860), (703, 32902), (713, 32947), (716, 32956), (726, 32995), (731, 33013), (746, 33034), (755, 33049), (760, 33058), (762, 33061),

Gene: Sabia\_36 Start: 26783, Stop: 25638, Start Num: 152

Candidate Starts for Sabia\_36:

(Start: 152 @26783 has 120 MA's), (Start: 179 @26744 has 10 MA's), (204, 26696), (Start: 217 @26660 has 6 MA's), (234, 26615), (317, 26459), (328, 26432), (356, 26396), (402, 26339), (449, 26261), (462, 26237), (481, 26198), (515, 26126), (529, 26114), (534, 26108), (548, 26096), (593, 26021), (595, 26015), (603, 25994), (622, 25979), (633, 25961), (647, 25937), (704, 25823), (716, 25778), (717, 25775), (720, 25766), (724, 25745), (726, 25739), (729, 25727), (755, 25688),

Gene: Sabinator\_36 Start: 26788, Stop: 25643, Start Num: 152

Candidate Starts for Sabinator\_36:

(Start: 152 @26788 has 120 MA's), (Start: 179 @26749 has 10 MA's), (204, 26701), (Start: 217 @26665 has 6 MA's), (234, 26620), (317, 26464), (328, 26437), (356, 26401), (402, 26344), (449, 26266), (462, 26242), (481, 26203), (515, 26131), (529, 26119), (534, 26113), (548, 26101), (593, 26026), (595, 26020), (603, 25999), (622, 25984), (633, 25966), (647, 25942), (704, 25828), (716, 25783), (717, 25780), (720, 25771), (724, 25750), (726, 25744), (729, 25732), (755, 25693),

Gene: Sahara\_36 Start: 27505, Stop: 28704, Start Num: 83

Candidate Starts for Sahara\_36:

(Start: 83 @27505 has 2 MA's), (Start: 85 @27511 has 6 MA's), (Start: 159 @27622 has 56 MA's), (Start: 191 @27676 has 14 MA's), (252, 27796), (401, 28051), (414, 28081), (452, 28141), (486, 28207), (497, 28231), (573, 28336), (709, 28561), (715, 28588), (760, 28693),

Gene: Sakai\_40 Start: 27712, Stop: 26573, Start Num: 162

Candidate Starts for Sakai\_40:

(Start: 162 @27712 has 317 MA's), (Start: 191 @27661 has 14 MA's), (277, 27493), (285, 27475), (346, 27343), (402, 27265), (408, 27253), (411, 27247), (451, 27178), (456, 27169), (486, 27109), (535, 27019), (599, 26914), (614, 26893), (631, 26866), (703, 26743), (709, 26719), (712, 26704), (733, 26629), (753, 26599),

Gene: SamW\_27 Start: 25228, Stop: 23900, Start Num: 102

Candidate Starts for SamW\_27:

(Start: 102 @25228 has 3 MA's), (128, 25192), (136, 25183), (Start: 175 @25126 has 3 MA's), (283, 24916), (284, 24913), (329, 24814), (337, 24796), (393, 24730), (396, 24724), (402, 24712), (480, 24547), (503, 24502), (513, 24481), (518, 24469), (530, 24445), (548, 24421), (554, 24415), (576, 24379), (619, 24283), (651, 24226), (677, 24181), (693, 24157), (700, 24142), (715, 24076), (716, 24073), (722, 24046), (728, 24028), (762, 23968), (788, 23914),

Gene: Samman98\_40 Start: 29099, Stop: 30226, Start Num: 162

Candidate Starts for Samman98\_40:

(122, 29060), (Start: 162 @29099 has 317 MA's), (Start: 191 @29153 has 14 MA's), (240, 29276), (263, 29309), (307, 29399), (320, 29432), (451, 29627), (452, 29630), (471, 29672), (493, 29708), (678, 30005), (709, 30083), (715, 30110), (720, 30125), (726, 30152), (760, 30215),

Gene: SamuelLPlaqson\_42 Start: 33376, Stop: 34464, Start Num: 162

Candidate Starts for SamuelLPlaqson\_42:

(51, 33154), (Start: 162 @33376 has 317 MA's), (Start: 191 @33427 has 14 MA's), (Start: 217 @33478 has 6 MA's), (226, 33502), (244, 33538), (304, 33652), (340, 33730), (408, 33814), (451, 33883), (452, 33886), (534, 34036), (598, 34141), (701, 34276), (748, 34420),

Gene: Sarge\_28 Start: 22501, Stop: 21347, Start Num: 162

Candidate Starts for Sarge\_28:

(107, 22564), (Start: 162 @22501 has 317 MA's), (Start: 191 @22450 has 14 MA's), (192, 22447), (200, 22423), (304, 22198), (322, 22153), (333, 22132), (335, 22129), (348, 22105), (408, 22006), (414, 21991), (462, 21910), (508, 21817), (560, 21748), (593, 21694), (602, 21670), (612, 21652), (631, 21625), (663, 21571), (670, 21556), (675, 21547), (712, 21463), (713, 21457), (716, 21448),

(728, 21403), (743, 21373),

Gene: Sarma624\_38 Start: 27903, Stop: 29021, Start Num: 162

Candidate Starts for Sarma624\_38:

(Start: 162 @27903 has 317 MA's), (244, 28074), (322, 28239), (340, 28275), (346, 28284), (402, 28365), (414, 28389), (454, 28458), (471, 28497), (481, 28515), (484, 28518), (492, 28530), (493, 28533), (497, 28545), (504, 28560), (514, 28584), (520, 28590), (539, 28611), (573, 28647), (574, 28650), (593, 28686), (595, 28692), (598, 28704), (599, 28707), (610, 28722), (663, 28791), (670, 28806), (703, 28848), (713, 28893), (716, 28902), (726, 28941), (731, 28959), (746, 28980), (755, 28995), (760, 29004), (762, 29007),

Gene: Sashimi\_39 Start: 28789, Stop: 27602, Start Num: 162

Candidate Starts for Sashimi\_39:

(Start: 162 @28789 has 317 MA's), (Start: 191 @28738 has 14 MA's), (221, 28672), (285, 28552), (320, 28471), (328, 28456), (346, 28420), (402, 28342), (451, 28255), (456, 28246), (470, 28216), (486, 28186), (535, 28096), (599, 27991), (703, 27820), (709, 27796), (712, 27781), (762, 27661),

Gene: Satrap\_40 Start: 27780, Stop: 26602, Start Num: 162

Candidate Starts for Satrap\_40:

(Start: 162 @27780 has 317 MA's), (221, 27663), (285, 27543), (328, 27447), (346, 27411), (394, 27348), (402, 27333), (451, 27246), (456, 27237), (486, 27177), (508, 27129), (599, 26982), (603, 26976), (631, 26934), (703, 26817), (708, 26796), (709, 26793), (712, 26778), (762, 26658),

Gene: SaturnRing\_33 Start: 26297, Stop: 25170, Start Num: 152

Candidate Starts for SaturnRing\_33:

(Start: 152 @26297 has 120 MA's), (204, 26210), (Start: 217 @26174 has 6 MA's), (234, 26129), (317, 25973), (320, 25961), (322, 25955), (356, 25910), (401, 25856), (402, 25853), (449, 25775), (534, 25622), (548, 25610), (574, 25571), (593, 25535), (595, 25529), (603, 25508), (622, 25493), (633, 25475), (650, 25448), (704, 25337), (717, 25289), (724, 25259), (726, 25253), (729, 25241), (755, 25202),

Gene: Savage\_37 Start: 27875, Stop: 28957, Start Num: 159

Candidate Starts for Savage\_37:

(Start: 83 @27758 has 2 MA's), (Start: 85 @27764 has 6 MA's), (Start: 159 @27875 has 56 MA's), (Start: 191 @27929 has 14 MA's), (252, 28049), (401, 28304), (414, 28334), (452, 28394), (486, 28460), (497, 28484), (573, 28589), (709, 28814), (715, 28841), (760, 28946),

Gene: Sbash\_40 Start: 34462, Stop: 33260, Start Num: 169

Candidate Starts for Sbash\_40:

(Start: 169 @34462 has 7 MA's), (207, 34387), (220, 34357), (Start: 222 @34354 has 1 MA's), (323, 34141), (325, 34138), (360, 34075), (404, 33979), (420, 33940), (429, 33919), (462, 33865), (528, 33730), (631, 33553), (633, 33550), (634, 33547), (645, 33526), (709, 33424), (712, 33409), (729, 33343), (740, 33322),

Gene: Scarlett\_45 Start: 33589, Stop: 34674, Start Num: 162

Candidate Starts for Scarlett\_45:

(17, 32986), (19, 33004), (22, 33082), (32, 33253), (43, 33328), (51, 33367), (64, 33421), (Start: 162 @33589 has 317 MA's), (228, 33724), (244, 33751), (317, 33889), (335, 33931), (340, 33943), (408, 34027), (451, 34096), (452, 34099), (471, 34141), (534, 34249), (598, 34354), (663, 34441), (701, 34489), (728, 34597), (755, 34645),

Gene: Schatzie\_77 Start: 51939, Stop: 53168, Start Num: 116

Candidate Starts for Schatzie\_77:

(Start: 116 @51939 has 29 MA's), (Start: 131 @51957 has 3 MA's), (Start: 160 @51996 has 1 MA's), (276, 52233), (322, 52341), (395, 52461), (396, 52464), (401, 52473), (408, 52488), (426, 52527), (464, 52605), (524, 52710), (532, 52722), (545, 52725), (553, 52734), (582, 52785), (584, 52788), (592, 52806), (639, 52902), (688, 52959), (723, 53079), (724, 53082), (731, 53106), (747, 53130), (749, 53133),

Gene: Schmidt\_32 Start: 24660, Stop: 23548, Start Num: 182

Candidate Starts for Schmidt\_32:

(Start: 182 @24660 has 2 MA's), (201, 24615), (326, 24354), (339, 24330), (405, 24249), (408, 24243), (451, 24150), (479, 24108), (481, 24105), (500, 24069), (540, 23997), (574, 23946), (578, 23940), (587, 23919), (700, 23772), (709, 23733), (716, 23703), (724, 23670), (754, 23610), (774, 23571), (783, 23556),

Gene: Scout\_33 Start: 25604, Stop: 24477, Start Num: 152

Candidate Starts for Scout\_33:

(Start: 152 @25604 has 120 MA's), (204, 25517), (Start: 217 @25481 has 6 MA's), (234, 25436), (272, 25376), (317, 25280), (320, 25268), (322, 25262), (356, 25217), (401, 25163), (402, 25160), (413, 25136), (515, 24947), (534, 24929), (548, 24917), (574, 24878), (593, 24842), (595, 24836), (603, 24815), (622, 24800), (633, 24782), (704, 24644), (717, 24596), (724, 24566), (726, 24560), (729, 24548), (755, 24509),

Gene: SeaLumen\_48 Start: 32594, Stop: 33712, Start Num: 162

Candidate Starts for SeaLumen\_48:

(Start: 162 @32594 has 317 MA's), (227, 32732), (244, 32765), (272, 32813), (340, 32966), (346, 32975), (414, 33080), (454, 33149), (484, 33209), (492, 33221), (493, 33224), (504, 33251), (514, 33275), (539, 33302), (573, 33338), (574, 33341), (593, 33377), (595, 33383), (598, 33395), (599, 33398), (663, 33482), (670, 33497), (703, 33539), (713, 33584), (716, 33593), (726, 33632), (731, 33650), (746, 33671), (755, 33686), (760, 33695), (762, 33698),

Gene: Seahorse\_41 Start: 29287, Stop: 28109, Start Num: 162

Candidate Starts for Seahorse\_41:

(Start: 162 @29287 has 317 MA's), (221, 29170), (285, 29050), (346, 28918), (402, 28840), (451, 28753), (456, 28744), (486, 28684), (535, 28594), (599, 28489), (603, 28483), (631, 28441), (703, 28324), (708, 28303), (709, 28300), (712, 28285), (762, 28165),

Gene: Sejanus\_42 Start: 40492, Stop: 39290, Start Num: 169

Candidate Starts for Sejanus\_42:

(Start: 169 @40492 has 7 MA's), (207, 40417), (218, 40393), (220, 40387), (274, 40282), (323, 40171), (325, 40168), (360, 40105), (420, 39970), (429, 39949), (462, 39895), (525, 39766), (528, 39760), (633, 39580), (634, 39577), (645, 39556), (666, 39520), (709, 39454), (712, 39439), (729, 39373), (748, 39349), (764, 39319),

Gene: Sekhmet\_40 Start: 29999, Stop: 31126, Start Num: 162

Candidate Starts for Sekhmet\_40:

(122, 29960), (Start: 162 @29999 has 317 MA's), (Start: 191 @30053 has 14 MA's), (240, 30176), (263, 30209), (307, 30299), (320, 30332), (451, 30527), (452, 30530), (471, 30572), (493, 30608), (678, 30905), (709, 30983), (715, 31010), (720, 31025), (726, 31052), (760, 31115),

Gene: SemperFi\_35 Start: 26638, Stop: 25517, Start Num: 156

Candidate Starts for SemperFi\_35:

(127, 26668), (Start: 156 @26638 has 8 MA's), (Start: 217 @26518 has 6 MA's), (234, 26473), (317, 26317), (328, 26290), (356, 26254), (402, 26197), (408, 26185), (449, 26119), (471, 26074), (481, 26056), (534, 25966), (548, 25954), (584, 25897), (593, 25879), (595, 25873), (603, 25852), (622,

25837), (633, 25819), (650, 25792), (704, 25681), (717, 25633), (718, 25630), (724, 25603), (726, 25597), (729, 25585), (755, 25546),

Gene: Sephiroth\_7 Start: 2692, Stop: 1604, Start Num: 184

Candidate Starts for Sephiroth\_7:

(112, 2797), (171, 2713), (Start: 184 @2692 has 4 MA's), (270, 2521), (313, 2431), (320, 2407), (331, 2386), (482, 2155), (502, 2122), (522, 2080), (530, 2065), (546, 2044), (554, 2035), (559, 2029), (602, 1945), (613, 1930), (660, 1843), (683, 1810), (713, 1723), (715, 1717), (723, 1684), (726, 1675), (728, 1669),

Gene: Serenity\_34 Start: 25724, Stop: 24600, Start Num: 152

Candidate Starts for Serenity\_34:

(Start: 152 @25724 has 120 MA's), (199, 25646), (Start: 217 @25601 has 6 MA's), (234, 25556), (258, 25514), (272, 25496), (328, 25373), (356, 25337), (401, 25283), (402, 25280), (449, 25202), (471, 25157), (473, 25154), (481, 25139), (529, 25055), (534, 25049), (564, 25016), (593, 24962), (603, 24935), (622, 24920), (633, 24902), (650, 24875), (704, 24764), (717, 24716), (718, 24713), (720, 24707), (724, 24686), (726, 24680), (729, 24668), (755, 24629),

Gene: Settecandela\_38 Start: 20588, Stop: 21727, Start Num: 162

Candidate Starts for Settecandela\_38:

(Start: 162 @20588 has 317 MA's), (192, 20642), (Start: 222 @20714 has 1 MA's), (340, 20966), (346, 20975), (401, 21065), (408, 21080), (451, 21158), (486, 21227), (493, 21239), (534, 21311), (578, 21362), (579, 21365), (595, 21401), (634, 21452), (663, 21500), (665, 21506), (670, 21515), (712, 21596), (744, 21689), (753, 21701), (760, 21713),

Gene: SgtBeansprout\_36 Start: 31976, Stop: 33070, Start Num: 162

Candidate Starts for SgtBeansprout\_36:

(28, 31625), (Start: 33 @31640 has 1 MA's), (46, 31733), (51, 31754), (79, 31847), (Start: 162 @31976 has 317 MA's), (Start: 191 @32027 has 14 MA's), (226, 32102), (244, 32138), (296, 32234), (304, 32252), (317, 32276), (337, 32324), (340, 32330), (432, 32462), (451, 32495), (471, 32540), (534, 32648), (598, 32753), (646, 32813), (701, 32888), (728, 32996), (748, 33032),

Gene: Shaboozey\_79 Start: 48487, Stop: 49761, Start Num: 98

Candidate Starts for Shaboozey\_79:

(74, 48430), (Start: 90 @48472 has 1 MA's), (Start: 98 @48487 has 10 MA's), (99, 48490), (Start: 131 @48535 has 3 MA's), (Start: 160 @48574 has 1 MA's), (341, 48955), (395, 49039), (401, 49051), (402, 49054), (464, 49183), (545, 49303), (584, 49366), (592, 49384), (601, 49408), (639, 49480), (723, 49657), (724, 49660), (726, 49666), (731, 49684), (741, 49699), (747, 49708), (749, 49711), (773, 49756),

Gene: Shaobing\_43 Start: 33037, Stop: 34128, Start Num: 162

Candidate Starts for Shaobing\_43:

(34, 32704), (48, 32803), (50, 32812), (55, 32839), (68, 32887), (Start: 162 @33037 has 317 MA's), (189, 33082), (Start: 191 @33088 has 14 MA's), (226, 33163), (244, 33199), (304, 33313), (317, 33337), (340, 33391), (408, 33475), (424, 33508), (451, 33544), (452, 33547), (471, 33589), (514, 33676), (534, 33697), (598, 33805), (646, 33865), (691, 33928), (701, 33940), (728, 34048), (748, 34084),

Gene: Shauna1\_38 Start: 31056, Stop: 32174, Start Num: 162

Candidate Starts for Shauna1\_38:

(Start: 162 @31056 has 317 MA's), (244, 31227), (322, 31392), (340, 31428), (346, 31437), (402, 31518), (454, 31611), (484, 31671), (492, 31683), (493, 31686), (504, 31713), (514, 31737), (539, 31764), (573, 31800), (574, 31803), (593, 31839), (610, 31875), (663, 31944), (670, 31959), (690,

31977), (713, 32046), (716, 32055), (720, 32067), (726, 32094), (731, 32112), (746, 32133), (755, 32148), (760, 32157), (762, 32160),

Gene: ShawBrad\_51 Start: 32319, Stop: 33413, Start Num: 162

Candidate Starts for ShawBrad\_51:

(94, 32232), (115, 32268), (Start: 162 @32319 has 317 MA's), (Start: 191 @32370 has 14 MA's), (227, 32448), (240, 32475), (272, 32520), (289, 32562), (340, 32670), (346, 32679), (408, 32754), (416, 32772), (471, 32871), (492, 32904), (493, 32907), (497, 32919), (574, 33021), (627, 33114), (675, 33186), (709, 33246), (724, 33309), (728, 33321), (762, 33381),

Gene: SheldonCooper\_34 Start: 26519, Stop: 25467, Start Num: 195

Candidate Starts for SheldonCooper\_34:

(Start: 110 @26633 has 3 MA's), (135, 26606), (Start: 152 @26588 has 120 MA's), (Start: 195 @26519 has 8 MA's), (Start: 217 @26465 has 6 MA's), (322, 26246), (328, 26237), (356, 26201), (394, 26159), (401, 26147), (402, 26144), (515, 25931), (534, 25913), (593, 25826), (595, 25820), (603, 25799), (622, 25784), (633, 25766), (704, 25628), (717, 25580), (724, 25550), (726, 25544), (729, 25532), (755, 25493),

Gene: Shen\_33 Start: 23191, Stop: 22007, Start Num: 147

Candidate Starts for Shen\_33:

(Start: 147 @23191 has 80 MA's), (266, 22972), (276, 22954), (330, 22837), (365, 22762), (366, 22759), (552, 22432), (599, 22339), (607, 22327), (617, 22309), (700, 22192), (708, 22156),

Gene: ShiaSurprise\_42 Start: 32792, Stop: 33880, Start Num: 162

Candidate Starts for ShiaSurprise\_42:

(Start: 162 @32792 has 317 MA's), (Start: 217 @32894 has 6 MA's), (226, 32918), (244, 32954), (317, 33092), (408, 33230), (451, 33299), (452, 33302), (534, 33452), (598, 33557), (701, 33692),

Gene: Shlim410\_38 Start: 32549, Stop: 33676, Start Num: 162

Candidate Starts for Shlim410\_38:

(122, 32510), (Start: 162 @32549 has 317 MA's), (Start: 191 @32603 has 14 MA's), (240, 32726), (263, 32759), (307, 32849), (320, 32882), (451, 33077), (452, 33080), (471, 33122), (493, 33158), (678, 33455), (709, 33533), (715, 33560), (720, 33575), (726, 33602), (760, 33665),

Gene: Shoya\_35 Start: 24881, Stop: 23751, Start Num: 162

Candidate Starts for Shoya\_35:

(Start: 162 @24881 has 317 MA's), (Start: 191 @24830 has 14 MA's), (192, 24827), (304, 24602), (322, 24557), (333, 24536), (335, 24533), (346, 24512), (348, 24509), (414, 24395), (463, 24311), (593, 24098), (602, 24074), (612, 24056), (631, 24029), (646, 24002), (663, 23975), (670, 23960), (675, 23951), (713, 23861), (728, 23807), (743, 23777),

Gene: ShroomBoi\_42 Start: 32032, Stop: 33150, Start Num: 162

Candidate Starts for ShroomBoi\_42:

(Start: 162 @32032 has 317 MA's), (165, 32041), (227, 32170), (244, 32203), (272, 32251), (322, 32368), (340, 32404), (346, 32413), (402, 32494), (414, 32518), (454, 32587), (471, 32626), (481, 32644), (484, 32647), (492, 32659), (493, 32662), (497, 32674), (504, 32689), (514, 32713), (520, 32719), (539, 32740), (573, 32776), (574, 32779), (593, 32815), (595, 32821), (599, 32836), (610, 32851), (663, 32920), (670, 32935), (703, 32977), (713, 33022), (716, 33031), (726, 33070), (731, 33088), (746, 33109), (755, 33124), (760, 33133), (762, 33136),

Gene: Shukran\_42 Start: 28423, Stop: 27284, Start Num: 162

Candidate Starts for Shukran\_42:

(58, 28612), (75, 28567), (100, 28507), (Start: 162 @28423 has 317 MA's), (Start: 191 @28375 has 14 MA's), (253, 28249), (277, 28210), (340, 28066), (348, 28054), (351, 28048), (408, 27955), (414, 27940), (451, 27880), (462, 27856), (464, 27850), (497, 27787), (596, 27619), (612, 27589), (670, 27493), (716, 27385), (720, 27373), (743, 27310),

Gene: Sidious\_37 Start: 31771, Stop: 30602, Start Num: 147

Candidate Starts for Sidious\_37:

(Start: 147 @31771 has 80 MA's), (314, 31447), (328, 31411), (357, 31357), (360, 31351), (365, 31339), (368, 31327), (410, 31234), (412, 31228), (425, 31198), (491, 31129), (492, 31126), (504, 31096), (538, 31045), (593, 30973), (631, 30898), (700, 30811), (702, 30799), (724, 30712), (727, 30703), (753, 30658), (773, 30619),

Gene: SilverChicken\_53 Start: 32857, Stop: 33975, Start Num: 162

Candidate Starts for SilverChicken\_53:

(Start: 162 @32857 has 317 MA's), (165, 32866), (244, 33028), (272, 33076), (322, 33193), (340, 33229), (346, 33238), (414, 33343), (454, 33412), (471, 33451), (481, 33469), (484, 33472), (492, 33484), (493, 33487), (497, 33499), (514, 33538), (520, 33544), (539, 33565), (573, 33601), (574, 33604), (593, 33640), (595, 33646), (598, 33658), (599, 33661), (610, 33676), (663, 33745), (670, 33760), (703, 33802), (713, 33847), (716, 33856), (726, 33895), (731, 33913), (746, 33934), (755, 33949), (760, 33958), (762, 33961),

Gene: SimranZ1\_43 Start: 31600, Stop: 32718, Start Num: 162

Candidate Starts for SimranZ1\_43:

(Start: 162 @31600 has 317 MA's), (227, 31738), (244, 31771), (272, 31819), (340, 31972), (346, 31981), (402, 32062), (454, 32155), (484, 32215), (492, 32227), (493, 32230), (504, 32257), (514, 32281), (539, 32308), (573, 32344), (574, 32347), (593, 32383), (610, 32419), (663, 32488), (670, 32503), (690, 32521), (713, 32590), (716, 32599), (726, 32638), (731, 32656), (746, 32677), (755, 32692), (760, 32701), (762, 32704),

Gene: Skitty\_31 Start: 24174, Stop: 23056, Start Num: 144

Candidate Starts for Skitty\_31:

(Start: 144 @24174 has 4 MA's), (254, 23979), (266, 23952), (289, 23913), (330, 23823), (335, 23814), (364, 23757), (367, 23745), (368, 23742), (370, 23733), (373, 23721), (402, 23661), (406, 23652), (415, 23637), (483, 23571), (491, 23556), (497, 23538), (508, 23514), (510, 23511), (570, 23436), (594, 23388), (598, 23373), (612, 23352), (631, 23325), (724, 23139), (753, 23085),

Gene: Sknot\_34 Start: 26566, Stop: 25382, Start Num: 101

Candidate Starts for Sknot\_34:

(Start: 101 @26566 has 2 MA's), (Start: 152 @26503 has 120 MA's), (Start: 191 @26449 has 14 MA's), (Start: 217 @26380 has 6 MA's), (234, 26335), (302, 26209), (328, 26152), (356, 26116), (401, 26062), (402, 26059), (471, 25936), (481, 25918), (534, 25828), (548, 25816), (593, 25741), (595, 25735), (603, 25714), (622, 25699), (633, 25681), (650, 25654), (717, 25495), (724, 25465), (726, 25459), (729, 25447), (755, 25408),

Gene: Sleepyhead\_38 Start: 29423, Stop: 28182, Start Num: 175

Candidate Starts for Sleepyhead\_38:

(146, 29465), (Start: 175 @29423 has 3 MA's), (251, 29285), (283, 29213), (385, 29036), (405, 28997), (413, 28979), (502, 28808), (514, 28781), (537, 28742), (559, 28715), (589, 28667), (602, 28634), (617, 28610), (639, 28568), (657, 28538), (669, 28520), (683, 28499), (700, 28469), (713, 28409), (716, 28400), (754, 28307), (790, 28229), (791, 28205),

Gene: Slimphazie\_41 Start: 32477, Stop: 33565, Start Num: 162

Candidate Starts for Slimphazie\_41:

(Start: 162 @32477 has 317 MA's), (Start: 191 @32528 has 14 MA's), (Start: 217 @32579 has 6 MA's), (226, 32603), (244, 32639), (317, 32777), (340, 32831), (408, 32915), (451, 32984), (452, 32987), (534, 33137), (587, 33215), (598, 33242), (663, 33329), (701, 33377),

Gene: Smeagan\_36 Start: 26880, Stop: 25771, Start Num: 158

Candidate Starts for Smeagan\_36:

(Start: 133 @26913 has 7 MA's), (Start: 148 @26895 has 5 MA's), (Start: 158 @26880 has 1 MA's), (Start: 195 @26814 has 8 MA's), (Start: 217 @26766 has 6 MA's), (234, 26721), (317, 26565), (322, 26547), (328, 26538), (356, 26502), (402, 26445), (449, 26367), (462, 26343), (466, 26334), (471, 26322), (481, 26304), (534, 26214), (548, 26202), (584, 26145), (593, 26127), (603, 26100), (622, 26085), (633, 26067), (650, 26040), (653, 26031), (704, 25929), (717, 25881), (718, 25878), (724, 25851), (726, 25845), (729, 25833), (755, 25794),

Gene: SnapTap\_34 Start: 26396, Stop: 25329, Start Num: 191

Candidate Starts for SnapTap\_34:

(Start: 101 @26513 has 2 MA's), (Start: 152 @26450 has 120 MA's), (Start: 191 @26396 has 14 MA's), (Start: 217 @26327 has 6 MA's), (234, 26282), (302, 26156), (322, 26108), (328, 26099), (356, 26063), (401, 26009), (402, 26006), (471, 25883), (481, 25865), (497, 25835), (529, 25781), (534, 25775), (548, 25763), (593, 25688), (595, 25682), (603, 25661), (622, 25646), (633, 25628), (650, 25601), (704, 25490), (717, 25442), (724, 25412), (726, 25406), (729, 25394), (755, 25355),

Gene: Snickers\_36 Start: 26763, Stop: 25618, Start Num: 152

Candidate Starts for Snickers\_36:

(Start: 152 @26763 has 120 MA's), (Start: 179 @26724 has 10 MA's), (204, 26676), (Start: 217 @26640 has 6 MA's), (234, 26595), (317, 26439), (328, 26412), (356, 26376), (402, 26319), (449, 26241), (462, 26217), (481, 26178), (515, 26106), (529, 26094), (534, 26088), (548, 26076), (593, 26001), (595, 25995), (603, 25974), (622, 25959), (633, 25941), (647, 25917), (704, 25803), (716, 25758), (717, 25755), (720, 25746), (724, 25725), (726, 25719), (729, 25707), (755, 25668),

Gene: SoYo\_36 Start: 26701, Stop: 25556, Start Num: 152

Candidate Starts for SoYo\_36:

(Start: 152 @26701 has 120 MA's), (Start: 179 @26662 has 10 MA's), (204, 26614), (Start: 217 @26578 has 6 MA's), (234, 26533), (317, 26377), (328, 26350), (356, 26314), (402, 26257), (449, 26179), (462, 26155), (481, 26116), (515, 26044), (529, 26032), (534, 26026), (548, 26014), (593, 25939), (595, 25933), (603, 25912), (622, 25897), (633, 25879), (647, 25855), (704, 25741), (716, 25696), (717, 25693), (720, 25684), (724, 25663), (726, 25657), (729, 25645), (755, 25606),

Gene: SoilAssassin\_34 Start: 27695, Stop: 28777, Start Num: 159

Candidate Starts for SoilAssassin\_34:

(Start: 85 @27584 has 6 MA's), (Start: 159 @27695 has 56 MA's), (Start: 191 @27749 has 14 MA's), (252, 27869), (401, 28124), (414, 28154), (452, 28214), (486, 28280), (497, 28304), (709, 28634), (715, 28661), (760, 28766),

Gene: SoilDragon\_35 Start: 26236, Stop: 25091, Start Num: 152

Candidate Starts for SoilDragon\_35:

(Start: 152 @26236 has 120 MA's), (Start: 179 @26197 has 10 MA's), (204, 26149), (Start: 217 @26113 has 6 MA's), (234, 26068), (317, 25912), (328, 25885), (356, 25849), (402, 25792), (449, 25714), (462, 25690), (481, 25651), (515, 25579), (529, 25567), (534, 25561), (548, 25549), (593, 25474), (595, 25468), (603, 25447), (622, 25432), (633, 25414), (704, 25276), (716, 25231), (717, 25228), (720, 25219), (724, 25198), (726, 25192), (729, 25180), (755, 25141),

Gene: SonDevVon\_40 Start: 28176, Stop: 27004, Start Num: 162

Candidate Starts for SonDevVon\_40:

(Start: 162 @28176 has 317 MA's), (221, 28059), (285, 27939), (346, 27807), (402, 27729), (411, 27711), (451, 27642), (456, 27633), (486, 27573), (535, 27483), (599, 27378), (614, 27357), (627, 27333), (631, 27330), (703, 27207), (709, 27183), (712, 27168), (762, 27048), (776, 27021),

Gene: Sonali\_29 Start: 28564, Stop: 29715, Start Num: 162

Candidate Starts for Sonali\_29:

(127, 28522), (Start: 162 @28564 has 317 MA's), (165, 28573), (252, 28741), (352, 28918), (402, 28990), (504, 29185), (677, 29473), (712, 29569), (715, 29581), (716, 29584),

Gene: Soul22\_46 Start: 32314, Stop: 33432, Start Num: 162

Candidate Starts for Soul22\_46:

(Start: 162 @32314 has 317 MA's), (244, 32485), (340, 32686), (346, 32695), (402, 32776), (454, 32869), (484, 32929), (492, 32941), (493, 32944), (504, 32971), (514, 32995), (539, 33022), (573, 33058), (574, 33061), (593, 33097), (610, 33133), (663, 33202), (670, 33217), (690, 33235), (713, 33304), (716, 33313), (726, 33352), (731, 33370), (746, 33391), (755, 33406), (760, 33415), (762, 33418),

Gene: Sparky\_45 Start: 33811, Stop: 34989, Start Num: 163

Candidate Starts for Sparky\_45:

(Start: 163 @33811 has 2 MA's), (Start: 191 @33859 has 14 MA's), (223, 33925), (244, 33970), (320, 34120), (340, 34162), (408, 34276), (418, 34303), (451, 34351), (452, 34354), (493, 34435), (497, 34447), (571, 34552), (593, 34594), (597, 34609), (605, 34624), (631, 34648), (701, 34759), (715, 34819), (746, 34900), (753, 34912), (773, 34951),

Gene: Spartacus\_41 Start: 31407, Stop: 32525, Start Num: 162

Candidate Starts for Spartacus\_41:

(Start: 162 @31407 has 317 MA's), (165, 31416), (244, 31578), (346, 31788), (402, 31869), (454, 31962), (471, 32001), (484, 32022), (492, 32034), (493, 32037), (508, 32073), (514, 32088), (520, 32094), (539, 32115), (573, 32151), (574, 32154), (593, 32190), (595, 32196), (610, 32226), (634, 32247), (663, 32295), (670, 32310), (703, 32352), (713, 32397), (716, 32406), (726, 32445), (731, 32463), (746, 32484), (755, 32499), (760, 32508), (762, 32511),

Gene: Spartan\_32 Start: 30530, Stop: 29343, Start Num: 159

Candidate Starts for Spartan\_32:

(Start: 159 @30530 has 56 MA's), (235, 30392), (281, 30302), (313, 30236), (316, 30227), (397, 30101), (413, 30068), (416, 30062), (426, 30041), (447, 29996), (502, 29912), (572, 29807), (618, 29720), (709, 29540), (720, 29498), (747, 29429), (754, 29417), (766, 29402),

Gene: Spartoi\_37 Start: 25898, Stop: 24921, Start Num: 222

Candidate Starts for Spartoi\_37:

(Start: 162 @26012 has 317 MA's), (183, 25973), (Start: 191 @25961 has 14 MA's), (Start: 222 @25898 has 1 MA's), (227, 25883), (315, 25718), (335, 25670), (336, 25667), (377, 25643), (408, 25583), (464, 25481), (486, 25442), (595, 25262), (605, 25238), (612, 25226), (646, 25166), (663, 25139), (671, 25124), (676, 25115), (701, 25085), (703, 25076), (713, 25031), (715, 25025), (731, 24965), (743, 24947),

Gene: Sparxx\_33 Start: 26249, Stop: 25128, Start Num: 152

Candidate Starts for Sparxx\_33:

(Start: 110 @26294 has 3 MA's), (135, 26267), (Start: 152 @26249 has 120 MA's), (Start: 195 @26180 has 8 MA's), (Start: 217 @26126 has 6 MA's), (322, 25907), (328, 25898), (356, 25862), (394, 25820), (401, 25808), (402, 25805), (449, 25727), (515, 25592), (534, 25574), (593, 25487), (595, 25481), (603, 25460), (622, 25445), (633, 25427), (704, 25289), (717, 25241), (724, 25211), (726, 25205), (729, 25193), (755, 25154),

Gene: SpicyFrank\_39 Start: 27481, Stop: 26348, Start Num: 162

Candidate Starts for SpicyFrank\_39:

(97, 27571), (106, 27550), (Start: 162 @27481 has 317 MA's), (Start: 191 @27430 has 14 MA's), (277, 27262), (285, 27244), (336, 27130), (346, 27112), (402, 27034), (451, 26947), (456, 26938), (486, 26878), (508, 26830), (535, 26788), (599, 26683), (627, 26638), (631, 26635), (703, 26518), (709, 26494), (712, 26479), (733, 26404), (753, 26374),

Gene: Splinter\_37 Start: 27965, Stop: 26850, Start Num: 188

Candidate Starts for Splinter\_37:

(Start: 148 @28034 has 5 MA's), (Start: 188 @27965 has 12 MA's), (357, 27626), (385, 27593), (532, 27299), (549, 27287), (571, 27254), (641, 27107), (720, 26936), (726, 26909),

Gene: Spock\_41 Start: 32596, Stop: 33684, Start Num: 162

Candidate Starts for Spock\_41:

(26, 32212), (37, 32299), (51, 32374), (Start: 162 @32596 has 317 MA's), (Start: 191 @32647 has 14 MA's), (Start: 217 @32698 has 6 MA's), (226, 32722), (244, 32758), (317, 32896), (408, 33034), (451, 33103), (452, 33106), (534, 33256), (598, 33361), (701, 33496),

Gene: Spooks\_11 Start: 8825, Stop: 7629, Start Num: 157

Candidate Starts for Spooks\_11:

(Start: 157 @8825 has 10 MA's), (176, 8792), (201, 8759), (255, 8645), (258, 8639), (281, 8588), (316, 8516), (388, 8405), (459, 8264), (476, 8246), (525, 8153), (580, 8075), (602, 8030), (608, 8018), (685, 7886), (708, 7820), (712, 7802), (716, 7787), (720, 7775), (734, 7727), (778, 7652), (780, 7649),

Gene: Sporco\_41 Start: 27778, Stop: 26621, Start Num: 147

Candidate Starts for Sporco\_41:

(Start: 147 @27778 has 80 MA's), (Start: 162 @27760 has 317 MA's), (Start: 191 @27709 has 14 MA's), (277, 27541), (285, 27523), (346, 27391), (402, 27313), (408, 27301), (411, 27295), (451, 27226), (456, 27217), (486, 27157), (535, 27067), (599, 26962), (614, 26941), (631, 26914), (703, 26791), (709, 26767), (712, 26752), (733, 26677), (753, 26647),

Gene: Sprinklemunch\_44 Start: 33982, Stop: 32723, Start Num: 147

Candidate Starts for Sprinklemunch\_44:

(Start: 147 @33982 has 80 MA's), (208, 33865), (346, 33583), (365, 33547), (368, 33535), (384, 33490), (539, 33250), (544, 33247), (598, 33154), (631, 33094), (674, 33016), (696, 32977), (700, 32965), (713, 32908), (729, 32848), (748, 32821), (753, 32812), (773, 32773), (787, 32743),

Gene: Sproutie\_37 Start: 27875, Stop: 28957, Start Num: 159

Candidate Starts for Sproutie\_37:

(Start: 83 @27758 has 2 MA's), (Start: 85 @27764 has 6 MA's), (Start: 159 @27875 has 56 MA's), (Start: 191 @27929 has 14 MA's), (252, 28049), (401, 28304), (414, 28334), (452, 28394), (486, 28460), (497, 28484), (573, 28589), (709, 28814), (715, 28841), (760, 28946),

Gene: Squint\_87 Start: 50854, Stop: 52128, Start Num: 98

Candidate Starts for Squint\_87:

(74, 50797), (Start: 90 @50839 has 1 MA's), (Start: 98 @50854 has 10 MA's), (99, 50857), (Start: 131 @50902 has 3 MA's), (Start: 160 @50941 has 1 MA's), (341, 51322), (395, 51406), (401, 51418), (402, 51421), (464, 51550), (545, 51670), (584, 51733), (592, 51751), (601, 51775), (639, 51847), (723, 52024), (724, 52027), (726, 52033), (731, 52051), (741, 52066), (747, 52075), (749, 52078), (773, 52123),

Gene: Squirty\_35 Start: 28972, Stop: 30078, Start Num: 162

Candidate Starts for Squirty\_35:

(143, 28951), (Start: 162 @28972 has 317 MA's), (238, 29131), (256, 29167), (335, 29332), (408, 29428), (413, 29440), (433, 29473), (451, 29497), (486, 29566), (492, 29575), (493, 29578), (514, 29629), (534, 29650), (587, 29728), (595, 29743), (638, 29803), (663, 29842), (670, 29857), (687, 29881), (703, 29908), (709, 29932), (713, 29953), (716, 29962), (731, 30019),

Gene: StAB\_26 Start: 25588, Stop: 24371, Start Num: 175

Candidate Starts for StAB\_26:

(132, 25651), (Start: 175 @25588 has 3 MA's), (254, 25408), (268, 25375), (327, 25243), (391, 25153), (401, 25135), (408, 25120), (413, 25108), (426, 25081), (439, 25054), (455, 25021), (459, 25012), (501, 24949), (511, 24931), (516, 24916), (530, 24895), (576, 24829), (611, 24751), (621, 24730), (628, 24718), (632, 24715), (646, 24685), (692, 24616), (694, 24610), (700, 24598), (703, 24583), (709, 24559), (710, 24556), (712, 24544), (716, 24529), (720, 24517), (724, 24496), (728, 24484), (745, 24451), (762, 24424), (776, 24406), (785, 24385), (788, 24376),

Gene: StAnnes\_42 Start: 33543, Stop: 34661, Start Num: 162

Candidate Starts for StAnnes\_42:

(Start: 162 @33543 has 317 MA's), (165, 33552), (244, 33714), (322, 33879), (340, 33915), (346, 33924), (414, 34029), (454, 34098), (471, 34137), (484, 34158), (492, 34170), (493, 34173), (497, 34185), (514, 34224), (520, 34230), (539, 34251), (573, 34287), (574, 34290), (593, 34326), (595, 34332), (599, 34347), (663, 34431), (670, 34446), (703, 34488), (713, 34533), (716, 34542), (726, 34581), (731, 34599), (746, 34620), (755, 34635), (760, 34644), (762, 34647),

Gene: Stagni\_36 Start: 26792, Stop: 25647, Start Num: 152

Candidate Starts for Stagni\_36:

(Start: 152 @26792 has 120 MA's), (Start: 179 @26753 has 10 MA's), (204, 26705), (Start: 217 @26669 has 6 MA's), (234, 26624), (317, 26468), (328, 26441), (356, 26405), (402, 26348), (449, 26270), (462, 26246), (481, 26207), (515, 26135), (529, 26123), (534, 26117), (548, 26105), (593, 26030), (595, 26024), (603, 26003), (622, 25988), (633, 25970), (647, 25946), (704, 25832), (716, 25787), (717, 25784), (720, 25775), (724, 25754), (726, 25748), (729, 25736), (755, 25697),

Gene: StarStuff\_37 Start: 26423, Stop: 25353, Start Num: 191

Candidate Starts for StarStuff\_37:

(Start: 152 @26477 has 120 MA's), (Start: 191 @26423 has 14 MA's), (Start: 217 @26354 has 6 MA's), (317, 26153), (328, 26126), (356, 26090), (402, 26033), (414, 26006), (449, 25955), (466, 25922), (471, 25910), (481, 25892), (515, 25820), (534, 25802), (548, 25790), (574, 25751), (593, 25715), (595, 25709), (603, 25688), (622, 25673), (633, 25655), (650, 25628), (704, 25517), (717, 25469), (718, 25466), (724, 25439), (726, 25433), (729, 25421), (755, 25382),

Gene: Stellammi\_65 Start: 36349, Stop: 37437, Start Num: 162

Candidate Starts for Stellammi\_65:

(Start: 162 @36349 has 317 MA's), (Start: 191 @36400 has 14 MA's), (227, 36478), (240, 36505), (259, 36541), (272, 36556), (277, 36568), (289, 36598), (318, 36658), (328, 36682), (335, 36697), (340, 36709), (346, 36718), (402, 36781), (408, 36793), (418, 36814), (451, 36862), (466, 36895), (486, 36931), (493, 36943), (514, 36994), (542, 37024), (598, 37117), (605, 37129), (631, 37150), (634, 37156), (646, 37177), (652, 37183), (663, 37204), (670, 37219), (678, 37231), (687, 37243), (709, 37294), (715, 37321), (728, 37369), (763, 37429),

Gene: StepMih\_36 Start: 26783, Stop: 25638, Start Num: 152

Candidate Starts for StepMih\_36:

(Start: 152 @26783 has 120 MA's), (Start: 179 @26744 has 10 MA's), (204, 26696), (Start: 217 @26660 has 6 MA's), (234, 26615), (317, 26459), (328, 26432), (356, 26396), (402, 26339), (449, 26261), (462, 26237), (481, 26198), (515, 26126), (529, 26114), (534, 26108), (548, 26096), (593,

26021), (595, 26015), (603, 25994), (622, 25979), (633, 25961), (647, 25937), (704, 25823), (716, 25778), (717, 25775), (720, 25766), (724, 25745), (726, 25739), (729, 25727), (755, 25688),

Gene: Stiles\_27 Start: 25121, Stop: 23991, Start Num: 177

Candidate Starts for Stiles\_27:

(Start: 177 @25121 has 3 MA's), (189, 25106), (201, 25082), (258, 24968), (278, 24929), (294, 24887), (313, 24854), (316, 24845), (327, 24818), (335, 24800), (397, 24716), (405, 24701), (426, 24656), (460, 24596), (497, 24554), (502, 24542), (506, 24536), (514, 24515), (541, 24470), (548, 24461), (551, 24458), (554, 24455), (568, 24434), (608, 24350), (615, 24344), (623, 24326), (640, 24296), (686, 24239), (704, 24197), (709, 24182), (712, 24167), (713, 24161), (716, 24152), (719, 24143), (726, 24113), (747, 24071), (760, 24050), (762, 24047), (766, 24038), (783, 24011), (788, 23996),

Gene: Stinson\_42 Start: 32990, Stop: 34078, Start Num: 162

Candidate Starts for Stinson\_42:

(Start: 162 @32990 has 317 MA's), (Start: 217 @33092 has 6 MA's), (226, 33116), (244, 33152), (277, 33203), (304, 33266), (317, 33290), (340, 33344), (342, 33347), (408, 33428), (451, 33497), (452, 33500), (534, 33650), (587, 33728), (598, 33755), (701, 33890),

Gene: Strobilo\_43 Start: 34292, Stop: 35392, Start Num: 162

Candidate Starts for Strobilo\_43:

(Start: 162 @34292 has 317 MA's), (Start: 170 @34310 has 1 MA's), (Start: 191 @34343 has 14 MA's), (226, 34418), (244, 34454), (304, 34568), (317, 34592), (340, 34646), (438, 34787), (451, 34811), (452, 34814), (471, 34856), (534, 34964), (598, 35069), (636, 35114), (646, 35129), (728, 35321),

Gene: Strokeseat\_41 Start: 31786, Stop: 32904, Start Num: 162

Candidate Starts for Strokeseat\_41:

(Start: 162 @31786 has 317 MA's), (244, 31957), (322, 32122), (340, 32158), (346, 32167), (414, 32272), (454, 32341), (471, 32380), (484, 32401), (492, 32413), (493, 32416), (497, 32428), (514, 32467), (520, 32473), (539, 32494), (573, 32530), (574, 32533), (593, 32569), (595, 32575), (598, 32587), (599, 32590), (610, 32605), (663, 32674), (670, 32689), (690, 32707), (713, 32776), (716, 32785), (726, 32824), (731, 32842), (746, 32863), (755, 32878), (760, 32887), (762, 32890),

Gene: StuartMinion\_28 Start: 20996, Stop: 19803, Start Num: 147

Candidate Starts for StuartMinion\_28:

(Start: 147 @20996 has 80 MA's), (365, 20567), (491, 20336), (552, 20237), (607, 20132), (614, 20120), (708, 19961), (760, 19832),

Gene: Stuck\_46 Start: 36731, Stop: 35529, Start Num: 169

Candidate Starts for Stuck\_46:

(Start: 169 @36731 has 7 MA's), (207, 36656), (220, 36626), (233, 36602), (323, 36410), (325, 36407), (360, 36344), (420, 36209), (429, 36188), (462, 36134), (464, 36128), (525, 36005), (631, 35822), (633, 35819), (634, 35816), (645, 35795), (666, 35759), (700, 35732), (701, 35726), (709, 35693), (712, 35678), (729, 35612), (740, 35591),

Gene: Success\_11 Start: 8095, Stop: 6848, Start Num: 157

Candidate Starts for Success\_11:

(Start: 157 @8095 has 10 MA's), (221, 7975), (435, 7570), (450, 7537), (455, 7528), (498, 7474), (523, 7420), (537, 7402), (554, 7381), (580, 7336), (602, 7285), (671, 7162), (741, 6976), (754, 6955), (782, 6907),

Gene: Suerte\_34 Start: 29564, Stop: 28395, Start Num: 147

Candidate Starts for Suerte\_34:

(Start: 147 @29564 has 80 MA's), (232, 29402), (315, 29240), (320, 29222), (355, 29156), (364, 29138), (368, 29123), (384, 29078), (407, 29039), (410, 29030), (419, 29009), (420, 29006), (492, 28922), (605, 28739), (612, 28727), (631, 28691), (648, 28661), (700, 28604), (702, 28592), (705, 28577), (729, 28487), (753, 28451), (773, 28412), (780, 28403),

Gene: Sulley\_41 Start: 32725, Stop: 33810, Start Num: 162

Candidate Starts for Sulley\_41:

(Start: 162 @32725 has 317 MA's), (Start: 217 @32827 has 6 MA's), (221, 32836), (226, 32851), (244, 32887), (317, 33025), (340, 33079), (408, 33163), (451, 33232), (452, 33235), (534, 33385), (598, 33490), (663, 33577), (701, 33625), (748, 33769),

Gene: Sunshine23\_31 Start: 28591, Stop: 29733, Start Num: 165

Candidate Starts for Sunshine23\_31:

(127, 28540), (Start: 162 @28582 has 317 MA's), (165, 28591), (252, 28759), (352, 28936), (402, 29008), (504, 29203), (677, 29491), (712, 29587), (715, 29599), (716, 29602),

Gene: SuperGrey\_42 Start: 32615, Stop: 33742, Start Num: 162

Candidate Starts for SuperGrey\_42:

(86, 32513), (121, 32570), (Start: 162 @32615 has 317 MA's), (165, 32624), (244, 32786), (268, 32837), (277, 32855), (296, 32900), (340, 32996), (346, 33005), (402, 33086), (414, 33110), (454, 33179), (471, 33218), (484, 33239), (492, 33251), (493, 33254), (504, 33281), (514, 33305), (520, 33311), (539, 33332), (573, 33368), (574, 33371), (593, 33407), (595, 33413), (598, 33425), (599, 33428), (610, 33443), (663, 33512), (670, 33527), (703, 33569), (713, 33614), (716, 33623), (726, 33662), (731, 33680), (746, 33701), (755, 33716), (760, 33725), (762, 33728),

Gene: Superchunk\_33 Start: 24997, Stop: 23882, Start Num: 157

Candidate Starts for Superchunk\_33:

(Start: 157 @24997 has 10 MA's), (Start: 191 @24949 has 14 MA's), (204, 24916), (Start: 217 @24880 has 6 MA's), (234, 24835), (320, 24667), (328, 24652), (356, 24616), (394, 24574), (401, 24562), (402, 24559), (454, 24472), (462, 24457), (534, 24328), (548, 24316), (564, 24295), (574, 24277), (593, 24241), (603, 24214), (622, 24199), (633, 24181), (650, 24154), (704, 24043), (717, 23995), (724, 23965), (726, 23959), (729, 23947), (755, 23908),

Gene: Superphikiman\_84 Start: 49930, Stop: 51219, Start Num: 90

Candidate Starts for Superphikiman\_84:

(74, 49888), (Start: 90 @49930 has 1 MA's), (Start: 98 @49945 has 10 MA's), (99, 49948), (Start: 131 @49993 has 3 MA's), (Start: 160 @50032 has 1 MA's), (341, 50413), (395, 50497), (401, 50509), (402, 50512), (464, 50641), (545, 50761), (584, 50824), (592, 50842), (601, 50866), (639, 50938), (723, 51115), (724, 51118), (726, 51124), (731, 51142), (741, 51157), (747, 51166), (749, 51169), (773, 51214),

Gene: Suscepit\_39 Start: 30564, Stop: 31646, Start Num: 159

Candidate Starts for Suscepit\_39:

(Start: 85 @30453 has 6 MA's), (Start: 159 @30564 has 56 MA's), (Start: 191 @30618 has 14 MA's), (252, 30738), (401, 30993), (414, 31023), (452, 31083), (486, 31149), (497, 31173), (709, 31503), (715, 31530), (760, 31635),

Gene: SushiChef\_36 Start: 30265, Stop: 31293, Start Num: 191

Candidate Starts for SushiChef\_36:

(Start: 85 @30100 has 6 MA's), (Start: 159 @30211 has 56 MA's), (Start: 191 @30265 has 14 MA's), (252, 30385), (452, 30730), (486, 30796), (497, 30820), (573, 30925), (709, 31150), (715, 31177), (728, 31225), (760, 31282),

Gene: SwagPiggett\_45 Start: 33012, Stop: 34130, Start Num: 162

Candidate Starts for SwagPiggett\_45:

(Start: 162 @33012 has 317 MA's), (227, 33150), (244, 33183), (272, 33231), (322, 33348), (340, 33384), (346, 33393), (414, 33498), (454, 33567), (484, 33627), (492, 33639), (493, 33642), (497, 33654), (504, 33669), (514, 33693), (520, 33699), (539, 33720), (573, 33756), (574, 33759), (593, 33795), (595, 33801), (598, 33813), (599, 33816), (663, 33900), (670, 33915), (703, 33957), (713, 34002), (716, 34011), (726, 34050), (731, 34068), (746, 34089), (755, 34104), (760, 34113), (762, 34116),

Gene: SweetiePie\_34 Start: 26396, Stop: 25329, Start Num: 191

Candidate Starts for SweetiePie\_34:

(Start: 101 @26513 has 2 MA's), (Start: 152 @26450 has 120 MA's), (Start: 191 @26396 has 14 MA's), (Start: 217 @26327 has 6 MA's), (234, 26282), (302, 26156), (322, 26108), (328, 26099), (356, 26063), (401, 26009), (402, 26006), (471, 25883), (481, 25865), (497, 25835), (529, 25781), (534, 25775), (548, 25763), (593, 25688), (595, 25682), (603, 25661), (622, 25646), (633, 25628), (650, 25601), (704, 25490), (717, 25442), (724, 25412), (726, 25406), (729, 25394), (755, 25355),

Gene: SwirlSquare\_34 Start: 25021, Stop: 23906, Start Num: 157

Candidate Starts for SwirlSquare\_34:

(Start: 157 @25021 has 10 MA's), (204, 24940), (Start: 217 @24904 has 6 MA's), (234, 24859), (284, 24772), (317, 24703), (320, 24691), (322, 24685), (356, 24640), (381, 24622), (394, 24598), (401, 24586), (402, 24583), (534, 24352), (548, 24340), (593, 24265), (603, 24238), (622, 24223), (633, 24205), (650, 24178), (717, 24019), (724, 23989), (726, 23983), (729, 23971), (755, 23932),

Gene: Syleon\_7 Start: 2611, Stop: 1523, Start Num: 184

Candidate Starts for Syleon\_7:

(112, 2716), (171, 2632), (Start: 184 @2611 has 4 MA's), (270, 2440), (313, 2350), (320, 2326), (331, 2305), (482, 2074), (502, 2041), (522, 1999), (530, 1984), (546, 1963), (554, 1954), (559, 1948), (602, 1864), (613, 1849), (660, 1762), (683, 1729), (715, 1636), (723, 1603), (726, 1594), (728, 1588),

Gene: TChen\_44 Start: 33582, Stop: 34700, Start Num: 162

Candidate Starts for TChen\_44:

(Start: 162 @33582 has 317 MA's), (165, 33591), (227, 33720), (244, 33753), (272, 33801), (340, 33954), (346, 33963), (402, 34044), (454, 34137), (484, 34197), (492, 34209), (493, 34212), (504, 34239), (514, 34263), (539, 34290), (573, 34326), (574, 34329), (593, 34365), (610, 34401), (663, 34470), (670, 34485), (690, 34503), (713, 34572), (716, 34581), (726, 34620), (731, 34638), (746, 34659), (755, 34674),

Gene: TClif\_45 Start: 33489, Stop: 34589, Start Num: 162

Candidate Starts for TClif\_45:

(Start: 162 @33489 has 317 MA's), (226, 33615), (244, 33651), (317, 33789), (340, 33843), (408, 33927), (438, 33984), (451, 34008), (452, 34011), (471, 34053), (534, 34161), (574, 34212), (597, 34263), (598, 34266), (636, 34311), (646, 34326), (701, 34401), (712, 34449), (748, 34545),

Gene: TNguyen7\_33 Start: 26286, Stop: 25138, Start Num: 134

Candidate Starts for TNguyen7\_33:

(Start: 134 @26286 has 2 MA's), (Start: 140 @26277 has 6 MA's), (Start: 217 @26142 has 6 MA's), (234, 26097), (317, 25941), (324, 25920), (328, 25914), (356, 25878), (402, 25821), (449, 25743), (515, 25608), (534, 25590), (548, 25578), (574, 25539), (593, 25503), (595, 25497), (603, 25476), (622, 25461), (633, 25443), (650, 25416), (704, 25305), (717, 25257), (724, 25227), (726, 25221), (729, 25209), (755, 25170),

Gene: TPA4\_37 Start: 32608, Stop: 31376, Start Num: 147

Candidate Starts for TPA4\_37:

(Start: 140 @32614 has 6 MA's), (Start: 147 @32608 has 80 MA's), (368, 32161), (384, 32116), (469, 32005), (492, 31960), (525, 31879), (544, 31855), (548, 31849), (563, 31831), (607, 31741), (655, 31654), (687, 31603), (696, 31582), (700, 31570), (724, 31471), (729, 31453), (748, 31426),

Gene: TZGordon\_39 Start: 27285, Stop: 26170, Start Num: 188

Candidate Starts for TZGordon\_39:

(Start: 188 @27285 has 12 MA's), (357, 26946), (385, 26913), (532, 26619), (549, 26607), (641, 26427), (720, 26256), (726, 26229),

Gene: Tachez\_41 Start: 32439, Stop: 33527, Start Num: 162

Candidate Starts for Tachez\_41:

(Start: 162 @32439 has 317 MA's), (Start: 191 @32490 has 14 MA's), (Start: 217 @32541 has 6 MA's), (226, 32565), (244, 32601), (317, 32739), (340, 32793), (408, 32877), (451, 32946), (452, 32949), (534, 33099), (587, 33177), (598, 33204), (663, 33291), (701, 33339),

Gene: TaiwanKao\_43 Start: 32721, Stop: 33809, Start Num: 162

Candidate Starts for TaiwanKao\_43:

(Start: 162 @32721 has 317 MA's), (Start: 217 @32823 has 6 MA's), (226, 32847), (244, 32883), (340, 33075), (408, 33159), (451, 33228), (452, 33231), (534, 33381), (587, 33459), (598, 33486), (701, 33621), (748, 33765),

Gene: Taj\_45 Start: 32606, Stop: 33709, Start Num: 162

Candidate Starts for Taj\_45:

(Start: 162 @32606 has 317 MA's), (Start: 191 @32654 has 14 MA's), (227, 32735), (238, 32762), (340, 32975), (359, 32999), (402, 33047), (451, 33128), (486, 33197), (492, 33206), (504, 33236), (514, 33260), (534, 33281), (587, 33359), (595, 33374), (638, 33434), (663, 33473), (670, 33488), (687, 33512), (703, 33539), (709, 33563), (713, 33584), (716, 33593), (728, 33638), (731, 33650),

Gene: Taotie\_123 Start: 63098, Stop: 61953, Start Num: 178

Candidate Starts for Taotie\_123:

(178, 63098), (466, 62546), (500, 62474), (550, 62393), (563, 62375), (577, 62351), (593, 62315), (603, 62288), (730, 62036), (742, 62015),

Gene: TarsusIV\_33 Start: 26409, Stop: 25285, Start Num: 152

Candidate Starts for TarsusIV\_33:

(Start: 102 @26469 has 3 MA's), (Start: 114 @26451 has 1 MA's), (Start: 152 @26409 has 120 MA's), (Start: 217 @26286 has 6 MA's), (234, 26241), (317, 26085), (328, 26058), (356, 26022), (402, 25965), (449, 25887), (466, 25854), (471, 25842), (481, 25824), (534, 25734), (536, 25731), (548, 25722), (593, 25647), (603, 25620), (622, 25605), (633, 25587), (704, 25449), (717, 25401), (718, 25398), (724, 25371), (726, 25365), (729, 25353), (755, 25314),

Gene: Taurus\_36 Start: 26750, Stop: 25644, Start Num: 179

Candidate Starts for Taurus\_36:

(Start: 152 @26789 has 120 MA's), (Start: 179 @26750 has 10 MA's), (204, 26702), (Start: 217 @26666 has 6 MA's), (234, 26621), (317, 26465), (328, 26438), (356, 26402), (402, 26345), (449, 26267), (462, 26243), (481, 26204), (515, 26132), (529, 26120), (534, 26114), (548, 26102), (593, 26027), (595, 26021), (603, 26000), (622, 25985), (633, 25967), (647, 25943), (704, 25829), (716, 25784), (717, 25781), (720, 25772), (724, 25751), (726, 25745), (729, 25733), (755, 25694),

Gene: TaylorSipht\_34 Start: 24061, Stop: 22877, Start Num: 147

Candidate Starts for TaylorSipht\_34:

(Start: 147 @24061 has 80 MA's), (330, 23707), (360, 23644), (365, 23632), (369, 23617), (457, 23464), (533, 23323), (552, 23302), (599, 23209), (607, 23197), (705, 23035), (708, 23026),

Gene: Tayonia\_39 Start: 30563, Stop: 31645, Start Num: 159

Candidate Starts for Tayonia\_39:

(Start: 85 @30452 has 6 MA's), (Start: 159 @30563 has 56 MA's), (Start: 191 @30617 has 14 MA's), (252, 30737), (401, 30992), (414, 31022), (452, 31082), (486, 31148), (497, 31172), (709, 31502), (715, 31529), (760, 31634),

Gene: Teejan\_39 Start: 34238, Stop: 35683, Start Num: 28

Candidate Starts for Teejan\_39:

(28, 34238), (Start: 33 @34253 has 1 MA's), (46, 34346), (51, 34367), (79, 34460), (Start: 162 @34589 has 317 MA's), (Start: 191 @34640 has 14 MA's), (226, 34715), (244, 34751), (296, 34847), (304, 34865), (317, 34889), (337, 34937), (340, 34943), (432, 35075), (451, 35108), (471, 35153), (534, 35261), (598, 35366), (646, 35426), (701, 35501), (728, 35609), (748, 35645),

Gene: Terrific\_37 Start: 26823, Stop: 25690, Start Num: 152

Candidate Starts for Terrific\_37:

(Start: 152 @26823 has 120 MA's), (Start: 191 @26769 has 14 MA's), (Start: 217 @26700 has 6 MA's), (234, 26655), (317, 26499), (328, 26472), (356, 26436), (402, 26379), (471, 26256), (481, 26238), (534, 26148), (548, 26136), (593, 26061), (595, 26055), (603, 26034), (622, 26019), (633, 26001), (650, 25974), (653, 25965), (704, 25863), (717, 25815), (724, 25785), (726, 25779), (729, 25767), (755, 25728),

Gene: ThankyouJordi\_38 Start: 31428, Stop: 32621, Start Num: 85

Candidate Starts for ThankyouJordi\_38:

(Start: 85 @31428 has 6 MA's), (Start: 159 @31539 has 56 MA's), (Start: 191 @31593 has 14 MA's), (252, 31713), (414, 31998), (452, 32058), (486, 32124), (497, 32148), (709, 32478), (715, 32505), (760, 32610),

Gene: ThayneTheZag\_40 Start: 27570, Stop: 26437, Start Num: 162

Candidate Starts for ThayneTheZag\_40:

(Start: 162 @27570 has 317 MA's), (Start: 191 @27519 has 14 MA's), (277, 27351), (285, 27333), (336, 27219), (346, 27201), (402, 27123), (451, 27036), (456, 27027), (486, 26967), (520, 26898), (535, 26877), (627, 26727), (631, 26724), (670, 26658), (703, 26607), (709, 26583), (712, 26568), (726, 26514), (733, 26493), (753, 26463),

Gene: Thibault\_69 Start: 48145, Stop: 49374, Start Num: 116

Candidate Starts for Thibault\_69:

(Start: 116 @48145 has 29 MA's), (Start: 131 @48163 has 3 MA's), (Start: 160 @48202 has 1 MA's), (276, 48439), (322, 48547), (395, 48667), (396, 48670), (401, 48679), (408, 48694), (426, 48733), (464, 48811), (532, 48928), (545, 48931), (553, 48940), (582, 48991), (584, 48994), (592, 49012), (639, 49108), (688, 49165), (723, 49285), (724, 49288), (731, 49312), (747, 49336), (749, 49339),

Gene: Thimann\_36 Start: 28027, Stop: 29154, Start Num: 162

Candidate Starts for Thimann\_36:

(53, 27808), (59, 27844), (Start: 162 @28027 has 317 MA's), (Start: 191 @28081 has 14 MA's), (263, 28237), (307, 28327), (320, 28360), (451, 28555), (452, 28558), (471, 28600), (493, 28636), (678, 28933), (709, 29011), (720, 29053), (726, 29080), (760, 29143),

Gene: ThreeRngTarjay\_79 Start: 53224, Stop: 54453, Start Num: 116

Candidate Starts for ThreeRngTarjay\_79:

(Start: 116 @53224 has 29 MA's), (Start: 131 @53242 has 3 MA's), (Start: 160 @53281 has 1 MA's), (276, 53518), (322, 53626), (395, 53746), (396, 53749), (401, 53758), (408, 53773), (426, 53812), (464, 53890), (524, 53995), (532, 54007), (545, 54010), (553, 54019), (582, 54070), (584, 54073), (592, 54091), (639, 54187), (688, 54244), (723, 54364), (724, 54367), (731, 54391), (747, 54415), (749, 54418),

Gene: ThulaThula\_35 Start: 29873, Stop: 28671, Start Num: 169

Candidate Starts for ThulaThula\_35:

(Start: 169 @29873 has 7 MA's), (207, 29798), (220, 29768), (233, 29744), (274, 29663), (325, 29549), (360, 29486), (420, 29351), (464, 29270), (497, 29207), (528, 29141), (631, 28964), (633, 28961), (634, 28958), (645, 28937), (666, 28901), (667, 28898), (701, 28868), (709, 28835), (712, 28820), (729, 28754), (740, 28733),

Gene: Tiff81\_35 Start: 24880, Stop: 23702, Start Num: 162

Candidate Starts for Tiff81\_35:

(Start: 162 @24880 has 317 MA's), (221, 24763), (239, 24715), (285, 24643), (328, 24547), (346, 24511), (394, 24448), (402, 24433), (451, 24346), (456, 24337), (486, 24277), (508, 24229), (599, 24082), (603, 24076), (631, 24034), (703, 23917), (708, 23896), (709, 23893), (712, 23878), (762, 23758),

Gene: Tiffany\_36 Start: 26675, Stop: 25530, Start Num: 152

Candidate Starts for Tiffany\_36:

(Start: 152 @26675 has 120 MA's), (Start: 179 @26636 has 10 MA's), (204, 26588), (Start: 217 @26552 has 6 MA's), (234, 26507), (317, 26351), (328, 26324), (356, 26288), (402, 26231), (449, 26153), (462, 26129), (481, 26090), (515, 26018), (529, 26006), (534, 26000), (548, 25988), (593, 25913), (595, 25907), (603, 25886), (622, 25871), (633, 25853), (647, 25829), (704, 25715), (716, 25670), (717, 25667), (720, 25658), (724, 25637), (726, 25631), (729, 25619), (755, 25580),

Gene: TimTam\_39 Start: 32012, Stop: 33094, Start Num: 159

Candidate Starts for TimTam\_39:

(Start: 85 @31901 has 6 MA's), (Start: 159 @32012 has 56 MA's), (Start: 191 @32066 has 14 MA's), (252, 32186), (395, 32432), (401, 32441), (414, 32471), (452, 32531), (486, 32597), (497, 32621), (709, 32951), (715, 32978), (760, 33083),

Gene: TinaFeyge\_33 Start: 26292, Stop: 25126, Start Num: 110

Candidate Starts for TinaFeyge\_33:

(Start: 110 @26292 has 3 MA's), (135, 26265), (Start: 152 @26247 has 120 MA's), (Start: 195 @26178 has 8 MA's), (Start: 217 @26124 has 6 MA's), (322, 25905), (328, 25896), (356, 25860), (394, 25818), (401, 25806), (402, 25803), (449, 25725), (515, 25590), (534, 25572), (593, 25485), (603, 25458), (622, 25443), (633, 25425), (704, 25287), (717, 25239), (724, 25209), (726, 25203), (729, 25191), (755, 25152),

Gene: TinaLin\_36 Start: 26813, Stop: 25707, Start Num: 188

Candidate Starts for TinaLin\_36:

(Start: 188 @26813 has 12 MA's), (224, 26726), (344, 26492), (396, 26429), (402, 26417), (426, 26366), (507, 26204), (532, 26156), (610, 26027), (635, 25979), (691, 25883), (720, 25793), (726, 25766),

Gene: TiniBug\_42 Start: 33372, Stop: 34460, Start Num: 162

Candidate Starts for TiniBug\_42:

(51, 33150), (Start: 162 @33372 has 317 MA's), (Start: 191 @33423 has 14 MA's), (Start: 217 @33474 has 6 MA's), (226, 33498), (244, 33534), (304, 33648), (340, 33726), (408, 33810), (451, 33879), (452, 33882), (534, 34032), (598, 34137), (701, 34272), (748, 34416),

Gene: TopsytheTRex\_33 Start: 25948, Stop: 24836, Start Num: 152

Candidate Starts for TopsytheTRex\_33:

(Start: 152 @25948 has 120 MA's), (199, 25870), (Start: 217 @25825 has 6 MA's), (234, 25780), (272, 25720), (328, 25597), (356, 25561), (401, 25507), (402, 25504), (471, 25381), (473, 25378), (481, 25363), (529, 25279), (534, 25273), (593, 25198), (603, 25171), (622, 25156), (633, 25138), (650, 25111), (704, 25000), (717, 24952), (718, 24949), (720, 24943), (724, 24922), (726, 24916), (729, 24904), (755, 24865), (760, 24856),

Gene: Tiri\_42 Start: 32775, Stop: 33863, Start Num: 162

Candidate Starts for Tiri\_42:

(Start: 162 @32775 has 317 MA's), (Start: 217 @32877 has 6 MA's), (226, 32901), (244, 32937), (317, 33075), (340, 33129), (408, 33213), (451, 33282), (452, 33285), (534, 33435), (598, 33540), (663, 33627), (701, 33675), (748, 33819),

Gene: Toad24\_36 Start: 25330, Stop: 24146, Start Num: 147

Candidate Starts for Toad24\_36:

(Start: 147 @25330 has 80 MA's), (266, 25111), (276, 25093), (330, 24976), (365, 24901), (552, 24571), (599, 24478), (607, 24466), (617, 24448), (700, 24331), (708, 24295),

Gene: Tomathan\_37 Start: 26420, Stop: 25350, Start Num: 191

Candidate Starts for Tomathan\_37:

(Start: 152 @26474 has 120 MA's), (Start: 191 @26420 has 14 MA's), (Start: 217 @26351 has 6 MA's), (317, 26150), (328, 26123), (356, 26087), (401, 26033), (402, 26030), (414, 26003), (449, 25952), (466, 25919), (471, 25907), (481, 25889), (534, 25799), (548, 25787), (574, 25748), (593, 25712), (595, 25706), (603, 25685), (622, 25670), (633, 25652), (650, 25625), (704, 25514), (717, 25466), (718, 25463), (724, 25436), (726, 25430), (729, 25418), (755, 25379),

Gene: Topper\_41 Start: 32595, Stop: 33683, Start Num: 162

Candidate Starts for Topper\_41:

(16, 31992), (24, 32169), (42, 32334), (51, 32373), (Start: 162 @32595 has 317 MA's), (Start: 191 @32646 has 14 MA's), (Start: 217 @32697 has 6 MA's), (226, 32721), (244, 32757), (317, 32895), (408, 33033), (451, 33102), (452, 33105), (534, 33255), (598, 33360), (701, 33495),

Gene: Torres\_39 Start: 34590, Stop: 35684, Start Num: 162

Candidate Starts for Torres\_39:

(28, 34239), (Start: 33 @34254 has 1 MA's), (46, 34347), (51, 34368), (79, 34461), (Start: 162 @34590 has 317 MA's), (Start: 191 @34641 has 14 MA's), (226, 34716), (244, 34752), (296, 34848), (304, 34866), (317, 34890), (337, 34938), (340, 34944), (432, 35076), (451, 35109), (471, 35154), (534, 35262), (598, 35367), (646, 35427), (701, 35502), (728, 35610), (748, 35646),

Gene: Tortellini\_32 Start: 30878, Stop: 29682, Start Num: 153

Candidate Starts for Tortellini\_32:

(Start: 153 @30878 has 2 MA's), (276, 30632), (289, 30599), (353, 30461), (355, 30455), (363, 30446), (368, 30434), (375, 30404), (425, 30305), (479, 30233), (491, 30212), (504, 30179), (529, 30128), (534, 30122), (594, 30029), (634, 29954), (645, 29933), (697, 29876), (700, 29867), (705, 29840), (709, 29828), (720, 29789), (737, 29735), (753, 29714),

Gene: TouchMeNot\_32 Start: 30114, Stop: 28903, Start Num: 159

Candidate Starts for TouchMeNot\_32:

(Start: 159 @30114 has 56 MA's), (240, 29940), (312, 29799), (401, 29640), (472, 29490), (517, 29400), (663, 29136), (684, 29100), (690, 29094), (747, 28929), (756, 28914), (758, 28911),

Gene: Travvers\_37 Start: 26420, Stop: 25350, Start Num: 191

Candidate Starts for Travvers\_37:

(Start: 152 @26474 has 120 MA's), (Start: 191 @26420 has 14 MA's), (Start: 217 @26351 has 6 MA's), (317, 26150), (318, 26147), (328, 26123), (356, 26087), (402, 26030), (414, 26003), (449, 25952), (466, 25919), (471, 25907), (481, 25889), (515, 25817), (534, 25799), (548, 25787), (593, 25712), (595, 25706), (603, 25685), (622, 25670), (633, 25652), (650, 25625), (704, 25514), (717, 25466), (718, 25463), (724, 25436), (726, 25430), (729, 25418), (755, 25379),

Gene: Trax\_8 Start: 3425, Stop: 2322, Start Num: 188

Candidate Starts for Trax\_8:

(173, 3452), (Start: 188 @3425 has 12 MA's), (193, 3413), (211, 3359), (Start: 222 @3344 has 1 MA's), (229, 3320), (250, 3293), (314, 3167), (360, 3095), (402, 3032), (408, 3020), (426, 2981), (467, 2897), (477, 2876), (520, 2789), (574, 2720), (581, 2708), (626, 2612), (637, 2588), (672, 2528), (695, 2492), (703, 2477), (712, 2438), (722, 2396),

Gene: TreyKay\_42 Start: 32665, Stop: 33753, Start Num: 162

Candidate Starts for TreyKay\_42:

(70, 32518), (Start: 162 @32665 has 317 MA's), (Start: 217 @32767 has 6 MA's), (226, 32791), (244, 32827), (317, 32965), (340, 33019), (408, 33103), (451, 33172), (452, 33175), (534, 33325), (598, 33430), (663, 33517), (701, 33565), (748, 33709),

Gene: Trice\_37 Start: 31641, Stop: 33071, Start Num: 33

Candidate Starts for Trice\_37:

(28, 31626), (Start: 33 @31641 has 1 MA's), (46, 31734), (51, 31755), (79, 31848), (Start: 162 @31977 has 317 MA's), (Start: 191 @32028 has 14 MA's), (226, 32103), (244, 32139), (296, 32235), (304, 32253), (317, 32277), (337, 32325), (340, 32331), (432, 32463), (451, 32496), (471, 32541), (534, 32649), (598, 32754), (646, 32814), (701, 32889), (728, 32997), (748, 33033),

Gene: TripleJ\_37 Start: 28096, Stop: 26960, Start Num: 167

Candidate Starts for TripleJ\_37:

(Start: 167 @28096 has 2 MA's), (204, 28030), (231, 27955), (242, 27934), (249, 27925), (268, 27889), (278, 27868), (307, 27805), (332, 27748), (340, 27730), (384, 27694), (401, 27664), (408, 27649), (413, 27637), (423, 27616), (451, 27580), (452, 27577), (462, 27556), (484, 27514), (486, 27511), (497, 27487), (515, 27448), (534, 27430), (602, 27322), (646, 27271), (712, 27130), (714, 27121), (732, 27058), (774, 26989), (779, 26983),

Gene: Tristan\_35 Start: 28130, Stop: 26997, Start Num: 140

Candidate Starts for Tristan\_35:

(Start: 140 @28130 has 6 MA's), (Start: 217 @27995 has 6 MA's), (234, 27950), (237, 27944), (260, 27905), (317, 27794), (328, 27767), (356, 27731), (394, 27689), (402, 27674), (449, 27596), (534, 27443), (548, 27431), (593, 27356), (595, 27350), (603, 27329), (622, 27314), (633, 27296), (663, 27245), (704, 27158), (717, 27110), (724, 27080), (726, 27074), (729, 27062), (755, 27023),

Gene: Trixie\_35 Start: 27323, Stop: 26259, Start Num: 191

Candidate Starts for Trixie\_35:

(Start: 152 @27377 has 120 MA's), (Start: 191 @27323 has 14 MA's), (Start: 217 @27254 has 6 MA's), (234, 27209), (317, 27053), (320, 27041), (328, 27026), (356, 26990), (394, 26948), (401, 26936), (402, 26933), (408, 26921), (449, 26855), (466, 26822), (481, 26792), (534, 26702), (536, 26699), (548, 26690), (564, 26669), (593, 26615), (603, 26588), (622, 26573), (633, 26555), (704, 26417), (717, 26369), (718, 26366), (724, 26339), (726, 26333), (729, 26321), (755, 26282),

Gene: Trooper\_35 Start: 26605, Stop: 25538, Start Num: 191

Candidate Starts for Trooper\_35:

(Start: 101 @26722 has 2 MA's), (Start: 152 @26659 has 120 MA's), (Start: 191 @26605 has 14 MA's), (Start: 217 @26536 has 6 MA's), (234, 26491), (317, 26335), (356, 26272), (408, 26203), (430, 26161), (449, 26137), (481, 26074), (534, 25984), (548, 25972), (593, 25897), (595, 25891), (603, 25870), (622, 25855), (633, 25837), (650, 25810), (704, 25699), (716, 25654), (717, 25651), (718, 25648), (724, 25621), (726, 25615), (729, 25603), (755, 25564),

Gene: Troy\_27 Start: 25228, Stop: 23900, Start Num: 102

Candidate Starts for Troy\_27:

(Start: 102 @25228 has 3 MA's), (128, 25192), (136, 25183), (Start: 175 @25126 has 3 MA's), (283, 24916), (284, 24913), (329, 24814), (337, 24796), (393, 24730), (396, 24724), (402, 24712), (480, 24547), (503, 24502), (513, 24481), (518, 24469), (530, 24445), (548, 24421), (554, 24415), (576, 24379), (619, 24283), (651, 24226), (677, 24181), (693, 24157), (700, 24142), (715, 24076), (716, 24073), (722, 24046), (728, 24028), (762, 23968), (788, 23914),

Gene: TroyPia\_33 Start: 26250, Stop: 25129, Start Num: 152

Candidate Starts for TroyPia\_33:

(Start: 110 @26295 has 3 MA's), (135, 26268), (Start: 152 @26250 has 120 MA's), (Start: 195 @26181 has 8 MA's), (Start: 217 @26127 has 6 MA's), (322, 25908), (328, 25899), (356, 25863), (394, 25821), (401, 25809), (402, 25806), (449, 25728), (515, 25593), (534, 25575), (593, 25488), (603, 25461), (622, 25446), (633, 25428), (704, 25290), (717, 25242), (724, 25212), (726, 25206), (729, 25194), (755, 25155),

Gene: TruffulaTree\_41 Start: 32473, Stop: 33561, Start Num: 162

Candidate Starts for TruffulaTree\_41:

(Start: 162 @32473 has 317 MA's), (Start: 191 @32524 has 14 MA's), (Start: 217 @32575 has 6 MA's), (226, 32599), (244, 32635), (317, 32773), (340, 32827), (408, 32911), (451, 32980), (452, 32983), (534, 33133), (587, 33211), (598, 33238), (663, 33325), (701, 33373),

Gene: Trumpet\_39 Start: 30564, Stop: 31646, Start Num: 159

Candidate Starts for Trumpet\_39:

(Start: 85 @30453 has 6 MA's), (Start: 159 @30564 has 56 MA's), (Start: 191 @30618 has 14 MA's), (252, 30738), (401, 30993), (414, 31023), (452, 31083), (486, 31149), (497, 31173), (709, 31503), (715, 31530), (760, 31635),

Gene: TuertoX\_37 Start: 27875, Stop: 28957, Start Num: 159

Candidate Starts for TuertoX\_37:

(Start: 83 @27758 has 2 MA's), (Start: 85 @27764 has 6 MA's), (Start: 159 @27875 has 56 MA's), (Start: 191 @27929 has 14 MA's), (252, 28049), (401, 28304), (414, 28334), (452, 28394), (486, 28460), (497, 28484), (573, 28589), (709, 28814), (715, 28841), (760, 28946),

Gene: Turbido\_34 Start: 26644, Stop: 25511, Start Num: 148

Candidate Starts for Turbido\_34:

(Start: 133 @26662 has 7 MA's), (Start: 148 @26644 has 5 MA's), (Start: 195 @26560 has 8 MA's), (Start: 217 @26512 has 6 MA's), (234, 26467), (328, 26284), (356, 26248), (402, 26191), (408, 26179), (414, 26164), (466, 26080), (471, 26068), (481, 26050), (534, 25960), (548, 25948), (593, 25873), (595, 25867), (603, 25846), (622, 25831), (633, 25813), (650, 25786), (704, 25675), (717, 25627), (718, 25624), (724, 25597), (726, 25591), (729, 25579), (755, 25540),

Gene: TurkishDelight\_52 Start: 44050, Stop: 45588, Start Num: 47

Candidate Starts for TurkishDelight\_52:

(13, 43657), (32, 43954), (Start: 47 @44050 has 1 MA's), (82, 44173), (174, 44323), (187, 44344), (221, 44425), (290, 44578), (305, 44611), (308, 44614), (360, 44731), (409, 44851), (422, 44884), (434, 44905), (451, 44947), (506, 45058), (528, 45106), (542, 45124), (557, 45142), (575, 45172),

(655, 45325), (683, 45358), (704, 45400), (720, 45457), (738, 45514), (764, 45550), (773, 45568),

Gene: Tuti\_39 Start: 29576, Stop: 30703, Start Num: 162

Candidate Starts for Tuti\_39:

(53, 29357), (59, 29393), (Start: 162 @29576 has 317 MA's), (Start: 191 @29630 has 14 MA's), (240, 29753), (263, 29786), (320, 29909), (451, 30104), (452, 30107), (471, 30149), (493, 30185), (678, 30482), (720, 30602), (726, 30629), (760, 30692),

Gene: Twinkle\_39 Start: 33608, Stop: 34735, Start Num: 162

Candidate Starts for Twinkle\_39:

(122, 33569), (Start: 162 @33608 has 317 MA's), (Start: 191 @33662 has 14 MA's), (240, 33785), (263, 33818), (307, 33908), (320, 33941), (451, 34136), (452, 34139), (471, 34181), (493, 34217), (678, 34514), (709, 34592), (715, 34619), (720, 34634), (726, 34661), (760, 34724),

Gene: Twitch\_41 Start: 32597, Stop: 33685, Start Num: 162

Candidate Starts for Twitch\_41:

(16, 31994), (24, 32171), (42, 32336), (51, 32375), (Start: 162 @32597 has 317 MA's), (Start: 191 @32648 has 14 MA's), (Start: 217 @32699 has 6 MA's), (226, 32723), (244, 32759), (317, 32897), (408, 33035), (451, 33104), (452, 33107), (534, 33257), (598, 33362), (701, 33497),

Gene: Ubuntu\_29 Start: 26478, Stop: 25285, Start Num: 181

Candidate Starts for Ubuntu\_29:

(Start: 155 @26520 has 3 MA's), (Start: 181 @26478 has 20 MA's), (211, 26412), (247, 26331), (266, 26292), (275, 26277), (277, 26271), (281, 26259), (293, 26232), (311, 26199), (339, 26142), (359, 26109), (360, 26106), (375, 26058), (401, 26016), (402, 26013), (412, 25989), (419, 25974), (429, 25950), (438, 25935), (462, 25896), (468, 25884), (488, 25845), (506, 25806), (528, 25758), (531, 25755), (580, 25683), (583, 25677), (588, 25665), (591, 25662), (593, 25656), (619, 25602), (630, 25584), (631, 25581), (645, 25554), (656, 25536), (661, 25530), (662, 25527), (701, 25485), (707, 25458), (709, 25452), (722, 25395), (759, 25332), (760, 25329),

Gene: Updawg\_35 Start: 26811, Stop: 25678, Start Num: 152

Candidate Starts for Updawg\_35:

(Start: 152 @26811 has 120 MA's), (Start: 191 @26757 has 14 MA's), (Start: 217 @26688 has 6 MA's), (234, 26643), (317, 26487), (328, 26460), (356, 26424), (402, 26367), (471, 26244), (481, 26226), (534, 26136), (548, 26124), (593, 26049), (595, 26043), (603, 26022), (622, 26007), (633, 25989), (650, 25962), (653, 25953), (704, 25851), (717, 25803), (724, 25773), (726, 25767), (729, 25755), (755, 25716),

Gene: Urkel\_42 Start: 33376, Stop: 34464, Start Num: 162

Candidate Starts for Urkel\_42:

(51, 33154), (Start: 162 @33376 has 317 MA's), (Start: 191 @33427 has 14 MA's), (Start: 217 @33478 has 6 MA's), (226, 33502), (244, 33538), (304, 33652), (340, 33730), (408, 33814), (451, 33883), (452, 33886), (534, 34036), (598, 34141), (701, 34276), (748, 34420),

Gene: VA6\_33 Start: 26411, Stop: 25287, Start Num: 152

Candidate Starts for VA6\_33:

(105, 26465), (Start: 152 @26411 has 120 MA's), (Start: 191 @26357 has 14 MA's), (Start: 217 @26288 has 6 MA's), (317, 26087), (328, 26060), (356, 26024), (401, 25970), (402, 25967), (414, 25940), (449, 25889), (466, 25856), (471, 25844), (481, 25826), (515, 25754), (534, 25736), (548, 25724), (574, 25685), (593, 25649), (595, 25643), (603, 25622), (622, 25607), (633, 25589), (650, 25562), (704, 25451), (717, 25403), (718, 25400), (724, 25373), (726, 25367), (729, 25355), (755, 25316),

Gene: VC3\_36 Start: 26399, Stop: 25275, Start Num: 152

Candidate Starts for VC3\_36:

(105, 26453), (Start: 152 @26399 has 120 MA's), (Start: 191 @26345 has 14 MA's), (Start: 217 @26276 has 6 MA's), (317, 26075), (328, 26048), (356, 26012), (401, 25958), (402, 25955), (414, 25928), (449, 25877), (466, 25844), (471, 25832), (481, 25814), (515, 25742), (534, 25724), (548, 25712), (574, 25673), (593, 25637), (595, 25631), (603, 25610), (622, 25595), (633, 25577), (650, 25550), (704, 25439), (717, 25391), (718, 25388), (724, 25361), (726, 25355), (729, 25343), (755, 25304),

Gene: VRedHorse\_42 Start: 32159, Stop: 33286, Start Num: 162

Candidate Starts for VRedHorse\_42:

(86, 32057), (121, 32114), (Start: 162 @32159 has 317 MA's), (165, 32168), (244, 32330), (268, 32381), (277, 32399), (296, 32444), (322, 32504), (340, 32540), (346, 32549), (414, 32654), (454, 32723), (484, 32783), (492, 32795), (493, 32798), (497, 32810), (504, 32825), (514, 32849), (520, 32855), (539, 32876), (573, 32912), (574, 32915), (593, 32951), (595, 32957), (599, 32972), (610, 32987), (663, 33056), (670, 33071), (703, 33113), (713, 33158), (716, 33167), (726, 33206), (731, 33224), (746, 33245), (755, 33260), (760, 33269), (762, 33272),

Gene: VWB\_31 Start: 27412, Stop: 26129, Start Num: 118

Candidate Starts for VWB\_31:

(Start: 118 @27412 has 1 MA's), (146, 27379), (168, 27346), (328, 27001), (356, 26962), (382, 26926), (390, 26914), (438, 26815), (465, 26767), (519, 26659), (523, 26650), (591, 26542), (629, 26464), (679, 26371), (695, 26347), (701, 26329), (704, 26311), (711, 26287), (719, 26257), (720, 26254), (725, 26230), (728, 26221), (739, 26197), (747, 26185), (754, 26173), (777, 26134),

Gene: Validus\_45 Start: 33099, Stop: 34196, Start Num: 162

Candidate Starts for Validus\_45:

(Start: 162 @33099 has 317 MA's), (226, 33225), (244, 33261), (304, 33375), (340, 33453), (408, 33537), (451, 33618), (452, 33621), (471, 33663), (514, 33750), (534, 33771), (598, 33876), (646, 33936), (691, 33999), (748, 34155),

Gene: VanLee\_32 Start: 27924, Stop: 26788, Start Num: 147

Candidate Starts for VanLee\_32:

(Start: 147 @27924 has 80 MA's), (180, 27870), (190, 27852), (266, 27702), (301, 27630), (365, 27489), (368, 27477), (369, 27474), (371, 27462), (407, 27393), (491, 27291), (492, 27288), (504, 27258), (657, 27015), (659, 27012), (698, 26976), (703, 26955), (759, 26808),

Gene: Vasanti\_37 Start: 29057, Stop: 27888, Start Num: 147

Candidate Starts for Vasanti\_37:

(Start: 147 @29057 has 80 MA's), (276, 28814), (314, 28733), (328, 28697), (333, 28685), (357, 28643), (360, 28637), (365, 28625), (368, 28613), (407, 28529), (410, 28520), (412, 28514), (425, 28484), (491, 28415), (492, 28412), (504, 28382), (538, 28331), (593, 28259), (605, 28229), (700, 28097), (702, 28085), (724, 27998), (727, 27989), (753, 27944), (773, 27905),

Gene: Veliki\_41 Start: 32513, Stop: 33601, Start Num: 162

Candidate Starts for Veliki\_41:

(Start: 162 @32513 has 317 MA's), (Start: 191 @32564 has 14 MA's), (Start: 217 @32615 has 6 MA's), (226, 32639), (244, 32675), (317, 32813), (340, 32867), (408, 32951), (451, 33020), (452, 33023), (534, 33173), (587, 33251), (598, 33278), (663, 33365), (701, 33413),

Gene: Velveteen\_37 Start: 27903, Stop: 29021, Start Num: 162

Candidate Starts for Velveteen\_37:

(Start: 162 @27903 has 317 MA's), (244, 28074), (322, 28239), (340, 28275), (346, 28284), (402, 28365), (414, 28389), (454, 28458), (471, 28497), (481, 28515), (484, 28518), (492, 28530), (493, 28533), (497, 28545), (504, 28560), (514, 28584), (520, 28590), (539, 28611), (573, 28647), (574, 28650), (593, 28686), (595, 28692), (598, 28704), (599, 28707), (610, 28722), (663, 28791), (670, 28806), (703, 28848), (713, 28893), (716, 28902), (726, 28941), (731, 28959), (746, 28980), (755, 28995), (760, 29004), (762, 29007),

Gene: Vendetta\_37 Start: 27965, Stop: 26850, Start Num: 188

Candidate Starts for Vendetta\_37:

(Start: 148 @28034 has 5 MA's), (Start: 188 @27965 has 12 MA's), (357, 27626), (385, 27593), (532, 27299), (549, 27287), (571, 27254), (641, 27107), (720, 26936), (726, 26909),

Gene: Violac\_42 Start: 32601, Stop: 33719, Start Num: 162

Candidate Starts for Violac\_42:

(Start: 162 @32601 has 317 MA's), (165, 32610), (244, 32772), (322, 32937), (340, 32973), (346, 32982), (414, 33087), (454, 33156), (466, 33183), (471, 33195), (484, 33216), (492, 33228), (493, 33231), (497, 33243), (504, 33258), (514, 33282), (520, 33288), (539, 33309), (573, 33345), (574, 33348), (593, 33384), (595, 33390), (599, 33405), (610, 33420), (663, 33489), (670, 33504), (713, 33591), (716, 33600), (726, 33639), (731, 33657), (746, 33678), (755, 33693), (760, 33702), (762, 33705),

Gene: Vix\_36 Start: 26872, Stop: 25727, Start Num: 152

Candidate Starts for Vix\_36:

(Start: 152 @26872 has 120 MA's), (Start: 179 @26833 has 10 MA's), (204, 26785), (Start: 217 @26749 has 6 MA's), (234, 26704), (317, 26548), (328, 26521), (356, 26485), (402, 26428), (449, 26350), (462, 26326), (481, 26287), (515, 26215), (529, 26203), (534, 26197), (548, 26185), (593, 26110), (595, 26104), (603, 26083), (622, 26068), (633, 26050), (647, 26026), (704, 25912), (716, 25867), (717, 25864), (720, 25855), (724, 25834), (726, 25828), (729, 25816), (755, 25777),

Gene: Vopal\_43 Start: 30649, Stop: 29477, Start Num: 162

Candidate Starts for Vopal\_43:

(Start: 162 @30649 has 317 MA's), (Start: 191 @30598 has 14 MA's), (277, 30430), (285, 30412), (309, 30361), (346, 30280), (402, 30202), (408, 30190), (451, 30115), (456, 30106), (486, 30046), (535, 29956), (599, 29851), (614, 29830), (627, 29806), (631, 29803), (672, 29734), (703, 29680), (709, 29656), (712, 29641), (762, 29521), (776, 29494),

Gene: Vulpecula\_33 Start: 24379, Stop: 23195, Start Num: 147

Candidate Starts for Vulpecula\_33:

(Start: 147 @24379 has 80 MA's), (266, 24160), (330, 24025), (365, 23950), (369, 23935), (483, 23734), (599, 23527), (607, 23515), (617, 23497), (625, 23482), (700, 23380), (705, 23353), (708, 23344),

Gene: Wachhund\_44 Start: 32077, Stop: 33195, Start Num: 162

Candidate Starts for Wachhund\_44:

(Start: 162 @32077 has 317 MA's), (165, 32086), (244, 32248), (322, 32413), (340, 32449), (346, 32458), (414, 32563), (454, 32632), (471, 32671), (484, 32692), (492, 32704), (493, 32707), (497, 32719), (514, 32758), (520, 32764), (539, 32785), (573, 32821), (574, 32824), (593, 32860), (595, 32866), (598, 32878), (599, 32881), (663, 32965), (670, 32980), (703, 33022), (713, 33067), (716, 33076), (726, 33115), (731, 33133), (746, 33154), (755, 33169), (760, 33178), (762, 33181),

Gene: Wanda\_85 Start: 52091, Stop: 53320, Start Num: 116

Candidate Starts for Wanda\_85:

(Start: 116 @52091 has 29 MA's), (Start: 131 @52109 has 3 MA's), (Start: 160 @52148 has 1 MA's), (276, 52385), (322, 52493), (395, 52613), (396, 52616), (401, 52625), (408, 52640), (426, 52679), (464, 52757), (524, 52862), (532, 52874), (545, 52877), (553, 52886), (582, 52937), (584, 52940), (592, 52958), (639, 53054), (688, 53111), (723, 53231), (724, 53234), (731, 53258), (747, 53282), (749, 53285),

Gene: Watson\_36 Start: 26782, Stop: 25637, Start Num: 152

Candidate Starts for Watson\_36:

(Start: 152 @26782 has 120 MA's), (Start: 179 @26743 has 10 MA's), (Start: 217 @26659 has 6 MA's), (234, 26614), (317, 26458), (328, 26431), (356, 26395), (402, 26338), (449, 26260), (462, 26236), (481, 26197), (515, 26125), (529, 26113), (534, 26107), (548, 26095), (593, 26020), (595, 26014), (603, 25993), (622, 25978), (633, 25960), (647, 25936), (704, 25822), (716, 25777), (717, 25774), (720, 25765), (724, 25744), (726, 25738), (729, 25726), (755, 25687),

Gene: Webster2\_29 Start: 26478, Stop: 25285, Start Num: 181

Candidate Starts for Webster2\_29:

(Start: 155 @26520 has 3 MA's), (Start: 181 @26478 has 20 MA's), (211, 26412), (247, 26331), (266, 26292), (275, 26277), (277, 26271), (281, 26259), (293, 26232), (311, 26199), (339, 26142), (359, 26109), (360, 26106), (375, 26058), (401, 26016), (402, 26013), (412, 25989), (419, 25974), (429, 25950), (438, 25935), (462, 25896), (468, 25884), (488, 25845), (506, 25806), (528, 25758), (531, 25755), (580, 25683), (583, 25677), (588, 25665), (591, 25662), (593, 25656), (619, 25602), (630, 25584), (631, 25581), (645, 25554), (656, 25536), (661, 25530), (662, 25527), (701, 25485), (707, 25458), (709, 25452), (722, 25395), (759, 25332), (760, 25329),

Gene: Wee\_46 Start: 33180, Stop: 34283, Start Num: 162

Candidate Starts for Wee\_46:

(Start: 162 @33180 has 317 MA's), (Start: 191 @33228 has 14 MA's), (227, 33309), (238, 33336), (340, 33549), (359, 33573), (402, 33621), (451, 33702), (486, 33771), (492, 33780), (504, 33810), (514, 33834), (534, 33855), (587, 33933), (595, 33948), (638, 34008), (663, 34047), (670, 34062), (687, 34086), (703, 34113), (709, 34137), (713, 34158), (716, 34167), (728, 34212), (731, 34224),

Gene: WeiHuaDA\_38 Start: 28048, Stop: 26930, Start Num: 152

Candidate Starts for WeiHuaDA\_38:

(Start: 152 @28048 has 120 MA's), (Start: 217 @27925 has 6 MA's), (234, 27880), (317, 27724), (328, 27697), (356, 27661), (402, 27604), (449, 27526), (466, 27493), (481, 27463), (534, 27373), (548, 27361), (571, 27328), (593, 27286), (603, 27259), (622, 27244), (633, 27226), (704, 27088), (717, 27040), (718, 27037), (724, 27010), (726, 27004), (729, 26992), (755, 26953),

Gene: WelcomeAyanna\_38 Start: 31686, Stop: 32768, Start Num: 159

Candidate Starts for WelcomeAyanna\_38:

(Start: 85 @31575 has 6 MA's), (Start: 159 @31686 has 56 MA's), (Start: 191 @31740 has 14 MA's), (252, 31860), (414, 32145), (452, 32205), (486, 32271), (497, 32295), (709, 32625), (715, 32652), (760, 32757),

Gene: Westrich\_40 Start: 25013, Stop: 23829, Start Num: 147

Candidate Starts for Westrich\_40:

(Start: 147 @25013 has 80 MA's), (266, 24794), (276, 24776), (330, 24659), (365, 24584), (552, 24254), (599, 24161), (607, 24149), (617, 24131), (700, 24014), (708, 23978),

Gene: Whabigail7\_34 Start: 26650, Stop: 25499, Start Num: 133

Candidate Starts for Whabigail7\_34:

(Start: 133 @26650 has 7 MA's), (Start: 148 @26632 has 5 MA's), (Start: 195 @26548 has 8 MA's), (Start: 217 @26500 has 6 MA's), (234, 26455), (328, 26272), (356, 26236), (402, 26179), (408, 26167),

(414, 26152), (466, 26068), (471, 26056), (481, 26038), (534, 25948), (548, 25936), (593, 25861), (595, 25855), (603, 25834), (622, 25819), (633, 25801), (650, 25774), (704, 25663), (717, 25615), (718, 25612), (724, 25585), (726, 25579), (729, 25567), (755, 25528),

Gene: Whatsapiecost\_41 Start: 31324, Stop: 32442, Start Num: 162

Candidate Starts for Whatsapiecost\_41:

(Start: 162 @31324 has 317 MA's), (227, 31462), (244, 31495), (272, 31543), (322, 31660), (340, 31696), (346, 31705), (414, 31810), (454, 31879), (484, 31939), (492, 31951), (493, 31954), (497, 31966), (504, 31981), (514, 32005), (520, 32011), (539, 32032), (573, 32068), (574, 32071), (593, 32107), (595, 32113), (598, 32125), (599, 32128), (663, 32212), (670, 32227), (703, 32269), (713, 32314), (716, 32323), (726, 32362), (731, 32380), (746, 32401), (755, 32416), (760, 32425), (762, 32428),

Gene: WheatThin\_39 Start: 31322, Stop: 30051, Start Num: 147

Candidate Starts for WheatThin\_39:

(Start: 147 @31322 has 80 MA's), (Start: 157 @31307 has 10 MA's), (208, 31205), (230, 31163), (236, 31151), (276, 31076), (310, 31001), (315, 30992), (320, 30974), (368, 30875), (369, 30872), (410, 30782), (491, 30677), (535, 30581), (539, 30575), (631, 30413), (702, 30272), (713, 30227), (727, 30176), (729, 30167), (737, 30152), (748, 30140), (755, 30128), (781, 30089),

Gene: Whiteclaw\_37 Start: 27875, Stop: 28957, Start Num: 159

Candidate Starts for Whiteclaw\_37:

(Start: 83 @27758 has 2 MA's), (Start: 85 @27764 has 6 MA's), (Start: 159 @27875 has 56 MA's), (Start: 191 @27929 has 14 MA's), (252, 28049), (401, 28304), (414, 28334), (452, 28394), (486, 28460), (497, 28484), (573, 28589), (709, 28814), (715, 28841), (760, 28946),

Gene: WideWale\_35 Start: 26811, Stop: 25678, Start Num: 152

Candidate Starts for WideWale\_35:

(Start: 152 @26811 has 120 MA's), (Start: 191 @26757 has 14 MA's), (Start: 217 @26688 has 6 MA's), (234, 26643), (317, 26487), (328, 26460), (356, 26424), (402, 26367), (471, 26244), (481, 26226), (534, 26136), (548, 26124), (593, 26049), (595, 26043), (603, 26022), (622, 26007), (633, 25989), (650, 25962), (653, 25953), (704, 25851), (717, 25803), (724, 25773), (726, 25767), (729, 25755), (755, 25716),

Gene: WileyE\_35 Start: 24249, Stop: 23065, Start Num: 147

Candidate Starts for WileyE\_35:

(Start: 147 @24249 has 80 MA's), (Start: 182 @24192 has 2 MA's), (266, 24030), (271, 24021), (330, 23895), (360, 23832), (365, 23820), (369, 23805), (410, 23715), (483, 23604), (533, 23511), (599, 23397), (607, 23385), (617, 23367), (705, 23223), (708, 23214),

Gene: WillSterrel\_41 Start: 32521, Stop: 33639, Start Num: 162

Candidate Starts for WillSterrel\_41:

(Start: 162 @32521 has 317 MA's), (165, 32530), (244, 32692), (346, 32902), (402, 32983), (414, 33007), (454, 33076), (484, 33136), (492, 33148), (493, 33151), (497, 33163), (504, 33178), (514, 33202), (520, 33208), (539, 33229), (573, 33265), (574, 33268), (593, 33304), (595, 33310), (599, 33325), (663, 33409), (670, 33424), (703, 33466), (713, 33511), (716, 33520), (726, 33559), (731, 33577), (746, 33598), (755, 33613), (760, 33622), (762, 33625),

Gene: Windest\_40 Start: 26669, Stop: 25497, Start Num: 162

Candidate Starts for Windest\_40:

(Start: 162 @26669 has 317 MA's), (Start: 191 @26618 has 14 MA's), (277, 26450), (285, 26432), (346, 26300), (402, 26222), (408, 26210), (411, 26204), (451, 26135), (456, 26126), (486, 26066), (535, 25976), (614, 25850), (627, 25826), (631, 25823), (703, 25700), (709, 25676), (712, 25661),

(762, 25541), (776, 25514),

Gene: WinkNick\_41 Start: 29791, Stop: 30918, Start Num: 162

Candidate Starts for WinkNick\_41:

(122, 29752), (Start: 162 @29791 has 317 MA's), (Start: 191 @29845 has 14 MA's), (240, 29968), (263, 30001), (307, 30091), (320, 30124), (451, 30319), (452, 30322), (471, 30364), (493, 30400), (678, 30697), (709, 30775), (715, 30802), (720, 30817), (726, 30844), (760, 30907),

Gene: Wishmaker\_29 Start: 26478, Stop: 25285, Start Num: 181

Candidate Starts for Wishmaker\_29:

(Start: 155 @26520 has 3 MA's), (Start: 181 @26478 has 20 MA's), (211, 26412), (247, 26331), (266, 26292), (275, 26277), (277, 26271), (281, 26259), (293, 26232), (311, 26199), (339, 26142), (359, 26109), (360, 26106), (375, 26058), (401, 26016), (402, 26013), (412, 25989), (419, 25974), (429, 25950), (438, 25935), (462, 25896), (468, 25884), (488, 25845), (506, 25806), (528, 25758), (531, 25755), (580, 25683), (583, 25677), (588, 25665), (591, 25662), (593, 25656), (619, 25602), (630, 25584), (631, 25581), (645, 25554), (656, 25536), (661, 25530), (662, 25527), (701, 25485), (707, 25458), (709, 25452), (722, 25395), (759, 25332), (760, 25329),

Gene: Wooldri\_38 Start: 26701, Stop: 25556, Start Num: 152

Candidate Starts for Wooldri\_38:

(Start: 152 @26701 has 120 MA's), (Start: 179 @26662 has 10 MA's), (Start: 217 @26578 has 6 MA's), (234, 26533), (317, 26377), (328, 26350), (356, 26314), (402, 26257), (449, 26179), (462, 26155), (481, 26116), (515, 26044), (529, 26032), (534, 26026), (548, 26014), (593, 25939), (595, 25933), (603, 25912), (622, 25897), (633, 25879), (647, 25855), (704, 25741), (716, 25696), (717, 25693), (720, 25684), (724, 25663), (726, 25657), (729, 25645), (755, 25606),

Gene: Wrigley\_43 Start: 31922, Stop: 33004, Start Num: 159

Candidate Starts for Wrigley\_43:

(Start: 85 @31811 has 6 MA's), (92, 31826), (Start: 159 @31922 has 56 MA's), (Start: 191 @31976 has 14 MA's), (252, 32096), (414, 32381), (452, 32441), (486, 32507), (497, 32531), (573, 32636), (603, 32702), (724, 32924), (728, 32936), (760, 32993),

Gene: XFactor\_41 Start: 32278, Stop: 33396, Start Num: 162

Candidate Starts for XFactor\_41:

(Start: 162 @32278 has 317 MA's), (244, 32449), (322, 32614), (340, 32650), (346, 32659), (414, 32764), (454, 32833), (471, 32872), (481, 32890), (484, 32893), (492, 32905), (493, 32908), (497, 32920), (504, 32935), (514, 32959), (520, 32965), (539, 32986), (573, 33022), (574, 33025), (593, 33061), (595, 33067), (599, 33082), (610, 33097), (663, 33166), (670, 33181), (703, 33223), (713, 33268), (716, 33277), (726, 33316), (731, 33334), (746, 33355), (755, 33370), (760, 33379), (762, 33382),

Gene: Xavia\_34 Start: 31565, Stop: 30369, Start Num: 153

Candidate Starts for Xavia\_34:

(Start: 153 @31565 has 2 MA's), (276, 31319), (289, 31286), (353, 31148), (355, 31142), (363, 31133), (368, 31121), (375, 31091), (425, 30992), (479, 30920), (504, 30866), (529, 30815), (534, 30809), (594, 30716), (603, 30692), (634, 30641), (645, 30620), (697, 30563), (700, 30554), (705, 30527), (709, 30515), (720, 30476), (737, 30422), (753, 30401),

Gene: XianYue\_35 Start: 26639, Stop: 25515, Start Num: 152

Candidate Starts for XianYue\_35:

(119, 26681), (Start: 152 @26639 has 120 MA's), (Start: 179 @26600 has 10 MA's), (204, 26552), (Start: 217 @26516 has 6 MA's), (234, 26471), (320, 26303), (356, 26252), (449, 26117), (462, 26093), (534, 25964), (548, 25952), (593, 25877), (595, 25871), (603, 25850), (622, 25835), (633, 25817),

(704, 25679), (717, 25631), (724, 25601), (726, 25595), (729, 25583), (741, 25562), (755, 25544),

Gene: Xiaokay\_72 Start: 49061, Stop: 50290, Start Num: 116

Candidate Starts for Xiaokay\_72:

(Start: 116 @49061 has 29 MA's), (Start: 131 @49079 has 3 MA's), (Start: 160 @49118 has 1 MA's), (276, 49355), (322, 49463), (395, 49583), (396, 49586), (401, 49595), (408, 49610), (426, 49649), (464, 49727), (532, 49844), (545, 49847), (553, 49856), (582, 49907), (584, 49910), (592, 49928), (639, 50024), (688, 50081), (723, 50201), (724, 50204), (731, 50228), (747, 50252), (749, 50255),

Gene: Yecey3\_35 Start: 26339, Stop: 25209, Start Num: 140

Candidate Starts for Yecey3\_35:

(73, 26456), (76, 26450), (88, 26414), (109, 26375), (111, 26372), (Start: 140 @26339 has 6 MA's), (Start: 195 @26258 has 8 MA's), (Start: 217 @26204 has 6 MA's), (234, 26159), (272, 26099), (328, 25976), (401, 25886), (402, 25883), (449, 25805), (462, 25781), (471, 25760), (481, 25742), (532, 25655), (534, 25652), (548, 25640), (593, 25565), (595, 25559), (603, 25538), (622, 25523), (633, 25505), (704, 25367), (717, 25319), (724, 25289), (726, 25283), (729, 25271), (755, 25232),

Gene: Yeet\_76 Start: 51441, Stop: 52670, Start Num: 116

Candidate Starts for Yeet\_76:

(Start: 116 @51441 has 29 MA's), (Start: 131 @51459 has 3 MA's), (Start: 160 @51498 has 1 MA's), (276, 51735), (322, 51843), (395, 51963), (396, 51966), (401, 51975), (408, 51990), (426, 52029), (464, 52107), (524, 52212), (532, 52224), (545, 52227), (553, 52236), (582, 52287), (584, 52290), (592, 52308), (639, 52404), (688, 52461), (723, 52581), (724, 52584), (731, 52608), (747, 52632), (749, 52635),

Gene: Yeet412\_34 Start: 27696, Stop: 28778, Start Num: 159

Candidate Starts for Yeet412\_34:

(Start: 85 @27585 has 6 MA's), (Start: 159 @27696 has 56 MA's), (Start: 191 @27750 has 14 MA's), (252, 27870), (401, 28125), (414, 28155), (452, 28215), (486, 28281), (497, 28305), (709, 28635), (715, 28662), (760, 28767),

Gene: Yeezy\_36 Start: 30168, Stop: 28906, Start Num: 147

Candidate Starts for Yeezy\_36:

(Start: 147 @30168 has 80 MA's), (225, 30012), (318, 29829), (333, 29793), (365, 29733), (368, 29721), (384, 29676), (403, 29643), (420, 29601), (539, 29433), (544, 29430), (548, 29424), (593, 29355), (598, 29337), (599, 29334), (631, 29277), (696, 29160), (700, 29148), (713, 29091), (729, 29031), (737, 29016), (748, 29004), (753, 28995), (773, 28956), (787, 28926),

Gene: Yinzer\_36 Start: 27875, Stop: 28957, Start Num: 159

Candidate Starts for Yinzer\_36:

(Start: 83 @27758 has 2 MA's), (Start: 85 @27764 has 6 MA's), (Start: 159 @27875 has 56 MA's), (Start: 191 @27929 has 14 MA's), (252, 28049), (401, 28304), (414, 28334), (452, 28394), (486, 28460), (497, 28484), (542, 28553), (573, 28589), (709, 28814), (715, 28841), (760, 28946),

Gene: YoungHarleezy\_40 Start: 27782, Stop: 26643, Start Num: 162

Candidate Starts for YoungHarleezy\_40:

(Start: 134 @27815 has 2 MA's), (Start: 162 @27782 has 317 MA's), (Start: 191 @27731 has 14 MA's), (277, 27563), (285, 27545), (346, 27413), (402, 27335), (408, 27323), (411, 27317), (451, 27248), (456, 27239), (486, 27179), (535, 27089), (599, 26984), (614, 26963), (631, 26936), (703, 26813), (709, 26789), (712, 26774), (733, 26699), (753, 26669),

Gene: YoureAdopted\_40 Start: 32682, Stop: 33770, Start Num: 162

Candidate Starts for YoureAdopted\_40:

(Start: 162 @32682 has 317 MA's), (Start: 217 @32784 has 6 MA's), (226, 32808), (244, 32844), (317, 32982), (340, 33036), (408, 33120), (451, 33189), (452, 33192), (534, 33342), (598, 33447), (663, 33534), (701, 33582), (713, 33636), (748, 33726),

Gene: Yunkel11\_44 Start: 32525, Stop: 33625, Start Num: 162

Candidate Starts for Yunkel11\_44:

(67, 32375), (Start: 162 @32525 has 317 MA's), (Start: 191 @32576 has 14 MA's), (226, 32651), (244, 32687), (245, 32690), (304, 32801), (438, 33020), (451, 33044), (452, 33047), (514, 33176), (534, 33197), (598, 33302), (663, 33389), (701, 33437),

Gene: Zameen\_39 Start: 30563, Stop: 31645, Start Num: 159

Candidate Starts for Zameen\_39:

(Start: 85 @30452 has 6 MA's), (Start: 159 @30563 has 56 MA's), (Start: 191 @30617 has 14 MA's), (252, 30737), (401, 30992), (414, 31022), (452, 31082), (486, 31148), (497, 31172), (709, 31502), (715, 31529), (760, 31634),

Gene: Zarafa\_33 Start: 26366, Stop: 25239, Start Num: 152

Candidate Starts for Zarafa\_33:

(Start: 152 @26366 has 120 MA's), (204, 26279), (Start: 217 @26243 has 6 MA's), (234, 26198), (272, 26138), (317, 26042), (320, 26030), (322, 26024), (356, 25979), (401, 25925), (402, 25922), (413, 25898), (515, 25709), (534, 25691), (548, 25679), (574, 25640), (593, 25604), (595, 25598), (603, 25577), (622, 25562), (633, 25544), (704, 25406), (717, 25358), (724, 25328), (726, 25322), (729, 25310), (755, 25271),

Gene: Zavala\_42 Start: 32759, Stop: 33847, Start Num: 162

Candidate Starts for Zavala\_42:

(Start: 162 @32759 has 317 MA's), (Start: 217 @32861 has 6 MA's), (226, 32885), (244, 32921), (317, 33059), (340, 33113), (408, 33197), (451, 33266), (452, 33269), (475, 33317), (534, 33419), (598, 33524), (663, 33611), (701, 33659), (748, 33803),

Gene: Zelink\_79 Start: 53554, Stop: 54765, Start Num: 131

Candidate Starts for Zelink\_79:

(Start: 116 @53536 has 29 MA's), (Start: 131 @53554 has 3 MA's), (Start: 160 @53593 has 1 MA's), (276, 53830), (322, 53938), (395, 54058), (396, 54061), (401, 54070), (408, 54085), (426, 54124), (464, 54202), (524, 54307), (532, 54319), (545, 54322), (553, 54331), (582, 54382), (584, 54385), (592, 54403), (639, 54499), (688, 54556), (723, 54676), (724, 54679), (731, 54703), (747, 54727), (749, 54730),

Gene: Zetzy\_35 Start: 26308, Stop: 25202, Start Num: 179

Candidate Starts for Zetzy\_35:

(Start: 114 @26389 has 1 MA's), (Start: 152 @26347 has 120 MA's), (Start: 179 @26308 has 10 MA's), (204, 26260), (Start: 217 @26224 has 6 MA's), (234, 26179), (328, 25996), (356, 25960), (402, 25903), (449, 25825), (471, 25780), (534, 25672), (548, 25660), (593, 25585), (595, 25579), (603, 25558), (622, 25543), (647, 25501), (704, 25387), (716, 25342), (717, 25339), (724, 25309), (726, 25303), (729, 25291), (755, 25252),

Gene: Zhuangyuan\_38 Start: 24716, Stop: 23526, Start Num: 147

Candidate Starts for Zhuangyuan\_38:

(Start: 147 @24716 has 80 MA's), (607, 23849), (614, 23837),

Gene: Zimmer\_35 Start: 28186, Stop: 27065, Start Num: 154

Candidate Starts for Zimmer\_35:

(109, 28237), (111, 28234), (125, 28216), (Start: 154 @28186 has 2 MA's), (Start: 217 @28066 has 6 MA's), (234, 28021), (255, 27985), (318, 27862), (328, 27838), (335, 27823), (402, 27745), (449, 27667), (462, 27643), (471, 27622), (481, 27604), (504, 27559), (515, 27532), (534, 27514), (548, 27502), (593, 27427), (595, 27421), (603, 27400), (622, 27385), (633, 27367), (650, 27340), (704, 27229), (717, 27181), (724, 27151), (726, 27145), (729, 27133), (755, 27094),

Gene: Zirinka\_36 Start: 31303, Stop: 32385, Start Num: 159

Candidate Starts for Zirinka\_36:

(Start: 85 @31192 has 6 MA's), (Start: 159 @31303 has 56 MA's), (Start: 191 @31357 has 14 MA's), (252, 31477), (401, 31732), (414, 31762), (452, 31822), (486, 31888), (497, 31912), (709, 32242), (715, 32269), (760, 32374),

Gene: Zixiang\_36 Start: 24695, Stop: 23511, Start Num: 147

Candidate Starts for Zixiang\_36:

(Start: 147 @24695 has 80 MA's), (266, 24476), (276, 24458), (330, 24341), (365, 24266), (366, 24263), (552, 23936), (599, 23843), (607, 23831), (617, 23813), (700, 23696), (708, 23660),

Gene: Zizzle\_44 Start: 32003, Stop: 33121, Start Num: 162

Candidate Starts for Zizzle\_44:

(Start: 162 @32003 has 317 MA's), (227, 32141), (244, 32174), (272, 32222), (322, 32339), (340, 32375), (346, 32384), (414, 32489), (454, 32558), (484, 32618), (492, 32630), (493, 32633), (497, 32645), (504, 32660), (514, 32684), (520, 32690), (539, 32711), (573, 32747), (574, 32750), (593, 32786), (595, 32792), (598, 32804), (599, 32807), (663, 32891), (670, 32906), (703, 32948), (713, 32993), (716, 33002), (726, 33041), (731, 33059), (746, 33080), (755, 33095), (760, 33104), (762, 33107),

Gene: Zodiariah\_36 Start: 32793, Stop: 31624, Start Num: 147

Candidate Starts for Zodiariah\_36:

(Start: 147 @32793 has 80 MA's), (296, 32505), (315, 32469), (330, 32430), (333, 32424), (355, 32385), (365, 32364), (368, 32352), (384, 32307), (407, 32268), (410, 32259), (415, 32244), (420, 32235), (467, 32199), (492, 32151), (612, 31956), (631, 31920), (700, 31833), (702, 31821), (729, 31716), (735, 31704), (773, 31641), (780, 31632),

Gene: ZoeJ\_43 Start: 33972, Stop: 35072, Start Num: 162

Candidate Starts for ZoeJ\_43:

(Start: 162 @33972 has 317 MA's), (Start: 170 @33990 has 1 MA's), (Start: 191 @34023 has 14 MA's), (226, 34098), (244, 34134), (304, 34248), (317, 34272), (340, 34326), (438, 34467), (451, 34491), (452, 34494), (471, 34536), (534, 34644), (598, 34749), (636, 34794), (646, 34809), (728, 35001),

Gene: Zucker\_31 Start: 26379, Stop: 25240, Start Num: 162

Candidate Starts for Zucker\_31:

(Start: 155 @26388 has 3 MA's), (Start: 162 @26379 has 317 MA's), (272, 26178), (322, 26058), (340, 26022), (348, 26010), (351, 26004), (408, 25911), (414, 25896), (451, 25836), (464, 25806), (497, 25743), (596, 25575), (612, 25545), (670, 25449), (713, 25350), (716, 25341), (720, 25329), (743, 25266),