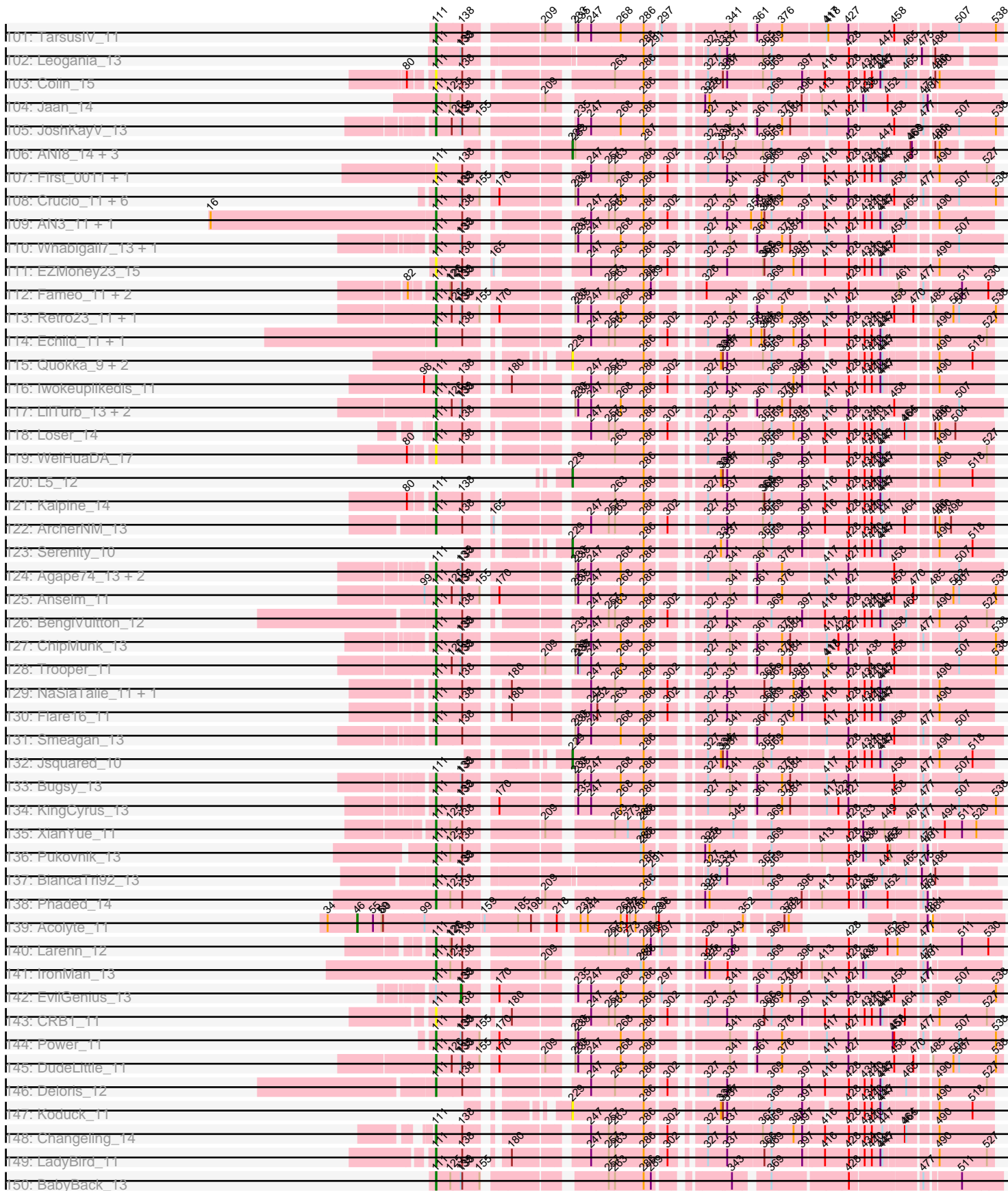




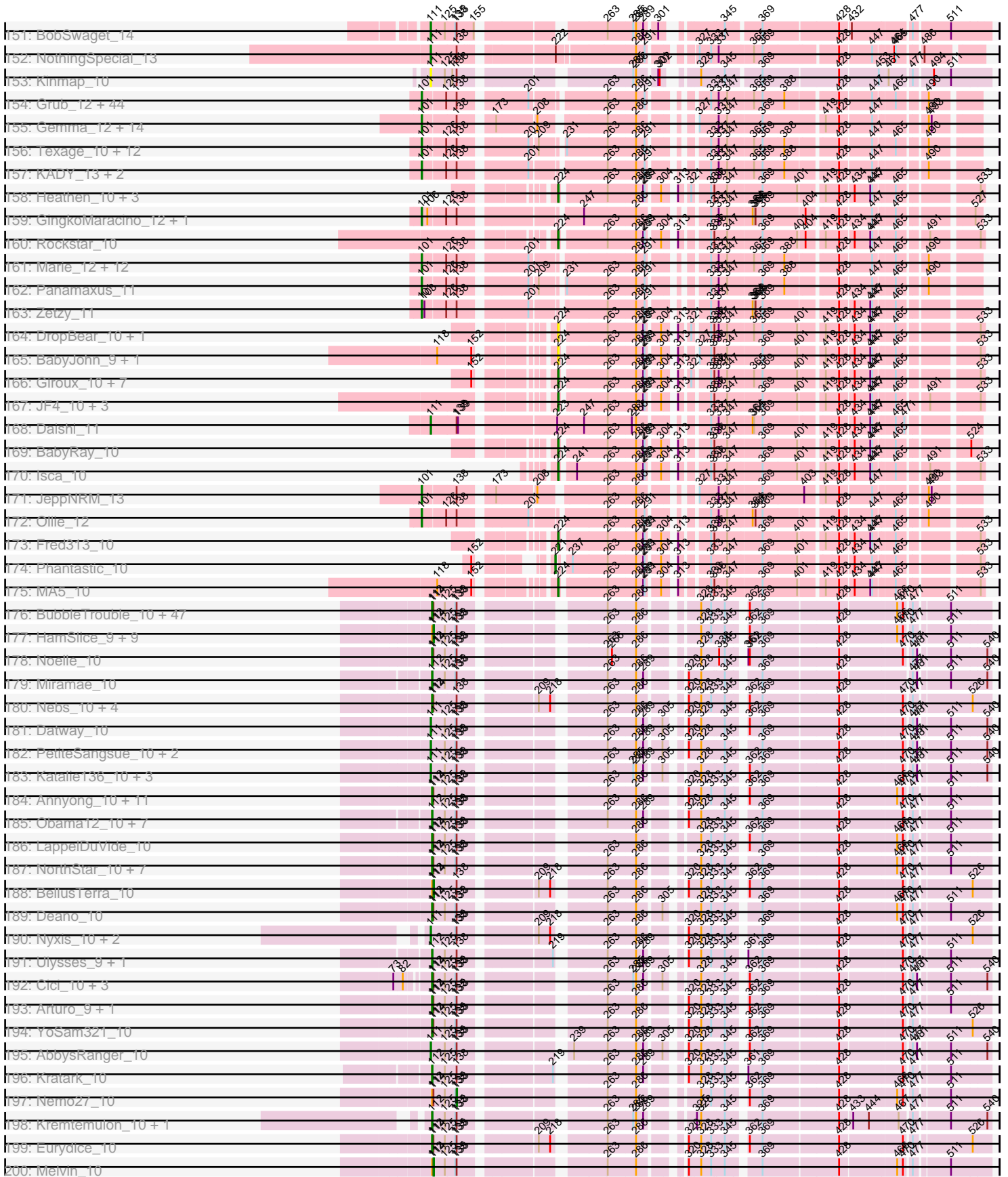
Pham 193604



Pham 193604

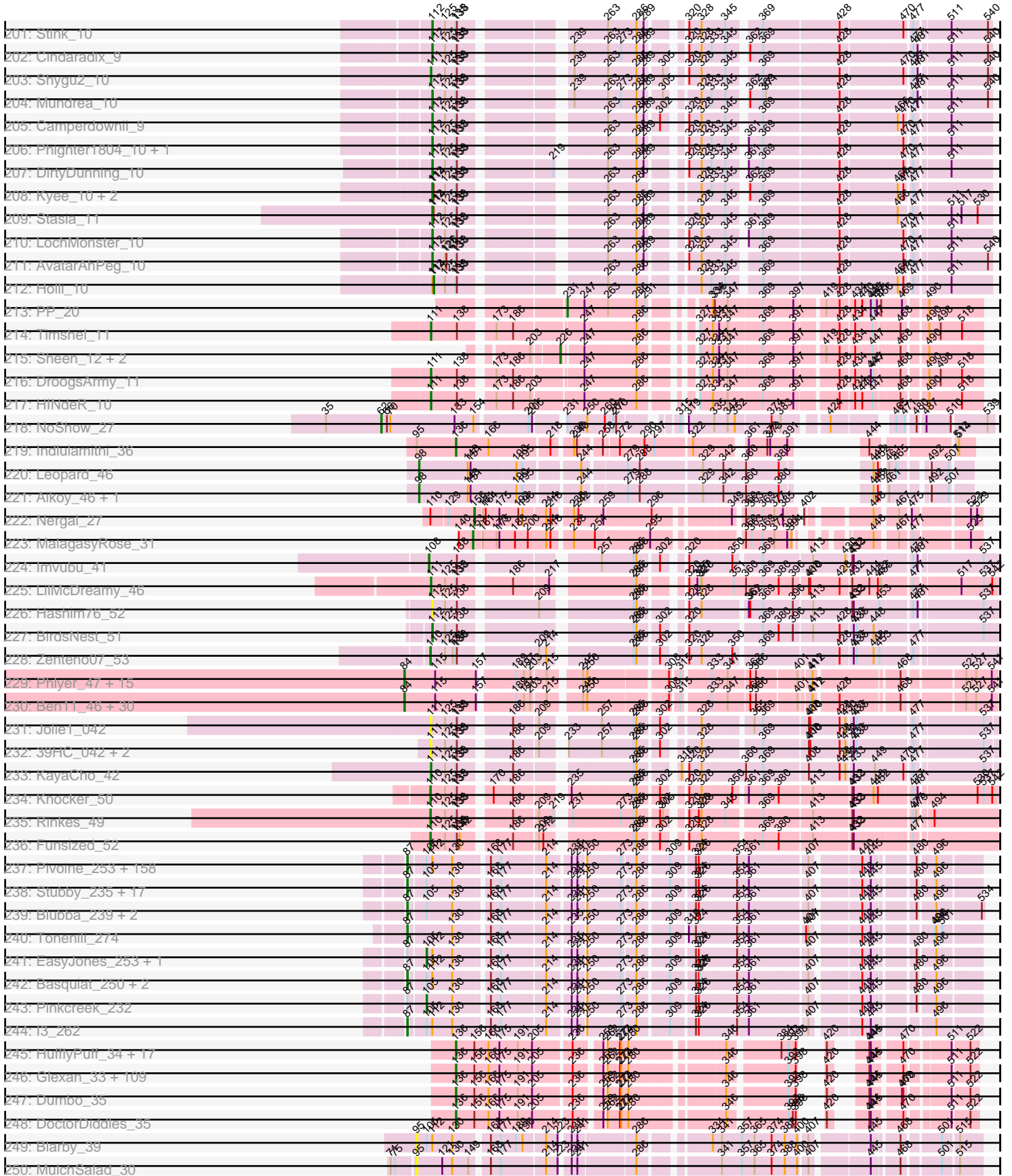


Pham 193604

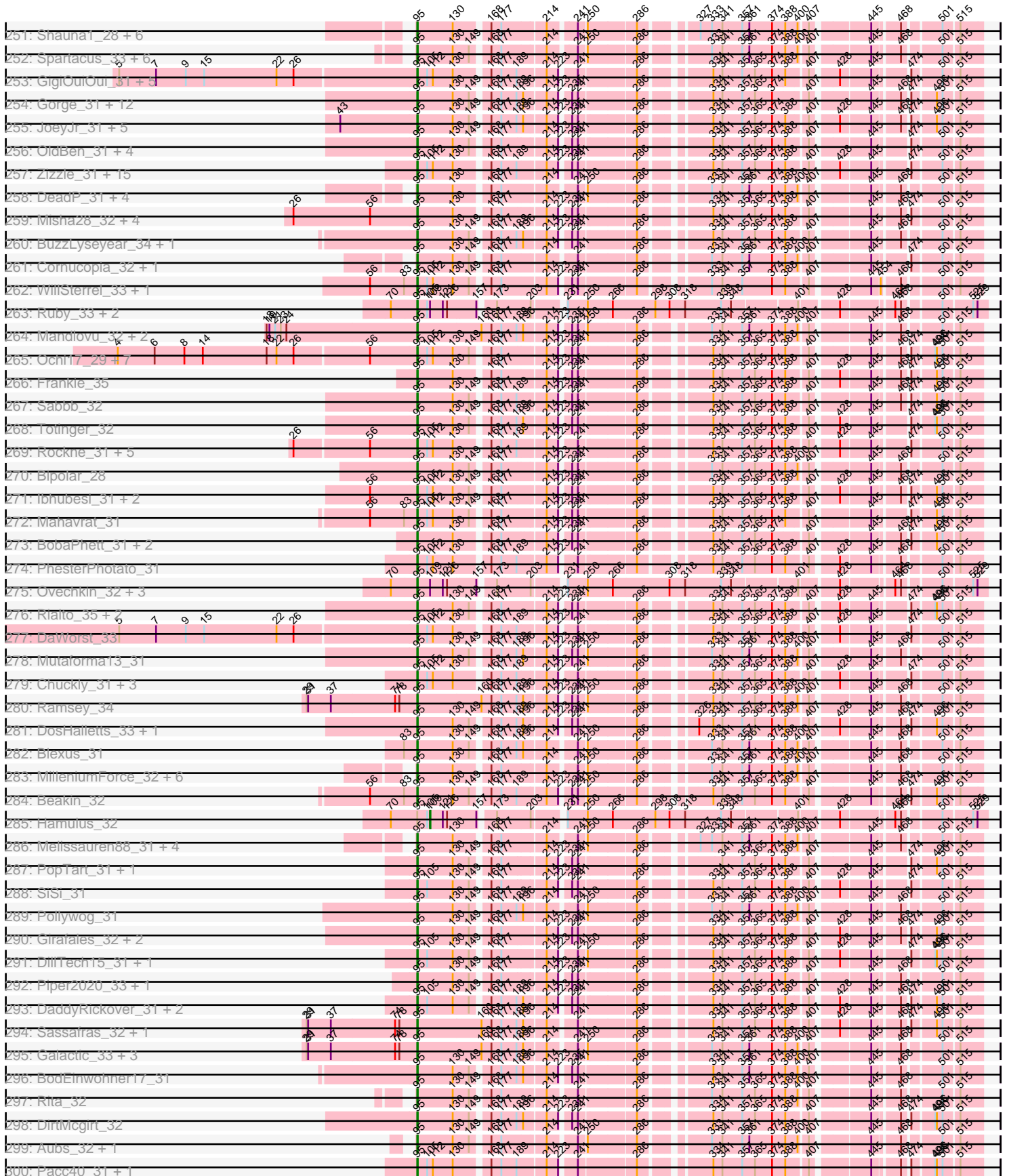




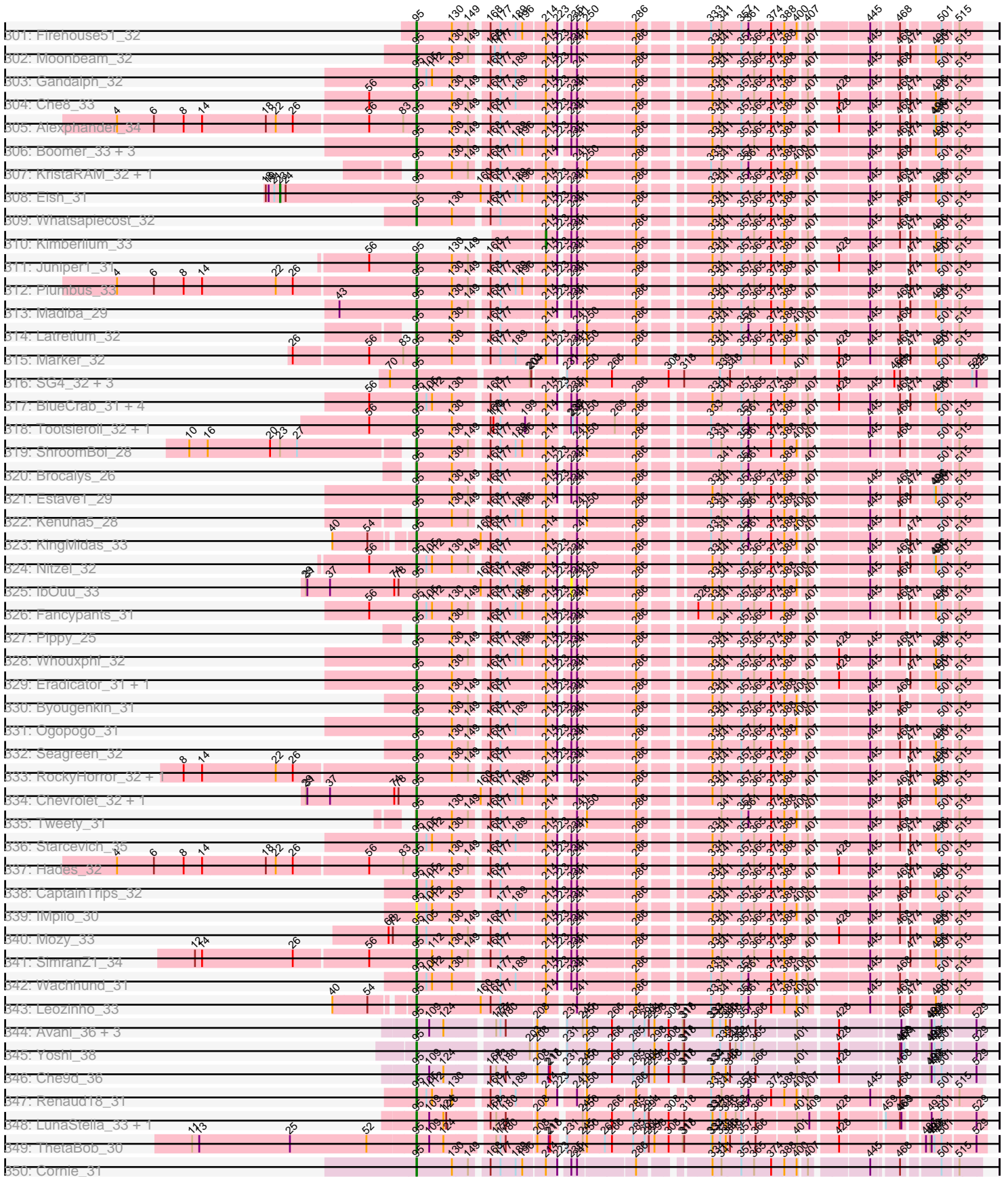
Pham 193604



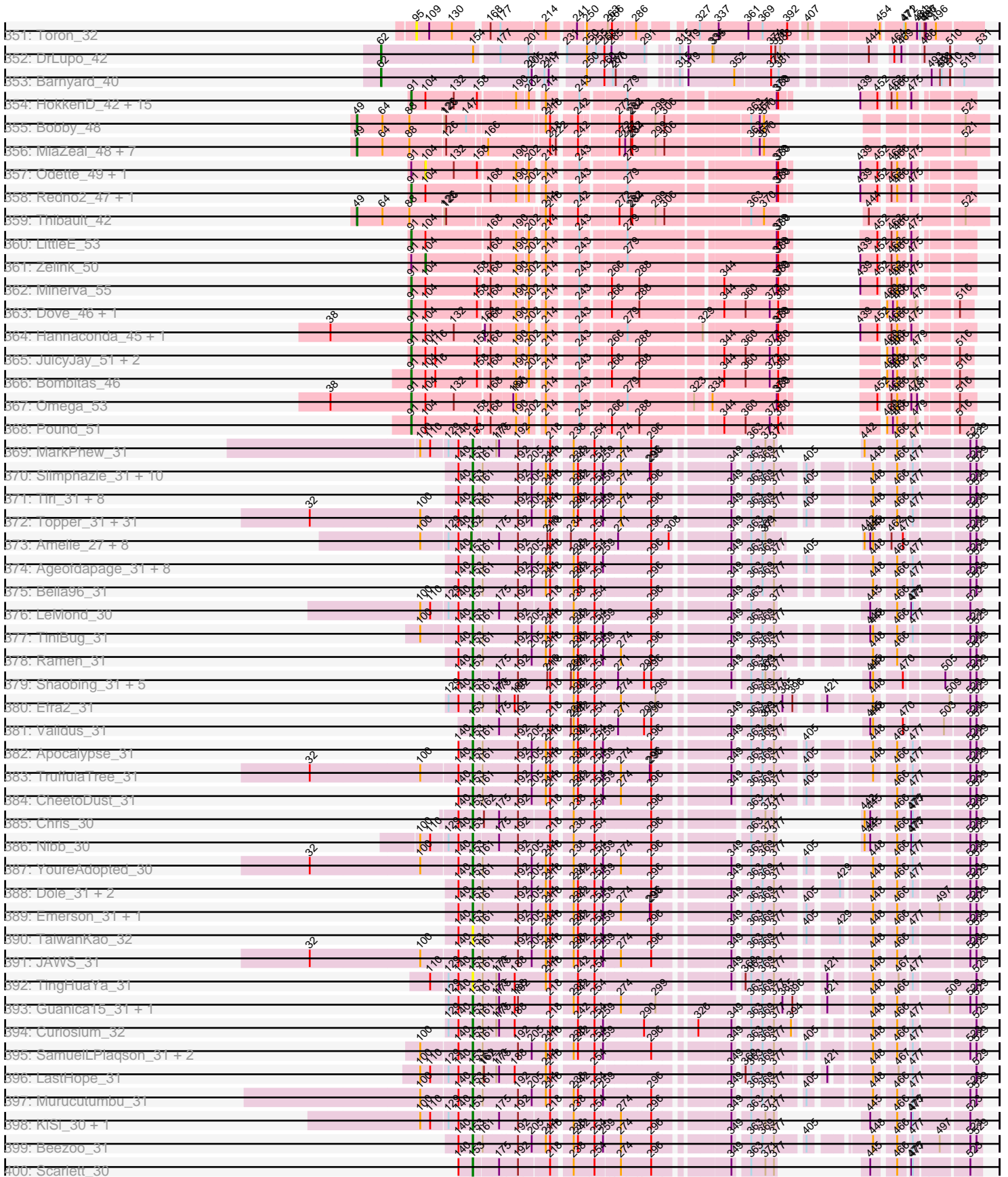
Pham 193604



Pham 193604

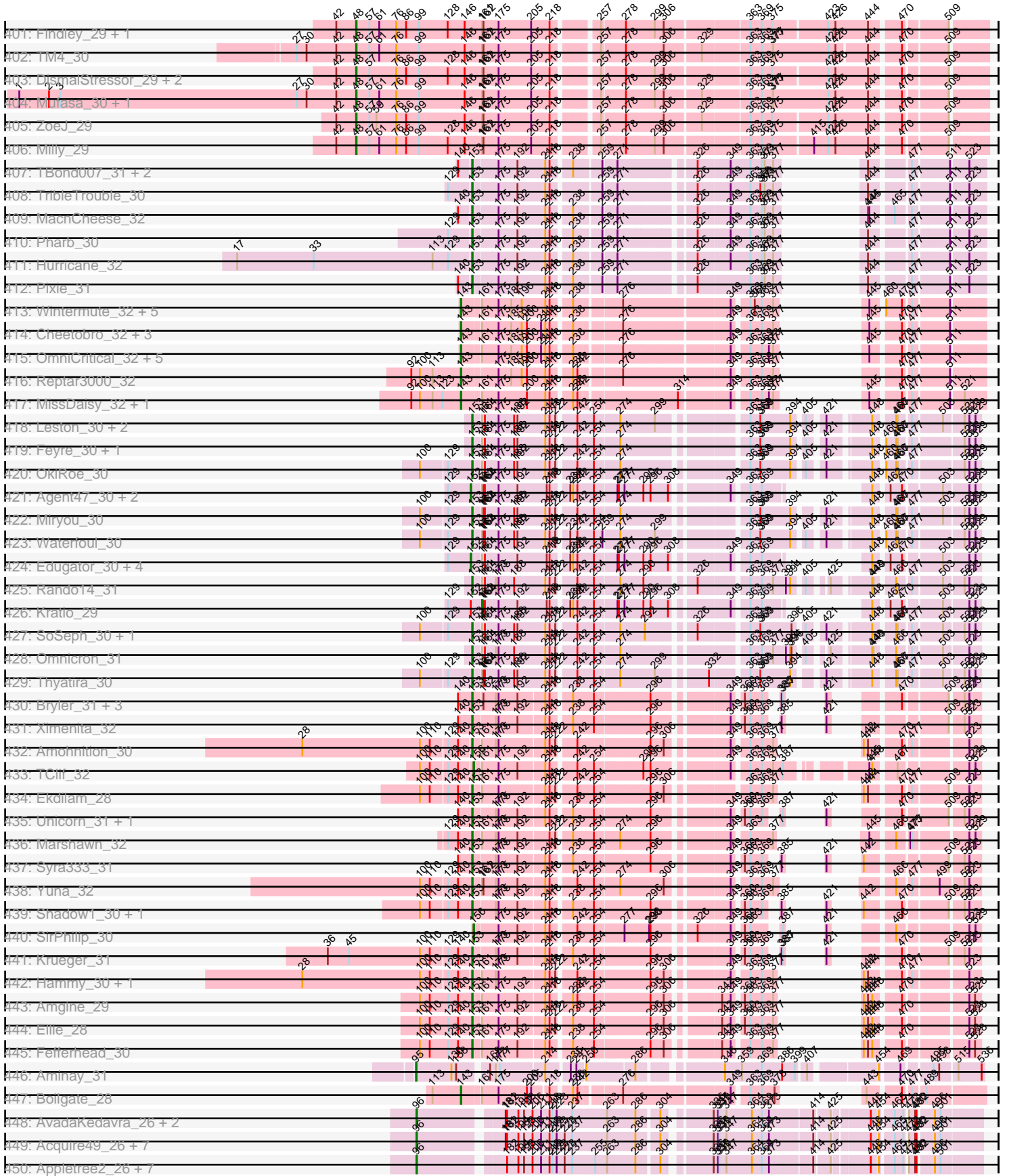


Pham 193604



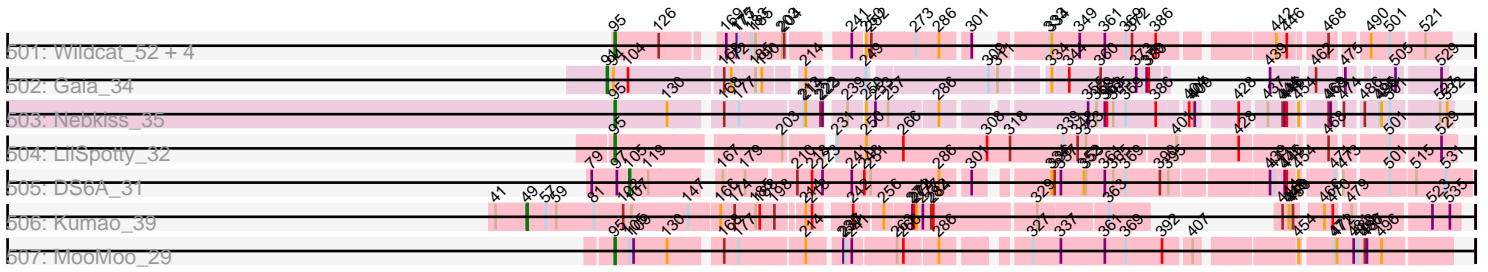


Pham 193604





Pham 193604



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 193604 Report

This analysis was run 11/02/24 on database version 579.

Pham number 193604 has 1638 members, 115 are drafts.

Phages represented in each track:

- Track 1 : Lopton\_11, Acme\_11, BigPaolini\_11, Parliament\_9, Magnito\_9, Scowl\_11, Lockley\_10, Fajezeel\_11, PinkPlastic\_8, Sagefire\_11, Pari\_11, BigMau\_11, Violet\_9, Slagathor\_10, Smairt\_11, Rajelicia\_9, Sanya\_9, KyMonks1A\_12, Ashballer\_8, Bob3\_9, StewieG\_9, Museum\_11, Pippin\_11, Arcanine\_10, Abrogate\_110, Rubeus\_10, Sibs6\_11, Anglerfish\_10, MaryBeth\_10, PattyP\_11, Ruotula\_9, Wilkins\_10, Niza\_11, DD5\_11, KBG\_11, Greg\_11, Wheeler\_10, MetalQZJ\_10, MPlant7149\_9, Corvo\_10, Burton\_10, Bones\_10, Oogway\_9, Chanagan\_9, Homines\_10, AFIS\_10
- Track 2 : Molly\_11, Pita2\_12, Tote\_12, Paraselene\_9, JuliaChild\_12, Marge\_10, Bxb1\_9, Barriga\_10, PSullivan\_12, BPBiebs31\_11, Bigfoot\_9
- Track 3 : Francis47\_10
- Track 4 : Euphoria\_10, MrGordo\_10
- Track 5 : RidgeCB\_10
- Track 6 : Thor\_10, JackSparrow\_10, Pelly\_11, Mryolo\_9, Applejack\_10, Bircsak\_10, Sunshine924\_9, Seabiscuit\_11, Altman\_11, Gompeii16\_10, PascalRango\_9, Kanely\_11, Dynamix\_10, ConceptII\_10, Manatee\_10, ILeeKay\_12, Pinto\_12, McGuire\_10, Trouble\_10
- Track 7 : Agaliana\_10, Ajay\_10, PacerPaul\_10, Watermelon\_12, Sorpresa\_10, Graduation\_12, Payneful\_10, Adahisdi\_11
- Track 8 : Switzer\_10, U2\_9, BillKnuckles\_11
- Track 9 : Alvin\_11, Doom\_10, Petruccio\_10, Crispicous1\_9, Paphu\_9, Abbysshoes\_11, Zeeculate\_9, Gandalf20\_11, Sumter\_9, Gyzlar\_11, TwoPeat\_11, SpikeBT\_11, Inyanga\_9, Turj99\_9, GageAP\_11, Traft412\_12, Jasper\_11, Michley\_10, Dussy\_11, Solon\_10, SkiPole\_12, Carlyle\_12, Kugel\_11, Snazzy\_8, Big3\_10, BeesKnees\_10
- Track 10 : Maroc7\_9, Eyeball\_10, CactusRose\_9, Fascinus\_9, Ciao\_10, Marcell\_10
- Track 11 : Dulcie\_9
- Track 12 : Makemake\_10
- Track 13 : IgnatiusPatJac\_9, Buttons\_11, BluSpix\_10
- Track 14 : Fushigi\_10
- Track 15 : Aeneas\_12, PhrostyMug\_10, Mule\_10
- Track 16 : Topgun\_10
- Track 17 : Bethlehem\_10, Briton15\_11, DreamCatcher\_11, Ichabod\_10
- Track 18 : TheloniousMonk\_11, Gwendoluna\_11
- Track 19 : Ringer\_10
- Track 20 : Perseus\_11, Forsytheast\_9, Mkhuseli\_9, Zephyr\_10, Petp2012\_12, Moose\_9, DrFeelGood\_9, Tasp14\_11, SwissCheese\_10, Dexes\_11



- Track 21 : Arlo\_9
- Track 22 : STLscum\_11
- Track 23 : Lamina13\_10, Bexan\_9, StrongArm\_9, Beatrix\_9
- Track 24 : Squee\_10, Naira\_10, Fenn\_10
- Track 25 : Nerujay\_11
- Track 26 : Jerm2\_10, Rufus\_10, Nhonho\_10
- Track 27 : Rohr\_11
- Track 28 : QTRlifeCrisis\_10
- Track 29 : BaconJack\_12
- Track 30 : Bruns\_8, Alsfro\_14
- Track 31 : HermioneGrange\_11
- Track 32 : ProMouse\_9
- Track 33 : Marsha\_10
- Track 34 : Smeagol\_11
- Track 35 : Hermia\_12
- Track 36 : Magnar\_10, GrecoEtereo\_11
- Track 37 : A6\_08, BK1\_08
- Track 38 : HanShotFirst\_10
- Track 39 : Marchy\_9
- Track 40 : LilBib\_11
- Track 41 : Target\_11
- Track 42 : HarryOW\_11
- Track 43 : Tripl3t\_11
- Track 44 : Atkinbua\_10
- Track 45 : Killigrew\_8
- Track 46 : SarFire\_10
- Track 47 : Peterson\_13
- Track 48 : Kenmech\_12
- Track 49 : Papez\_12
- Track 50 : Lesedi\_9
- Track 51 : Seanderson\_11
- Track 52 : Pepe\_11
- Track 53 : Monet\_11, Edtherson\_11, Treddle\_11
- Track 54 : Frogopper\_11
- Track 55 : Kykar\_8
- Track 56 : NEHalo\_10
- Track 57 : Hope4ever\_10
- Track 58 : JC27\_12
- Track 59 : Sandaddy\_9
- Track 60 : Teodoridan\_8
- Track 61 : Cueylyss\_10
- Track 62 : ShortQueendom\_9
- Track 63 : Blue\_10
- Track 64 : Hami1\_11
- Track 65 : PherrisBueller\_11, Rutherferd\_11, Jorgensen\_10
- Track 66 : Zeuska\_11
- Track 67 : Swole\_12
- Track 68 : Ohno789\_9
- Track 69 : Dreamboat\_11
- Track 70 : Espresso\_10
- Track 71 : Licorice\_12
- Track 72 : Rhynn\_10
- Track 73 : Norz\_12

- Track 74 : KSSJEB\_9
- Track 75 : Eaglepride\_11
- Track 76 : Drake94\_9, KittenMittens\_9, Severus\_9, Poompha\_9, PeaceMeal1\_9
- Track 77 : RhynO\_11, Shapes\_13, DustyMartin\_13, Rowdy\_13
- Track 78 : WalterMcMickey\_10, Topanga\_10, Twister\_10
- Track 79 : OKCentral2016\_10, Chupacabra\_10
- Track 80 : DontArgue\_9
- Track 81 : Goose\_10
- Track 82 : Rebeuca\_11, Kristoff\_11
- Track 83 : Edison31\_10
- Track 84 : Trike\_8
- Track 85 : Refuge\_14
- Track 86 : Zimmer\_13
- Track 87 : Luchador\_11
- Track 88 : 40AC\_14
- Track 89 : Kimona\_7
- Track 90 : GaugeLDP\_13
- Track 91 : StarStuff\_14, D32\_14, Pomar16\_14, D29\_12, Travvers\_14, Naji\_14, Tomathan\_14
- Track 92 : Malec\_12
- Track 93 : NicoleTera\_15
- Track 94 : Miko\_14
- Track 95 : Landor\_12, Bactobuster\_12
- Track 96 : Equemioh13\_13, Drake55\_13, Piro94\_12, WideWale\_13, Centaur\_13, Updawn\_13, HarryHoudini\_13, Baehexic\_12
- Track 97 : AnnaL29\_14, RedRock\_14
- Track 98 : Kerberos\_14, Duplo\_14, DBQu4n\_14
- Track 99 : Rachaly\_14, Lokk\_14
- Track 100 : Trixie\_14
- Track 101 : TarsusIV\_11
- Track 102 : Leogania\_13
- Track 103 : Colin\_15
- Track 104 : Jaan\_14
- Track 105 : JoshKayV\_13
- Track 106 : ANI8\_14, C3\_09, AN9\_14, VC3\_14
- Track 107 : First\_0011, 20ES\_11
- Track 108 : Crucio\_11, QueenBeesly\_11, FiringLine\_11, SemperFi\_13, Georgie2\_12, SweetiePie\_11, SnapTap\_11
- Track 109 : AN3\_11, VA6\_11
- Track 110 : Whabigail7\_13, Dignity\_13
- Track 111 : EZMoney23\_15
- Track 112 : Fameo\_11, QueenB2\_11, Heffalump\_13
- Track 113 : Retro23\_11, Dalmatian\_11
- Track 114 : Echild\_11, Benvolio\_11
- Track 115 : Quokka\_9, MajorMajor\_10, Bradman\_10
- Track 116 : Iwokeuplikedis\_11
- Track 117 : LilTurb\_13, Jerm\_13, Turbido\_13
- Track 118 : Loser\_14
- Track 119 : WeiHuaDA\_17
- Track 120 : L5\_12
- Track 121 : Kalpine\_14
- Track 122 : ArcherNM\_13
- Track 123 : Serenity\_10

- Track 124 : Agape74\_13, Leviathan\_13, AbbyPaige\_13
- Track 125 : Anselm\_11
- Track 126 : BengiVuitton\_12
- Track 127 : ChipMunk\_13
- Track 128 : Trooper\_11
- Track 129 : NaSiaTalie\_11, MiculUcigas\_11
- Track 130 : Flare16\_11
- Track 131 : Smeagan\_13
- Track 132 : Jsquared\_10
- Track 133 : Buggy\_13
- Track 134 : KingCyrus\_13
- Track 135 : XianYue\_11
- Track 136 : Pukovnik\_13
- Track 137 : BiancaTri92\_13
- Track 138 : Phaded\_14
- Track 139 : Acolyte\_11
- Track 140 : Larenn\_12
- Track 141 : IronMan\_13
- Track 142 : EvilGenius\_13
- Track 143 : CRB1\_11
- Track 144 : Power\_11
- Track 145 : DudeLittle\_11
- Track 146 : Deloris\_12
- Track 147 : Koduck\_11
- Track 148 : Changeling\_14
- Track 149 : LadyBird\_11
- Track 150 : BabyBack\_13
- Track 151 : BobSwaget\_14
- Track 152 : NothingSpecial\_13
- Track 153 : Kinmap\_10
- Track 154 : Grub\_12, Microwolf\_12, Stagni\_12, PGHhamlin\_14, Mainiac\_12, EpicPhail\_12, MuchMore\_14, BreSam8\_12, Beauxregard13\_12, Malinsilva\_14, Lilith\_12, Pembroke\_12, Snickers\_12, Louie6\_12, Tiffany\_12, HashRod\_13, Vix\_12, LBerry\_12, Grum1\_12, StepMih\_12, LarryKay\_12, DaHudson\_12, GtownJaz\_12, SoYo\_12, Watson\_12, Aglet\_12, AgronaGT15\_12, Dieselweasel\_12, Wooldri\_14, PotatoSplit\_13, MadMarie\_12, Colbster\_12, Penny1\_12, Jobu08\_12, Spike509\_12, Grif\_12, Phoxy\_12, Methuselah\_12, SoilDragon\_12, Farber\_12, Soshari\_14, Sabia\_12, Bxz2\_12, AugsMagnumOpus\_14, Rummer\_12
- Track 155 : Gemma\_12, HaveUMetTed\_13, Manu\_13, Groupthink\_13, Phranny\_13, Kalb97\_13, OlanP\_12, PhishRPhriends\_11, Heliosoles\_12, Pawn\_13, PurpleHaze\_12, Reba\_13, Kalnoky\_13, ACFishhook\_12, Marius\_13
- Track 156 : Texage\_10, Pocahontas\_11, Caviar\_11, Veracruz\_10, QuinnKiro\_10, ResDef\_11, Norbert\_10, Todacoro\_11, Noella\_11, Lambert1\_11, Margo\_11, Popcicle\_11, Hookmount\_11
- Track 157 : KADY\_13, Misomonster\_14, BuzzBuzz\_11
- Track 158 : Heathen\_10, Kachowdy\_10, HelDan\_10, Scout\_10
- Track 159 : GingkoMaracino\_12, Anubis\_14
- Track 160 : Rockstar\_10
- Track 161 : Marie\_12, LugYA\_14, JenCasNa\_12, Cullens\_12, JHC117\_12, MoneyMay\_12, Sabinator\_12, MarQuardt\_12, P28Green\_12, Taurus\_12, Phoebe\_12, Fernando\_12, Hercules11\_12
- Track 162 : Panamaxus\_11
- Track 163 : Zetzy\_11

- Track 164 : DropBear\_10, Marchesa\_10
- Track 165 : BabyJohn\_9, Chiqui\_9
- Track 166 : Giroux\_10, TNguyen7\_10, BlueBird\_11, Puppy\_11, Idleandcovert\_10, Bugatti\_10, Pistachio\_11, SaturnRing\_10
- Track 167 : JF4\_10, JF2\_10, MK4\_10, B1\_08
- Track 168 : Daishi\_11
- Track 169 : BabyRay\_10
- Track 170 : Isca\_10
- Track 171 : JeppNRM\_13
- Track 172 : Ollie\_12
- Track 173 : Fred313\_10
- Track 174 : Phantastic\_10
- Track 175 : MA5\_10
- Track 176 : BubbleTrouble\_10, Chaph\_10, Citius\_10, Dhanush\_10, Bartimeaus\_10, Palestino\_10, JoongJeon\_10, Sabertooth\_10, Eros\_10, Scamp\_10, Baby16\_10, Cocoaberry\_10, Maverick\_10, Florean\_10, Jaykayelowell\_10, Happiness\_10, Clarenza\_10, Sparxx\_10, PeterPeter\_10, Maxo\_10, Druantia\_10, Kampy\_10, Spino\_10, Roosevelt\_10, Connomayer\_10, KFPoly\_10, Phacado\_10, Shaka\_10, Wizard007\_10, Gadost\_10, NotAPhaseMom\_10, Blackmoor\_10, OKaNui\_10, Felipe\_10, Alberto7\_11, Lorenzo\_10, CentreCat\_10, TinaFeyge\_10, LittleB\_10, Wander\_10, TroyPia\_10, Iceman\_10, Eapen\_10, Bruiser\_10, Houdini22\_10, Mazhar510\_10, Abdiel\_10, Caelakin\_10
- Track 177 : HamSlice\_9, MeeZee\_10, Flux\_10, Burger\_9, ICleared\_10, Pipcraft\_10, Peaches\_10, Eagle\_9, Medusa\_10, Avle17\_10
- Track 178 : Noelle\_10
- Track 179 : Miramae\_10
- Track 180 : Nebs\_10, Polymorphads\_10, Ohfah\_10, LeoAvram\_10, Morrow\_10
- Track 181 : Datway\_10
- Track 182 : PetiteSangsue\_10, Perplexer\_10, Morpher26\_10
- Track 183 : Katalie136\_10, Wile\_10, Backyardigan\_10, Bumblebee11\_10
- Track 184 : Annyong\_10, TygerBlood\_10, Thanksgivukkah\_10, Skipitt\_10, Funston\_10, Millski\_10, Commander\_10, Eris\_10, Taquarus\_10, Albee\_10, Bombshell\_10, Kingmustik0402\_10
- Track 185 : Obama12\_10, SheldonCooper\_10, Tinybot\_9, Cerulean\_10, Rosa24\_9, ChampagnePapi\_10, LHTSCC\_10, BangNhom\_9
- Track 186 : LappelDuVide\_10
- Track 187 : NorthStar\_10, Ruin\_10, Broseidon\_10, Romney\_10, Relief\_10, Koreni\_9, TiroTheta9\_10, Wilbur\_10
- Track 188 : BellusTerra\_10
- Track 189 : Deano\_10
- Track 190 : Nyxis\_10, LittleGuy\_10, Phontbonne\_10
- Track 191 : Ulysses\_9, Pumbaa\_10
- Track 192 : Cici\_10, Xena\_10, Badger\_10, Achebe\_10
- Track 193 : Arturo\_9, JetBlade\_10
- Track 194 : YoSam321\_10
- Track 195 : AbbysRanger\_10
- Track 196 : Kratark\_10
- Track 197 : Nemo27\_10
- Track 198 : Kremtemulon\_10, Cintron\_10
- Track 199 : Eurydice\_10
- Track 200 : Melvin\_10
- Track 201 : Stink\_10
- Track 202 : Cindaradix\_9



- Track 203 : Shygu2\_10
- Track 204 : Mundrea\_10
- Track 205 : Camperdownii\_9
- Track 206 : Phighter1804\_10, Iracema64\_10
- Track 207 : DirtyDunning\_10
- Track 208 : Kyee\_10, Lunsford\_11, Lemur\_10
- Track 209 : Stasia\_11
- Track 210 : LochMonster\_10
- Track 211 : AvatarAhPeg\_10
- Track 212 : Holli\_10
- Track 213 : PP\_20
- Track 214 : Timshel\_11
- Track 215 : Sheen\_12, FlyCatcher\_14, Toro\_13
- Track 216 : DroogsArmy\_11
- Track 217 : HINdeR\_10
- Track 218 : NoShow\_27
- Track 219 : Indulamithi\_36
- Track 220 : Leopard\_46
- Track 221 : Aikoy\_46, Onyinye\_47
- Track 222 : Nergal\_27
- Track 223 : MalagasyRose\_31
- Track 224 : Imvubu\_41
- Track 225 : LilMcDreamy\_46
- Track 226 : Hashim76\_52
- Track 227 : BirdsNest\_51
- Track 228 : Zenteno07\_53
- Track 229 : Phlyer\_47, LestyG\_47, Baloo\_47, GlenHope\_48, Audrey\_47, Rita1961\_47, Corofin\_47, Kamiyu\_47, Bernardo\_48, Pipefish\_49, Briakila\_48, Obutu\_47, Chandler\_47, Gadget\_48, Athena\_48, Yinz\_47
- Track 230 : Ben11\_46, HarveySr\_47, Marley1013\_47, Tydolla\_47, RagingRooster\_47, SlippinJimmy\_47, Kronus\_46, Yahalom\_47, Daisy\_47, Heathcliff\_47, Mortcellus\_46, Phayeta\_48, Phaedrus\_45, RomaT\_47, Nozo\_47, OrangeOswald\_47, Abinghost\_47, Deenasa\_47, SynergyX\_47, MmasiCarm\_47, Jackstina\_44, Neos5\_47, Akoma\_47, Gervas\_47, Philly\_46, Morty007\_47, Casbah\_46, Compostia\_48, Halfpint\_46, Devonte\_47, ChaChing\_47
- Track 231 : Jolie1\_042
- Track 232 : 39HC\_042, Hosp\_040, 40BC\_042
- Track 233 : KayaCho\_42
- Track 234 : Knocker\_50
- Track 235 : Rinkes\_49
- Track 236 : Funsized\_52
- Track 237 : Pivoine\_253, EmmaElysia\_257, Naija\_253, LolaVinca\_248, Yucca\_253, Rabinovish\_245, NoodleTree\_248, Littleton\_256, JPickles\_250, Issimir\_246, TinyTim\_251, JustHall\_246, Babyland\_255, BigCity\_260, Cactojaque\_247, Spud\_244, StubbySaigey\_259, ValleyTerrace\_253, Ewok\_251, IkeLoa\_246, Tainan\_252, Blackbrain\_251, LRRHood\_244, Mikro\_246, JigglyPuff\_258, Capablanca\_257, Megamind\_249, LordLeafolot\_254, Zalkecks\_251, Tyke\_249, Koguma\_251, FrayBell\_255, YoungMoneyMata\_252, Breeniome\_252, Patter\_254, Kamryn\_251, Napoleon13\_249, Bread\_249, Turret\_243, Ava3\_249, Salacia\_254, Essence\_250, Willis\_253, ScottMcG\_244, Catera\_241, ArcherS7\_253, RoMag\_247, Nappy\_251, DirtMonster\_241, FudgeTart\_248, SrishMeg2525\_250, BeanWater\_245, ZygoTaiga\_249, Tortoise16\_250, Domi\_246, Bipolarisk\_250, SmallFry\_253, McWolfish\_249, SilverDipper\_257, Drazdys\_249, Melpomini\_247, Loanshark\_249,

Audrick\_255, Burrough\_253, DrPhinkDaddy\_249, Zeenon\_253, Norm\_252, Daffodil\_258, Ngannou\_247, Lee7\_253, Phox\_253, Ghost\_252, Roots515\_255, ChickenPhender\_248, Specks\_257, BackyardAgain\_247, Halldule\_244, Dietrick\_241, Asterius\_249, Khaleesi\_251, Kboogie\_256, Pio\_259, Gizmo\_258, Jessibeth14\_252, ParkTD\_251, Naval22\_257, Dandelion\_258, Wally\_250, BadAgartude\_246, Matsumoto\_250, Teardrop\_251, Gamgam\_254, Mangeria\_252, Phusco\_251, Jaygup\_249, Amataga\_253, Iota\_249, Janiyra\_256, InterFolia\_254, Bxz1\_238, Lukilu\_241, Darko\_252, Delylah\_254, Sauce\_249, Astraea\_248, Concombre\_258, Fludd\_252, Maby2021\_253, Shrimp\_255, Rizal\_241, EmToTheThree\_253, Pleione\_256, Pier\_251, Spec\_246, Atlantean\_252, MoMoMixon\_248, Shnickers\_251, Trinitium\_249, MikeLiesIn\_253, InigoMontoya\_256, FoxtrotP1\_251, McGee\_254, Grungle\_234, Demodog\_260, ShiaLabeouf\_250, Momo\_254, QBert\_244, Jedediah\_254, Sprinklers\_250, Bigswole\_257, Adlitam\_252, Derek\_248, Guwapp\_248, BananaFence\_250, Ading\_255, Quasimodo\_255, EggyFarm\_260, StephanieG\_246, DTDevon\_253, CindyLou\_253, Latch\_252, NedWong\_251, ChaylaJr\_251, Phlegm\_257, Delilah\_250, Jemmno\_252, Shelob\_253, Gabriel\_255, Rahel\_254, PurduePete\_253, LifeSavor\_253, Caravan\_242, Grasshills\_259, Bangla1971\_253, Erdmann\_254, Bonray\_255, YemiJoy2021\_253, Nidhogg\_253, Chomp\_251

- Track 238 : Stubby\_235, JulietS\_244, Cali\_242, Shaqnato\_243, ET08\_238, Alice\_238, Sebata\_252, Ronan\_248, ErnieJ\_246, LinStu\_249, Blackdragon\_247, JayJay\_248, CharlieB\_247, Shifa\_228, Yassified\_248, NuevoMundo\_254, Flabslab\_247, HyRo\_237
- Track 239 : Blubba\_239, Colt\_242, Cane17\_241
- Track 240 : Tonenili\_274
- Track 241 : EasyJones\_253, Izajani\_248
- Track 242 : Basquiat\_250, Morizzled23\_250, Chargie21\_250
- Track 243 : Pinkcreek\_232
- Track 244 : I3\_262
- Track 245 : HuffyPuff\_34, FireRed\_35, Rimmer\_34, Palpatine\_35, Murica\_34, Petra64142\_37, Policronamos\_36, MISSy\_34, BilboSwaggins\_35, PhatBacter\_35, CrystalP\_35, Phrux\_35, Buck\_34, Toto\_35, Inca\_34, Phaux\_34, ShamWow\_35, xkcd\_36
- Track 246 : Glexan\_33, GoldenSpark\_37, Thresher\_36, ChotaBhai\_35, Simpliphy\_36, Myrale\_35, YassJohnny\_36, Balomoji\_34, Miniwave\_35, BugsBunny\_33, BadStone\_34, Traaww1\_33, Flypotenuse\_33, Lilac\_37, Barbarian\_34, Amao\_35, RiverMonster\_35, Cjw1\_35, ChosenOne\_35, Willez\_34, Cookies\_35, NoSleep\_36, Lilizi\_37, Pharsalus\_36, Gage\_37, Kanye\_37, TeardropMSU\_34, 244\_37, Pat3\_34, Phaja\_35, Nimrod\_35, Daikon\_34, Manda\_36, Ukulele\_35, GooberAzure\_37, Hopey\_37, Asriel\_34, Kimchi\_37, ShereKhan\_37, Easy2Say\_37, StolenFromERC\_37, Mosby\_34, AmericanBeauty\_37, Gator\_33, Elite2014\_34, Henry\_36, Wiggin\_38, Porky\_35, OrionPax\_36, Maxxinista\_36, Harella\_34, Tarkin\_37, StellaBean\_35, Tomaszewski\_34, Kostya\_36, Elph10\_36, Sassay\_34, Lilpickle\_34, Rakim\_36, SophKB\_35, Cactus\_36, Adnama\_38, Dusk\_34, JeTaime\_37, Saints25\_36, Bask21\_35, Qualification\_36, Contagion\_34, Filch\_36, Sotrice96\_35, Eureka\_35, BigBubba\_36, Bench\_37, Murphy\_36, IHOP\_35, Misfit\_35, Xandras\_37, DrDrey\_36, Paperbeatsrock\_37, Holt\_36, Nala\_35, Pumpkin\_37, Teaspoon\_36, Highbury\_36, Stark\_36, Gemini\_38, Moldemort\_36, Emmina\_36, SirDuracell\_34, TBrady12\_37, Icee\_34, HanKaySha\_36, Argent26\_37, MadamMonkfish\_35, Youngblood\_35, Command613\_36, MPhalcon\_34, BaboJay\_34, Stank\_38, Tuco\_36, Mindy\_35, Hoonter\_37, NelitzaMV\_35, Czyszczon1\_36, Terminus\_35, Goldilocks\_36, Goku\_35, ABCat\_34, Bruin\_35, Marshmallow\_35

- Track 247 : Dumbo\_35
- Track 248 : DoctorDiddles\_35
- Track 249 : Blarby\_39
- Track 250 : MulchSalad\_30
- Track 251 : Shauna1\_28, Coco12\_31, Sarma624\_27, BigPhil\_27, Phanphagia\_28, Cerasum\_27, Velveteen\_27
- Track 252 : Spartacus\_33, Donkeykong\_31, Bubbles123\_33, Hegedechwinu\_32, Juice456\_32, SuperGrey\_32, Guppsters\_33
- Track 253 : GigiOuiOui\_31, Mantra\_31, GUmbie\_31, Phasih\_32, Veteran\_31, Karhdo\_31
- Track 254 : Gorge\_31, Sparkdehlily\_31, Priscilla\_31, Saal\_31, Crumble\_25, Radiance\_31, OlympiaSaint\_31, DRBy19\_31, FreddyB\_31, Cabrinians\_31, Spoonbill\_31, Philus\_31, TDanisky\_31
- Track 255 : JoeyJr\_31, Scottish\_32, Doomphist\_31, Polka14\_32, Poenanya\_31, Daenerys\_31
- Track 256 : OldBen\_31, Empress\_32, Dante\_31, RitaG\_32, Sandalphon\_32
- Track 257 : Zizzle\_31, Jarcob\_31, Koella\_25, ShowerHandel\_31, LastJedi\_25, Martik\_31, LilMoolah\_31, NormanBulbieJr\_31, Yorick\_31, Clifton\_25, Nivrat\_31, SwagPiggett\_31, Maravista\_31, ShiLan\_31, Lizziana\_31, Burwell21\_31
- Track 258 : DeadP\_31, Taj\_31, Wee\_32, Emma\_33, Bobi\_33
- Track 259 : Misha28\_32, TootsiePop\_32, ChickenDinner\_33, DocMcStuffins\_33, Awesomesauce\_32
- Track 260 : BuzzLyseyear\_34, Spikelee\_33
- Track 261 : Cornucopia\_32, VRedHorse\_31
- Track 262 : WillSterrel\_33, IrishSherpFalk\_33
- Track 263 : Ruby\_33, Girr\_33, MisterCuddles\_33
- Track 264 : Mandlovu\_32, Hlubikazi\_32, Strokeseat\_32
- Track 265 : Ochi17\_29, Llama\_31, Modragons\_31, Seabastian\_31, Jinglebell\_30, OfUltron\_31, AlpineSix\_32, Oksu\_32
- Track 266 : Frankie\_35
- Track 267 : Sabbb\_32
- Track 268 : Totinger\_32
- Track 269 : Rockne\_31, UncleRicky\_34, Drago\_32, PMC\_31, Phatniss\_32, Llij\_31
- Track 270 : Bipolar\_28
- Track 271 : Ibhubesi\_31, Kersh\_30, Harley\_31
- Track 272 : Mahavrat\_31
- Track 273 : BobaPhett\_31, James\_31, Mattes\_31
- Track 274 : PhesterPhotato\_31
- Track 275 : Ovechkin\_32, Soul22\_36, Kingsley\_30, StAnnes\_30
- Track 276 : Rialto\_35, LittleShirley\_34, DotProduct\_31
- Track 277 : DaWorst\_33
- Track 278 : Mutaforma13\_31
- Track 279 : Chuckly\_31, Krakatau\_32, Phalconet\_31, XFactor\_31
- Track 280 : Ramsey\_34
- Track 281 : DosHalletts\_33, Job42\_35
- Track 282 : Blexus\_31
- Track 283 : MilleniumForce\_32, Ardmore\_30, JalFarm20\_34, Filuzino\_31, Mova\_32, Ms6\_25, DLane\_31
- Track 284 : Beakin\_32
- Track 285 : Hamulus\_32
- Track 286 : Melissauren88\_31, Akhila\_25, Batiatus\_31, Fruitloop\_30, MilanaBonita\_25
- Track 287 : PopTart\_31, SassyB\_31

- Track 288 : SiSi\_31
- Track 289 : Pollywog\_31
- Track 290 : Girafales\_32, Florinda\_31, Quico\_32
- Track 291 : DillTech15\_31, Fastidio\_33
- Track 292 : Piper2020\_33, Doug\_32
- Track 293 : DaddyRickover\_31, Dorothy\_31, RedBird\_31
- Track 294 : Sassafras\_32, Inventum\_31
- Track 295 : Galactic\_33, Flathead\_31, LunaBlu\_34, MinionDave\_34
- Track 296 : BodEinwohner17\_31
- Track 297 : Rita\_32
- Track 298 : DirtMcgirt\_32
- Track 299 : Aubs\_32, MadMen\_29
- Track 300 : Pacc40\_31, Leperchaun\_31
- Track 301 : Firehouse51\_32
- Track 302 : Moonbeam\_32
- Track 303 : Gandalph\_32
- Track 304 : Che8\_33
- Track 305 : Alexphander\_34
- Track 306 : Boomer\_33, QuickMath\_32, Minnie\_33, MulchExplorer\_34
- Track 307 : KristaRAM\_32, OwlsT2W\_32
- Track 308 : Eish\_31
- Track 309 : Whatsapiecost\_32
- Track 310 : Kimberlium\_33
- Track 311 : Juniper1\_31
- Track 312 : Plumbus\_33
- Track 313 : Madiba\_29
- Track 314 : Latretium\_32
- Track 315 : Marker\_32
- Track 316 : SG4\_32, Lorde\_33, EleanorGeorge\_32, Enby\_33
- Track 317 : BlueCrab\_31, Deb65\_31, Geralt\_31, Nimbo\_31, PHappiness\_31
- Track 318 : Tootsieroll\_32, Stap\_32
- Track 319 : ShroomBoi\_28
- Track 320 : Brocalys\_26
- Track 321 : Estave1\_29
- Track 322 : Kenuha5\_28
- Track 323 : KingMidas\_33
- Track 324 : Nitzel\_32
- Track 325 : IbOuu\_33
- Track 326 : Fancypants\_31
- Track 327 : Pippy\_25
- Track 328 : Whouxphf\_32
- Track 329 : Eradicator\_31, Royals2015\_31
- Track 330 : Byougenkin\_31
- Track 331 : Ogopogo\_31
- Track 332 : Seagreen\_32
- Track 333 : RockyHorror\_32, Zerg\_31
- Track 334 : Chevrolet\_32, ArcusAngelus\_31
- Track 335 : Tweety\_31
- Track 336 : Starcevich\_35
- Track 337 : Hades\_32
- Track 338 : CaptainTrips\_32
- Track 339 : IMpilo\_30
- Track 340 : Mozy\_33



- Track 341 : SimranZ1\_34
- Track 342 : Wachhund\_31
- Track 343 : Leozinho\_33
- Track 344 : Avani\_36, Demsculpinboyz\_36, Jabbawokkie\_39, Zapner\_38
- Track 345 : Yoshi\_38
- Track 346 : Che9d\_36
- Track 347 : Renaud18\_31
- Track 348 : LunaStella\_33, TChen\_31
- Track 349 : ThetaBob\_30
- Track 350 : Cornie\_31
- Track 351 : Toron\_32
- Track 352 : DrLupo\_42
- Track 353 : Barnyard\_40
- Track 354 : HokkenD\_42, DmpstrDiver\_50, Phoebus\_48, Wanda\_55, EricMillard\_49, Ejimix\_49, Kalah2\_49, ThreeRngTarjay\_47, Beem\_49, Hughesyang\_47, Schatzie\_46, Optimus\_54, Halley\_49, Yeet\_47, Duke13\_52, BAKA\_53
- Track 355 : Bobby\_48
- Track 356 : MiaZeal\_48, Porcelain\_47, Lucky2013\_48, Ariel\_48, Gonephishing\_50, Squint\_47, Courthouse\_48, Superphikiman\_48
- Track 357 : Odette\_49, Bagrid\_48
- Track 358 : Redno2\_47, Dallas\_51
- Track 359 : Thibault\_42
- Track 360 : LittleE\_53
- Track 361 : Zelink\_50
- Track 362 : Minerva\_55
- Track 363 : Dove\_46, Constella\_41
- Track 364 : Hannaconda\_45, KashFlow\_42
- Track 365 : JuicyJay\_51, NihilNomen\_48, Klein\_49
- Track 366 : Bombitas\_46
- Track 367 : Omega\_53
- Track 368 : Pound\_51
- Track 369 : MarkPhew\_31
- Track 370 : Slimphazie\_31, Adephagia\_31, Tachez\_31, Zabiza\_31, ActinUp\_31, BarrelRoll\_31, Veliki\_31, HedwigODU\_31, Atiba\_31, Jayhawk\_31, Rapunzel97\_31
- Track 371 : Tiri\_31, MeaningOfLife\_31, QuincyRose\_30, Ganymede\_32, Geraldini\_31, Pokerus\_30, Adonis\_31, Mynx\_31, Zavala\_31
- Track 372 : Topper\_31, Twitch\_31, Llorens\_31, Homura\_31, ShiaSurprise\_31, Peel\_31, Piatt\_31, BaghaKamala\_31, Jarvi\_31, Hyperbowlee\_31, Asayake\_31, CaseJules\_31, Dalmuri\_31, Jeckyll\_31, AlishaPH\_31, Rosmarinus\_31, Blizzard\_31, Sulley\_31, BEEST\_31, Belladonna\_31, Lunahalos\_31, Inky\_31, BGIlluviae\_31, Spock\_31, Padfoot\_31, Joy99\_31, CREW\_31, Angelica\_31, Durfee\_31, Deby\_31, Capricorn\_31, Boiiii\_31
- Track 373 : Amelie\_27, Torres\_27, Mdavu\_27, Binglebops\_27, Nikao\_27, LilPharaoh\_27, SgtBeansprout\_27, Enkosi\_27, Nutello\_27
- Track 374 : Ageofdapage\_31, Anaya\_32, TreyKay\_31, LaterM\_31, Stinson\_32, Megsy\_31, Prithvi\_31, CrimD\_31, LindNT\_31
- Track 375 : Bella96\_31
- Track 376 : LeMond\_30
- Track 377 : TiniBug\_31
- Track 378 : Ramen\_31
- Track 379 : Shaobing\_31, Dartin\_31, Richo\_31, Peanam\_31, Niklas\_31, McMater\_31

- Track 380 : Efra2\_31
- Track 381 : Validus\_31
- Track 382 : Apocalypse\_31
- Track 383 : TruffulaTree\_31
- Track 384 : CheetoDust\_31
- Track 385 : Chris\_30
- Track 386 : Nibb\_30
- Track 387 : YoureAdopted\_30
- Track 388 : Dole\_31, Devera\_31, Illumine\_31
- Track 389 : Emerson\_31, Padpat\_31
- Track 390 : TaiwanKao\_32
- Track 391 : JAWS\_31
- Track 392 : TingHuaYa\_31
- Track 393 : Guanica15\_31, Yunkel11\_31
- Track 394 : Curiosium\_32
- Track 395 : SamuelLPlaqson\_31, DrHayes\_31, Urkel\_31
- Track 396 : LastHope\_31
- Track 397 : Murucutumbu\_31
- Track 398 : KiSi\_30, Oscar\_30
- Track 399 : Beezoo\_31
- Track 400 : Scarlett\_30
- Track 401 : Findley\_29, Strobilo\_29
- Track 402 : TM4\_30
- Track 403 : DismalStressor\_29, DismalFunk\_29, Marcoliusprime\_29
- Track 404 : Mufasa\_30, BoostSeason\_30
- Track 405 : ZoeJ\_29
- Track 406 : Milly\_29
- Track 407 : TBond007\_31, Keshu\_32, ShedlockHolmes\_32
- Track 408 : TribbleTrouble\_30
- Track 409 : MacnCheese\_32
- Track 410 : Pharb\_30
- Track 411 : Hurricane\_32
- Track 412 : Pixie\_31
- Track 413 : Wintermute\_32, Malthus\_33, JF1\_32, Y10\_32, Y2\_32, Fionnbharth\_32
- Track 414 : Cheetobro\_32, Juliette\_34, Slarp\_32, Chancellor\_32
- Track 415 : OmniCritical\_32, Taquito\_32, Mitti\_32, SamScheppers\_32, Eponine\_34, Ruthiejr\_33
- Track 416 : Reptar3000\_32
- Track 417 : MissDaisy\_32, Patt\_32
- Track 418 : Leston\_30, Guillsminger\_30, Paola\_30
- Track 419 : Feyre\_30, Gengar\_30
- Track 420 : OkiRoe\_30
- Track 421 : Agent47\_30, InvictusManeo\_30, Collard\_30
- Track 422 : Miryou\_30
- Track 423 : Waterfoul\_30
- Track 424 : Edugator\_30, AlleyCat\_31, Dadosky\_31, Psycho\_31, Larva\_31
- Track 425 : Rando14\_31
- Track 426 : Kratio\_29
- Track 427 : SoSeph\_30, Heftyboy\_30
- Track 428 : Omnicron\_31
- Track 429 : Thyatira\_30
- Track 430 : Bryler\_31, Phrank\_31, Cain\_31, Tierra\_31
- Track 431 : Ximenita\_32

- Track 432 : Amohnition\_30
- Track 433 : TClif\_32
- Track 434 : Ekdilam\_28
- Track 435 : Unicorn\_31, PhelpsODU\_31
- Track 436 : Marshawn\_32
- Track 437 : Syra333\_31
- Track 438 : Yuna\_32
- Track 439 : Shadow1\_30, Sunflower1121\_30
- Track 440 : SirPhilip\_30
- Track 441 : Krueger\_31
- Track 442 : Hammy\_30, DarthP\_30
- Track 443 : Amgine\_29
- Track 444 : Ellie\_28
- Track 445 : Fefferhead\_30
- Track 446 : Aminay\_31
- Track 447 : Boilgate\_28
- Track 448 : AvadaKedavra\_26, Halena\_26, Silverleaf\_26
- Track 449 : Acquire49\_26, CicholasNage\_26, Rose5\_26, Tyson\_26, Zaria\_26, Wyatt2\_26, Wamburgrxpress\_26, Calm\_26
- Track 450 : Appletree2\_26, DirkDirk\_26, Enceladus\_26, OhShagHennessy\_26, JoeDirt\_26, MACKerman\_26, UPIE\_26, LeBron\_26
- Track 451 : Rumpelstiltskin\_28, Gabriela\_28
- Track 452 : Tourach\_28
- Track 453 : BigCheese\_28, Itos\_28, Faith1\_28, BobsGarage\_28, Netyap\_28, Breezona\_28, Miley16\_28, Winky\_28, DrSeegs\_28
- Track 454 : Nicholasp3\_28, Wilder\_28, Crossroads\_28, Lewan\_28, Kahlid\_28, Hafay\_28, GuuelaD\_28, Sarshaun\_28, Gardann\_28, Wigglewiggle\_28, MkaliMitinis3\_28, Soap141\_28
- Track 455 : Bazzle\_28, Archie\_28
- Track 456 : Loadrie\_28
- Track 457 : Baoshan\_27, ZhongYanYuan\_27
- Track 458 : Finemlucis\_28
- Track 459 : Vetric\_28
- Track 460 : Claus\_28, DHan\_28
- Track 461 : DanBing\_27
- Track 462 : Zakai\_28
- Track 463 : LilDestine\_28
- Track 464 : Jubie\_28, Moostard\_28, Snenia\_28, Clautastrophe\_28, Nicholas\_28, Lumos\_28, Kingsolomon\_28, MsGreen\_28
- Track 465 : Finnry\_28, Samty\_28
- Track 466 : KirDoubleO7\_26, BourbonZero\_27, Ellson\_28, LiyuLake\_28
- Track 467 : MiniLon\_28, Lolly9\_28
- Track 468 : Bellis\_28
- Track 469 : DuncansLeg\_28
- Track 470 : Krypton555\_28, Whirlwind\_29
- Track 471 : Jobypre\_28
- Track 472 : MiniMac\_28
- Track 473 : Douzhi\_26, BrainDrainer\_27, Sheng711\_26
- Track 474 : Douge\_26, Quby\_26, FarmResident\_26
- Track 475 : PYPDinur\_26
- Track 476 : DyoEdafos\_27
- Track 477 : Chaser\_26
- Track 478 : Bromden\_28

- Track 479 : Aegeus\_29, Baudelaire\_29
- Track 480 : Dulcita\_39, Bongo\_38, Bricole\_38, PegLeg\_38, TyDawg\_38, Auspice\_38, Diminimus\_39, Glaske16\_39, Skinny\_39, LilhomieP\_37, IPhane7\_38
- Track 481 : SlimJimmy\_37
- Track 482 : Reindeer\_38
- Track 483 : Estes\_44
- Track 484 : MrMagoo\_43, GardenSalsa\_43
- Track 485 : Rey\_43
- Track 486 : Aziz\_43, GenevaB15\_43
- Track 487 : Nanosmite\_43
- Track 488 : JangDynasty\_67, TelAviv\_64, Catdawg\_67, Familton\_68, SchoolBus\_67, Vagabond\_65, Idergollasper\_67, Blessica\_68
- Track 489 : Firecracker\_69
- Track 490 : Corndog\_70, FoulBall\_67, Winget\_68, Wildflower\_67, Dylan\_67, Murai\_68, Schuy\_68, Vorrrps\_67, MadKillah\_68, Alkhayr\_65, Ashwin\_69, Zakhe101\_66, Mori\_67, NiebruSaylor\_66, Shida\_67, Krili\_66
- Track 491 : Ryadel\_71, Smooch\_70
- Track 492 : YungJamal\_72
- Track 493 : Bora\_65
- Track 494 : Yelo\_39
- Track 495 : MontyDev\_39
- Track 496 : Send513\_39, Candle\_39, Zenon\_40
- Track 497 : Weiss13\_39
- Track 498 : Riparian\_39, Papyrus\_39, Rope\_39
- Track 499 : Nilo\_40
- Track 500 : Madruga\_40, Labelle\_41, Patience\_42
- Track 501 : Wildcat\_52, MaryV\_52, Azrael100\_51, Cosmo\_52, EniyanLRS\_49
- Track 502 : Gaia\_34
- Track 503 : Nebkiss\_35
- Track 504 : LilSpotty\_32
- Track 505 : DS6A\_31
- Track 506 : Kumao\_39
- Track 507 : MooMoo\_29

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

The start number called the most often in the published annotations is 111, it was called in 315 of the 1523 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 20ES\_11, 39HC\_042, 40AC\_14, 40BC\_042, A6\_08, AFIS\_10, AN3\_11, AbbyPaige\_13, AbbysRanger\_10, Abbyshoes\_11, Abrogate\_110, Acme\_11, Adahisdi\_11, Aeneas\_12, Agaliana\_10, Agape74\_13, Ajay\_10, Alsfro\_14, Altman\_11, Alvin\_11, Anglerfish\_10, AnnaL29\_14, Anselm\_11, Applejack\_10, Arcanine\_10, ArcherNM\_13, Arlo\_9, Ashballer\_8, Atkinbua\_10, BK1\_08, BPBiebs31\_11, BabyBack\_13, Backyardigan\_10, BaconJack\_12, Bactobuster\_12, Baehexic\_12, Barriga\_10, Beatrix\_9, BeesKnees\_10, BengiVuitton\_12, Benvolio\_11, Bethlehem\_10, Bexan\_9, BiancaTri92\_13, Big3\_10, BigMau\_11, BigPaolini\_11, Bigfoot\_9, BillKnuckles\_11, Bircsak\_10, BluSpix\_10, Blue\_10, Bob3\_9, BobSwaget\_14, Bones\_10, Briton15\_11, Bruns\_8, Buggy\_13, Bumblebee11\_10,

Burton\_10, Buttons\_11, Bxb1\_9, CRB1\_11, CactusRose\_9, Carlyle\_12, Centaur\_13, Chanagan\_9, Changeling\_14, ChipMunk\_13, Chupacabra\_10, Ciao\_10, Colin\_15, ConceptII\_10, Corvo\_10, Crispicious1\_9, Crucio\_11, DD5\_11, Daishi\_11, Dalmatian\_11, Datway\_10, Deloris\_12, Dexes\_11, Dignity\_13, DontArgue\_9, Doom\_10, DrFeelGood\_9, Drake55\_13, Drake94\_9, DreamCatcher\_11, Dreamboat\_11, DroogsArmy\_11, DudeLittle\_11, Dulcie\_9, Dussy\_11, DustyMartin\_13, Dynamix\_10, EZMoney23\_15, Eaglepride\_11, Echild\_11, Edison31\_10, Edtherson\_11, Equemioh13\_13, Espresso\_10, Euphoria\_10, Eyeball\_10, Fajezeel\_11, Fameo\_11, Fascinus\_9, Fenn\_10, FiringLine\_11, First\_0011, Flare16\_11, Forsytheast\_9, Francis47\_10, Fushigi\_10, GageAP\_11, Gandalf20\_11, GaugeLDP\_13, Georgie2\_12, Gompeii16\_10, Goose\_10, Graduation\_12, GrecoEtereo\_11, Greg\_11, Gwendoluna\_11, Gyzlar\_11, HINdeR\_10, Hami1\_11, HanShotFirst\_10, HarryHoudini\_13, HarryOW\_11, Heffalump\_13, Hermia\_12, HermioneGrange\_11, Homines\_10, Hope4ever\_10, Hosp\_040, ILeeKay\_12, Ichabod\_10, IgnatiusPatJac\_9, Inyanga\_9, IronMan\_13, Iwokeuplikedis\_11, JC27\_12, Jaan\_14, JackSparrow\_10, Jasper\_11, Jerm2\_10, Jerm\_13, Jolie1\_042, Jorgensen\_10, JoshKayV\_13, JuliaChild\_12, KBG\_11, KSSJEB\_9, Kalpine\_14, Kanely\_11, Katalie136\_10, KayaCho\_42, Kenmech\_12, Killigrew\_8, KingCyrus\_13, Kinmap\_10, KittenMittens\_9, Kristoff\_11, Kugel\_11, KyMonks1A\_12, Kykar\_8, LadyBird\_11, Lamina13\_10, Landor\_12, Larenn\_12, Leogania\_13, Lesedi\_9, Leviathan\_13, LilBib\_11, LilMcDreamy\_46, LiITurb\_13, LittleGuy\_10, Lockley\_10, Lokk\_14, Lopton\_11, Loser\_14, MPlant7149\_9, Magnar\_10, Magnito\_9, Makemake\_10, Malec\_12, Manatee\_10, Marcell\_10, Marge\_10, Maroc7\_9, Marsha\_10, MaryBeth\_10, McGuire\_10, MetalQZJ\_10, Michley\_10, MiculUcigas\_11, Miko\_14, Mkhusele\_9, Molly\_11, Monet\_11, Moose\_9, Morpher26\_10, MrGordo\_10, Mryolo\_9, Mule\_10, Museum\_11, NEHalo\_10, NaSiaTalie\_11, Naira\_10, Nhonho\_10, NicoleTera\_15, Niza\_11, Norz\_12, NothingSpecial\_13, Nyxis\_10, OKCentral2016\_10, Ohno789\_9, Oogway\_9, PSullivan\_12, PacerPaul\_10, Papez\_12, Paphu\_9, Paraselene\_9, Pari\_11, Parliament\_9, PascalRango\_9, PattyP\_11, Payneful\_10, PeaceMeal1\_9, Pelly\_11, Pepe\_11, Perplexer\_10, Perseus\_11, Peterson\_13, PetiteSangsue\_10, Petp2012\_12, Petruccio\_10, Phaded\_14, PherrisBueller\_11, Phontbonne\_10, PhrostyMug\_10, PinkPlastic\_8, Pinto\_12, Pippin\_11, Piro94\_12, Pita2\_12, Poompha\_9, Power\_11, ProMouse\_9, Pukovnik\_13, QTRLifeCrisis\_10, QueenB2\_11, QueenBeesly\_11, Rachaly\_14, Rajelicia\_9, Rebeuca\_11, RedRock\_14, Refuge\_14, Retro23\_11, RhynO\_11, Rhynn\_10, RidgeCB\_10, Ringer\_10, Rohr\_11, Rowdy\_13, Rubeus\_10, Rufus\_10, Ruotula\_9, Rutherford\_11, STLscum\_11, Sagefire\_11, Sanya\_9, SarFire\_10, Scowl\_11, Seabiscuit\_11, Seanderson\_11, SemperFi\_13, Severus\_9, Shapes\_13, ShortQueendom\_9, Shygu2\_10, Sibs6\_11, SkiPole\_12, Slagathor\_10, Smairt\_11, Smeagan\_13, Smeagol\_11, SnapTap\_11, Snazzy\_8, Solon\_10, Sorpresa\_10, SpikeBT\_11, Squee\_10, StewieG\_9, StrongArm\_9, Sumter\_9, Sunshine924\_9, SweetiePie\_11, SwissCheese\_10, Switzer\_10, Target\_11, TarsusIV\_11, Tasp14\_11, Teodoridan\_8, TheloniousMonk\_11, Thor\_10, Timshel\_11, Topanga\_10, Tote\_12, Traft412\_12, Treddle\_11, Trike\_8, Tripl3t\_11, Trixie\_14, Trooper\_11, Trouble\_10, Turbido\_13, Turj99\_9, Twister\_10, TwoPeat\_11, U2\_9, Updawg\_13, VA6\_11, Violet\_9, WalterMcMickey\_10, Watermelon\_12, WeiHuaDA\_17, Whabigail7\_13, Wheeler\_10, WideWale\_13, Wile\_10, Wilkins\_10, XianYue\_11, Zeeculate\_9, Zephyr\_10, Zeuska\_11, Zimmer\_13,

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

- Cueyllyss\_10, EvilGenius\_13, Froghopper\_11, Licorice\_12, Luchador\_11, Marchy\_9, Nerujay\_11, Sandaddy\_9, Swole\_12, Topgun\_10,

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

• 244\_37, ABCat\_34, ACFishhook\_12, AN9\_14, ANI8\_14, Abdiel\_10, Abinghost\_47, Achebe\_10, Acolyte\_11, Acquire49\_26, ActinUp\_31, Adephagia\_31, Ading\_255, Adlitam\_252, Adnama\_38, Adonis\_31, Aegeus\_29, Agent47\_30, Ageofdapage\_31, Aglet\_12, AgronaGT15\_12, Aikoy\_46, Akhila\_25, Akoma\_47, Albee\_10, Alberto7\_11, Alexphander\_34, Alice\_238, AlishaPH\_31, Alkhayr\_65, AlleyCat\_31, AlpineSix\_32, Amao\_35, Amataga\_253, Amelie\_27, AmericanBeauty\_37, Amgine\_29, Aminay\_31, Amohntion\_30, Anaya\_32, Angelica\_31, Annyong\_10, Anubis\_14, Apocalypse\_31, Appletree2\_26, ArcherS7\_253, Archie\_28, ArcusAngelus\_31, Ardmore\_30, Argent26\_37, Ariel\_48, Arturo\_9, Asayake\_31, Ashwin\_69, Asriel\_34, Asterius\_249, Astraea\_248, Athena\_48, Atiba\_31, Atlantean\_252, Aubs\_32, Audrey\_47, Audrick\_255, AugsMagnumOpus\_14, Auspice\_38, Ava3\_249, AvadaKedavra\_26, Avani\_36, AvatarAhPeg\_10, Avle17\_10, Awesomesauce\_32, Aziz\_43, Azrael100\_51, B1\_08, BAKA\_53, BEEST\_31, BGlluviae\_31, BaboJay\_34, Baby16\_10, BabyJohn\_9, BabyRay\_10, Babyland\_255, BackyardAgain\_247, BadAgartude\_246, BadStone\_34, Badger\_10, BaghaKamala\_31, Bagrid\_48, Balomoji\_34, Baloo\_47, BananaFence\_250, BangNhom\_9, Bangla1971\_253, Baoshan\_27, Barbarian\_34, Barnyard\_40, BarrelRoll\_31, Bartimeaus\_10, Bask21\_35, Basquiat\_250, Batiatus\_31, Baudelaire\_29, Bazzle\_28, Beakin\_32, BeanWater\_245, Beauxregard13\_12, Beem\_49, Beezoo\_31, Bella96\_31, Belladonna\_31, Bellis\_28, BellusTerra\_10, Ben11\_46, Bench\_37, Bernardo\_48, BigBubba\_36, BigCheese\_28, BigCity\_260, BigPhil\_27, Biglebops\_27, Bigswole\_257, BilboSwaggins\_35, Bipolar\_28, Bipolarisk\_250, BirdsNest\_51, Blackbrain\_251, Blackdragon\_247, Blackmoor\_10, Blarby\_39, Blessica\_68, Blexus\_31, Blizzard\_31, Blubba\_239, BlueBird\_11, BlueCrab\_31, BobaPhett\_31, Bobby\_48, Bobi\_33, BobsGarage\_28, BodEinwohner17\_31, Boiiii\_31, Boilgate\_28, Bombitas\_46, Bombshell\_10, Bongo\_38, Bonray\_255, Boomer\_33, BoostSeason\_30, Bora\_65, BourbonZero\_27, Bradman\_10, BrainDrainer\_27, BreSam8\_12, Bread\_249, Breeniome\_252, Breezona\_28, Briakila\_48, Bricole\_38, Brocalys\_26, Bromden\_28, Broseidon\_10, Bruin\_35, Bruiser\_10, Bryler\_31, BubbleTrouble\_10, Bubbles123\_33, Buck\_34, Bugatti\_10, BugsBunny\_33, Burger\_9, Burrough\_253, Burwell21\_31, BuzzBuzz\_11, BuzzLyseyear\_34, Bxz1\_238, Bxz2\_12, Byougenkin\_31, C3\_09, CREW\_31, Cabrinians\_31, Cactojaque\_247, Cactus\_36, Caelakin\_10, Cain\_31, Cali\_242, Calm\_26, Camperdownii\_9, Candle\_39, Cane17\_241, Capablanca\_257, Capricorn\_31, CaptainTrips\_32, Caravan\_242, Casbah\_46, CaseJules\_31, Catdawg\_67, Catera\_241, Caviar\_11, CentreCat\_10, Cerasum\_27, Cerulean\_10, ChaChing\_47, ChampagnePapi\_10, Chancellor\_32, Chandler\_47, Chaph\_10, Chargie21\_250, CharlieB\_247, Chaser\_26, ChaylaJr\_251, Che8\_33, Che9d\_36, CheetoDust\_31, Cheetobro\_32, Chevrolet\_32, ChickenDinner\_33, ChickenPhender\_248, Chiqui\_9, Chomp\_251, ChosenOne\_35, ChotaBhai\_35, Chris\_30, Chuckly\_31, CicholasNage\_26, Cici\_10, Cindaradix\_9, CindyLou\_253, Cintron\_10, Citius\_10, Cjw1\_35, Clarenza\_10, Claus\_28, Clautastrophe\_28, Clifton\_25, Coco12\_31, Cocoaberry\_10, Colbster\_12, Collard\_30, Colt\_242, Command613\_36, Commander\_10, Compostia\_48, Concombre\_258, Connomayer\_10, Constella\_41, Contagion\_34, Cookies\_35, Corndog\_70, Cornie\_31, Cornucopia\_32, Corofin\_47, Cosmo\_52, Courthouse\_48, CrimD\_31, Crossroads\_28, Crumble\_25, CrystalP\_35, Cullens\_12, Curiosium\_32, Czyszczo1\_36, D29\_12, D32\_14, DBQu4n\_14, DHan\_28, DLane\_31, DRBy19\_31, DS6A\_31, DTDevon\_253, DaHudson\_12, DaWorst\_33, DaddyRickover\_31, Dadosky\_31, Daenerys\_31, Daffodil\_258, Daikon\_34, Daisy\_47, Dallas\_51, Dalmuri\_31, DanBing\_27, Dandelion\_258, Dante\_31, Darko\_252, DarthP\_30, Dartin\_31, DeadP\_31, Deano\_10, Deb65\_31, Deby\_31, Deenasa\_47, Delilah\_250, Delylah\_254, Demodog\_260, Demsculpinboyz\_36, Derek\_248, Devera\_31, Devonte\_47,



Dhanush\_10, Dieselweasel\_12, Dietrick\_241, DillTech15\_31, Diminimus\_39, DirkDirk\_26, DirtMcgirt\_32, DirtMonster\_241, DirtyDunning\_10, DismalFunk\_29, DismalStressor\_29, DmpstrDiver\_50, DocMcStuffins\_33, DoctorDiddles\_35, Dole\_31, Domi\_246, Donkeykong\_31, Doomphist\_31, Dorothy\_31, DosHalletts\_33, DotProduct\_31, Doug\_32, Douge\_26, Douzhi\_26, Dove\_46, DrDrey\_36, DrHayes\_31, DrLupo\_42, DrPhinkDaddy\_249, DrSeegs\_28, Drago\_32, Drazdys\_249, DropBear\_10, Druantia\_10, Duke13\_52, Dulcita\_39, Dumbo\_35, DuncansLeg\_28, Duplo\_14, Durfee\_31, Dusk\_34, Dylan\_67, DyoEdafos\_27, ET08\_238, Eagle\_9, Eapen\_10, Easy2Say\_37, EasyJones\_253, Edugator\_30, Efra2\_31, EggyFarm\_260, Eish\_31, Ejimix\_49, Ekdilam\_28, EleanorGeorge\_32, Elite2014\_34, Ellie\_28, Ellson\_28, Elph10\_36, EmToTheThree\_253, Emerson\_31, EmmaElysia\_257, Emma\_33, Emmina\_36, Empress\_32, Enby\_33, Enceladus\_26, EniyanLRS\_49, Enkosi\_27, EpicPhail\_12, Eponine\_34, Eradicator\_31, Erdmann\_254, EricMillard\_49, Eris\_10, ErnieJ\_246, Eros\_10, Essence\_250, Estave1\_29, Estes\_44, Eureka\_35, Eurydice\_10, Ewok\_251, Faith1\_28, Familton\_68, Fancypants\_31, Farber\_12, FarmResident\_26, Fastidio\_33, Fefferhead\_30, Fernando\_12, Feyre\_30, Filch\_36, Filuzino\_31, Findley\_29, Finemlucis\_28, Finnry\_28, Fionnbharth\_32, FireRed\_35, Firecracker\_69, Firehouse51\_32, Flabslab\_247, Flathead\_31, Florean\_10, Florinda\_31, Fludd\_252, Flux\_10, FlyCatcher\_14, Flypotenuse\_33, FoulBall\_67, FoxtrotP1\_251, Frankie\_35, FrayBell\_255, Fred313\_10, FreddyB\_31, Fruitloop\_30, FudgeTart\_248, Funsized\_52, Funston\_10, GUmbie\_31, Gabriel\_255, Gabriela\_28, Gadget\_48, Gadost\_10, Gage\_37, Gaia\_34, Galactic\_33, Gamgam\_254, Gandolph\_32, Ganymede\_32, Gardann\_28, GardenSalsa\_43, Gator\_33, Gemini\_38, Gemma\_12, GenevaB15\_43, Gengar\_30, Geraldini\_31, Geralt\_31, Gervas\_47, Ghost\_252, GigiOuiOui\_31, GingkoMaracino\_12, Girafales\_32, Giroux\_10, Girr\_33, Gizmo\_258, Glaske16\_39, GlenHope\_48, Glexan\_33, Goku\_35, GoldenSpark\_37, Goldilocks\_36, Gonephishing\_50, GooberAzure\_37, Gorge\_31, Grasshills\_259, Grif\_12, Groupthink\_13, Grub\_12, Grum1\_12, Grungle\_234, GtownJaz\_12, Guanica15\_31, Guillsminger\_30, Guppsters\_33, GuuelaD\_28, Guwapp\_248, Hades\_32, Hafay\_28, Halena\_26, Halfpint\_46, Halldule\_244, Halley\_49, HamSlice\_9, Hammy\_30, Hamulus\_32, HanKaySha\_36, Hannaconda\_45, Happiness\_10, Harella\_34, Harley\_31, HarveySr\_47, HashRod\_13, Hashim76\_52, HaveUMetTed\_13, Heathcliff\_47, Heathen\_10, HedwigODU\_31, Heftyboy\_30, Hegedechwinu\_32, HelDan\_10, Heliosoles\_12, Henry\_36, Hercules11\_12, Highbury\_36, Hlubikazi\_32, HokkenD\_42, Holli\_10, Holt\_36, Homura\_31, Hookmount\_11, Hoonter\_37, Hopey\_37, Houdini22\_10, HuffyPuff\_34, Hughesyang\_47, Hurricane\_32, HyRo\_237, Hyperbowlee\_31, I3\_262, ICleared\_10, IHOP\_35, IPilo\_30, IPhane7\_38, IbOuu\_33, Ibhubesi\_31, Icee\_34, Iceman\_10, Idergollasper\_67, Idleandcovert\_10, IkeLoa\_246, Illumine\_31, Imvubu\_41, Inca\_34, Indlulamithi\_36, InigoMontoya\_256, Inky\_31, InterFolia\_254, Inventum\_31, InvictusManeo\_30, Iota\_249, Iracema64\_10, IrishSherpFalk\_33, Isca\_10, Issimir\_246, Itos\_28, Izajani\_248, JAWS\_31, JF1\_32, JF2\_10, JF4\_10, JHC117\_12, JPickles\_250, Jabbawokkie\_39, Jackstina\_44, JalFarm20\_34, James\_31, JangDynasty\_67, Janiyra\_256, Jarcob\_31, Jarvi\_31, JayJay\_248, Jaygup\_249, Jayhawk\_31, Jaykayelowell\_10, JeTaima\_37, Jeckyll\_31, Jedediah\_254, Jemmno\_252, JenCasNa\_12, JeppNRM\_13, Jessibeth14\_252, JetBlade\_10, JigglyPuff\_258, Jinglebell\_30, Job42\_35, Jobu08\_12, Jobypre\_28, JoeDirt\_26, JoeyJr\_31, JoongJeon\_10, Joy99\_31, Jsquared\_10, Jubie\_28, Juice456\_32, JuicyJay\_51, JulietS\_244, Juliette\_34, Juniper1\_31, JustHall\_246, KADY\_13, KFPoly\_10, Kachowdy\_10, Kahlid\_28, Kalah2\_49, Kalb97\_13, Kalnoky\_13, Kamiyu\_47, Kampy\_10, Kamryn\_251, Kanye\_37, Karhdo\_31, KashFlow\_42, Kboogie\_256, Kenuha5\_28, Kerberos\_14, Kersh\_30, Keshu\_32, Khaleesi\_251, KiSi\_30, Kimberlium\_33, Kimchi\_37, Kimona\_7, KingMidas\_33,

Kingmustik0402\_10, Kingsley\_30, Kingsolomon\_28, KirDoubleO7\_26, Klein\_49, Knocker\_50, Koduck\_11, Koella\_25, Koguma\_251, Koreni\_9, Kostya\_36, Krakatau\_32, Kratak\_10, Kratio\_29, Kremtemulon\_10, Krili\_66, KristaRAM\_32, Kronus\_46, Krueger\_31, Krypton555\_28, Kumao\_39, Kyee\_10, L5\_12, LBerry\_12, LHTSCC\_10, LRRHood\_244, Labelle\_41, Lambert1\_11, LappelDuVide\_10, LarryKay\_12, Larva\_31, LastHope\_31, LastJedi\_25, Latch\_252, LaterM\_31, Latretium\_32, LeBron\_26, LeMond\_30, Lee7\_253, Lemur\_10, LeoAvram\_10, Leopard\_46, Leozinho\_33, Leperchaun\_31, Leston\_30, LestyG\_47, Lewan\_28, LifeSavor\_253, LilDestine\_28, LilMoolah\_31, LilPharaoh\_27, LilSpotty\_32, Lilac\_37, LilhomieP\_37, Lilith\_12, Lilizi\_37, Lilpickle\_34, LinStu\_249, LindNT\_31, LittleB\_10, LittleE\_53, LittleShirley\_34, Littleton\_256, LiyuLake\_28, Lizziana\_31, Llama\_31, Llij\_31, Llorens\_31, Loadrie\_28, Loanshark\_249, LochMonster\_10, LolaVinca\_248, Lolly9\_28, LordLeafolot\_254, Lorde\_33, Lorenzo\_10, Louie6\_12, Lucky2013\_48, LugYA\_14, Lukilu\_241, Lumos\_28, LunaBlu\_34, LunaStella\_33, Lunahalos\_31, Lunsford\_11, MA5\_10, MAckerman\_26, MISSy\_34, MK4\_10, MPhalcon\_34, Maby2021\_253, MacnCheese\_32, MadKillah\_68, MadMarie\_12, MadMen\_29, MadamMonkfish\_35, Madiba\_29, Madruga\_40, Mahavrat\_31, Mainiac\_12, MajorMajor\_10, MalagasyRose\_31, Malinsilva\_14, Malthus\_33, Manda\_36, Mandlovu\_32, Mangeria\_252, Mantra\_31, Manu\_13, MarQuardt\_12, Maravista\_31, Marchesa\_10, Marcoliusprime\_29, Margo\_11, Marie\_12, Marius\_13, MarkPhew\_31, Marker\_32, Marley1013\_47, Marshawn\_32, Marshmallow\_35, Martik\_31, MaryV\_52, Matsumoto\_250, Mattes\_31, Maverick\_10, Maxo\_10, Maxxinsta\_36, Mazhar510\_10, McGee\_254, McMater\_31, McWolfish\_249, Mdavu\_27, MeaningOfLife\_31, Medusa\_10, MeeZee\_10, Megamind\_249, Megsy\_31, Melissauren88\_31, Melpomini\_247, Melvin\_10, Methuselah\_12, MiaZeal\_48, Microwolf\_12, MikeLiesIn\_253, Mikro\_246, MilanaBonita\_25, Miley16\_28, MilleniumForce\_32, Millski\_10, Milly\_29, Mindy\_35, Minerva\_55, MiniLon\_28, MiniMac\_28, MinionDave\_34, Miniwave\_35, Minnie\_33, Miramae\_10, Miryou\_30, Misfit\_35, Misha28\_32, Misomonster\_14, MissDaisy\_32, MisterCuddles\_33, Mitti\_32, MkaliMitinis3\_28, MmasiCarm\_47, MoMoMixon\_248, Modragons\_31, Moldemort\_36, Momo\_254, MoneyMay\_12, MontyDev\_39, MooMoo\_29, Moonbeam\_32, Moostard\_28, Mori\_67, Morizzled23\_250, Morrow\_10, Mortcellus\_46, Morty007\_47, Mosby\_34, Mova\_32, Mozy\_33, MrMagoo\_43, Ms6\_25, MsGreen\_28, MuchMore\_14, Mufasa\_30, MulchExplorer\_34, MulchSalad\_30, Mundrea\_10, Murai\_68, Murica\_34, Murphy\_36, Murucutumbu\_31, Mutaforma13\_31, Mynx\_31, Myrale\_35, Naija\_253, Naji\_14, Nala\_35, Nanosmite\_43, Napoleon13\_249, Nappy\_251, Naval22\_257, Nebkiss\_35, Nebs\_10, NedWong\_251, NelitzaMV\_35, Nemo27\_10, Neos5\_47, Nergal\_27, Netyap\_28, Ngannou\_247, Nibb\_30, Nicholas\_28, Nicholasp3\_28, Nidhogg\_253, NiebruSaylor\_66, NihilNomen\_48, Nikao\_27, Niklas\_31, Nilo\_40, Nimbo\_31, Nimrod\_35, Nitzel\_32, Nivrat\_31, NoShow\_27, NoSleep\_36, Noella\_11, Noelle\_10, NoodleTree\_248, Norbert\_10, Norm\_252, NormanBulbieJr\_31, NorthStar\_10, NotAPhaseMom\_10, Nozo\_47, NuevoMundo\_254, Nutello\_27, OKaNui\_10, Obama12\_10, Obutu\_47, Ochi17\_29, Odette\_49, OfUltron\_31, Ogotopogo\_31, OhShagHennessy\_26, Ohfah\_10, OkiRoe\_30, Oksu\_32, OlanP\_12, OldBen\_31, Ollie\_12, OlympiaSaint\_31, Omega\_53, OmniCritical\_32, Omnicron\_31, Onyinye\_47, Optimus\_54, OrangeOswald\_47, OrionPax\_36, Oscar\_30, Ovechkin\_32, OwlsT2W\_32, P28Green\_12, PGHhamlin\_14, PHappiness\_31, PMC\_31, PP\_20, PYPDinur\_26, Pacc40\_31, Padfoot\_31, Padpat\_31, Palestino\_10, Palpatine\_35, Panamaxus\_11, Paola\_30, Paperbeatsrock\_37, Papyrus\_39, ParkTD\_251, Pat3\_34, Patience\_42, Patt\_32, Patter\_254, Pawn\_13, Peaches\_10, Peanam\_31, Peel\_31, PegLeg\_38, Pembroke\_12, Penny1\_12, PeterPeter\_10, Petra64142\_37, Phacado\_10, Phaedrus\_45, Phaja\_35, Phalconet\_31, Phanphagia\_28, Phantastic\_10, Pharb\_30,

Pharsalus\_36, Phasih\_32, PhatBacter\_35, Phatniss\_32, Phaux\_34, Phayeta\_48, Phelipe\_10, PhelpsODU\_31, PhesterPhotato\_31, Phighter1804\_10, Philly\_46, Philus\_31, PhishRPhriends\_11, Phlegm\_257, Phlyer\_47, Phoebe\_12, Phoebus\_48, Phox\_253, Phoxy\_12, Phrank\_31, Phranny\_13, Phrux\_35, Phusco\_251, Piatt\_31, Pier\_251, Pinkcreek\_232, Pio\_259, Pipcraft\_10, Pipefish\_49, Piper2020\_33, Pippy\_25, Pistachio\_11, Pivoine\_253, Pixie\_31, Pleione\_256, Plumbus\_33, Pocahontas\_11, Poenanya\_31, Pokerus\_30, Policronamos\_36, Polka14\_32, Pollywog\_31, Polymorphads\_10, Pomar16\_14, PopTart\_31, Popcicle\_11, Porcelain\_47, Porky\_35, PotatoSplit\_13, Pound\_51, Priscilla\_31, Prithvi\_31, Psycho\_31, Pumbaa\_10, Pumpkin\_37, Puppy\_11, PurduePete\_253, PurpleHaze\_12, QBert\_244, Quallification\_36, Quasimodo\_255, Quby\_26, QuickMath\_32, Quico\_32, QuincyRose\_30, QuinnKiro\_10, Quokka\_9, Rabinovish\_245, Radiance\_31, RagingRooster\_47, Rahel\_254, Rakim\_36, Ramen\_31, Ramsey\_34, Rando14\_31, Rapunzel97\_31, Reba\_13, RedBird\_31, Redno2\_47, Reindeer\_38, Relief\_10, Renaud18\_31, Reptar3000\_32, ResDef\_11, Rey\_43, Rialto\_35, Richo\_31, Rimmer\_34, Rinkes\_49, Riparian\_39, Rita1961\_47, RitaG\_32, Rita\_32, RiverMonster\_35, Rizal\_241, RoMag\_247, Rockne\_31, Rockstar\_10, RockyHorror\_32, RomaT\_47, Romney\_10, Ronan\_248, Roosevelt\_10, Roots515\_255, Rope\_39, Rosa24\_9, Rose5\_26, Rosmarinus\_31, Royals2015\_31, Ruby\_33, Ruin\_10, Rummer\_12, Rumpelstiltskin\_28, Ruthiejr\_33, Ryadel\_71, SG4\_32, Saal\_31, Sabbb\_32, Sabertooth\_10, Sabia\_12, Sabinator\_12, Saints25\_36, Salacia\_254, SamScheppers\_32, Samty\_28, SamuelLPlagson\_31, Sandalphon\_32, Sarma624\_27, Sarshaun\_28, Sassafras\_32, Sassay\_34, SassyB\_31, SaturnRing\_10, Sauce\_249, Scamp\_10, Scarlett\_30, Schatzie\_46, SchoolBus\_67, Schuy\_68, ScottMcG\_244, Scottish\_32, Scout\_10, Seabastian\_31, Seagreen\_32, Sebata\_252, Send513\_39, Serenity\_10, SgtBeansprout\_27, Shadow1\_30, Shaka\_10, ShamWow\_35, Shaobing\_31, Shaqnato\_243, Shauna1\_28, ShedlockHolmes\_32, Sheen\_12, SheldonCooper\_10, Shelob\_253, Sheng711\_26, ShereKhan\_37, ShiLan\_31, ShiaLabeouf\_250, ShiaSurprise\_31, Shida\_67, Shifa\_228, Shnickers\_251, ShowerHandel\_31, Shrimp\_255, ShroomBoi\_28, SiSi\_31, SilverDipper\_257, Silverleaf\_26, Simpliphy\_36, SimranZ1\_34, SirDuracell\_34, SirPhilip\_30, Skinny\_39, Skipitt\_10, Slarp\_32, SlimJimmy\_37, Slimphazie\_31, SlippinJimmy\_47, SmallFry\_253, Smooch\_70, Snenia\_28, Snickers\_12, SoSeph\_30, SoYo\_12, Soap141\_28, SoilDragon\_12, SophKB\_35, Soshari\_14, Sotrice96\_35, Soul22\_36, Sparkdehlily\_31, Spartacus\_33, Sparxx\_10, Spec\_246, Specks\_257, Spike509\_12, Spikelee\_33, Spino\_10, Spock\_31, Spoonbill\_31, Sprinklers\_250, Spud\_244, Squint\_47, SrishMeg2525\_250, StAnnes\_30, Stagni\_12, Stank\_38, Stap\_32, StarStuff\_14, Starceovich\_35, Stark\_36, Stasia\_11, StellaBean\_35, StepMih\_12, StephanieG\_246, Stink\_10, Stinson\_32, StolenFromERC\_37, Strobilo\_29, Strokeseat\_32, StubbySaigey\_259, Stubby\_235, Sulley\_31, Sunflower1121\_30, SuperGrey\_32, Superphikiman\_48, SwagPiggett\_31, SynergyX\_47, Syra333\_31, TBond007\_31, TBrady12\_37, TChen\_31, TClif\_32, TDanisky\_31, TM4\_30, TNguyen7\_10, Tachez\_31, Tainan\_252, TaiwanKao\_32, Taj\_31, Taquarus\_10, Taquito\_32, Tarkin\_37, Taurus\_12, TeardropMSU\_34, Teardrop\_251, Teaspoon\_36, TelAviv\_64, Terminus\_35, Texage\_10, Thanksgivukkah\_10, ThetaBob\_30, Thibault\_42, ThreeRngTarjay\_47, Thresher\_36, Thyatira\_30, Tierra\_31, Tiffany\_12, TinaFeyge\_10, TingHuaYa\_31, TiniBug\_31, TinyTim\_251, Tinybot\_9, Tiri\_31, TiroTheta9\_10, Todacoro\_11, Tomaszewski\_34, Tomathan\_14, Tonenili\_274, TootsiePop\_32, Tootsieroll\_32, Topper\_31, Toro\_13, Toron\_32, Torres\_27, Tortoise16\_250, Totinger\_32, Toto\_35, Tourach\_28, Traaww1\_33, Travvers\_14, TreyKay\_31, TribbleTrouble\_30, Trinitium\_249, TroyPia\_10, TruffulaTree\_31, Tuco\_36, Turret\_243, Tweety\_31, Twitch\_31, TyDawg\_38, Tydolla\_47, TygerBlood\_10, Tyke\_249, Tyson\_26, UPIE\_26,

Ukulele\_35, Ulysses\_9, UncleRicky\_34, Unicorn\_31, Urkel\_31, VC3\_14, VRedHorse\_31, Vagabond\_65, Validus\_31, ValleyTerrace\_253, Veliki\_31, Velveteen\_27, Veracruz\_10, Veteran\_31, Vatrix\_28, Vix\_12, Vorpps\_67, Wachhund\_31, Wally\_250, Wamburggrxpress\_26, Wanda\_55, Wander\_10, Waterfoul\_30, Watson\_12, Wee\_32, Weiss13\_39, Whatsapiecost\_32, Whirlwind\_29, Whouxphf\_32, Wiggin\_38, Wigglewiggles\_28, Wilbur\_10, Wildcat\_52, Wilder\_28, Wildflower\_67, WillSterrel\_33, Willez\_34, Willis\_253, Winget\_68, Winky\_28, Wintermute\_32, Wizard007\_10, Wooldri\_14, Wyatt2\_26, XFactor\_31, Xandras\_37, Xena\_10, Ximenita\_32, Y10\_32, Y2\_32, Yahalom\_47, YassJohnny\_36, Yassified\_248, Yeet\_47, Yelo\_39, YemiJoy2021\_253, Yinz\_47, YoSam321\_10, Yorick\_31, Yoshi\_38, YoungMoneyMata\_252, Youngblood\_35, YoureAdopted\_30, Yucca\_253, Yuna\_32, YungJamal\_72, Yunkel11\_31, Zabiza\_31, Zakai\_28, Zakhe101\_66, Zalkecks\_251, Zapner\_38, Zaria\_26, Zavala\_31, Zeenon\_253, Zelink\_50, Zenon\_40, Zenteno07\_53, Zerg\_31, Zetzy\_11, ZhongYanYuan\_27, Zizzle\_31, ZoeJ\_29, ZygoTaiga\_249, xkcd\_36,

### Summary by start number:

#### Start 23:

- Found in 5 of 1638 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 1523
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Eish\_31 (F1),

#### Start 39:

- Found in 2 of 1638 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 2 of 1523
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aegeus\_29 (L5), Baudelaire\_29 (L5),

#### Start 46:

- Found in 23 of 1638 ( 1.4% ) of genes in pham
- Manual Annotations of this start: 17 of 1523
- Called 91.3% of time when present
- Phage (with cluster) where this start called: Acolyte\_11 (A2), BourbonZero\_27 (L3), Clautastrophe\_28 (L3), DuncansLeg\_28 (L3), Ellson\_28 (L3), Finnry\_28 (L3), Jubie\_28 (L3), Kingsolomon\_28 (L3), KirDoubleO7\_26 (L3), Krypton555\_28 (L3), LiyuLake\_28 (L3), Lolly9\_28 (L3), Lumos\_28 (L3), MiniLon\_28 (L3), MiniMac\_28 (L3), Moostard\_28 (L3), MsGreen\_28 (L3), Nicholas\_28 (L3), Samty\_28 (L3), Snenia\_28 (L3), Whirlwind\_29 (L3),

#### Start 48:

- Found in 10 of 1638 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 10 of 1523
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BoostSeason\_30 (K2), DismalFunk\_29 (K2), DismalStressor\_29 (K2), Findley\_29 (K2), Marcoliusprime\_29 (K2), Milly\_29 (K2), Mufasa\_30 (K2), Strobilo\_29 (K2), TM4\_30 (K2), ZoeJ\_29 (K2),

#### Start 49:

- Found in 11 of 1638 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 10 of 1523
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Ariel\_48 (J), Bobby\_48 (J), Courthouse\_48 (J), Gonephishing\_50 (J), Kumao\_39 (singleton), Lucky2013\_48 (J), MiaZeal\_48 (J), Porcelain\_47 (J), Squint\_47 (J), Superphikiman\_48 (J), Thibault\_42 (J),

#### Start 51:

- Found in 31 of 1638 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 22 of 1523
- Called 96.8% of time when present
- Phage (with cluster) where this start called: Baoshan\_27 (L2), BigCheese\_28 (L2), BobsGarage\_28 (L2), Breezona\_28 (L2), Claus\_28 (L2), Crossroads\_28 (L2), DHan\_28 (L2), DanBing\_27 (L2), DrSeegs\_28 (L2), Faith1\_28 (L2), Gardann\_28 (L2), GuuelaD\_28 (L2), Hafay\_28 (L2), Itos\_28 (L2), Kahlid\_28 (L2), Lewan\_28 (L2), LilDestine\_28 (L2), Loadrie\_28 (L2), Miley16\_28 (L2), MkaliMitinis3\_28 (L2), Netyap\_28 (L2), Nicholasp3\_28 (L2), Sarshaun\_28 (L2), Soap141\_28 (L2), Tourach\_28 (L2), Vetrrix\_28 (L2), Wigglewiggles\_28 (L2), Wilder\_28 (L2), Winky\_28 (L2), ZhongYanYuan\_27 (L2),

#### Start 56:

- Found in 48 of 1638 ( 2.9% ) of genes in pham
- Manual Annotations of this start: 7 of 1523
- Called 14.6% of time when present
- Phage (with cluster) where this start called: Aziz\_43 (M2), Estes\_44 (M2), GardenSalsa\_43 (M2), GenevaB15\_43 (M2), MrMagoo\_43 (M2), Nanosmite\_43 (M3), Rey\_43 (M2),

#### Start 58:

- Found in 13 of 1638 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 13 of 1523
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Auspice\_38 (M1), Bongo\_38 (M1), Bricole\_38 (M1), Diminimus\_39 (M1), Dulcita\_39 (M1), Glaske16\_39 (M1), IPhane7\_38 (M1), LilhomieP\_37 (M1), PegLeg\_38 (M1), Reindeer\_38 (M1), Skinny\_39 (M1), SlimJimmy\_37 (M1), TyDawg\_38 (M1),

#### Start 60:

- Found in 23 of 1638 ( 1.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 4.3% of time when present
- Phage (with cluster) where this start called: Bellis\_28 (L3),

#### Start 62:

- Found in 3 of 1638 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 3 of 1523
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Barnyard\_40 (H2), DrLupo\_42 (H2), NoShow\_27 (AB),

#### Start 83:

- Found in 30 of 1638 ( 1.8% ) of genes in pham
- No Manual Annotations of this start.
- Called 3.3% of time when present
- Phage (with cluster) where this start called: Jobypre\_28 (L3),

Start 84:

- Found in 47 of 1638 ( 2.9% ) of genes in pham
- Manual Annotations of this start: 45 of 1523
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abinghost\_47 (B3), Akoma\_47 (B3), Athena\_48 (B3), Audrey\_47 (B3), Baloo\_47 (B3), Ben11\_46 (B3), Bernardo\_48 (B3), Briakila\_48 (B3), Casbah\_46 (B3), ChaChing\_47 (B3), Chandler\_47 (B3), Compostia\_48 (B3), Corofin\_47 (B3), Daisy\_47 (B3), Deenasa\_47 (B3), Devonte\_47 (B3), Gadget\_48 (B3), Gervas\_47 (B3), GlenHope\_48 (B3), Halfpint\_46 (B3), HarveySr\_47 (B3), Heathcliff\_47 (B3), Jackstina\_44 (B3), Kamiyu\_47 (B3), Kronus\_46 (B3), LestyG\_47 (B3), Marley1013\_47 (B3), MmasiCarm\_47 (B3), Mortcellus\_46 (B3), Morty007\_47 (B3), Neos5\_47 (B3), Nozo\_47 (B3), Obutu\_47 (B3), OrangeOswald\_47 (B3), Phaedrus\_45 (B3), Phayeta\_48 (B3), Philly\_46 (B3), Phlyer\_47 (B3), Pipefish\_49 (B3), RagingRooster\_47 (B3), Rita1961\_47 (B3), RomaT\_47 (B3), SlippinJimmy\_47 (B3), SynergyX\_47 (B3), Tydolla\_47 (B3), Yahalom\_47 (B3), Yinz\_47 (B3),

Start 87:

- Found in 188 of 1638 ( 11.5% ) of genes in pham
- Manual Annotations of this start: 167 of 1523
- Called 98.4% of time when present
- Phage (with cluster) where this start called: Ading\_255 (C1), Adlitam\_252 (C1), Alice\_238 (C1), Amataga\_253 (C1), ArcherS7\_253 (C1), Asterius\_249 (C1), Astraea\_248 (C1), Atlantean\_252 (C1), Audrick\_255 (C1), Ava3\_249 (C1), Babyland\_255 (C1), BackyardAgain\_247 (C1), BadAgartude\_246 (C1), BananaFence\_250 (C1), Bangla1971\_253 (C1), Basquiat\_250 (C1), BeanWater\_245 (C1), BigCity\_260 (C1), Bigswole\_257 (C1), Bipolarisk\_250 (C1), Blackbrain\_251 (C1), Blackdragon\_247 (C1), Blubba\_239 (C1), Bonray\_255 (C1), Bread\_249 (C1), Breeniome\_252 (C1), Burrough\_253 (C1), Bxz1\_238 (C1), Cactojaque\_247 (C1), Cali\_242 (C1), Cane17\_241 (C1), Capablanca\_257 (C1), Caravan\_242 (C1), Catera\_241 (C1), Chargie21\_250 (C1), CharlieB\_247 (C1), ChaylaJr\_251 (C1), ChickenPhender\_248 (C1), Chomp\_251 (C1), CindyLou\_253 (C1), Colt\_242 (C1), Concombre\_258 (C1), DTDevon\_253 (C1), Daffodil\_258 (C1), Dandelion\_258 (C1), Darko\_252 (C1), Delilah\_250 (C1), Delylah\_254 (C1), Demodog\_260 (C1), Derek\_248 (C1), Dietrick\_241 (C1), DirtMonster\_241 (C1), Domi\_246 (C1), DrPhinkDaddy\_249 (C1), Drazdys\_249 (C1), ET08\_238 (C1), EggyFarm\_260 (C1), EmToTheThree\_253 (C1), EmmaElysia\_257 (C1), Erdmann\_254 (C1), ErnieJ\_246 (C1), Essence\_250 (C1), Ewok\_251 (C1), Flabslab\_247 (C1), Fludd\_252 (C1), FoxtrotP1\_251 (C1), FrayBell\_255 (C1), FudgeTart\_248 (C1), Gabriel\_255 (C1), Gamgam\_254 (C1), Ghost\_252 (C1), Gizmo\_258 (C1), Grasshills\_259 (C1), Grungle\_234 (C1), Guwapp\_248 (C1), Halldule\_244 (C1), HyRo\_237 (C1), I3\_262 (C1), IkeLoa\_246 (C1), InigoMontoya\_256 (C1), InterFolia\_254 (C1), Iota\_249 (C1), Issimir\_246 (C1), JPickles\_250 (C1), Janiyr\_256 (C1), JayJay\_248 (C1), Jaygup\_249 (C1), Jedediah\_254 (C1), Jemmno\_252 (C1), Jessibeth14\_252 (C1), JigglyPuff\_258 (C1), JulietS\_244 (C1), JustHall\_246 (C1), Kamryn\_251 (C1), Kboogie\_256 (C1), Khaleesi\_251 (C1), Koguma\_251 (C1), LRRHood\_244 (C1), Latch\_252 (C1), Lee7\_253 (C1), LifeSavor\_253 (C1), LinStu\_249 (C1), Littleton\_256 (C1), Loanshark\_249 (C1), LolaVinca\_248 (C1), LordLeafolot\_254 (C1), Lukilu\_241 (C1), Maby2021\_253 (C1), Mangeria\_252 (C1), Matsumoto\_250 (C1), McGee\_254 (C1), McWolfish\_249 (C1), Megamind\_249 (C1), Melpomini\_247 (C1), MikeLiesIn\_253 (C1), Mikro\_246 (C1), MoMoMixon\_248 (C1), Momo\_254 (C1), Morizzled23\_250 (C1), Naija\_253 (C1), Napoleon13\_249 (C1), Nappy\_251 (C1),



Naval22\_257 (C1), NedWong\_251 (C1), Ngannou\_247 (C1), Nidhogg\_253 (C1), NoodleTree\_248 (C1), Norm\_252 (C1), NuevoMundo\_254 (C1), ParkTD\_251 (C1), Patter\_254 (C1), Phlegm\_257 (C1), Phox\_253 (C1), Phusco\_251 (C1), Pier\_251 (C1), Pio\_259 (C1), Pivoine\_253 (C1), Pleione\_256 (C1), PurduePete\_253 (C1), QBert\_244 (C1), Quasimodo\_255 (C1), Rabinovish\_245 (C1), Rahel\_254 (C1), Rizal\_241 (C1), RoMag\_247 (C1), Ronan\_248 (C1), Roots515\_255 (C1), Salacia\_254 (C1), Sauce\_249 (C1), ScottMcG\_244 (C1), Sebata\_252 (C1), Shaqato\_243 (C1), Shelob\_253 (C1), ShiaLabeouf\_250 (C1), Shifa\_228 (C1), Shnickers\_251 (C1), Shrimp\_255 (C1), SilverDipper\_257 (C1), SmallFry\_253 (C1), Spec\_246 (C1), Specks\_257 (C1), Sprinklers\_250 (C1), Spud\_244 (C1), SrishMeg2525\_250 (C1), StephanieG\_246 (C1), StubbySaigey\_259 (C1), Stubby\_235 (C1), Tainan\_252 (C1), Teardrop\_251 (C1), TinyTim\_251 (C1), Tonenili\_274 (C1), Tortoise16\_250 (C1), Trinitium\_249 (C1), Turret\_243 (C1), Tyke\_249 (C1), ValleyTerrace\_253 (C1), Wally\_250 (C1), Willis\_253 (C1), Yassified\_248 (C1), YemiJoy2021\_253 (C1), YoungMoneyMata\_252 (C1), Yucca\_253 (C1), Zalkecks\_251 (C1), Zeenon\_253 (C1), ZygoTaiga\_249 (C1),

Start 88:

- Found in 13 of 1638 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 3 of 1523
- Called 23.1% of time when present
- Phage (with cluster) where this start called: Labelle\_41 (U), Madruga\_40 (U), Patience\_42 (U),

Start 90:

- Found in 10 of 1638 ( 0.6% ) of genes in pham
- Manual Annotations of this start: 9 of 1523
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Candle\_39 (R), MontyDev\_39 (R), Nilo\_40 (R), Papyrus\_39 (R), Riparian\_39 (R), Rope\_39 (R), Send513\_39 (R), Weiss13\_39 (R), Yelo\_39 (R), Zenon\_40 (R),

Start 91:

- Found in 34 of 1638 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 31 of 1523
- Called 91.2% of time when present
- Phage (with cluster) where this start called: BAKA\_53 (J), Beem\_49 (J), Bombitas\_46 (J), Constella\_41 (J), Dallas\_51 (J), DmpstrDiver\_50 (J), Dove\_46 (J), Duke13\_52 (J), Ejimix\_49 (J), EricMillard\_49 (J), Gaia\_34 (X), Halley\_49 (J), Hannaconda\_45 (J), HokkenD\_42 (J), Hughesyang\_47 (J), JuicyJay\_51 (J), Kalah2\_49 (J), KashFlow\_42 (J), Klein\_49 (J), LittleE\_53 (J), Minerva\_55 (J), NihilNomen\_48 (J), Omega\_53 (J), Optimus\_54 (J), Phoebus\_48 (J), Pound\_51 (J), Redno2\_47 (J), Schatzie\_46 (J), ThreeRngTarjay\_47 (J), Wanda\_55 (J), Yeet\_47 (J),

Start 95:

- Found in 277 of 1638 ( 16.9% ) of genes in pham
- Manual Annotations of this start: 260 of 1523
- Called 98.2% of time when present
- Phage (with cluster) where this start called: Akhila\_25 (F1), Alexphander\_34 (F1), Alkhayr\_65 (O), AlpineSix\_32 (F1), Aminay\_31 (K7), ArcusAngelus\_31 (F1), Ardmore\_30 (F1), Ashwin\_69 (O), Aubs\_32 (F1), Avani\_36 (F2), Awesomesauce\_32 (F1), Azrael100\_51 (V), Batiatus\_31 (F1), Beakin\_32 (F1), BigPhil\_27 (F1), Bipolar\_28 (F1), Blarby\_39 (F), Blessica\_68 (O), Blexus\_31 (F1), BlueCrab\_31 (F1),

BobaPhett\_31 (F1), Bobi\_33 (F1), BodEinwohner17\_31 (F1), Boomer\_33 (F1), Bora\_65 (O), Brocalys\_26 (F1), Bubbles123\_33 (F1), Burwell21\_31 (F1), BuzzLyseyear\_34 (F1), Byougenkin\_31 (F1), Cabrinians\_31 (F1), CaptainTrips\_32 (F1), Catdawg\_67 (O), Cerasum\_27 (F1), Che8\_33 (F1), Che9d\_36 (F2), Chevrolet\_32 (F1), ChickenDinner\_33 (F1), Chuckly\_31 (F1), Clifton\_25 (F1), Coco12\_31 (F1), Corndog\_70 (O), Cornie\_31 (F5), Cornucopia\_32 (F1), Cosmo\_52 (V), Crumble\_25 (F1), DLane\_31 (F1), DRBy19\_31 (F1), DaWorst\_33 (F1), DaddyRickover\_31 (F1), Daenerys\_31 (F1), Dante\_31 (F1), DeadP\_31 (F1), Deb65\_31 (F1), Demsculpinboyz\_36 (F2), DillTech15\_31 (F1), DirtMcgirt\_32 (F1), DocMcStuffins\_33 (F1), Donkeykong\_31 (F1), Doomphist\_31 (F1), Dorothy\_31 (F1), DosHalletts\_33 (F1), DotProduct\_31 (F1), Doug\_32 (F1), Drago\_32 (F1), Dylan\_67 (O), EleanorGeorge\_32 (F1), Emma\_33 (F1), Empress\_32 (F1), Enby\_33 (F1), EniyanLRS\_49 (V), Eradicator\_31 (F1), Estave1\_29 (F1), Familton\_68 (O), Fancypants\_31 (F1), Fastidio\_33 (F1), Filuzino\_31 (F1), Firecracker\_69 (O), Firehouse51\_32 (F1), Flathead\_31 (F1), Florinda\_31 (F1), FoulBall\_67 (O), Frankie\_35 (F1), FreddyB\_31 (F1), Fruitloop\_30 (F1), GUmbie\_31 (F1), Galactic\_33 (F1), Gandolph\_32 (F1), Geralt\_31 (F1), GigiOuiOui\_31 (F1), Girafales\_32 (F1), Girr\_33 (F1), Gorge\_31 (F1), Guppsters\_33 (F1), Hades\_32 (F1), Harley\_31 (F1), Hegedechwinu\_32 (F1), Hlubikazi\_32 (F1), IMpilo\_30 (F1), Ibhubesi\_31 (F1), Idergollasper\_67 (O), Inventum\_31 (F1), IrishSherpFalk\_33 (F1), Jabbawokkie\_39 (F2), JalFarm20\_34 (F1), James\_31 (F1), JangDynasty\_67 (O), Jarcob\_31 (F1), Jinglebell\_30 (F1), Job42\_35 (F1), JoeyJr\_31 (F1), Juice456\_32 (F1), Juniper1\_31 (F1), Karhdo\_31 (F1), Kenuha5\_28 (F1), Kersh\_30 (F1), KingMidas\_33 (F1), Kingsley\_30 (F1), Koella\_25 (F1), Krakatau\_32 (F1), Krili\_66 (O), KristaRAM\_32 (F1), LastJedi\_25 (F1), Latretium\_32 (F1), Leozinho\_33 (F1), Leperchaun\_31 (F1), LilMoolah\_31 (F1), LilSpotty\_32 (singleton), LittleShirley\_34 (F1), Lizziana\_31 (F1), Llama\_31 (F1), Llij\_31 (F1), Lorde\_33 (F1), LunaBlu\_34 (F1), LunaStella\_33 (F4), MadKillah\_68 (O), MadMen\_29 (F1), Madiba\_29 (F1), Mahavrat\_31 (F1), Mandlovu\_32 (F1), Mantra\_31 (F1), Maravista\_31 (F1), Marker\_32 (F1), Martik\_31 (F1), MaryV\_52 (V), Mattes\_31 (F1), Melissauren88\_31 (F1), MilanaBonita\_25 (F1), MilleniumForce\_32 (F1), MinionDave\_34 (F1), Minnie\_33 (F1), Misha28\_32 (F1), MisterCuddles\_33 (F1), Modragons\_31 (F1), MooMoo\_29 (singleton), Moonbeam\_32 (F1), Mori\_67 (O), Mova\_32 (F1), Mozy\_33 (F1), Ms6\_25 (F1), MulchExplorer\_34 (F1), MulchSalad\_30 (F), Murai\_68 (O), Mutaforma13\_31 (F1), Nebkiss\_35 (X), NiebruSaylor\_66 (O), Nimbo\_31 (F1), Nitzel\_32 (F1), Nivrat\_31 (F1), NormanBulbieJr\_31 (F1), Ochi17\_29 (F1), OfUltron\_31 (F1), Ogotogo\_31 (F1), Oksu\_32 (F1), OldBen\_31 (F1), OlympiaSaint\_31 (F1), Ovechkin\_32 (F1), OwlsT2W\_32 (F1), PHappiness\_31 (F1), PMC\_31 (F1), Pacc40\_31 (F1), Phalconet\_31 (F1), Phanphagia\_28 (F1), Phasih\_32 (F1), Phatniss\_32 (F1), PhesterPhotato\_31 (F1), Philus\_31 (F1), Piper2020\_33 (F1), Pippy\_25 (F1), Plumbus\_33 (F1), Poenanya\_31 (F1), Polka14\_32 (F1), Pollywog\_31 (F1), PopTart\_31 (F1), Priscilla\_31 (F1), QuickMath\_32 (F1), Quico\_32 (F1), Radiance\_31 (F1), Ramsey\_34 (F1), RedBird\_31 (F1), Renaud18\_31 (F4), Rialto\_35 (F1), RitaG\_32 (F1), Rita\_32 (F1), Rockne\_31 (F1), RockyHorror\_32 (F1), Royals2015\_31 (F1), Ruby\_33 (F1), Ryadel\_71 (O), SG4\_32 (F1), Saal\_31 (F1), Sabbb\_32 (F1), Sandalphon\_32 (F1), Sarma624\_27 (F1), Sassafras\_32 (F1), SassyB\_31 (F1), SchoolBus\_67 (O), Schuy\_68 (O), Scottish\_32 (F1), Seabastian\_31 (F1), Seagreen\_32 (F1), Shauna1\_28 (F1), ShiLan\_31 (F1), Shida\_67 (O), ShowerHandel\_31 (F1), ShroomBoi\_28 (F1), SiSi\_31 (F1), SimranZ1\_34 (F1), Smooch\_70 (O), Soul22\_36 (F2), Sparkdehlily\_31 (F1), Spartacus\_33 (F1), Spikelee\_33 (F1), Spoonbill\_31 (F1), StAnnes\_30 (F1), Stap\_32 (F1), Starcevich\_35 (F1), Strokeseat\_32 (F1), SuperGrey\_32 (F1), SwagPigglett\_31 (F1), TChen\_31 (F4), TDanisky\_31 (F1), Taj\_31 (F1), TelAviv\_64 (O), ThetaBob\_30 (F4), TootsiePop\_32

(F1), Tootsieroll\_32 (F1), Toron\_32 (F6), Totinger\_32 (F1), Tweety\_31 (F1), UncleRicky\_34 (F1), VRedHorse\_31 (F1), Vagabond\_65 (O), Velveteen\_27 (F1), Veteran\_31 (F1), Vorrrps\_67 (O), Wachhund\_31 (F1), Wee\_32 (F1), Whatsapiecost\_32 (F1), Whouxphf\_32 (F1), Wildcat\_52 (V), Wildflower\_67 (O), WillSterrel\_33 (F1), Winget\_68 (O), XFactor\_31 (F1), Yorick\_31 (F1), Yoshi\_38 (F2), YungJamal\_72 (O), Zakhe101\_66 (O), Zapner\_38 (F2), Zerg\_31 (F1), Zizzle\_31 (F1),

#### Start 96:

- Found in 35 of 1638 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 29 of 1523
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Acquire49\_26 (L1), Appletree2\_26 (L1), Archie\_28 (L2), AvadaKedavra\_26 (L1), Bazzle\_28 (L2), BrainDrainer\_27 (L4), Bromden\_28 (L4), Calm\_26 (L1), Chaser\_26 (L4), CicholasNage\_26 (L1), DirkDirk\_26 (L1), Douge\_26 (L4), Douzhi\_26 (L4), DyoEdafos\_27 (L4), Enceladus\_26 (L1), FarmResident\_26 (L4), Finemlucis\_28 (L2), Gabriela\_28 (L2), Halena\_26 (L1), JoeDirt\_26 (L1), LeBron\_26 (L1), MAckerman\_26 (L1), OhShagHennessy\_26 (L1), PYPDinur\_26 (L4), Quby\_26 (L4), Rose5\_26 (L1), Rumpelstiltskin\_28 (L2), Sheng711\_26 (L4), Silverleaf\_26 (L1), Tyson\_26 (L1), UPIE\_26 (L1), Wamburgxpress\_26 (L1), Wyatt2\_26 (L1), Zakai\_28 (L2), Zaria\_26 (L1),

#### Start 98:

- Found in 4 of 1638 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 3 of 1523
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Aikoy\_46 (AE), Leopard\_46 (AE), Onyinye\_47 (AE),

#### Start 101:

- Found in 95 of 1638 ( 5.8% ) of genes in pham
- Manual Annotations of this start: 93 of 1523
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ACFishhook\_12 (A3), Aglet\_12 (A3), AgronaGT15\_12 (A3), Anubis\_14 (A3), AugsMagnumOpus\_14 (A3), Beauxregard13\_12 (A3), BreSam8\_12 (A3), BuzzBuzz\_11 (A3), Bxz2\_12 (A3), Caviar\_11 (A3), Colbster\_12 (A3), Cullens\_12 (A3), DaHudson\_12 (A3), Dieselweasel\_12 (A3), EpicPhail\_12 (A3), Farber\_12 (A3), Fernando\_12 (A3), Gemma\_12 (A3), GingkoMaracino\_12 (A3), Grif\_12 (A3), Groupthink\_13 (A3), Grub\_12 (A3), Grum1\_12 (A3), GtownJaz\_12 (A3), HashRod\_13 (A3), HaveUMetTed\_13 (A3), Heliosoles\_12 (A3), Hercules11\_12 (A3), Hookmount\_11 (A3), JHC117\_12 (A3), JenCasNa\_12 (A3), JeppNRM\_13 (A3), Jobu08\_12 (A3), KADY\_13 (A3), Kalb97\_13 (A3), Kalnoky\_13 (A3), LBerry\_12 (A3), Lambert1\_11 (A3), LarryKay\_12 (A3), Lilith\_12 (A3), Louie6\_12 (A3), LugYA\_14 (A3), MadMarie\_12 (A3), Mainiac\_12 (A3), Malinsilva\_14 (A3), Manu\_13 (A3), MarQuardt\_12 (A3), Margo\_11 (A3), Marie\_12 (A3), Marius\_13 (A3), Methuselah\_12 (A3), Microwolf\_12 (A3), Misomonster\_14 (A3), MoneyMay\_12 (A3), MuchMore\_14 (A3), Noella\_11 (A3), Norbert\_10 (A3), OlanP\_12 (A3), Ollie\_12 (A3), P28Green\_12 (A3), PGHhamlin\_14 (A3), Panamaxus\_11 (A3), Pawn\_13 (A3), Pembroke\_12 (A3), Penny1\_12 (A3), PhishRPhriends\_11 (A3), Phoebe\_12 (A3), Phoxy\_12 (A3), Phranny\_13 (A3), Pocahontas\_11 (A3), Popcicle\_11 (A3), PotatoSplit\_13 (A3), PurpleHaze\_12 (A3), QuinnKiro\_10 (A3), Reba\_13 (A3), ResDef\_11 (A3), Rummer\_12 (A3), Sabia\_12 (A3), Sabinator\_12 (A3), Snickers\_12 (A3), SoYo\_12 (A3), SoilDragon\_12 (A3), Soshari\_14 (A3), Spike509\_12 (A3), Stagni\_12 (A3),

StepMih\_12 (A3), Taurus\_12 (A3), Texage\_10 (A3), Tiffany\_12 (A3), Todacoro\_11 (A3), Veracruz\_10 (A3), Vix\_12 (A3), Watson\_12 (A3), Wooldri\_14 (A3), Zetzy\_11 (A3),

Start 104:

- Found in 34 of 1638 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 1 of 1523
- Called 8.8% of time when present
- Phage (with cluster) where this start called: Bagrid\_48 (J), Odette\_49 (J), Zelink\_50 (J),

Start 105:

- Found in 264 of 1638 ( 16.1% ) of genes in pham
- Manual Annotations of this start: 4 of 1523
- Called 1.5% of time when present
- Phage (with cluster) where this start called: DS6A\_31 (singleton), EasyJones\_253 (C1), Izajani\_248 (C1), Pinkcreek\_232 (C1),

Start 108:

- Found in 1 of 1638 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 1523
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Imvubu\_41 (B10),

Start 109:

- Found in 18 of 1638 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 1 of 1523
- Called 5.6% of time when present
- Phage (with cluster) where this start called: Hamulus\_32 (F1),

Start 110:

- Found in 24 of 1638 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 4 of 1523
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Funsized\_52 (B9), Knocker\_50 (B9), Rinkes\_49 (B9), Zenteno07\_53 (B13),

Start 111:

- Found in 349 of 1638 ( 21.3% ) of genes in pham
- Manual Annotations of this start: 315 of 1523
- Called 97.1% of time when present
- Phage (with cluster) where this start called: 20ES\_11 (A2), 39HC\_042 (B6), 40AC\_14 (A17), 40BC\_042 (B6), A6\_08 (A1), AFIS\_10 (A1), AN3\_11 (A2), AbbyPaige\_13 (A2), AbbysRanger\_10 (A4), Abbyshoes\_11 (A1), Abrogate\_110 (A1), Acme\_11 (A1), Adahisdi\_11 (A1), Aeneas\_12 (A1), Agaliana\_10 (A1), Agape74\_13 (A2), Ajay\_10 (A1), Alsfro\_14 (A1), Altman\_11 (A1), Alvin\_11 (A1), Anglerfish\_10 (A1), AnnaL29\_14 (A2), Anselm\_11 (A2), Applejack\_10 (A1), Arcanine\_10 (A1), ArcherNM\_13 (A2), Arlo\_9 (A1), Ashballer\_8 (A1), Atkinbua\_10 (A1), BK1\_08 (A1), BPBiabs31\_11 (A1), BabyBack\_13 (A2), Backyardigan\_10 (A4), BaconJack\_12 (A1), Bactobuster\_12 (A2), Baehexic\_12 (A2), Barriga\_10 (A1), Beatrix\_9 (A1), BeesKnees\_10 (A1), BengiVuitton\_12 (A2), Benvolio\_11 (A2), Bethlehem\_10 (A1), Bexan\_9 (A1), BiancaTri92\_13 (A2), Big3\_10 (A1), BigMau\_11 (A1), BigPaolini\_11 (A1), Bigfoot\_9 (A1), BillKnuckles\_11 (A1), Bircsak\_10 (A1), BluSpix\_10 (A1),

Blue\_10 (A1), Bob3\_9 (A1), BobSwaget\_14 (A2), Bones\_10 (A1), Briton15\_11 (A1),  
Bruns\_8 (A1), Buggy\_13 (A2), Bumblebee11\_10 (A4), Burton\_10 (A1), Buttons\_11  
(A1), Bxb1\_9 (A1), CRB1\_11 (A2), CactusRose\_9 (A1), Carlyle\_12 (A1), Centaur\_13  
(A2), Chanagan\_9 (A1), Changeling\_14 (A2), ChipMunk\_13 (A2), Chupacabra\_10  
(A10), Ciao\_10 (A1), Colin\_15 (A2), ConceptII\_10 (A1), Corvo\_10 (A1),  
Crispicious1\_9 (A1), Crucio\_11 (A2), DD5\_11 (A1), Daishi\_11 (A3), Dalmatian\_11  
(A2), Datway\_10 (A4), Deloris\_12 (A2), Dexes\_11 (A1), Dignity\_13 (A2),  
DontArgue\_9 (A10), Doom\_10 (A1), DrFeelGood\_9 (A1), Drake55\_13 (A2),  
Drake94\_9 (A10), DreamCatcher\_11 (A1), Dreamboat\_11 (A1), DroogsArmy\_11  
(A7), DudeLittle\_11 (A2), Dulcie\_9 (A1), Dussy\_11 (A1), DustyMartin\_13 (A10),  
Dynamix\_10 (A1), EZMoney23\_15 (A2), Eaglepride\_11 (A10), Echild\_11 (A2),  
Edison31\_10 (A10), Edtherson\_11 (A1), Equemioh13\_13 (A2), Espresso\_10 (A1),  
Euphoria\_10 (A1), Eyeball\_10 (A1), Fajezeel\_11 (A1), Fameo\_11 (A2), Fascinus\_9  
(A1), Fenn\_10 (A1), FiringLine\_11 (A2), First\_0011 (A2), Flare16\_11 (A2),  
Forsytheast\_9 (A1), Francis47\_10 (A1), Fushigi\_10 (A1), GageAP\_11 (A1),  
Gandalf20\_11 (A1), GaugeLDP\_13 (A2), Georgie2\_12 (A2), Gompeii16\_10 (A1),  
Goose\_10 (A10), Graduation\_12 (A1), GrecoEtereo\_11 (A1), Greg\_11 (A1),  
Gwendoluna\_11 (A1), Gyzlar\_11 (A1), HINdeR\_10 (A7), Hami1\_11 (A1),  
HanShotFirst\_10 (A1), HarryHoudini\_13 (A2), HarryOW\_11 (A1), Heffalump\_13 (A2),  
Hermia\_12 (A1), HermioneGrange\_11 (A1), Homines\_10 (A1), Hope4ever\_10 (A1),  
Hosp\_040 (B6), ILeeKay\_12 (A1), Ichabod\_10 (A1), IgnatiusPatJac\_9 (A1),  
Inyanga\_9 (A1), IronMan\_13 (A2), Iwokeuplikedis\_11 (A2), JC27\_12 (A1), Jaan\_14  
(A2), JackSparrow\_10 (A1), Jasper\_11 (A1), Jerm2\_10 (A1), Jerm\_13 (A2),  
Jolie1\_042 (B6), Jorgensen\_10 (A1), JoshKayV\_13 (A2), JuliaChild\_12 (A1),  
KBG\_11 (A1), KSSJEB\_9 (A1), Kalpine\_14 (A2), Kanely\_11 (A1), Katalie136\_10  
(A4), KayaCho\_42 (B6), Kenmech\_12 (A1), Killigrew\_8 (A1), KingCyrus\_13 (A2),  
Kinmap\_10 (A21), KittenMittens\_9 (A10), Kristoff\_11 (A10), Kugel\_11 (A1),  
KyMonks1A\_12 (A1), Kykar\_8 (A1), LadyBird\_11 (A2), Lamina13\_10 (A1),  
Landor\_12 (A2), Larenn\_12 (A2), Leogania\_13 (A2), Lesedi\_9 (A1), Leviathan\_13  
(A2), LilBib\_11 (A1), LilMcDreamy\_46 (B12), LilTurb\_13 (A2), LittleGuy\_10 (A4),  
Lockley\_10 (A1), Lokk\_14 (A2), Lopton\_11 (A1), Loser\_14 (A2), MPlant7149\_9 (A1),  
Magnar\_10 (A1), Magnito\_9 (A1), Makemake\_10 (A1), Malec\_12 (A2), Manatee\_10  
(A1), Marcell\_10 (A1), Marge\_10 (A1), Maroc7\_9 (A1), Marsha\_10 (A1),  
MaryBeth\_10 (A1), McGuire\_10 (A1), MetalQZJ\_10 (A1), Michley\_10 (A1),  
MiculUcigas\_11 (A2), Miko\_14 (A2), Mkhuseli\_9 (A1), Molly\_11 (A1), Monet\_11 (A1),  
Moose\_9 (A1), Morpher26\_10 (A4), MrGordo\_10 (A1), Mryolo\_9 (A1), Mule\_10 (A1),  
Museum\_11 (A1), NEHalo\_10 (A1), NaSiaTalie\_11 (A2), Naira\_10 (A1), Nhonho\_10  
(A1), NicoleTera\_15 (A2), Niza\_11 (A1), Norz\_12 (A1), NothingSpecial\_13 (A2),  
Nyxis\_10 (A4), OKCentral2016\_10 (A10), Ohno789\_9 (A1), Oogway\_9 (A1),  
PSullivan\_12 (A1), PacerPaul\_10 (A1), Papez\_12 (A1), Paphu\_9 (A1), Paraselene\_9  
(A1), Pari\_11 (A1), Parliament\_9 (A1), PascalRango\_9 (A1), PattyP\_11 (A1),  
Payneful\_10 (A1), PeaceMeal1\_9 (A10), Pelly\_11 (A1), Pepe\_11 (A1), Perplexer\_10  
(A4), Perseus\_11 (A1), Peterson\_13 (A1), PetiteSangsue\_10 (A4), Petp2012\_12  
(A1), Petruchio\_10 (A1), Phaded\_14 (A2), PherrisBueller\_11 (A1), Phontbonne\_10  
(A4), PhrostyMug\_10 (A1), PinkPlastic\_8 (A1), Pinto\_12 (A1), Pippin\_11 (A1),  
Piro94\_12 (A2), Pita2\_12 (A1), Poompha\_9 (A10), Power\_11 (A2), ProMouse\_9 (A1),  
Pukovnik\_13 (A2), QTRlifeCrisis\_10 (A1), QueenB2\_11 (A2), QueenBeesly\_11 (A2),  
Rachaly\_14 (A2), Rajelicia\_9 (A1), Rebeuca\_11 (A10), RedRock\_14 (A2), Refuge\_14  
(A12), Retro23\_11 (A2), RhynO\_11 (A10), Rhynn\_10 (A1), RidgeCB\_10 (A1),  
Ringer\_10 (A1), Rohr\_11 (A1), Rowdy\_13 (A10), Rubeus\_10 (A1), Rufus\_10 (A1),  
Ruotula\_9 (A1), Rutherford\_11 (A1), STLscum\_11 (A1), Sagefire\_11 (A1), Sanya\_9  
(A1), SarFire\_10 (A1), Scowl\_11 (A1), Seabiscuit\_11 (A1), Seanderson\_11 (A1),  
SemperFi\_13 (A2), Severus\_9 (A10), Shapes\_13 (A10), ShortQueendom\_9 (A1),

Shygu2\_10 (A4), Sibs6\_11 (A1), SkiPole\_12 (A1), Slagathor\_10 (A1), Smairt\_11 (A1), Smeagan\_13 (A2), Smeagol\_11 (A1), SnapTap\_11 (A2), Snazzy\_8 (A1), Solon\_10 (A1), Sorpresa\_10 (A1), SpikeBT\_11 (A1), Squee\_10 (A1), StewieG\_9 (A1), StrongArm\_9 (A1), Sumter\_9 (A1), Sunshine924\_9 (A1), SweetiePie\_11 (A2), SwissCheese\_10 (A1), Switzer\_10 (A1), Target\_11 (A1), TarsusIV\_11 (A2), Tasp14\_11 (A1), Teodoridan\_8 (A1), TheloniousMonk\_11 (A1), Thor\_10 (A1), Timshel\_11 (A7), Topanga\_10 (A10), Tote\_12 (A1), Traft412\_12 (A1), Treddle\_11 (A1), Trike\_8 (A10), Tripi3t\_11 (A1), Trixie\_14 (A2), Trooper\_11 (A2), Trouble\_10 (A1), Turbido\_13 (A2), Turj99\_9 (A1), Twister\_10 (A10), TwoPeat\_11 (A1), U2\_9 (A1), Updawg\_13 (A2), VA6\_11 (A2), Violet\_9 (A1), WalterMcMickey\_10 (A10), Watermelon\_12 (A1), WeiHuaDA\_17 (A2), Whabigail7\_13 (A2), Wheeler\_10 (A1), WideWale\_13 (A2), Wile\_10 (A4), Wilkins\_10 (A1), XianYue\_11 (A2), Zeeculate\_9 (A1), Zephyr\_10 (A1), Zeuska\_11 (A1), Zimmer\_13 (A12),

#### Start 112:

- Found in 357 of 1638 ( 21.8% ) of genes in pham
- Manual Annotations of this start: 111 of 1523
- Called 31.7% of time when present
- Phage (with cluster) where this start called: Abdiel\_10 (A4), Achebe\_10 (A4), Albee\_10 (A4), Alberto7\_11 (A4), Annyong\_10 (A4), Arturo\_9 (A4), AvatarAhPeg\_10 (A4), Baby16\_10 (A4), Badger\_10 (A4), BangNhom\_9 (A4), Bartimeaus\_10 (A4), BirdsNest\_51 (B13), Blackmoor\_10 (A4), Bombshell\_10 (A4), Broseidon\_10 (A4), Bruiser\_10 (A4), BubbleTrouble\_10 (A4), Caelakin\_10 (A4), Camperdownii\_9 (A4), CentreCat\_10 (A4), Cerulean\_10 (A4), ChampagnePapi\_10 (A4), Chaph\_10 (A4), Cici\_10 (A4), Cindaradix\_9 (A4), Cintron\_10 (A4), Citius\_10 (A4), Clarenza\_10 (A4), Cocoaberry\_10 (A4), Commander\_10 (A4), Connomayer\_10 (A4), Deano\_10 (A4), Dhanush\_10 (A4), DirtyDunning\_10 (A4), Druantia\_10 (A4), Eapen\_10 (A4), Eris\_10 (A4), Eros\_10 (A4), Eurydice\_10 (A4), Florean\_10 (A4), Funston\_10 (A4), Gadost\_10 (A4), Happiness\_10 (A4), Hashim76\_52 (B13), Houdini22\_10 (A4), Iceman\_10 (A4), Iracema64\_10 (A4), Jaykayelowell\_10 (A4), JetBlade\_10 (A4), JoongJeon\_10 (A4), KFPoly\_10 (A4), Kamy\_10 (A4), Kingmustik0402\_10 (A4), Koreni\_9 (A4), Kratark\_10 (A4), Kremtemulon\_10 (A4), Kyee\_10 (A4), LHTSCC\_10 (A4), LappelDuVide\_10 (A4), Lemur\_10 (A4), LeoAvram\_10 (A4), LittleB\_10 (A4), LochMonster\_10 (A4), Lorenzo\_10 (A4), Lunsford\_11 (A4), Maverick\_10 (A4), Maxo\_10 (A4), Mazhar510\_10 (A4), Millski\_10 (A4), Miramae\_10 (A4), Morrow\_10 (A4), Mundrea\_10 (A4), Nebs\_10 (A4), Noelle\_10 (A4), NorthStar\_10 (A4), NotAPhaseMom\_10 (A4), OKaNui\_10 (A4), Obama12\_10 (A4), Ohfah\_10 (A4), Palestino\_10 (A4), PeterPeter\_10 (A4), Phacado\_10 (A4), Felipe\_10 (A4), Phighter1804\_10 (A4), Polymorphads\_10 (A4), Pumbaa\_10 (A4), Relief\_10 (A4), Romney\_10 (A4), Roosevelt\_10 (A4), Rosa24\_9 (A4), Ruin\_10 (A4), Sabertooth\_10 (A4), Scamp\_10 (A4), Shaka\_10 (A4), SheldonCooper\_10 (A4), Skipitt\_10 (A4), Sparxx\_10 (A4), Spino\_10 (A4), Stasia\_11 (A4), Stink\_10 (A4), Taquarus\_10 (A4), Thanksgivukkah\_10 (A4), TinaFeyge\_10 (A4), Tinybot\_9 (A4), TiroTheta9\_10 (A4), TroyPia\_10 (A4), TygerBlood\_10 (A4), Ulysses\_9 (A4), Wander\_10 (A4), Wilbur\_10 (A4), Wizard007\_10 (A4), Xena\_10 (A4), YoSam321\_10 (A4),

#### Start 114:

- Found in 108 of 1638 ( 6.6% ) of genes in pham
- Manual Annotations of this start: 13 of 1523
- Called 12.0% of time when present
- Phage (with cluster) where this start called: Avle17\_10 (A4), BellusTerra\_10 (A4), Burger\_9 (A4), Eagle\_9 (A4), Flux\_10 (A4), HamSlice\_9 (A4), Holli\_10 (A4), ICleared\_10 (A4), Medusa\_10 (A4), MeeZee\_10 (A4), Melvin\_10 (A4), Peaches\_10

(A4), Pipcraft\_10 (A4),

Start 126:

- Found in 349 of 1638 ( 21.3% ) of genes in pham
- Manual Annotations of this start: 6 of 1523
- Called 1.7% of time when present
- Phage (with cluster) where this start called: Cueyllyss\_10 (A1), Froghopper\_11 (A1), Licorice\_12 (A1), Luchador\_11 (A14), Marchy\_9 (A1), Topgun\_10 (A1),

Start 135:

- Found in 394 of 1638 ( 24.1% ) of genes in pham
- Manual Annotations of this start: 1 of 1523
- Called 0.3% of time when present
- Phage (with cluster) where this start called: EvilGenius\_13 (A2),

Start 136:

- Found in 131 of 1638 ( 8.0% ) of genes in pham
- Manual Annotations of this start: 124 of 1523
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 244\_37 (E), ABCat\_34 (E), Adnama\_38 (E), Amao\_35 (E), AmericanBeauty\_37 (E), Argent26\_37 (E), Asriel\_34 (E), BaboJay\_34 (E), BadStone\_34 (E), Balomoji\_34 (E), Barbarian\_34 (E), Bask21\_35 (E), Bench\_37 (E), BigBubba\_36 (E), BilboSwaggins\_35 (E), Bruin\_35 (E), Buck\_34 (E), BugsBunny\_33 (E), Cactus\_36 (E), ChosenOne\_35 (E), ChotaBhai\_35 (E), Cjw1\_35 (E), Command613\_36 (E), Contagion\_34 (E), Cookies\_35 (E), CrystalP\_35 (E), Czyszczonek\_36 (E), Daikon\_34 (E), DoctorDiddles\_35 (E), DrDrey\_36 (E), Dumbo\_35 (E), Dusk\_34 (E), Easy2Say\_37 (E), Elite2014\_34 (E), Elph10\_36 (E), Emmina\_36 (E), Eureka\_35 (E), Filch\_36 (E), FireRed\_35 (E), Flypotenuse\_33 (E), Gage\_37 (E), Gator\_33 (E), Gemini\_38 (E), Glexan\_33 (E), Goku\_35 (E), GoldenSpark\_37 (E), Goldilocks\_36 (E), GooberAzure\_37 (E), HanKaySha\_36 (E), Harella\_34 (E), Henry\_36 (E), Highbury\_36 (E), Holt\_36 (E), Hoonter\_37 (E), Hopey\_37 (E), HufflyPuff\_34 (E), IHOP\_35 (E), Icee\_34 (E), Inca\_34 (E), Indulamithi\_36 (AC), JeTaime\_37 (E), Kanye\_37 (E), Kimchi\_37 (E), Kostya\_36 (E), Lilac\_37 (E), Lilizi\_37 (E), Lilpickle\_34 (E), MISSy\_34 (E), MPhalcon\_34 (E), MadamMonkfish\_35 (E), Manda\_36 (E), Marshmallow\_35 (E), Maxxinista\_36 (E), Mindy\_35 (E), Miniwave\_35 (E), Misfit\_35 (E), Moldemort\_36 (E), Mosby\_34 (E), Murica\_34 (E), Murphy\_36 (E), Myrale\_35 (E), Nala\_35 (E), NelitzaMV\_35 (E), Nimrod\_35 (E), NoSleep\_36 (E), OrionPax\_36 (E), Palpatine\_35 (E), Paperbeatsrock\_37 (E), Pat3\_34 (E), Petra64142\_37 (E), Phaja\_35 (E), Pharsalus\_36 (E), PhatBacter\_35 (E), Phaux\_34 (E), Phrux\_35 (E), Policronamos\_36 (E), Porky\_35 (E), Pumpkin\_37 (E), Quallification\_36 (E), Rakim\_36 (E), Rimmer\_34 (E), RiverMonster\_35 (E), Saints25\_36 (E), Sassay\_34 (E), ShamWow\_35 (E), ShereKhan\_37 (E), Simpliphy\_36 (E), SirDuracell\_34 (E), SophKB\_35 (E), Sotrice96\_35 (E), Stank\_38 (E), Stark\_36 (E), StellaBean\_35 (E), StolenFromERC\_37 (E), TBrady12\_37 (E), Tarkin\_37 (E), TeardropMSU\_34 (E), Teaspoon\_36 (E), Terminus\_35 (E), Thresher\_36 (E), Tomaszewski\_34 (E), Toto\_35 (E), Traaww1\_33 (E), Tuco\_36 (E), Ukulele\_35 (E), Wiggin\_38 (E), Willez\_34 (E), Xandras\_37 (E), YassJohnny\_36 (E), Youngblood\_35 (E), xkcd\_36 (E),

Start 138:

- Found in 584 of 1638 ( 35.7% ) of genes in pham
- Manual Annotations of this start: 2 of 1523
- Called 0.7% of time when present



- Phage (with cluster) where this start called: Nemo27\_10 (A4), Nerujay\_11 (A1), Sandaddy\_9 (A1), Swole\_12 (A1),

#### Start 143:

- Found in 20 of 1638 ( 1.2% ) of genes in pham
- Manual Annotations of this start: 20 of 1523
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Boilgate\_28 (K8), Chancellor\_32 (K4), Cheetobro\_32 (K4), Eponine\_34 (K4), Fionnbharth\_32 (K4), JF1\_32 (K4), Juliette\_34 (K4), Malthus\_33 (K4), MissDaisy\_32 (K4), Mitti\_32 (K4), OmniCritical\_32 (K4), Patt\_32 (K4), Reptar3000\_32 (K4), Ruthiejr\_33 (K4), SamScheppers\_32 (K4), Slarp\_32 (K4), Taquito\_32 (K4), Wintermute\_32 (K4), Y10\_32 (K4), Y2\_32 (K4),

#### Start 152:

- Found in 40 of 1638 ( 2.4% ) of genes in pham
- Manual Annotations of this start: 16 of 1523
- Called 42.5% of time when present
- Phage (with cluster) where this start called: Agent47\_30 (K5), AlleyCat\_31 (K5), Amelie\_27 (K1), Biglebops\_27 (K1), Collard\_30 (K5), Dadosky\_31 (K5), Edugator\_30 (K5), Enkosi\_27 (K1), InvictusManeo\_30 (K5), Larva\_31 (K5), LilPharaoh\_27 (K1), Mdavu\_27 (K1), Nikao\_27 (K1), Nutello\_27 (K1), Psycho\_31 (K5), SgtBeansprout\_27 (K1), Torres\_27 (K1),

#### Start 153:

- Found in 143 of 1638 ( 8.7% ) of genes in pham
- Manual Annotations of this start: 137 of 1523
- Called 99.3% of time when present
- Phage (with cluster) where this start called: ActinUp\_31 (K1), Adephegia\_31 (K1), Adonis\_31 (K1), Ageofdapage\_31 (K1), AlishaPH\_31 (K1), Amgine\_29 (K6), Amohntion\_30 (K6), Anaya\_32 (K1), Angelica\_31 (K1), Apocalypse\_31 (K1), Asayake\_31 (K1), Atiba\_31 (K1), BEEST\_31 (K1), BGIluviae\_31 (K1), BaghaKamala\_31 (K1), BarrelRoll\_31 (K1), Beezoo\_31 (K1), Bella96\_31 (K1), Belladonna\_31 (K1), Blizzard\_31 (K1), Boiiii\_31 (K1), Bryler\_31 (K6), CREW\_31 (K1), Cain\_31 (K6), Capricorn\_31 (K1), CaseJules\_31 (K1), CheetoDust\_31 (K1), Chris\_30 (K1), CrimD\_31 (K1), Curiosium\_32 (K1), Dalmuri\_31 (K1), DARTH\_30 (K6), Dartin\_31 (K1), Deby\_31 (K1), Devera\_31 (K1), Dole\_31 (K1), DrHayes\_31 (K1), Durfee\_31 (K1), Efra2\_31 (K1), Ekdilam\_28 (K6), Ellie\_28 (K6), Emerson\_31 (K1), Fefferhead\_30 (K6), Feyre\_30 (K5), Ganymede\_32 (K1), Gengar\_30 (K5), Geraldini\_31 (K1), Guanica15\_31 (K1), Guillsminger\_30 (K5), Hammy\_30 (K6), HedwigODU\_31 (K1), Heftyboy\_30 (K5), Homura\_31 (K1), Hurricane\_32 (K3), Hyperbowlee\_31 (K1), Illumine\_31 (K1), Inky\_31 (K1), JAWS\_31 (K1), Jarvi\_31 (K1), Jayhawk\_31 (K1), Jeckyll\_31 (K1), Joy99\_31 (K1), Keshu\_32 (K3), KiSi\_30 (K1), Krueger\_31 (K6), LastHope\_31 (K1), LaterM\_31 (K1), LeMond\_30 (K1), Leston\_30 (K5), LindNT\_31 (K1), Llorens\_31 (K1), Lunahalos\_31 (K1), MacnCheese\_32 (K3), MalagasyRose\_31 (AG), MarkPhew\_31 (K1), Marshawn\_32 (K6), McMater\_31 (K1), MeaningOfLife\_31 (K1), Megsy\_31 (K1), Miryou\_30 (K5), Murucutumbu\_31 (K1), Mynx\_31 (K1), Nibb\_30 (K1), Niklas\_31 (K1), OkiRoe\_30 (K5), Omnicron\_31 (K5), Oscar\_30 (K1), Padfoot\_31 (K1), Padpat\_31 (K1), Paola\_30 (K5), Peanam\_31 (K1), Peel\_31 (K1), Pharb\_30 (K3), PhelpsODU\_31 (K6), Phrank\_31 (K6), Piatt\_31 (K1), Pixie\_31 (K3), Pokerus\_30 (K1), Prithvi\_31 (K1), QuincyRose\_30 (K1), Ramen\_31 (K1), Rando14\_31 (K5), Rapunzel97\_31 (K1), Richo\_31 (K1), Rosmarinus\_31 (K1), SamuelLPlaqson\_31 (K1), Scarlett\_30 (K1), Shadow1\_30 (K6), Shaobing\_31 (K1), ShedlockHolmes\_32 (K3), ShiaSurprise\_31 (K1), Slimphazie\_31 (K1), SoSeph\_30

(K5), Spock\_31 (K1), Stinson\_32 (K1), Sulley\_31 (K1), Sunflower1121\_30 (K6), Syra333\_31 (K6), TBond007\_31 (K3), Tachez\_31 (K1), TaiwanKao\_32 (K1), Thyatira\_30 (K5), Tierra\_31 (K6), TingHuaYa\_31 (K1), TiniBug\_31 (K1), Tiri\_31 (K1), Topper\_31 (K1), TreyKay\_31 (K1), TribbleTrouble\_30 (K3), TruffulaTree\_31 (K1), Twitch\_31 (K1), Unicorn\_31 (K6), Urkel\_31 (K1), Validus\_31 (K1), Veliki\_31 (K1), Waterfoul\_30 (K5), Ximenita\_32 (K6), YoureAdopted\_30 (K1), Yuna\_32 (K6), Yunkel11\_31 (K1), Zabiza\_31 (K1), Zavala\_31 (K1),

Start 156:

- Found in 133 of 1638 ( 8.1% ) of genes in pham
- Manual Annotations of this start: 3 of 1523
- Called 2.3% of time when present
- Phage (with cluster) where this start called: Nergal\_27 (AG), SirPhilip\_30 (K6), TClif\_32 (K6),

Start 161:

- Found in 180 of 1638 ( 11.0% ) of genes in pham
- Manual Annotations of this start: 1 of 1523
- Called 0.6% of time when present
- Phage (with cluster) where this start called: Kratio\_29 (K5),

Start 214:

- Found in 630 of 1638 ( 38.5% ) of genes in pham
- Manual Annotations of this start: 1 of 1523
- Called 0.2% of time when present
- Phage (with cluster) where this start called: Kimberlium\_33 (F1),

Start 221:

- Found in 1 of 1638 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 1523
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phantastic\_10 (A3),

Start 224:

- Found in 25 of 1638 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 17 of 1523
- Called 100.0% of time when present
- Phage (with cluster) where this start called: B1\_08 (A3), BabyJohn\_9 (A3), BabyRay\_10 (A3), BlueBird\_11 (A3), Bugatti\_10 (A3), Chiqui\_9 (A3), DropBear\_10 (A3), Fred313\_10 (A3), Giroux\_10 (A3), Heathen\_10 (A3), HelDan\_10 (A3), Idleandcovert\_10 (A3), Isca\_10 (A3), JF2\_10 (A3), JF4\_10 (A3), Kachowdy\_10 (A3), MA5\_10 (A3), MK4\_10 (A3), Marchesa\_10 (A3), Pistachio\_11 (A3), Puppy\_11 (A3), Rockstar\_10 (A3), SaturnRing\_10 (A3), Scout\_10 (A3), TNguyen7\_10 (A3),

Start 226:

- Found in 3 of 1638 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 1523
- Called 100.0% of time when present
- Phage (with cluster) where this start called: FlyCatcher\_14 (A7), Sheen\_12 (A7), Toro\_13 (A7),

Start 229:

- Found in 21 of 1638 ( 1.3% ) of genes in pham

- Manual Annotations of this start: 16 of 1523
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AN9\_14 (A2), ANI8\_14 (A2), Bradman\_10 (A2), C3\_09 (A2), D29\_12 (A2), D32\_14 (A2), DBQu4n\_14 (A2), Duplo\_14 (A2), Jsquared\_10 (A2), Kerberos\_14 (A2), Koduck\_11 (A2), L5\_12 (A2), MajorMajor\_10 (A2), Najj\_14 (A2), Pomar16\_14 (A2), Quokka\_9 (A2), Serenity\_10 (A2), StarStuff\_14 (A2), Tomathan\_14 (A2), Travvers\_14 (A2), VC3\_14 (A2),

Start 231:

- Found in 42 of 1638 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 2 of 1523
- Called 4.8% of time when present
- Phage (with cluster) where this start called: Kimona\_7 (A19), PP\_20 (A7),

Start 235:

- Found in 368 of 1638 ( 22.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 0.3% of time when present
- Phage (with cluster) where this start called: IbOuu\_33 (F1),

### Summary by clusters:

There are 53 clusters represented in this pham: singleton, M3, M2, AC, A21, K3, K2, K1, M1, K6, K5, K4, AE, K8, A14, A17, A10, A12, A19, A1, A3, A2, A4, A7, C1, B10, V, AB, E, AG, F, B12, J, O, L4, R, L2, L3, L1, X, F1, F2, F4, F5, F6, H2, B6, L5, K7, B3, U, B9, B13,

Info for manual annotations of cluster A1:

- Start number 111 was manually annotated 202 times for cluster A1.
- Start number 126 was manually annotated 5 times for cluster A1.
- Start number 138 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster A10:

- Start number 111 was manually annotated 17 times for cluster A10.

Info for manual annotations of cluster A12:

- Start number 111 was manually annotated 2 times for cluster A12.

Info for manual annotations of cluster A14:

- Start number 126 was manually annotated 1 time for cluster A14.

Info for manual annotations of cluster A19:

- Start number 231 was manually annotated 1 time for cluster A19.

Info for manual annotations of cluster A2:

- Start number 46 was manually annotated 1 time for cluster A2.
- Start number 111 was manually annotated 75 times for cluster A2.
- Start number 135 was manually annotated 1 time for cluster A2.
- Start number 229 was manually annotated 16 times for cluster A2.

Info for manual annotations of cluster A3:

- Start number 101 was manually annotated 93 times for cluster A3.
- Start number 111 was manually annotated 1 time for cluster A3.
- Start number 221 was manually annotated 1 time for cluster A3.
- Start number 224 was manually annotated 17 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 111 was manually annotated 13 times for cluster A4.
- Start number 112 was manually annotated 110 times for cluster A4.
- Start number 114 was manually annotated 13 times for cluster A4.
- Start number 138 was manually annotated 1 time for cluster A4.

Info for manual annotations of cluster A7:

- Start number 111 was manually annotated 3 times for cluster A7.
- Start number 226 was manually annotated 1 time for cluster A7.
- Start number 231 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster AB:

- Start number 62 was manually annotated 1 time for cluster AB.

Info for manual annotations of cluster AC:

- Start number 136 was manually annotated 1 time for cluster AC.

Info for manual annotations of cluster AE:

- Start number 98 was manually annotated 3 times for cluster AE.

Info for manual annotations of cluster AG:

- Start number 153 was manually annotated 1 time for cluster AG.
- Start number 156 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster B10:

- Start number 108 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B12:

- Start number 111 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B13:

- Start number 110 was manually annotated 1 time for cluster B13.
- Start number 112 was manually annotated 1 time for cluster B13.

Info for manual annotations of cluster B3:

- Start number 84 was manually annotated 45 times for cluster B3.

Info for manual annotations of cluster B6:

- Start number 111 was manually annotated 1 time for cluster B6.

Info for manual annotations of cluster B9:

- Start number 110 was manually annotated 3 times for cluster B9.

Info for manual annotations of cluster C1:

- Start number 87 was manually annotated 167 times for cluster C1.
- Start number 105 was manually annotated 3 times for cluster C1.

Info for manual annotations of cluster E:

- Start number 136 was manually annotated 123 times for cluster E.

Info for manual annotations of cluster F1:

- Start number 23 was manually annotated 1 time for cluster F1.
- Start number 95 was manually annotated 212 times for cluster F1.
- Start number 109 was manually annotated 1 time for cluster F1.
- Start number 214 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F2:

- Start number 95 was manually annotated 7 times for cluster F2.

Info for manual annotations of cluster F4:

- Start number 95 was manually annotated 4 times for cluster F4.

Info for manual annotations of cluster F5:

- Start number 95 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster H2:

- Start number 62 was manually annotated 2 times for cluster H2.

Info for manual annotations of cluster J:

- Start number 49 was manually annotated 9 times for cluster J.
- Start number 91 was manually annotated 30 times for cluster J.
- Start number 104 was manually annotated 1 time for cluster J.

Info for manual annotations of cluster K1:

- Start number 152 was manually annotated 8 times for cluster K1.
- Start number 153 was manually annotated 95 times for cluster K1.

Info for manual annotations of cluster K2:

- Start number 48 was manually annotated 10 times for cluster K2.

Info for manual annotations of cluster K3:

- Start number 153 was manually annotated 8 times for cluster K3.

Info for manual annotations of cluster K4:

- Start number 143 was manually annotated 19 times for cluster K4.

Info for manual annotations of cluster K5:

- Start number 152 was manually annotated 8 times for cluster K5.
- Start number 153 was manually annotated 13 times for cluster K5.
- Start number 161 was manually annotated 1 time for cluster K5.

Info for manual annotations of cluster K6:

- Start number 153 was manually annotated 20 times for cluster K6.
- Start number 156 was manually annotated 2 times for cluster K6.

Info for manual annotations of cluster K7:

- Start number 95 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster K8:

- Start number 143 was manually annotated 1 time for cluster K8.

Info for manual annotations of cluster L1:

- Start number 96 was manually annotated 19 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 51 was manually annotated 22 times for cluster L2.
- Start number 96 was manually annotated 6 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 46 was manually annotated 16 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 96 was manually annotated 4 times for cluster L4.

Info for manual annotations of cluster L5:

- Start number 39 was manually annotated 2 times for cluster L5.

Info for manual annotations of cluster M1:

- Start number 58 was manually annotated 13 times for cluster M1.

Info for manual annotations of cluster M2:

- Start number 56 was manually annotated 6 times for cluster M2.

Info for manual annotations of cluster M3:

- Start number 56 was manually annotated 1 time for cluster M3.

Info for manual annotations of cluster O:

- Start number 95 was manually annotated 27 times for cluster O.

Info for manual annotations of cluster R:

- Start number 90 was manually annotated 9 times for cluster R.

Info for manual annotations of cluster U:

- Start number 88 was manually annotated 3 times for cluster U.

Info for manual annotations of cluster V:

- Start number 95 was manually annotated 5 times for cluster V.

Info for manual annotations of cluster X:

- Start number 91 was manually annotated 1 time for cluster X.
- Start number 95 was manually annotated 1 time for cluster X.

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

Gene: 20ES\_11 Start: 6443, Stop: 7420, Start Num: 111

Candidate Starts for 20ES\_11:

(Start: 111 @6443 has 315 MA's), (Start: 138 @6497 has 2 MA's), (247, 6686), (257, 6722), (263, 6734), (286, 6791), (302, 6827), (327, 6875), (337, 6914), (366, 6986), (369, 7001), (397, 7064), (416, 7106), (428, 7154), (434, 7181), (440, 7196), (445, 7214), (447, 7217), (465, 7256), (490, 7307), (527, 7406),

Gene: 244\_37 Start: 32138, Stop: 32995, Start Num: 136

Candidate Starts for 244\_37:

(Start: 136 @32138 has 124 MA's), (Start: 156 @32177 has 3 MA's), (166, 32207), (175, 32228), (191, 32264), (205, 32294), (236, 32369), (259, 32417), (262, 32420), (272, 32444), (274, 32447), (280, 32462), (346, 32633), (393, 32747), (398, 32762), (420, 32768), (444, 32810), (445, 32813), (470, 32867), (511, 32945), (522, 32978),

Gene: 39HC\_042 Start: 40379, Stop: 41374, Start Num: 111

Candidate Starts for 39HC\_042:

(Start: 111 @40379 has 315 MA's), (125, 40409), (Start: 135 @40430 has 1 MA's), (Start: 138 @40433 has 2 MA's), (186, 40520), (209, 40568), (233, 40601), (257, 40670), (285, 40733), (286, 40739), (302, 40775), (328, 40823), (369, 40934), (408, 41021), (410, 41024), (428, 41084), (430, 41096), (433, 41108), (435, 41114), (477, 41219), (537, 41351),

Gene: 40AC\_14 Start: 8493, Stop: 9470, Start Num: 111

Candidate Starts for 40AC\_14:

(Start: 111 @8493 has 315 MA's), (Start: 138 @8547 has 2 MA's), (247, 8736), (263, 8784), (286, 8841), (327, 8925), (337, 8964), (358, 9012), (365, 9033), (369, 9051), (397, 9114), (416, 9156), (428, 9204), (434, 9231), (440, 9246), (447, 9267), (465, 9306), (490, 9357), (518, 9426),

Gene: 40BC\_042 Start: 40379, Stop: 41374, Start Num: 111

Candidate Starts for 40BC\_042:

(Start: 111 @40379 has 315 MA's), (125, 40409), (Start: 135 @40430 has 1 MA's), (Start: 138 @40433 has 2 MA's), (186, 40520), (209, 40568), (233, 40601), (257, 40670), (285, 40733), (286, 40739), (302, 40775), (328, 40823), (369, 40934), (408, 41021), (410, 41024), (428, 41084), (430, 41096), (433, 41108), (435, 41114), (477, 41219), (537, 41351),

Gene: A6\_08 Start: 5593, Stop: 6561, Start Num: 111

Candidate Starts for A6\_08:

(Start: 111 @5593 has 315 MA's), (Start: 126 @5626 has 6 MA's), (Start: 135 @5644 has 1 MA's), (Start: 138 @5647 has 2 MA's), (235, 5836), (266, 5914), (273, 5932), (286, 5965), (289, 5977), (327, 6052), (349, 6115), (359, 6139), (369, 6178), (374, 6196), (407, 6259), (437, 6340), (445, 6364), (446, 6367), (448, 6370), (454, 6379), (495, 6466), (506, 6490), (515, 6511), (531, 6553),

Gene: ABCat\_34 Start: 31850, Stop: 32707, Start Num: 136

Candidate Starts for ABCat\_34:

(Start: 136 @31850 has 124 MA's), (Start: 156 @31889 has 3 MA's), (166, 31919), (175, 31940), (191, 31976), (205, 32006), (236, 32081), (259, 32129), (262, 32132), (272, 32156), (274, 32159), (280, 32174), (346, 32345), (393, 32459), (398, 32474), (420, 32480), (444, 32522), (445, 32525), (470, 32579), (511, 32657), (522, 32690),

Gene: ACFishhook\_12 Start: 6114, Stop: 7079, Start Num: 101

Candidate Starts for ACFishhook\_12:

(Start: 101 @6114 has 93 MA's), (Start: 138 @6180 has 2 MA's), (173, 6234), (208, 6312), (263, 6435), (286, 6492), (327, 6564), (337, 6603), (347, 6621), (369, 6690), (419, 6807), (428, 6834), (447, 6897), (490, 6987), (493, 6993),

Gene: AFIS\_10 Start: 5930, Stop: 6898, Start Num: 111

Candidate Starts for AFIS\_10:

(Start: 111 @5930 has 315 MA's), (Start: 126 @5963 has 6 MA's), (Start: 135 @5981 has 1 MA's), (Start: 138 @5984 has 2 MA's), (266, 6251), (286, 6302), (289, 6314), (327, 6389), (349, 6452), (355, 6464), (361, 6485), (365, 6497), (369, 6515), (374, 6533), (386, 6557), (407, 6596), (437, 6677), (445,



6701), (446, 6704), (448, 6707), (454, 6716), (495, 6803), (531, 6890),

Gene: AN3\_11 Start: 6428, Stop: 7405, Start Num: 111

Candidate Starts for AN3\_11:

(16, 5960), (Start: 111 @6428 has 315 MA's), (Start: 138 @6482 has 2 MA's), (247, 6671), (257, 6707), (263, 6719), (286, 6776), (302, 6812), (327, 6860), (337, 6899), (358, 6947), (364, 6965), (366, 6971), (369, 6986), (397, 7049), (416, 7091), (428, 7139), (434, 7166), (440, 7181), (445, 7199), (447, 7202), (465, 7241), (490, 7292),

Gene: AN9\_14 Start: 6596, Stop: 7345, Start Num: 229

Candidate Starts for AN9\_14:

(Start: 229 @6596 has 16 MA's), (233, 6602), (287, 6743), (327, 6830), (333, 6854), (336, 6860), (347, 6887), (365, 6938), (369, 6956), (428, 7100), (447, 7163), (468, 7211), (469, 7214), (486, 7244), (490, 7253),

Gene: ANI8\_14 Start: 6596, Stop: 7345, Start Num: 229

Candidate Starts for ANI8\_14:

(Start: 229 @6596 has 16 MA's), (233, 6602), (287, 6743), (327, 6830), (333, 6854), (336, 6860), (347, 6887), (365, 6938), (369, 6956), (428, 7100), (447, 7163), (468, 7211), (469, 7214), (486, 7244), (490, 7253),

Gene: AbbyPaige\_13 Start: 6873, Stop: 7865, Start Num: 111

Candidate Starts for AbbyPaige\_13:

(Start: 111 @6873 has 315 MA's), (Start: 135 @6924 has 1 MA's), (Start: 138 @6927 has 2 MA's), (233, 7095), (235, 7101), (247, 7128), (268, 7188), (286, 7233), (327, 7320), (341, 7365), (361, 7404), (376, 7452), (417, 7533), (427, 7575), (458, 7662), (507, 7776),

Gene: AbbysRanger\_10 Start: 5887, Stop: 6870, Start Num: 111

Candidate Starts for AbbysRanger\_10:

(Start: 111 @5887 has 315 MA's), (125, 5917), (Start: 135 @5938 has 1 MA's), (Start: 138 @5941 has 2 MA's), (239, 6121), (263, 6190), (286, 6247), (289, 6259), (305, 6289), (320, 6310), (328, 6331), (345, 6379), (362, 6409), (369, 6436), (428, 6586), (470, 6709), (477, 6721), (481, 6730), (511, 6787), (540, 6862),

Gene: Abbysshoes\_11 Start: 6019, Stop: 6987, Start Num: 111

Candidate Starts for Abbysshoes\_11:

(Start: 111 @6019 has 315 MA's), (Start: 126 @6052 has 6 MA's), (Start: 135 @6070 has 1 MA's), (Start: 138 @6073 has 2 MA's), (266, 6340), (286, 6391), (289, 6403), (327, 6478), (349, 6541), (355, 6553), (361, 6574), (365, 6586), (369, 6604), (374, 6622), (386, 6646), (407, 6685), (437, 6766), (445, 6790), (446, 6793), (448, 6796), (454, 6805), (495, 6892), (515, 6937), (531, 6979),

Gene: Abdiel\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Abdiel\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Abinghost\_47 Start: 41532, Stop: 42590, Start Num: 84

Candidate Starts for Abinghost\_47:

(Start: 84 @41532 has 45 MA's), (115, 41595), (157, 41676), (189, 41736), (197, 41751), (203, 41763), (215, 41790), (245, 41847), (250, 41856), (308, 42003), (315, 42018), (333, 42072), (347, 42105), (362, 42144), (366, 42156), (401, 42237), (411, 42255), (412, 42258), (428, 42303), (468, 42414), (521, 42525), (527, 42546), (541, 42579),

Gene: Abrogate\_110 Start: 6675, Stop: 7643, Start Num: 111

Candidate Starts for Abrogate\_110:

(Start: 111 @6675 has 315 MA's), (Start: 126 @6708 has 6 MA's), (Start: 135 @6726 has 1 MA's), (Start: 138 @6729 has 2 MA's), (266, 6996), (286, 7047), (289, 7059), (327, 7134), (349, 7197), (355, 7209), (361, 7230), (365, 7242), (369, 7260), (374, 7278), (386, 7302), (407, 7341), (437, 7422), (445, 7446), (446, 7449), (448, 7452), (454, 7461), (495, 7548), (531, 7635),

Gene: Achebe\_10 Start: 5878, Stop: 6858, Start Num: 112

Candidate Starts for Achebe\_10:

(73, 5818), (82, 5836), (Start: 112 @5878 has 111 MA's), (Start: 114 @5881 has 13 MA's), (125, 5905), (Start: 135 @5926 has 1 MA's), (Start: 138 @5929 has 2 MA's), (263, 6178), (285, 6229), (286, 6235), (289, 6247), (305, 6277), (328, 6319), (345, 6367), (362, 6397), (369, 6424), (428, 6574), (470, 6697), (477, 6709), (481, 6718), (511, 6775), (540, 6850),

Gene: Acme\_11 Start: 5864, Stop: 6832, Start Num: 111

Candidate Starts for Acme\_11:

(Start: 111 @5864 has 315 MA's), (Start: 126 @5897 has 6 MA's), (Start: 135 @5915 has 1 MA's), (Start: 138 @5918 has 2 MA's), (266, 6185), (286, 6236), (289, 6248), (327, 6323), (349, 6386), (355, 6398), (361, 6419), (365, 6431), (369, 6449), (374, 6467), (386, 6491), (407, 6530), (437, 6611), (445, 6635), (446, 6638), (448, 6641), (454, 6650), (495, 6737), (531, 6824),

Gene: Acolyte\_11 Start: 6523, Stop: 7593, Start Num: 46

Candidate Starts for Acolyte\_11:

(34, 6463), (Start: 46 @6523 has 17 MA's), (55, 6556), (59, 6574), (60, 6577), (99, 6658), (159, 6775), (185, 6838), (198, 6865), (218, 6907), (238, 6943), (244, 6958), (268, 7027), (272, 7039), (275, 7045), (280, 7057), (293, 7096), (296, 7102), (352, 7249), (378, 7315), (382, 7324), (481, 7453), (484, 7456),

Gene: Acquire49\_26 Start: 25547, Stop: 26578, Start Num: 96

Candidate Starts for Acquire49\_26:

(Start: 96 @25547 has 29 MA's), (181, 25700), (182, 25703), (194, 25727), (198, 25739), (206, 25757), (211, 25775), (218, 25793), (219, 25799), (223, 25808), (228, 25823), (237, 25838), (263, 25910), (286, 25967), (304, 26006), (336, 26084), (337, 26093), (339, 26096), (347, 26111), (364, 26165), (369, 26186), (373, 26201), (414, 26285), (425, 26315), (446, 26384), (454, 26396), (465, 26420), (471, 26438), (473, 26441), (480, 26453), (482, 26456), (496, 26486), (501, 26498),

Gene: ActinUp\_31 Start: 26463, Stop: 27335, Start Num: 153

Candidate Starts for ActinUp\_31:

(140, 26436), (Start: 153 @26463 has 137 MA's), (Start: 161 @26475 has 1 MA's), (192, 26544), (205, 26571), (Start: 214 @26601 has 1 MA's), (218, 26610), (238, 26646), (242, 26655), (254, 26688), (259, 26706), (274, 26736), (295, 26793), (296, 26796), (349, 26931), (363, 26958), (369, 26979), (377, 27003), (405, 27054), (448, 27156), (466, 27192), (477, 27216), (523, 27315), (529, 27324),

Gene: Adahisdi\_11 Start: 6258, Stop: 7226, Start Num: 111

Candidate Starts for Adahisdi\_11:

(Start: 111 @6258 has 315 MA's), (Start: 126 @6291 has 6 MA's), (Start: 135 @6309 has 1 MA's), (Start: 138 @6312 has 2 MA's), (266, 6579), (286, 6630), (289, 6642), (327, 6717), (349, 6780), (361, 6813), (365, 6825), (369, 6843), (374, 6861), (407, 6924), (437, 7005), (445, 7029), (446, 7032), (448, 7035), (454, 7044), (495, 7131), (515, 7176), (531, 7218),

Gene: Adephagia\_31 Start: 26460, Stop: 27332, Start Num: 153

Candidate Starts for Adephagia\_31:

(140, 26433), (Start: 153 @26460 has 137 MA's), (Start: 161 @26472 has 1 MA's), (192, 26541), (205, 26568), (Start: 214 @26598 has 1 MA's), (218, 26607), (238, 26643), (242, 26652), (254, 26685), (259, 26703), (274, 26733), (295, 26790), (296, 26793), (349, 26928), (363, 26955), (369, 26976), (377, 27000), (405, 27051), (448, 27153), (466, 27189), (477, 27213), (523, 27312), (529, 27321),

Gene: Ading\_255 Start: 146639, Stop: 147667, Start Num: 87

Candidate Starts for Ading\_255:

(Start: 87 @146639 has 167 MA's), (Start: 105 @146669 has 4 MA's), (Start: 112 @146681 has 111 MA's), (130, 146723), (168, 146786), (177, 146807), (Start: 214 @146891 has 1 MA's), (235, 146933), (241, 146945), (250, 146960), (273, 147029), (286, 147056), (309, 147110), (324, 147155), (326, 147158), (354, 147236), (361, 147257), (407, 147368), (440, 147458), (445, 147476), (480, 147548), (496, 147581),

Gene: Adlitam\_252 Start: 144794, Stop: 145822, Start Num: 87

Candidate Starts for Adlitam\_252:

(Start: 87 @144794 has 167 MA's), (Start: 105 @144824 has 4 MA's), (Start: 112 @144836 has 111 MA's), (130, 144878), (168, 144941), (177, 144962), (Start: 214 @145046 has 1 MA's), (235, 145088), (241, 145100), (250, 145115), (273, 145184), (286, 145211), (309, 145265), (324, 145310), (326, 145313), (354, 145391), (361, 145412), (407, 145523), (440, 145613), (445, 145631), (480, 145703), (496, 145736),

Gene: Adnama\_38 Start: 32365, Stop: 33222, Start Num: 136

Candidate Starts for Adnama\_38:

(Start: 136 @32365 has 124 MA's), (Start: 156 @32404 has 3 MA's), (166, 32434), (175, 32455), (191, 32491), (205, 32521), (236, 32596), (259, 32644), (262, 32647), (272, 32671), (274, 32674), (280, 32689), (346, 32860), (393, 32974), (398, 32989), (420, 32995), (444, 33037), (445, 33040), (470, 33094), (511, 33172), (522, 33205),

Gene: Adonis\_31 Start: 26466, Stop: 27338, Start Num: 153

Candidate Starts for Adonis\_31:

(140, 26439), (Start: 153 @26466 has 137 MA's), (Start: 161 @26478 has 1 MA's), (192, 26547), (205, 26574), (Start: 214 @26604 has 1 MA's), (218, 26613), (238, 26649), (242, 26658), (254, 26691), (259, 26709), (274, 26739), (296, 26799), (349, 26934), (363, 26961), (369, 26982), (377, 27006), (405, 27057), (448, 27159), (466, 27195), (477, 27219), (523, 27318), (529, 27327),

Gene: Aegeus\_29 Start: 25621, Stop: 26718, Start Num: 39

Candidate Starts for Aegeus\_29:

(Start: 39 @25621 has 2 MA's), (44, 25648), (53, 25693), (77, 25756), (122, 25852), (127, 25861), (Start: 161 @25915 has 1 MA's), (178, 25954), (216, 26035), (218, 26041), (242, 26086), (244, 26092), (268, 26155), (275, 26173), (277, 26179), (280, 26185), (296, 26230), (306, 26257), (352, 26374), (363, 26398), (378, 26449), (389, 26470), (439, 26488), (475, 26575), (488, 26599), (523, 26680), (537, 26707),

Gene: Aeneas\_12 Start: 6353, Stop: 7321, Start Num: 111

Candidate Starts for Aeneas\_12:

(Start: 111 @6353 has 315 MA's), (Start: 126 @6386 has 6 MA's), (Start: 135 @6404 has 1 MA's), (Start: 138 @6407 has 2 MA's), (266, 6674), (286, 6725), (289, 6737), (327, 6812), (349, 6875), (355, 6887), (361, 6908), (365, 6920), (369, 6938), (374, 6956), (386, 6980), (407, 7019), (437, 7100), (445, 7124), (446, 7127), (448, 7130), (454, 7139), (495, 7226), (531, 7313),

Gene: Agaliana\_10 Start: 6067, Stop: 7035, Start Num: 111

Candidate Starts for Agaliana\_10:

(Start: 111 @6067 has 315 MA's), (Start: 126 @6100 has 6 MA's), (Start: 135 @6118 has 1 MA's), (Start: 138 @6121 has 2 MA's), (266, 6388), (286, 6439), (289, 6451), (327, 6526), (349, 6589), (361, 6622), (365, 6634), (369, 6652), (374, 6670), (407, 6733), (437, 6814), (445, 6838), (446, 6841), (448, 6844), (454, 6853), (495, 6940), (515, 6985), (531, 7027),

Gene: Agape74\_13 Start: 6873, Stop: 7865, Start Num: 111

Candidate Starts for Agape74\_13:

(Start: 111 @6873 has 315 MA's), (Start: 135 @6924 has 1 MA's), (Start: 138 @6927 has 2 MA's), (233, 7095), (235, 7101), (247, 7128), (268, 7188), (286, 7233), (327, 7320), (341, 7365), (361, 7404), (376, 7452), (417, 7533), (427, 7575), (458, 7662), (507, 7776),

Gene: Agent47\_30 Start: 27227, Stop: 27988, Start Num: 152

Candidate Starts for Agent47\_30:

(129, 27179), (Start: 152 @27227 has 16 MA's), (Start: 161 @27239 has 1 MA's), (162, 27242), (164, 27245), (175, 27272), (192, 27308), (216, 27368), (218, 27374), (234, 27404), (238, 27410), (242, 27419), (254, 27452), (271, 27494), (272, 27497), (277, 27509), (290, 27545), (296, 27560), (308, 27596), (349, 27695), (363, 27722), (369, 27743), (448, 27806), (462, 27830), (470, 27854), (503, 27923), (523, 27968), (529, 27977),

Gene: Ageofdapage\_31 Start: 26403, Stop: 27275, Start Num: 153

Candidate Starts for Ageofdapage\_31:

(140, 26376), (Start: 153 @26403 has 137 MA's), (Start: 161 @26415 has 1 MA's), (192, 26484), (205, 26511), (Start: 214 @26541 has 1 MA's), (218, 26550), (238, 26586), (242, 26595), (254, 26628), (259, 26646), (296, 26736), (349, 26871), (363, 26898), (369, 26919), (377, 26943), (405, 26994), (448, 27096), (466, 27132), (477, 27156), (523, 27255), (529, 27264),

Gene: Aglet\_12 Start: 5963, Stop: 6928, Start Num: 101

Candidate Starts for Aglet\_12:

(Start: 101 @5963 has 93 MA's), (Start: 126 @6008 has 6 MA's), (Start: 138 @6029 has 2 MA's), (201, 6149), (263, 6287), (286, 6344), (291, 6359), (333, 6440), (337, 6455), (347, 6473), (365, 6524), (369, 6542), (388, 6587), (428, 6683), (447, 6746), (465, 6785), (490, 6836),

Gene: AgronaGT15\_12 Start: 5870, Stop: 6835, Start Num: 101

Candidate Starts for AgronaGT15\_12:

(Start: 101 @5870 has 93 MA's), (Start: 126 @5915 has 6 MA's), (Start: 138 @5936 has 2 MA's), (201, 6056), (263, 6194), (286, 6251), (291, 6266), (333, 6347), (337, 6362), (347, 6380), (365, 6431), (369, 6449), (388, 6494), (428, 6590), (447, 6653), (465, 6692), (490, 6743),

Gene: Aikoy\_46 Start: 36375, Stop: 37256, Start Num: 98

Candidate Starts for Aikoy\_46:

(Start: 98 @36375 has 3 MA's), (148, 36471), (151, 36477), (190, 36561), (195, 36573), (244, 36675), (279, 36753), (288, 36774), (329, 36897), (342, 36936), (360, 36981), (380, 37050), (448, 37101), (452, 37110), (461, 37119), (492, 37179), (507, 37215),

Gene: Ajay\_10 Start: 6063, Stop: 7031, Start Num: 111

Candidate Starts for Ajay\_10:

(Start: 111 @6063 has 315 MA's), (Start: 126 @6096 has 6 MA's), (Start: 135 @6114 has 1 MA's), (Start: 138 @6117 has 2 MA's), (266, 6384), (286, 6435), (289, 6447), (327, 6522), (349, 6585), (361, 6618), (365, 6630), (369, 6648), (374, 6666), (407, 6729), (437, 6810), (445, 6834), (446, 6837), (448, 6840), (454, 6849), (495, 6936), (515, 6981), (531, 7023),

Gene: Akhila\_25 Start: 23599, Stop: 24597, Start Num: 95

Candidate Starts for Akhila\_25:

(Start: 95 @23599 has 260 MA's), (130, 23674), (168, 23734), (177, 23755), (Start: 214 @23839 has 1 MA's), (241, 23890), (250, 23905), (286, 24001), (327, 24088), (333, 24112), (341, 24133), (357, 24172), (361, 24184), (374, 24232), (388, 24259), (400, 24283), (407, 24298), (445, 24406), (468, 24454), (501, 24523), (515, 24553),

Gene: Akoma\_47 Start: 41537, Stop: 42601, Start Num: 84

Candidate Starts for Akoma\_47:

(Start: 84 @41537 has 45 MA's), (115, 41600), (157, 41681), (189, 41747), (197, 41762), (203, 41774), (215, 41801), (245, 41858), (250, 41867), (308, 42014), (315, 42029), (333, 42083), (347, 42116), (362, 42155), (366, 42167), (401, 42248), (411, 42266), (412, 42269), (428, 42314), (468, 42425), (521, 42536), (527, 42557), (541, 42590),

Gene: Albee\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Albee\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (320, 6301), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Alberto7\_11 Start: 6186, Stop: 7166, Start Num: 112

Candidate Starts for Alberto7\_11:

(Start: 112 @6186 has 111 MA's), (Start: 114 @6189 has 13 MA's), (125, 6213), (Start: 135 @6234 has 1 MA's), (Start: 138 @6237 has 2 MA's), (263, 6486), (286, 6543), (328, 6627), (333, 6648), (345, 6675), (362, 6705), (369, 6732), (428, 6882), (466, 6993), (470, 7005), (477, 7017), (511, 7083),

Gene: Alexphander\_34 Start: 28281, Stop: 29282, Start Num: 95

Candidate Starts for Alexphander\_34:

(4, 27660), (6, 27738), (8, 27801), (14, 27840), (18, 27972), (22, 27993), (26, 28029), (Start: 56 @28182 has 7 MA's), (83, 28254), (Start: 95 @28281 has 260 MA's), (130, 28356), (149, 28389), (168, 28419), (177, 28440), (Start: 214 @28524 has 1 MA's), (223, 28548), (235, 28563), (241, 28575), (286, 28686), (334, 28800), (341, 28818), (357, 28857), (365, 28881), (374, 28917), (388, 28944), (407, 28983), (428, 29031), (445, 29091), (468, 29139), (474, 29151), (495, 29193), (496, 29196), (501, 29208), (515, 29238),

Gene: Alice\_238 Start: 141870, Stop: 142898, Start Num: 87

Candidate Starts for Alice\_238:

(Start: 87 @141870 has 167 MA's), (Start: 105 @141900 has 4 MA's), (130, 141954), (168, 142017), (177, 142038), (Start: 214 @142122 has 1 MA's), (235, 142164), (241, 142176), (250, 142191), (273, 142260), (286, 142287), (309, 142341), (324, 142386), (326, 142389), (354, 142467), (361, 142488), (407, 142599), (440, 142689), (445, 142707), (480, 142779), (496, 142812),

Gene: AlishaPH\_31 Start: 26453, Stop: 27325, Start Num: 153

Candidate Starts for AlishaPH\_31:

(32, 26123), (100, 26351), (140, 26426), (Start: 153 @26453 has 137 MA's), (Start: 161 @26465 has 1 MA's), (192, 26534), (205, 26561), (Start: 214 @26591 has 1 MA's), (218, 26600), (238, 26636), (242, 26645), (254, 26678), (259, 26696), (274, 26726), (296, 26786), (349, 26921), (363, 26948), (369, 26969), (377, 26993), (405, 27044), (448, 27146), (466, 27182), (477, 27206), (523, 27305), (529, 27314),

Gene: Alkhayr\_65 Start: 43133, Stop: 44173, Start Num: 95

Candidate Starts for Alkhayr\_65:

(Start: 95 @43133 has 260 MA's), (130, 43208), (168, 43289), (170, 43295), (177, 43310), (213, 43391), (Start: 214 @43394 has 1 MA's), (241, 43448), (250, 43463), (286, 43559), (304, 43598),

(312, 43628), (324, 43658), (326, 43661), (336, 43694), (361, 43760), (372, 43799), (374, 43808), (388, 43835), (407, 43874), (478, 44048), (501, 44099),

Gene: AlleyCat\_31 Start: 27158, Stop: 27919, Start Num: 152

Candidate Starts for AlleyCat\_31:

(129, 27110), (Start: 152 @27158 has 16 MA's), (Start: 161 @27170 has 1 MA's), (164, 27176), (175, 27203), (192, 27239), (216, 27299), (218, 27305), (234, 27335), (238, 27341), (242, 27350), (254, 27383), (271, 27425), (272, 27428), (277, 27440), (290, 27476), (296, 27491), (308, 27527), (349, 27626), (363, 27653), (369, 27674), (448, 27737), (462, 27761), (470, 27785), (503, 27854), (523, 27899), (529, 27908),

Gene: AlpineSix\_32 Start: 27729, Stop: 28730, Start Num: 95

Candidate Starts for AlpineSix\_32:

(4, 27108), (6, 27186), (8, 27249), (14, 27288), (18, 27420), (22, 27441), (26, 27477), (Start: 56 @27630 has 7 MA's), (Start: 95 @27729 has 260 MA's), (Start: 105 @27750 has 4 MA's), (Start: 112 @27762 has 111 MA's), (130, 27804), (149, 27837), (168, 27867), (177, 27888), (Start: 214 @27972 has 1 MA's), (223, 27996), (235, 28011), (241, 28023), (286, 28134), (334, 28248), (341, 28266), (357, 28305), (365, 28329), (374, 28365), (388, 28392), (407, 28431), (445, 28539), (468, 28587), (474, 28599), (495, 28641), (496, 28644), (501, 28656), (515, 28686),

Gene: Alsfro\_14 Start: 6806, Stop: 7774, Start Num: 111

Candidate Starts for Alsfro\_14:

(Start: 111 @6806 has 315 MA's), (Start: 126 @6839 has 6 MA's), (Start: 135 @6857 has 1 MA's), (Start: 138 @6860 has 2 MA's), (266, 7127), (286, 7178), (289, 7190), (327, 7265), (349, 7328), (359, 7352), (369, 7391), (374, 7409), (407, 7472), (437, 7553), (445, 7577), (446, 7580), (448, 7583), (454, 7592), (495, 7679), (515, 7724), (531, 7766),

Gene: Altman\_11 Start: 6601, Stop: 7569, Start Num: 111

Candidate Starts for Altman\_11:

(Start: 111 @6601 has 315 MA's), (Start: 126 @6634 has 6 MA's), (Start: 135 @6652 has 1 MA's), (Start: 138 @6655 has 2 MA's), (266, 6922), (286, 6973), (289, 6985), (327, 7060), (349, 7123), (361, 7156), (365, 7168), (369, 7186), (374, 7204), (386, 7228), (407, 7267), (437, 7348), (445, 7372), (446, 7375), (448, 7378), (454, 7387), (495, 7474), (531, 7561),

Gene: Alvin\_11 Start: 6274, Stop: 7242, Start Num: 111

Candidate Starts for Alvin\_11:

(Start: 111 @6274 has 315 MA's), (Start: 126 @6307 has 6 MA's), (Start: 135 @6325 has 1 MA's), (Start: 138 @6328 has 2 MA's), (266, 6595), (286, 6646), (289, 6658), (327, 6733), (349, 6796), (355, 6808), (361, 6829), (365, 6841), (369, 6859), (374, 6877), (386, 6901), (407, 6940), (437, 7021), (445, 7045), (446, 7048), (448, 7051), (454, 7060), (495, 7147), (515, 7192), (531, 7234),

Gene: Amao\_35 Start: 31062, Stop: 31919, Start Num: 136

Candidate Starts for Amao\_35:

(Start: 136 @31062 has 124 MA's), (Start: 156 @31101 has 3 MA's), (166, 31131), (175, 31152), (191, 31188), (205, 31218), (236, 31293), (259, 31341), (262, 31344), (272, 31368), (274, 31371), (280, 31386), (346, 31557), (393, 31671), (398, 31686), (420, 31692), (444, 31734), (445, 31737), (470, 31791), (511, 31869), (522, 31902),

Gene: Amataga\_253 Start: 143793, Stop: 144821, Start Num: 87

Candidate Starts for Amataga\_253:

(Start: 87 @143793 has 167 MA's), (Start: 105 @143823 has 4 MA's), (Start: 112 @143835 has 111 MA's), (130, 143877), (168, 143940), (177, 143961), (Start: 214 @144045 has 1 MA's), (235, 144087), (241, 144099), (250, 144114), (273, 144183), (286, 144210), (309, 144264), (324, 144309), (326,

144312), (354, 144390), (361, 144411), (407, 144522), (440, 144612), (445, 144630), (480, 144702), (496, 144735),

Gene: Amelie\_27 Start: 25978, Stop: 26736, Start Num: 152

Candidate Starts for Amelie\_27:

(100, 25876), (129, 25930), (140, 25951), (Start: 152 @25978 has 16 MA's), (175, 26023), (192, 26059), (216, 26119), (218, 26125), (234, 26155), (254, 26203), (271, 26245), (296, 26311), (308, 26347), (349, 26446), (363, 26473), (369, 26494), (371, 26500), (442, 26539), (445, 26551), (448, 26557), (462, 26581), (470, 26605), (523, 26716), (529, 26725),

Gene: AmericanBeauty\_37 Start: 31845, Stop: 32702, Start Num: 136

Candidate Starts for AmericanBeauty\_37:

(Start: 136 @31845 has 124 MA's), (Start: 156 @31884 has 3 MA's), (166, 31914), (175, 31935), (191, 31971), (205, 32001), (236, 32076), (259, 32124), (262, 32127), (272, 32151), (274, 32154), (280, 32169), (346, 32340), (393, 32454), (398, 32469), (420, 32475), (444, 32517), (445, 32520), (470, 32574), (511, 32652), (522, 32685),

Gene: Amgine\_29 Start: 26539, Stop: 27276, Start Num: 153

Candidate Starts for Amgine\_29:

(100, 26428), (Start: 110 @26449 has 4 MA's), (129, 26488), (140, 26509), (Start: 153 @26539 has 137 MA's), (Start: 161 @26551 has 1 MA's), (175, 26584), (192, 26620), (Start: 214 @26668 has 1 MA's), (218, 26677), (238, 26713), (242, 26722), (254, 26755), (296, 26863), (306, 26890), (342, 26977), (349, 26995), (360, 27010), (363, 27022), (369, 27043), (377, 27067), (442, 27079), (444, 27088), (448, 27097), (470, 27145), (523, 27256), (528, 27265),

Gene: Aminay\_31 Start: 27639, Stop: 28646, Start Num: 95

Candidate Starts for Aminay\_31:

(Start: 95 @27639 has 260 MA's), (130, 27714), (Start: 138 @27723 has 2 MA's), (168, 27777), (173, 27789), (177, 27798), (Start: 214 @27879 has 1 MA's), (235, 27921), (241, 27933), (250, 27948), (286, 28044), (346, 28185), (359, 28218), (369, 28257), (386, 28299), (399, 28323), (407, 28338), (454, 28461), (469, 28497), (495, 28548), (498, 28560), (515, 28593), (536, 28641),

Gene: Amohnition\_30 Start: 26969, Stop: 27709, Start Num: 153

Candidate Starts for Amohnition\_30:

(28, 26624), (100, 26870), (Start: 110 @26891 has 4 MA's), (129, 26924), (140, 26945), (Start: 153 @26969 has 137 MA's), (Start: 161 @26981 has 1 MA's), (173, 27008), (175, 27014), (Start: 214 @27098 has 1 MA's), (218, 27107), (222, 27119), (242, 27152), (296, 27293), (306, 27320), (349, 27428), (363, 27455), (369, 27476), (377, 27500), (442, 27512), (444, 27521), (470, 27578), (477, 27590), (523, 27689),

Gene: Anaya\_32 Start: 26479, Stop: 27351, Start Num: 153

Candidate Starts for Anaya\_32:

(140, 26452), (Start: 153 @26479 has 137 MA's), (Start: 161 @26491 has 1 MA's), (192, 26560), (205, 26587), (Start: 214 @26617 has 1 MA's), (218, 26626), (238, 26662), (242, 26671), (254, 26704), (259, 26722), (296, 26812), (349, 26947), (363, 26974), (369, 26995), (377, 27019), (405, 27070), (448, 27172), (466, 27208), (477, 27232), (523, 27331), (529, 27340),

Gene: Angelica\_31 Start: 26428, Stop: 27282, Start Num: 153

Candidate Starts for Angelica\_31:

(32, 26098), (100, 26326), (140, 26401), (Start: 153 @26428 has 137 MA's), (Start: 161 @26440 has 1 MA's), (192, 26509), (205, 26536), (Start: 214 @26566 has 1 MA's), (218, 26575), (238, 26611), (242, 26620), (254, 26653), (259, 26671), (274, 26701), (296, 26761), (349, 26896), (363, 26923), (369, 26944), (377, 26968), (405, 27001), (448, 27103), (466, 27139), (477, 27163), (523, 27262), (529,



27271),

Gene: Anglerfish\_10 Start: 5635, Stop: 6603, Start Num: 111

Candidate Starts for Anglerfish\_10:

(Start: 111 @5635 has 315 MA's), (Start: 126 @5668 has 6 MA's), (Start: 135 @5686 has 1 MA's), (Start: 138 @5689 has 2 MA's), (266, 5956), (286, 6007), (289, 6019), (327, 6094), (349, 6157), (355, 6169), (361, 6190), (365, 6202), (369, 6220), (374, 6238), (386, 6262), (407, 6301), (437, 6382), (445, 6406), (446, 6409), (448, 6412), (454, 6421), (495, 6508), (531, 6595),

Gene: AnnaL29\_14 Start: 8319, Stop: 9296, Start Num: 111

Candidate Starts for AnnaL29\_14:

(85, 8274), (Start: 111 @8319 has 315 MA's), (Start: 138 @8373 has 2 MA's), (247, 8562), (257, 8598), (263, 8610), (286, 8667), (302, 8703), (327, 8751), (337, 8790), (365, 8859), (369, 8877), (388, 8922), (397, 8940), (416, 8982), (428, 9030), (434, 9057), (440, 9072), (447, 9093), (464, 9129), (465, 9132), (486, 9174), (490, 9183),

Gene: Annyong\_10 Start: 5882, Stop: 6862, Start Num: 112

Candidate Starts for Annyong\_10:

(Start: 112 @5882 has 111 MA's), (Start: 114 @5885 has 13 MA's), (125, 5909), (Start: 135 @5930 has 1 MA's), (Start: 138 @5933 has 2 MA's), (263, 6182), (286, 6239), (320, 6302), (328, 6323), (333, 6344), (345, 6371), (362, 6401), (369, 6428), (428, 6578), (466, 6689), (470, 6701), (477, 6713), (511, 6779),

Gene: Anselm\_11 Start: 6531, Stop: 7523, Start Num: 111

Candidate Starts for Anselm\_11:

(99, 6510), (Start: 111 @6531 has 315 MA's), (Start: 126 @6564 has 6 MA's), (Start: 135 @6582 has 1 MA's), (Start: 138 @6585 has 2 MA's), (155, 6618), (170, 6633), (233, 6753), (235, 6759), (247, 6786), (268, 6846), (286, 6891), (341, 7023), (361, 7062), (376, 7110), (417, 7191), (427, 7233), (458, 7320), (470, 7356), (485, 7380), (502, 7422), (507, 7434), (538, 7509),

Gene: Anubis\_14 Start: 5848, Stop: 6813, Start Num: 101

Candidate Starts for Anubis\_14:

(Start: 101 @5848 has 93 MA's), (106, 5860), (Start: 126 @5893 has 6 MA's), (Start: 138 @5914 has 2 MA's), (247, 6124), (286, 6229), (333, 6325), (337, 6340), (347, 6358), (364, 6406), (365, 6409), (366, 6412), (369, 6427), (404, 6511), (428, 6568), (447, 6631), (465, 6670), (527, 6802),

Gene: Apocalypse\_31 Start: 26431, Stop: 27303, Start Num: 153

Candidate Starts for Apocalypse\_31:

(140, 26404), (Start: 153 @26431 has 137 MA's), (Start: 161 @26443 has 1 MA's), (192, 26512), (205, 26539), (Start: 214 @26569 has 1 MA's), (218, 26578), (238, 26614), (242, 26623), (254, 26656), (259, 26674), (296, 26764), (349, 26899), (363, 26926), (369, 26947), (377, 26971), (405, 27022), (448, 27124), (466, 27160), (477, 27184), (523, 27283), (529, 27292),

Gene: Applejack\_10 Start: 6001, Stop: 6969, Start Num: 111

Candidate Starts for Applejack\_10:

(Start: 111 @6001 has 315 MA's), (Start: 126 @6034 has 6 MA's), (Start: 135 @6052 has 1 MA's), (Start: 138 @6055 has 2 MA's), (266, 6322), (286, 6373), (289, 6385), (327, 6460), (349, 6523), (361, 6556), (365, 6568), (369, 6586), (374, 6604), (386, 6628), (407, 6667), (437, 6748), (445, 6772), (446, 6775), (448, 6778), (454, 6787), (495, 6874), (531, 6961),

Gene: Appletree2\_26 Start: 25490, Stop: 26521, Start Num: 96

Candidate Starts for Appletree2\_26:

(Start: 96 @25490 has 29 MA's), (182, 25646), (194, 25670), (198, 25682), (206, 25700), (211, 25718), (218, 25736), (219, 25742), (223, 25751), (228, 25766), (237, 25781), (255, 25829), (263, 25853), (286, 25910), (304, 25949), (336, 26027), (337, 26036), (339, 26039), (347, 26054), (364, 26108), (369, 26129), (373, 26144), (414, 26228), (425, 26258), (446, 26327), (454, 26339), (465, 26363), (471, 26381), (473, 26384), (480, 26396), (482, 26399), (496, 26429), (501, 26441),

Gene: Arcanine\_10 Start: 5601, Stop: 6569, Start Num: 111

Candidate Starts for Arcanine\_10:

(Start: 111 @5601 has 315 MA's), (Start: 126 @5634 has 6 MA's), (Start: 135 @5652 has 1 MA's), (Start: 138 @5655 has 2 MA's), (266, 5922), (286, 5973), (289, 5985), (327, 6060), (349, 6123), (355, 6135), (361, 6156), (365, 6168), (369, 6186), (374, 6204), (386, 6228), (407, 6267), (437, 6348), (445, 6372), (446, 6375), (448, 6378), (454, 6387), (495, 6474), (531, 6561),

Gene: ArcherNM\_13 Start: 8227, Stop: 9204, Start Num: 111

Candidate Starts for ArcherNM\_13:

(Start: 111 @8227 has 315 MA's), (Start: 138 @8281 has 2 MA's), (165, 8320), (247, 8470), (257, 8506), (263, 8518), (286, 8575), (302, 8611), (327, 8659), (337, 8698), (365, 8767), (369, 8785), (397, 8848), (416, 8890), (428, 8938), (434, 8965), (440, 8980), (447, 9001), (464, 9037), (486, 9082), (490, 9091), (498, 9115),

Gene: ArcherS7\_253 Start: 145538, Stop: 146566, Start Num: 87

Candidate Starts for ArcherS7\_253:

(Start: 87 @145538 has 167 MA's), (Start: 105 @145568 has 4 MA's), (Start: 112 @145580 has 111 MA's), (130, 145622), (168, 145685), (177, 145706), (Start: 214 @145790 has 1 MA's), (235, 145832), (241, 145844), (250, 145859), (273, 145928), (286, 145955), (309, 146009), (324, 146054), (326, 146057), (354, 146135), (361, 146156), (407, 146267), (440, 146357), (445, 146375), (480, 146447), (496, 146480),

Gene: Archie\_28 Start: 26734, Stop: 27762, Start Num: 96

Candidate Starts for Archie\_28:

(Start: 96 @26734 has 29 MA's), (176, 26878), (179, 26884), (225, 26998), (227, 27004), (234, 27022), (263, 27097), (286, 27154), (333, 27265), (336, 27271), (337, 27280), (339, 27283), (347, 27298), (369, 27373), (425, 27502), (432, 27529), (442, 27556), (446, 27571), (454, 27583), (486, 27649), (501, 27685),

Gene: ArcusAngelus\_31 Start: 28050, Stop: 29066, Start Num: 95

Candidate Starts for ArcusAngelus\_31:

(29, 27819), (31, 27822), (37, 27870), (74, 28005), (78, 28014), (Start: 95 @28050 has 260 MA's), (160, 28182), (168, 28203), (177, 28224), (189, 28254), (196, 28266), (Start: 214 @28308 has 1 MA's), (241, 28359), (286, 28470), (334, 28584), (341, 28602), (357, 28641), (365, 28665), (374, 28701), (388, 28728), (407, 28767), (445, 28875), (468, 28923), (474, 28935), (496, 28980), (501, 28992), (515, 29022),

Gene: Ardmore\_30 Start: 27516, Stop: 28514, Start Num: 95

Candidate Starts for Ardmore\_30:

(Start: 95 @27516 has 260 MA's), (130, 27591), (168, 27651), (177, 27672), (Start: 214 @27756 has 1 MA's), (241, 27807), (250, 27822), (286, 27918), (333, 28029), (341, 28050), (357, 28089), (361, 28101), (374, 28149), (388, 28176), (400, 28200), (407, 28215), (445, 28323), (468, 28371), (501, 28440), (515, 28470),

Gene: Argent26\_37 Start: 31848, Stop: 32705, Start Num: 136

Candidate Starts for Argent26\_37:

(Start: 136 @31848 has 124 MA's), (Start: 156 @31887 has 3 MA's), (166, 31917), (175, 31938), (191, 31974), (205, 32004), (236, 32079), (259, 32127), (262, 32130), (272, 32154), (274, 32157), (280, 32172), (346, 32343), (393, 32457), (398, 32472), (420, 32478), (444, 32520), (445, 32523), (470, 32577), (511, 32655), (522, 32688),

Gene: Ariel\_48 Start: 38682, Stop: 39686, Start Num: 49

Candidate Starts for Ariel\_48:

(Start: 49 @38682 has 10 MA's), (64, 38736), (Start: 88 @38787 has 3 MA's), (Start: 126 @38859 has 6 MA's), (166, 38934), (218, 39048), (222, 39060), (242, 39093), (272, 39162), (277, 39174), (282, 39186), (284, 39189), (299, 39234), (306, 39252), (363, 39414), (367, 39429), (370, 39438), (521, 39639),

Gene: Arlo\_9 Start: 5626, Stop: 6594, Start Num: 111

Candidate Starts for Arlo\_9:

(Start: 111 @5626 has 315 MA's), (Start: 126 @5659 has 6 MA's), (Start: 135 @5677 has 1 MA's), (Start: 138 @5680 has 2 MA's), (266, 5947), (286, 5998), (289, 6010), (327, 6085), (349, 6148), (355, 6160), (361, 6181), (365, 6193), (369, 6211), (374, 6229), (386, 6253), (407, 6292), (437, 6373), (445, 6397), (446, 6400), (448, 6403), (454, 6412), (495, 6499), (506, 6523), (515, 6544), (531, 6586),

Gene: Arturo\_9 Start: 5992, Stop: 6972, Start Num: 112

Candidate Starts for Arturo\_9:

(Start: 112 @5992 has 111 MA's), (Start: 114 @5995 has 13 MA's), (125, 6019), (Start: 135 @6040 has 1 MA's), (Start: 138 @6043 has 2 MA's), (263, 6292), (286, 6349), (320, 6412), (328, 6433), (333, 6454), (345, 6481), (362, 6511), (369, 6538), (428, 6688), (470, 6811), (477, 6823), (511, 6889),

Gene: Asayake\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for Asayake\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242, 26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: Ashballer\_8 Start: 5504, Stop: 6472, Start Num: 111

Candidate Starts for Ashballer\_8:

(Start: 111 @5504 has 315 MA's), (Start: 126 @5537 has 6 MA's), (Start: 135 @5555 has 1 MA's), (Start: 138 @5558 has 2 MA's), (266, 5825), (286, 5876), (289, 5888), (327, 5963), (349, 6026), (355, 6038), (361, 6059), (365, 6071), (369, 6089), (374, 6107), (386, 6131), (407, 6170), (437, 6251), (445, 6275), (446, 6278), (448, 6281), (454, 6290), (495, 6377), (531, 6464),

Gene: Ashwin\_69 Start: 43903, Stop: 44943, Start Num: 95

Candidate Starts for Ashwin\_69:

(Start: 95 @43903 has 260 MA's), (130, 43978), (168, 44059), (170, 44065), (177, 44080), (213, 44161), (Start: 214 @44164 has 1 MA's), (241, 44218), (250, 44233), (286, 44329), (304, 44368), (312, 44398), (324, 44428), (326, 44431), (336, 44464), (361, 44530), (372, 44569), (374, 44578), (388, 44605), (407, 44644), (478, 44818), (501, 44869),

Gene: Asriel\_34 Start: 30719, Stop: 31576, Start Num: 136

Candidate Starts for Asriel\_34:

(Start: 136 @30719 has 124 MA's), (Start: 156 @30758 has 3 MA's), (166, 30788), (175, 30809), (191, 30845), (205, 30875), (236, 30950), (259, 30998), (262, 31001), (272, 31025), (274, 31028), (280, 31043), (346, 31214), (393, 31328), (398, 31343), (420, 31349), (444, 31391), (445, 31394), (470, 31448), (511, 31526), (522, 31559),

Gene: Asterius\_249 Start: 144651, Stop: 145679, Start Num: 87

Candidate Starts for Asterius\_249:

(Start: 87 @144651 has 167 MA's), (Start: 105 @144681 has 4 MA's), (Start: 112 @144693 has 111 MA's), (130, 144735), (168, 144798), (177, 144819), (Start: 214 @144903 has 1 MA's), (235, 144945), (241, 144957), (250, 144972), (273, 145041), (286, 145068), (309, 145122), (324, 145167), (326, 145170), (354, 145248), (361, 145269), (407, 145380), (440, 145470), (445, 145488), (480, 145560), (496, 145593),

Gene: Astraea\_248 Start: 143846, Stop: 144874, Start Num: 87

Candidate Starts for Astraea\_248:

(Start: 87 @143846 has 167 MA's), (Start: 105 @143876 has 4 MA's), (Start: 112 @143888 has 111 MA's), (130, 143930), (168, 143993), (177, 144014), (Start: 214 @144098 has 1 MA's), (235, 144140), (241, 144152), (250, 144167), (273, 144236), (286, 144263), (309, 144317), (324, 144362), (326, 144365), (354, 144443), (361, 144464), (407, 144575), (440, 144665), (445, 144683), (480, 144755), (496, 144788),

Gene: Athena\_48 Start: 42284, Stop: 43348, Start Num: 84

Candidate Starts for Athena\_48:

(Start: 84 @42284 has 45 MA's), (115, 42347), (157, 42428), (189, 42494), (197, 42509), (203, 42521), (215, 42548), (245, 42605), (250, 42614), (308, 42761), (315, 42776), (333, 42830), (347, 42863), (362, 42902), (366, 42914), (401, 42995), (411, 43013), (412, 43016), (468, 43172), (521, 43283), (527, 43304), (541, 43337),

Gene: Atiba\_31 Start: 26423, Stop: 27295, Start Num: 153

Candidate Starts for Atiba\_31:

(140, 26396), (Start: 153 @26423 has 137 MA's), (Start: 161 @26435 has 1 MA's), (192, 26504), (205, 26531), (Start: 214 @26561 has 1 MA's), (218, 26570), (238, 26606), (242, 26615), (254, 26648), (259, 26666), (274, 26696), (295, 26753), (296, 26756), (349, 26891), (363, 26918), (369, 26939), (377, 26963), (405, 27014), (448, 27116), (466, 27152), (477, 27176), (523, 27275), (529, 27284),

Gene: Atkinbua\_10 Start: 5646, Stop: 6614, Start Num: 111

Candidate Starts for Atkinbua\_10:

(Start: 111 @5646 has 315 MA's), (Start: 126 @5679 has 6 MA's), (Start: 135 @5697 has 1 MA's), (Start: 138 @5700 has 2 MA's), (266, 5967), (286, 6018), (289, 6030), (327, 6105), (361, 6201), (369, 6231), (374, 6249), (386, 6273), (407, 6312), (437, 6393), (445, 6417), (446, 6420), (448, 6423), (454, 6432), (495, 6519), (531, 6606),

Gene: Atlantean\_252 Start: 143793, Stop: 144821, Start Num: 87

Candidate Starts for Atlantean\_252:

(Start: 87 @143793 has 167 MA's), (Start: 105 @143823 has 4 MA's), (Start: 112 @143835 has 111 MA's), (130, 143877), (168, 143940), (177, 143961), (Start: 214 @144045 has 1 MA's), (235, 144087), (241, 144099), (250, 144114), (273, 144183), (286, 144210), (309, 144264), (324, 144309), (326, 144312), (354, 144390), (361, 144411), (407, 144522), (440, 144612), (445, 144630), (480, 144702), (496, 144735),

Gene: Aubs\_32 Start: 27847, Stop: 28848, Start Num: 95

Candidate Starts for Aubs\_32:

(Start: 95 @27847 has 260 MA's), (130, 27922), (149, 27955), (168, 27985), (177, 28006), (Start: 214 @28090 has 1 MA's), (241, 28141), (250, 28156), (286, 28252), (333, 28363), (341, 28384), (357, 28423), (361, 28435), (374, 28483), (388, 28510), (400, 28534), (407, 28549), (445, 28657), (468, 28705), (501, 28774), (515, 28804),

Gene: Audrey\_47 Start: 41532, Stop: 42596, Start Num: 84

Candidate Starts for Audrey\_47:

(Start: 84 @41532 has 45 MA's), (115, 41595), (157, 41676), (189, 41742), (197, 41757), (203, 41769), (215, 41796), (245, 41853), (250, 41862), (308, 42009), (315, 42024), (333, 42078), (347, 42111), (362, 42150), (366, 42162), (401, 42243), (411, 42261), (412, 42264), (468, 42420), (521, 42531), (527, 42552), (541, 42585),

Gene: Audrick\_255 Start: 143683, Stop: 144711, Start Num: 87

Candidate Starts for Audrick\_255:

(Start: 87 @143683 has 167 MA's), (Start: 105 @143713 has 4 MA's), (Start: 112 @143725 has 111 MA's), (130, 143767), (168, 143830), (177, 143851), (Start: 214 @143935 has 1 MA's), (235, 143977), (241, 143989), (250, 144004), (273, 144073), (286, 144100), (309, 144154), (324, 144199), (326, 144202), (354, 144280), (361, 144301), (407, 144412), (440, 144502), (445, 144520), (480, 144592), (496, 144625),

Gene: AugsMagnumOpus\_14 Start: 5954, Stop: 6919, Start Num: 101

Candidate Starts for AugsMagnumOpus\_14:

(Start: 101 @5954 has 93 MA's), (Start: 126 @5999 has 6 MA's), (Start: 138 @6020 has 2 MA's), (201, 6140), (263, 6278), (286, 6335), (291, 6350), (333, 6431), (337, 6446), (347, 6464), (365, 6515), (369, 6533), (388, 6578), (428, 6674), (447, 6737), (465, 6776), (490, 6827),

Gene: Auspice\_38 Start: 31794, Stop: 32765, Start Num: 58

Candidate Starts for Auspice\_38:

(Start: 58 @31794 has 13 MA's), (63, 31818), (69, 31833), (134, 31971), (150, 31998), (158, 32016), (162, 32028), (166, 32037), (185, 32082), (191, 32094), (206, 32121), (218, 32148), (222, 32160), (246, 32205), (257, 32232), (272, 32262), (276, 32271), (277, 32274), (310, 32361), (317, 32376), (371, 32529), (372, 32532), (441, 32592), (444, 32604), (448, 32613), (466, 32649), (471, 32664), (494, 32703), (509, 32736),

Gene: Ava3\_249 Start: 144253, Stop: 145281, Start Num: 87

Candidate Starts for Ava3\_249:

(Start: 87 @144253 has 167 MA's), (Start: 105 @144283 has 4 MA's), (Start: 112 @144295 has 111 MA's), (130, 144337), (168, 144400), (177, 144421), (Start: 214 @144505 has 1 MA's), (235, 144547), (241, 144559), (250, 144574), (273, 144643), (286, 144670), (309, 144724), (324, 144769), (326, 144772), (354, 144850), (361, 144871), (407, 144982), (440, 145072), (445, 145090), (480, 145162), (496, 145195),

Gene: AvadaKedavra\_26 Start: 25557, Stop: 26588, Start Num: 96

Candidate Starts for AvadaKedavra\_26:

(Start: 96 @25557 has 29 MA's), (181, 25710), (182, 25713), (194, 25737), (198, 25749), (206, 25767), (211, 25785), (218, 25803), (219, 25809), (223, 25818), (237, 25848), (263, 25920), (286, 25977), (304, 26016), (336, 26094), (337, 26103), (339, 26106), (347, 26121), (364, 26175), (369, 26196), (373, 26211), (414, 26295), (425, 26325), (446, 26394), (454, 26406), (465, 26430), (471, 26448), (473, 26451), (480, 26463), (482, 26466), (496, 26496), (501, 26508),

Gene: Avani\_36 Start: 26807, Stop: 27880, Start Num: 95

Candidate Starts for Avani\_36:

(Start: 95 @26807 has 260 MA's), (Start: 109 @26834 has 1 MA's), (124, 26864), (173, 26957), (177, 26966), (180, 26975), (208, 27032), (Start: 231 @27077 has 2 MA's), (245, 27110), (250, 27119), (266, 27170), (285, 27212), (291, 27236), (294, 27245), (298, 27257), (308, 27287), (317, 27317), (318, 27320), (333, 27377), (334, 27380), (339, 27395), (346, 27407), (348, 27416), (357, 27440), (366, 27464), (401, 27545), (428, 27620), (469, 27731), (491, 27773), (493, 27776), (495, 27782), (501, 27797), (529, 27863),

Gene: AvatarAhPeg\_10 Start: 5845, Stop: 6825, Start Num: 112

Candidate Starts for AvatarAhPeg\_10:

(Start: 112 @5845 has 111 MA's), (125, 5872), (Start: 126 @5875 has 6 MA's), (Start: 135 @5893 has 1 MA's), (Start: 138 @5896 has 2 MA's), (263, 6145), (286, 6202), (289, 6214), (320, 6265), (328, 6286), (345, 6334), (369, 6391), (428, 6541), (470, 6664), (477, 6676), (511, 6742), (540, 6817),

Gene: Avle17\_10 Start: 5884, Stop: 6861, Start Num: 114

Candidate Starts for Avle17\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Awesomesauce\_32 Start: 27402, Stop: 28403, Start Num: 95

Candidate Starts for Awesomesauce\_32:

(26, 27141), (Start: 56 @27303 has 7 MA's), (Start: 95 @27402 has 260 MA's), (130, 27477), (168, 27540), (177, 27561), (Start: 214 @27645 has 1 MA's), (223, 27669), (235, 27684), (241, 27696), (286, 27807), (334, 27921), (341, 27939), (357, 27978), (365, 28002), (374, 28038), (388, 28065), (407, 28104), (445, 28212), (468, 28260), (474, 28272), (501, 28329), (515, 28359),

Gene: Aziz\_43 Start: 32938, Stop: 33918, Start Num: 56

Candidate Starts for Aziz\_43:

(Start: 56 @32938 has 7 MA's), (63, 32965), (107, 33061), (120, 33088), (134, 33118), (162, 33175), (166, 33184), (218, 33295), (276, 33418), (277, 33421), (310, 33511), (317, 33526), (371, 33679), (372, 33682), (374, 33691), (379, 33703), (384, 33712), (394, 33733), (444, 33754), (479, 33829),

Gene: Azrael100\_51 Start: 38380, Stop: 39345, Start Num: 95

Candidate Starts for Azrael100\_51:

(Start: 95 @38380 has 260 MA's), (Start: 126 @38443 has 6 MA's), (169, 38503), (175, 38518), (177, 38521), (183, 38533), (185, 38539), (203, 38575), (204, 38578), (241, 38650), (250, 38665), (252, 38671), (273, 38734), (286, 38764), (301, 38797), (333, 38860), (334, 38863), (349, 38902), (361, 38935), (369, 38962), (372, 38971), (386, 39004), (442, 39139), (446, 39154), (468, 39199), (490, 39241), (501, 39268), (521, 39310),

Gene: B1\_08 Start: 5376, Stop: 6116, Start Num: 224

Candidate Starts for B1\_08:

(Start: 224 @5376 has 17 MA's), (263, 5463), (286, 5520), (289, 5532), (291, 5535), (304, 5559), (313, 5574), (333, 5622), (336, 5628), (347, 5655), (369, 5724), (401, 5796), (419, 5838), (428, 5865), (434, 5892), (445, 5925), (447, 5928), (465, 5967), (491, 6021), (533, 6108),

Gene: BAKA\_53 Start: 42677, Stop: 43549, Start Num: 91

Candidate Starts for BAKA\_53:

(Start: 91 @42677 has 31 MA's), (Start: 104 @42704 has 1 MA's), (132, 42764), (158, 42812), (190, 42878), (202, 42899), (Start: 214 @42920 has 1 MA's), (243, 42974), (279, 43055), (379, 43334), (380, 43337), (439, 43361), (452, 43397), (462, 43412), (466, 43424), (475, 43445),

Gene: BEEST\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for BEEST\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242, 26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: BGlluviae\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for BGlluviae\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242, 26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: BK1\_08 Start: 5593, Stop: 6561, Start Num: 111

Candidate Starts for BK1\_08:

(Start: 111 @5593 has 315 MA's), (Start: 126 @5626 has 6 MA's), (Start: 135 @5644 has 1 MA's), (Start: 138 @5647 has 2 MA's), (235, 5836), (266, 5914), (273, 5932), (286, 5965), (289, 5977), (327, 6052), (349, 6115), (359, 6139), (369, 6178), (374, 6196), (407, 6259), (437, 6340), (445, 6364), (446, 6367), (448, 6370), (454, 6379), (495, 6466), (506, 6490), (515, 6511), (531, 6553),

Gene: BPBiebs31\_11 Start: 6265, Stop: 7233, Start Num: 111

Candidate Starts for BPBiebs31\_11:

(Start: 111 @6265 has 315 MA's), (Start: 126 @6298 has 6 MA's), (Start: 135 @6316 has 1 MA's), (Start: 138 @6319 has 2 MA's), (266, 6586), (286, 6637), (289, 6649), (327, 6724), (349, 6787), (355, 6799), (361, 6820), (369, 6850), (374, 6868), (386, 6892), (407, 6931), (437, 7012), (445, 7036), (446, 7039), (448, 7042), (454, 7051), (495, 7138), (515, 7183), (531, 7225),

Gene: BaboJay\_34 Start: 31408, Stop: 32265, Start Num: 136

Candidate Starts for BaboJay\_34:

(Start: 136 @31408 has 124 MA's), (Start: 156 @31447 has 3 MA's), (166, 31477), (175, 31498), (191, 31534), (205, 31564), (236, 31639), (259, 31687), (262, 31690), (272, 31714), (274, 31717), (280, 31732), (346, 31903), (393, 32017), (398, 32032), (420, 32038), (444, 32080), (445, 32083), (470, 32137), (511, 32215), (522, 32248),

Gene: Baby16\_10 Start: 5890, Stop: 6870, Start Num: 112

Candidate Starts for Baby16\_10:

(Start: 112 @5890 has 111 MA's), (Start: 114 @5893 has 13 MA's), (125, 5917), (Start: 135 @5938 has 1 MA's), (Start: 138 @5941 has 2 MA's), (263, 6190), (286, 6247), (328, 6331), (333, 6352), (345, 6379), (362, 6409), (369, 6436), (428, 6586), (466, 6697), (470, 6709), (477, 6721), (511, 6787),

Gene: BabyBack\_13 Start: 8108, Stop: 9085, Start Num: 111

Candidate Starts for BabyBack\_13:

(Start: 111 @8108 has 315 MA's), (125, 8138), (Start: 135 @8159 has 1 MA's), (Start: 138 @8162 has 2 MA's), (155, 8195), (257, 8399), (263, 8411), (286, 8468), (289, 8480), (343, 8597), (369, 8657), (428, 8804), (477, 8939), (511, 9005),

Gene: BabyJohn\_9 Start: 5958, Stop: 6698, Start Num: 224

Candidate Starts for BabyJohn\_9:

(118, 5772), (Start: 152 @5841 has 16 MA's), (Start: 224 @5958 has 17 MA's), (263, 6045), (286, 6102), (289, 6114), (291, 6117), (304, 6141), (313, 6156), (327, 6180), (333, 6204), (336, 6210), (347, 6237), (369, 6306), (401, 6378), (419, 6420), (428, 6447), (434, 6474), (445, 6507), (447, 6510), (465, 6549), (533, 6690),

Gene: BabyRay\_10 Start: 5972, Stop: 6706, Start Num: 224

Candidate Starts for BabyRay\_10:

(Start: 224 @5972 has 17 MA's), (263, 6059), (286, 6116), (289, 6128), (291, 6131), (304, 6155), (313, 6170), (333, 6218), (336, 6224), (347, 6251), (369, 6320), (401, 6392), (419, 6434), (428, 6461), (434,



6488), (445, 6521), (447, 6524), (465, 6563), (524, 6686),

Gene: Babyland\_255 Start: 144570, Stop: 145598, Start Num: 87

Candidate Starts for Babyland\_255:

(Start: 87 @144570 has 167 MA's), (Start: 105 @144600 has 4 MA's), (Start: 112 @144612 has 111 MA's), (130, 144654), (168, 144717), (177, 144738), (Start: 214 @144822 has 1 MA's), (235, 144864), (241, 144876), (250, 144891), (273, 144960), (286, 144987), (309, 145041), (324, 145086), (326, 145089), (354, 145167), (361, 145188), (407, 145299), (440, 145389), (445, 145407), (480, 145479), (496, 145512),

Gene: BackyardAgain\_247 Start: 141943, Stop: 142971, Start Num: 87

Candidate Starts for BackyardAgain\_247:

(Start: 87 @141943 has 167 MA's), (Start: 105 @141973 has 4 MA's), (Start: 112 @141985 has 111 MA's), (130, 142027), (168, 142090), (177, 142111), (Start: 214 @142195 has 1 MA's), (235, 142237), (241, 142249), (250, 142264), (273, 142333), (286, 142360), (309, 142414), (324, 142459), (326, 142462), (354, 142540), (361, 142561), (407, 142672), (440, 142762), (445, 142780), (480, 142852), (496, 142885),

Gene: Backyardigan\_10 Start: 5887, Stop: 6870, Start Num: 111

Candidate Starts for Backyardigan\_10:

(Start: 111 @5887 has 315 MA's), (125, 5917), (Start: 135 @5938 has 1 MA's), (Start: 138 @5941 has 2 MA's), (263, 6190), (285, 6241), (286, 6247), (289, 6259), (305, 6289), (328, 6331), (345, 6379), (362, 6409), (369, 6436), (428, 6586), (470, 6709), (477, 6721), (481, 6730), (511, 6787), (540, 6862),

Gene: BaconJack\_12 Start: 6044, Stop: 7012, Start Num: 111

Candidate Starts for BaconJack\_12:

(Start: 111 @6044 has 315 MA's), (Start: 126 @6077 has 6 MA's), (Start: 135 @6095 has 1 MA's), (Start: 138 @6098 has 2 MA's), (266, 6365), (273, 6383), (286, 6416), (289, 6428), (327, 6503), (349, 6566), (361, 6599), (365, 6611), (369, 6629), (374, 6647), (386, 6671), (407, 6710), (437, 6791), (445, 6815), (446, 6818), (448, 6821), (454, 6830), (495, 6917), (531, 7004),

Gene: Bactobuster\_12 Start: 8187, Stop: 9173, Start Num: 111

Candidate Starts for Bactobuster\_12:

(Start: 111 @8187 has 315 MA's), (125, 8217), (Start: 126 @8220 has 6 MA's), (Start: 138 @8241 has 2 MA's), (209, 8376), (285, 8541), (286, 8547), (325, 8622), (328, 8631), (369, 8742), (396, 8802), (413, 8838), (428, 8892), (433, 8916), (435, 8922), (452, 8967), (477, 9027), (481, 9036),

Gene: BadAgartude\_246 Start: 143855, Stop: 144883, Start Num: 87

Candidate Starts for BadAgartude\_246:

(Start: 87 @143855 has 167 MA's), (Start: 105 @143885 has 4 MA's), (Start: 112 @143897 has 111 MA's), (130, 143939), (168, 144002), (177, 144023), (Start: 214 @144107 has 1 MA's), (235, 144149), (241, 144161), (250, 144176), (273, 144245), (286, 144272), (309, 144326), (324, 144371), (326, 144374), (354, 144452), (361, 144473), (407, 144584), (440, 144674), (445, 144692), (480, 144764), (496, 144797),

Gene: BadStone\_34 Start: 31850, Stop: 32707, Start Num: 136

Candidate Starts for BadStone\_34:

(Start: 136 @31850 has 124 MA's), (Start: 156 @31889 has 3 MA's), (166, 31919), (175, 31940), (191, 31976), (205, 32006), (236, 32081), (259, 32129), (262, 32132), (272, 32156), (274, 32159), (280, 32174), (346, 32345), (393, 32459), (398, 32474), (420, 32480), (444, 32522), (445, 32525), (470, 32579), (511, 32657), (522, 32690),

Gene: Badger\_10 Start: 5879, Stop: 6859, Start Num: 112

Candidate Starts for Badger\_10:

(73, 5819), (82, 5837), (Start: 112 @5879 has 111 MA's), (Start: 114 @5882 has 13 MA's), (125, 5906), (Start: 135 @5927 has 1 MA's), (Start: 138 @5930 has 2 MA's), (263, 6179), (285, 6230), (286, 6236), (289, 6248), (305, 6278), (328, 6320), (345, 6368), (362, 6398), (369, 6425), (428, 6575), (470, 6698), (477, 6710), (481, 6719), (511, 6776), (540, 6851),

Gene: Baehexic\_12 Start: 6944, Stop: 7921, Start Num: 111

Candidate Starts for Baehexic\_12:

(Start: 111 @6944 has 315 MA's), (Start: 138 @6998 has 2 MA's), (180, 7055), (247, 7187), (263, 7235), (286, 7292), (302, 7328), (327, 7376), (337, 7415), (366, 7487), (369, 7502), (388, 7547), (397, 7565), (416, 7607), (428, 7655), (434, 7682), (440, 7697), (445, 7715), (447, 7718), (490, 7808),

Gene: BaghaKamala\_31 Start: 26423, Stop: 27295, Start Num: 153

Candidate Starts for BaghaKamala\_31:

(32, 26093), (100, 26321), (140, 26396), (Start: 153 @26423 has 137 MA's), (Start: 161 @26435 has 1 MA's), (192, 26504), (205, 26531), (Start: 214 @26561 has 1 MA's), (218, 26570), (238, 26606), (242, 26615), (254, 26648), (259, 26666), (274, 26696), (296, 26756), (349, 26891), (363, 26918), (369, 26939), (377, 26963), (405, 27014), (448, 27116), (466, 27152), (477, 27176), (523, 27275), (529, 27284),

Gene: Bagrid\_48 Start: 42037, Stop: 42882, Start Num: 104

Candidate Starts for Bagrid\_48:

(Start: 91 @42010 has 31 MA's), (Start: 104 @42037 has 1 MA's), (132, 42097), (158, 42145), (190, 42211), (202, 42232), (Start: 214 @42253 has 1 MA's), (243, 42307), (279, 42388), (379, 42667), (380, 42670), (439, 42694), (452, 42730), (462, 42745), (466, 42757), (475, 42778),

Gene: Balomoji\_34 Start: 31584, Stop: 32441, Start Num: 136

Candidate Starts for Balomoji\_34:

(Start: 136 @31584 has 124 MA's), (Start: 156 @31623 has 3 MA's), (166, 31653), (175, 31674), (191, 31710), (205, 31740), (236, 31815), (259, 31863), (262, 31866), (272, 31890), (274, 31893), (280, 31908), (346, 32079), (393, 32193), (398, 32208), (420, 32214), (444, 32256), (445, 32259), (470, 32313), (511, 32391), (522, 32424),

Gene: Baloo\_47 Start: 41535, Stop: 42599, Start Num: 84

Candidate Starts for Baloo\_47:

(Start: 84 @41535 has 45 MA's), (115, 41598), (157, 41679), (189, 41745), (197, 41760), (203, 41772), (215, 41799), (245, 41856), (250, 41865), (308, 42012), (315, 42027), (333, 42081), (347, 42114), (362, 42153), (366, 42165), (401, 42246), (411, 42264), (412, 42267), (468, 42423), (521, 42534), (527, 42555), (541, 42588),

Gene: BananaFence\_250 Start: 144475, Stop: 145503, Start Num: 87

Candidate Starts for BananaFence\_250:

(Start: 87 @144475 has 167 MA's), (Start: 105 @144505 has 4 MA's), (Start: 112 @144517 has 111 MA's), (130, 144559), (168, 144622), (177, 144643), (Start: 214 @144727 has 1 MA's), (235, 144769), (241, 144781), (250, 144796), (273, 144865), (286, 144892), (309, 144946), (324, 144991), (326, 144994), (354, 145072), (361, 145093), (407, 145204), (440, 145294), (445, 145312), (480, 145384), (496, 145417),

Gene: BangNhom\_9 Start: 5858, Stop: 6838, Start Num: 112

Candidate Starts for BangNhom\_9:

(Start: 112 @5858 has 111 MA's), (125, 5885), (Start: 135 @5906 has 1 MA's), (Start: 138 @5909 has 2 MA's), (263, 6158), (286, 6215), (289, 6227), (320, 6278), (328, 6299), (345, 6347), (369, 6404), (428, 6554), (470, 6677), (477, 6689), (511, 6755),

Gene: Bangla1971\_253 Start: 144502, Stop: 145530, Start Num: 87

Candidate Starts for Bangla1971\_253:

(Start: 87 @144502 has 167 MA's), (Start: 105 @144532 has 4 MA's), (Start: 112 @144544 has 111 MA's), (130, 144586), (168, 144649), (177, 144670), (Start: 214 @144754 has 1 MA's), (235, 144796), (241, 144808), (250, 144823), (273, 144892), (286, 144919), (309, 144973), (324, 145018), (326, 145021), (354, 145099), (361, 145120), (407, 145231), (440, 145321), (445, 145339), (480, 145411), (496, 145444),

Gene: Baoshan\_27 Start: 26124, Stop: 27095, Start Num: 51

Candidate Starts for Baoshan\_27:

(Start: 51 @26124 has 22 MA's), (67, 26178), (125, 26298), (130, 26313), (141, 26328), (147, 26343), (Start: 161 @26376 has 1 MA's), (166, 26388), (175, 26409), (205, 26472), (218, 26499), (232, 26523), (272, 26604), (277, 26616), (288, 26643), (300, 26679), (306, 26694), (310, 26709), (325, 26754), (330, 26769), (363, 26850), (368, 26868), (369, 26871), (371, 26874), (380, 26901), (449, 26925), (470, 26970), (494, 27012), (514, 27054),

Gene: Barbarian\_34 Start: 30719, Stop: 31576, Start Num: 136

Candidate Starts for Barbarian\_34:

(Start: 136 @30719 has 124 MA's), (Start: 156 @30758 has 3 MA's), (166, 30788), (175, 30809), (191, 30845), (205, 30875), (236, 30950), (259, 30998), (262, 31001), (272, 31025), (274, 31028), (280, 31043), (346, 31214), (393, 31328), (398, 31343), (420, 31349), (444, 31391), (445, 31394), (470, 31448), (511, 31526), (522, 31559),

Gene: Barnyard\_40 Start: 32393, Stop: 33475, Start Num: 62

Candidate Starts for Barnyard\_40:

(Start: 62 @32393 has 3 MA's), (201, 32687), (205, 32693), (213, 32711), (217, 32720), (250, 32783), (260, 32819), (267, 32837), (270, 32843), (315, 32930), (319, 32936), (352, 33032), (374, 33104), (381, 33119), (493, 33359), (498, 33377), (501, 33380), (510, 33395), (519, 33416),

Gene: BarrelRoll\_31 Start: 26446, Stop: 27318, Start Num: 153

Candidate Starts for BarrelRoll\_31:

(140, 26419), (Start: 153 @26446 has 137 MA's), (Start: 161 @26458 has 1 MA's), (192, 26527), (205, 26554), (Start: 214 @26584 has 1 MA's), (218, 26593), (238, 26629), (242, 26638), (254, 26671), (259, 26689), (274, 26719), (295, 26776), (296, 26779), (349, 26914), (363, 26941), (369, 26962), (377, 26986), (405, 27037), (448, 27139), (466, 27175), (477, 27199), (523, 27298), (529, 27307),

Gene: Barriga\_10 Start: 5869, Stop: 6837, Start Num: 111

Candidate Starts for Barriga\_10:

(Start: 111 @5869 has 315 MA's), (Start: 126 @5902 has 6 MA's), (Start: 135 @5920 has 1 MA's), (Start: 138 @5923 has 2 MA's), (266, 6190), (286, 6241), (289, 6253), (327, 6328), (349, 6391), (355, 6403), (361, 6424), (369, 6454), (374, 6472), (386, 6496), (407, 6535), (437, 6616), (445, 6640), (446, 6643), (448, 6646), (454, 6655), (495, 6742), (515, 6787), (531, 6829),

Gene: Bartimeaus\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Bartimeaus\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Bask21\_35 Start: 31036, Stop: 31893, Start Num: 136

Candidate Starts for Bask21\_35:

(Start: 136 @31036 has 124 MA's), (Start: 156 @31075 has 3 MA's), (166, 31105), (175, 31126), (191, 31162), (205, 31192), (236, 31267), (259, 31315), (262, 31318), (272, 31342), (274, 31345), (280, 31360), (346, 31531), (393, 31645), (398, 31660), (420, 31666), (444, 31708), (445, 31711), (470, 31765), (511, 31843), (522, 31876),

Gene: Basquiat\_250 Start: 142761, Stop: 143789, Start Num: 87

Candidate Starts for Basquiat\_250:

(Start: 87 @142761 has 167 MA's), (Start: 105 @142791 has 4 MA's), (Start: 112 @142803 has 111 MA's), (130, 142845), (168, 142908), (177, 142929), (Start: 214 @143013 has 1 MA's), (235, 143055), (241, 143067), (250, 143082), (273, 143151), (286, 143178), (309, 143232), (324, 143277), (326, 143280), (327, 143283), (354, 143358), (361, 143379), (407, 143490), (440, 143580), (445, 143598), (480, 143670), (496, 143703),

Gene: Batiatus\_31 Start: 27509, Stop: 28507, Start Num: 95

Candidate Starts for Batiatus\_31:

(Start: 95 @27509 has 260 MA's), (130, 27584), (168, 27644), (177, 27665), (Start: 214 @27749 has 1 MA's), (241, 27800), (250, 27815), (286, 27911), (327, 27998), (333, 28022), (341, 28043), (357, 28082), (361, 28094), (374, 28142), (388, 28169), (400, 28193), (407, 28208), (445, 28316), (468, 28364), (501, 28433), (515, 28463),

Gene: Baudelaire\_29 Start: 25621, Stop: 26718, Start Num: 39

Candidate Starts for Baudelaire\_29:

(Start: 39 @25621 has 2 MA's), (44, 25648), (53, 25693), (77, 25756), (122, 25852), (127, 25861), (Start: 161 @25915 has 1 MA's), (178, 25954), (216, 26035), (218, 26041), (242, 26086), (244, 26092), (268, 26155), (275, 26173), (277, 26179), (280, 26185), (296, 26230), (306, 26257), (352, 26374), (363, 26398), (378, 26449), (389, 26470), (439, 26488), (475, 26575), (488, 26599), (523, 26680), (537, 26707),

Gene: Bazzle\_28 Start: 26483, Stop: 27511, Start Num: 96

Candidate Starts for Bazzle\_28:

(Start: 96 @26483 has 29 MA's), (176, 26627), (179, 26633), (225, 26747), (227, 26753), (234, 26771), (263, 26846), (286, 26903), (333, 27014), (336, 27020), (337, 27029), (339, 27032), (347, 27047), (369, 27122), (425, 27251), (432, 27278), (442, 27305), (446, 27320), (454, 27332), (486, 27398), (501, 27434),

Gene: Beakin\_32 Start: 27414, Stop: 28415, Start Num: 95

Candidate Starts for Beakin\_32:

(Start: 56 @27315 has 7 MA's), (83, 27387), (Start: 95 @27414 has 260 MA's), (130, 27489), (149, 27522), (168, 27552), (177, 27573), (189, 27603), (Start: 214 @27657 has 1 MA's), (223, 27681), (235, 27696), (241, 27708), (250, 27723), (286, 27819), (334, 27933), (341, 27951), (357, 27990), (365, 28014), (374, 28050), (388, 28077), (407, 28116), (445, 28224), (468, 28272), (474, 28284), (496, 28329), (501, 28341), (515, 28371),

Gene: BeanWater\_245 Start: 143638, Stop: 144666, Start Num: 87

Candidate Starts for BeanWater\_245:

(Start: 87 @143638 has 167 MA's), (Start: 105 @143668 has 4 MA's), (Start: 112 @143680 has 111 MA's), (130, 143722), (168, 143785), (177, 143806), (Start: 214 @143890 has 1 MA's), (235, 143932), (241, 143944), (250, 143959), (273, 144028), (286, 144055), (309, 144109), (324, 144154), (326, 144157), (354, 144235), (361, 144256), (407, 144367), (440, 144457), (445, 144475), (480, 144547), (496, 144580),

Gene: Beatrix\_9 Start: 5686, Stop: 6654, Start Num: 111

Candidate Starts for Beatrix\_9:

(Start: 111 @5686 has 315 MA's), (Start: 126 @5719 has 6 MA's), (Start: 135 @5737 has 1 MA's), (Start: 138 @5740 has 2 MA's), (266, 6007), (286, 6058), (289, 6070), (327, 6145), (349, 6208), (361, 6241), (365, 6253), (369, 6271), (374, 6289), (407, 6352), (437, 6433), (445, 6457), (446, 6460), (448, 6463), (454, 6472), (495, 6559), (531, 6646),

Gene: Beauxregard13\_12 Start: 5962, Stop: 6927, Start Num: 101

Candidate Starts for Beauxregard13\_12:

(Start: 101 @5962 has 93 MA's), (Start: 126 @6007 has 6 MA's), (Start: 138 @6028 has 2 MA's), (201, 6148), (263, 6286), (286, 6343), (291, 6358), (333, 6439), (337, 6454), (347, 6472), (365, 6523), (369, 6541), (388, 6586), (428, 6682), (447, 6745), (465, 6784), (490, 6835),

Gene: Beem\_49 Start: 42576, Stop: 43448, Start Num: 91

Candidate Starts for Beem\_49:

(Start: 91 @42576 has 31 MA's), (Start: 104 @42603 has 1 MA's), (132, 42663), (158, 42711), (190, 42777), (202, 42798), (Start: 214 @42819 has 1 MA's), (243, 42873), (279, 42954), (379, 43233), (380, 43236), (439, 43260), (452, 43296), (462, 43311), (466, 43323), (475, 43344),

Gene: BeesKnees\_10 Start: 5730, Stop: 6698, Start Num: 111

Candidate Starts for BeesKnees\_10:

(Start: 111 @5730 has 315 MA's), (Start: 126 @5763 has 6 MA's), (Start: 135 @5781 has 1 MA's), (Start: 138 @5784 has 2 MA's), (266, 6051), (286, 6102), (289, 6114), (327, 6189), (349, 6252), (355, 6264), (361, 6285), (365, 6297), (369, 6315), (374, 6333), (386, 6357), (407, 6396), (437, 6477), (445, 6501), (446, 6504), (448, 6507), (454, 6516), (495, 6603), (515, 6648), (531, 6690),

Gene: Beezoo\_31 Start: 26471, Stop: 27343, Start Num: 153

Candidate Starts for Beezoo\_31:

(140, 26444), (Start: 153 @26471 has 137 MA's), (Start: 161 @26483 has 1 MA's), (192, 26552), (205, 26579), (Start: 214 @26609 has 1 MA's), (218, 26618), (238, 26654), (242, 26663), (254, 26696), (259, 26714), (274, 26744), (296, 26804), (349, 26939), (363, 26966), (369, 26987), (377, 27011), (405, 27062), (448, 27164), (466, 27200), (477, 27224), (497, 27272), (523, 27323), (529, 27332),

Gene: Bella96\_31 Start: 26364, Stop: 27236, Start Num: 153

Candidate Starts for Bella96\_31:

(140, 26337), (Start: 153 @26364 has 137 MA's), (Start: 161 @26376 has 1 MA's), (192, 26445), (205, 26472), (Start: 214 @26502 has 1 MA's), (218, 26511), (238, 26547), (242, 26556), (254, 26589), (296, 26697), (349, 26832), (363, 26859), (369, 26880), (377, 26904), (448, 27057), (466, 27093), (477, 27117), (523, 27216), (529, 27225),

Gene: Belladonna\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for Belladonna\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242, 26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: Bellis\_28 Start: 26907, Stop: 27896, Start Num: 60

Candidate Starts for Bellis\_28:

(Start: 46 @26853 has 17 MA's), (47, 26859), (55, 26886), (60, 26907), (83, 26958), (124, 27039), (178, 27144), (216, 27225), (218, 27231), (268, 27327), (275, 27345), (277, 27351), (280, 27357), (306, 27429), (329, 27486), (331, 27489), (352, 27546), (378, 27621), (389, 27642), (441, 27666), (445, 27681), (450, 27693), (477, 27750), (523, 27852), (532, 27873),

Gene: BellusTerra\_10 Start: 5884, Stop: 6861, Start Num: 114

Candidate Starts for BellusTerra\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (Start: 138 @5932 has 2 MA's), (209, 6067), (218, 6091), (263, 6181), (286, 6238), (320, 6301), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (470, 6700), (477, 6712), (526, 6823),

Gene: Ben11\_46 Start: 41355, Stop: 42419, Start Num: 84

Candidate Starts for Ben11\_46:

(Start: 84 @41355 has 45 MA's), (115, 41418), (157, 41499), (189, 41565), (197, 41580), (203, 41592), (215, 41619), (245, 41676), (250, 41685), (308, 41832), (315, 41847), (333, 41901), (347, 41934), (362, 41973), (366, 41985), (401, 42066), (411, 42084), (412, 42087), (428, 42132), (468, 42243), (521, 42354), (527, 42375), (541, 42408),

Gene: Bench\_37 Start: 31718, Stop: 32575, Start Num: 136

Candidate Starts for Bench\_37:

(Start: 136 @31718 has 124 MA's), (Start: 156 @31757 has 3 MA's), (166, 31787), (175, 31808), (191, 31844), (205, 31874), (236, 31949), (259, 31997), (262, 32000), (272, 32024), (274, 32027), (280, 32042), (346, 32213), (393, 32327), (398, 32342), (420, 32348), (444, 32390), (445, 32393), (470, 32447), (511, 32525), (522, 32558),

Gene: BengiVuitton\_12 Start: 6865, Stop: 7842, Start Num: 111

Candidate Starts for BengiVuitton\_12:

(Start: 111 @6865 has 315 MA's), (Start: 138 @6919 has 2 MA's), (247, 7108), (257, 7144), (263, 7156), (286, 7213), (302, 7249), (327, 7297), (337, 7336), (369, 7423), (397, 7486), (416, 7528), (428, 7576), (434, 7603), (440, 7618), (445, 7636), (447, 7639), (465, 7678), (490, 7729), (527, 7828),

Gene: Benvolio\_11 Start: 6541, Stop: 7518, Start Num: 111

Candidate Starts for Benvolio\_11:

(Start: 111 @6541 has 315 MA's), (Start: 138 @6595 has 2 MA's), (247, 6784), (257, 6820), (263, 6832), (286, 6889), (302, 6925), (327, 6973), (337, 7012), (358, 7060), (364, 7078), (366, 7084), (369, 7099), (388, 7144), (397, 7162), (416, 7204), (428, 7252), (434, 7279), (440, 7294), (445, 7312), (447, 7315), (490, 7405), (527, 7504),

Gene: Bernardo\_48 Start: 42081, Stop: 43145, Start Num: 84

Candidate Starts for Bernardo\_48:

(Start: 84 @42081 has 45 MA's), (115, 42144), (157, 42225), (189, 42291), (197, 42306), (203, 42318), (215, 42345), (245, 42402), (250, 42411), (308, 42558), (315, 42573), (333, 42627), (347, 42660), (362, 42699), (366, 42711), (401, 42792), (411, 42810), (412, 42813), (468, 42969), (521, 43080), (527, 43101), (541, 43134),

Gene: Bethlehem\_10 Start: 6272, Stop: 7240, Start Num: 111

Candidate Starts for Bethlehem\_10:

(Start: 111 @6272 has 315 MA's), (Start: 126 @6305 has 6 MA's), (Start: 135 @6323 has 1 MA's), (Start: 138 @6326 has 2 MA's), (266, 6593), (286, 6644), (289, 6656), (327, 6731), (361, 6827), (369, 6857), (407, 6938), (437, 7019), (445, 7043), (446, 7046), (448, 7049), (454, 7058), (495, 7145), (531, 7232),

Gene: Bexan\_9 Start: 5686, Stop: 6654, Start Num: 111

Candidate Starts for Bexan\_9:

(Start: 111 @5686 has 315 MA's), (Start: 126 @5719 has 6 MA's), (Start: 135 @5737 has 1 MA's), (Start: 138 @5740 has 2 MA's), (266, 6007), (286, 6058), (289, 6070), (327, 6145), (349, 6208), (361, 6241), (365, 6253), (369, 6271), (374, 6289), (407, 6352), (437, 6433), (445, 6457), (446, 6460), (448, 6463), (454, 6472), (495, 6559), (531, 6646),

Gene: BiancaTri92\_13 Start: 8213, Stop: 9196, Start Num: 111

Candidate Starts for BiancaTri92\_13:

(Start: 111 @8213 has 315 MA's), (Start: 135 @8264 has 1 MA's), (Start: 138 @8267 has 2 MA's), (286, 8591), (291, 8606), (327, 8675), (333, 8699), (337, 8714), (365, 8783), (369, 8801), (428, 8945), (447, 9008), (465, 9047), (475, 9071), (486, 9089),

Gene: Big3\_10 Start: 5629, Stop: 6597, Start Num: 111

Candidate Starts for Big3\_10:

(Start: 111 @5629 has 315 MA's), (Start: 126 @5662 has 6 MA's), (Start: 135 @5680 has 1 MA's), (Start: 138 @5683 has 2 MA's), (266, 5950), (286, 6001), (289, 6013), (327, 6088), (349, 6151), (355, 6163), (361, 6184), (365, 6196), (369, 6214), (374, 6232), (386, 6256), (407, 6295), (437, 6376), (445, 6400), (446, 6403), (448, 6406), (454, 6415), (495, 6502), (515, 6547), (531, 6589),

Gene: BigBubba\_36 Start: 31621, Stop: 32478, Start Num: 136

Candidate Starts for BigBubba\_36:

(Start: 136 @31621 has 124 MA's), (Start: 156 @31660 has 3 MA's), (166, 31690), (175, 31711), (191, 31747), (205, 31777), (236, 31852), (259, 31900), (262, 31903), (272, 31927), (274, 31930), (280, 31945), (346, 32116), (393, 32230), (398, 32245), (420, 32251), (444, 32293), (445, 32296), (470, 32350), (511, 32428), (522, 32461),

Gene: BigCheese\_28 Start: 26303, Stop: 27274, Start Num: 51

Candidate Starts for BigCheese\_28:

(Start: 51 @26303 has 22 MA's), (67, 26357), (141, 26507), (144, 26516), (147, 26522), (Start: 161 @26555 has 1 MA's), (162, 26558), (166, 26567), (175, 26588), (205, 26651), (218, 26678), (232, 26702), (272, 26783), (277, 26795), (300, 26858), (306, 26873), (325, 26933), (330, 26948), (363, 27029), (368, 27047), (369, 27050), (371, 27053), (449, 27104), (470, 27149), (494, 27191), (514, 27233),

Gene: BigCity\_260 Start: 146393, Stop: 147421, Start Num: 87

Candidate Starts for BigCity\_260:

(Start: 87 @146393 has 167 MA's), (Start: 105 @146423 has 4 MA's), (Start: 112 @146435 has 111 MA's), (130, 146477), (168, 146540), (177, 146561), (Start: 214 @146645 has 1 MA's), (235, 146687), (241, 146699), (250, 146714), (273, 146783), (286, 146810), (309, 146864), (324, 146909), (326, 146912), (354, 146990), (361, 147011), (407, 147122), (440, 147212), (445, 147230), (480, 147302), (496, 147335),

Gene: BigMau\_11 Start: 5731, Stop: 6699, Start Num: 111

Candidate Starts for BigMau\_11:

(Start: 111 @5731 has 315 MA's), (Start: 126 @5764 has 6 MA's), (Start: 135 @5782 has 1 MA's), (Start: 138 @5785 has 2 MA's), (266, 6052), (286, 6103), (289, 6115), (327, 6190), (349, 6253), (355, 6265), (361, 6286), (365, 6298), (369, 6316), (374, 6334), (386, 6358), (407, 6397), (437, 6478), (445, 6502), (446, 6505), (448, 6508), (454, 6517), (495, 6604), (531, 6691),

Gene: BigPaolini\_11 Start: 6658, Stop: 7626, Start Num: 111

Candidate Starts for BigPaolini\_11:

(Start: 111 @6658 has 315 MA's), (Start: 126 @6691 has 6 MA's), (Start: 135 @6709 has 1 MA's), (Start: 138 @6712 has 2 MA's), (266, 6979), (286, 7030), (289, 7042), (327, 7117), (349, 7180), (355, 7192), (361, 7213), (365, 7225), (369, 7243), (374, 7261), (386, 7285), (407, 7324), (437, 7405), (445, 7429), (446, 7432), (448, 7435), (454, 7444), (495, 7531), (531, 7618),

Gene: BigPhil\_27 Start: 23733, Stop: 24731, Start Num: 95

Candidate Starts for BigPhil\_27:

(Start: 95 @23733 has 260 MA's), (130, 23808), (168, 23868), (177, 23889), (Start: 214 @23973 has 1 MA's), (241, 24024), (250, 24039), (286, 24135), (327, 24222), (333, 24246), (341, 24267), (357, 24306), (361, 24318), (374, 24366), (388, 24393), (400, 24417), (407, 24432), (445, 24540), (468, 24588), (501, 24657), (515, 24687),

Gene: Bigfoot\_9 Start: 5757, Stop: 6725, Start Num: 111

Candidate Starts for Bigfoot\_9:

(Start: 111 @5757 has 315 MA's), (Start: 126 @5790 has 6 MA's), (Start: 135 @5808 has 1 MA's), (Start: 138 @5811 has 2 MA's), (266, 6078), (286, 6129), (289, 6141), (327, 6216), (349, 6279), (355, 6291), (361, 6312), (369, 6342), (374, 6360), (386, 6384), (407, 6423), (437, 6504), (445, 6528), (446, 6531), (448, 6534), (454, 6543), (495, 6630), (515, 6675), (531, 6717),

Gene: Biglebops\_27 Start: 25978, Stop: 26736, Start Num: 152

Candidate Starts for Biglebops\_27:

(100, 25876), (129, 25930), (140, 25951), (Start: 152 @25978 has 16 MA's), (175, 26023), (192, 26059), (216, 26119), (218, 26125), (234, 26155), (254, 26203), (271, 26245), (296, 26311), (308, 26347), (349, 26446), (363, 26473), (369, 26494), (371, 26500), (442, 26539), (445, 26551), (448, 26557), (462, 26581), (470, 26605), (523, 26716), (529, 26725),

Gene: Bigswole\_257 Start: 146304, Stop: 147332, Start Num: 87

Candidate Starts for Bigswole\_257:

(Start: 87 @146304 has 167 MA's), (Start: 105 @146334 has 4 MA's), (Start: 112 @146346 has 111 MA's), (130, 146388), (168, 146451), (177, 146472), (Start: 214 @146556 has 1 MA's), (235, 146598), (241, 146610), (250, 146625), (273, 146694), (286, 146721), (309, 146775), (324, 146820), (326, 146823), (354, 146901), (361, 146922), (407, 147033), (440, 147123), (445, 147141), (480, 147213), (496, 147246),

Gene: BilboSwaggins\_35 Start: 31858, Stop: 32715, Start Num: 136

Candidate Starts for BilboSwaggins\_35:

(Start: 136 @31858 has 124 MA's), (Start: 156 @31897 has 3 MA's), (166, 31927), (175, 31948), (191, 31984), (205, 32014), (236, 32089), (259, 32137), (262, 32140), (272, 32164), (274, 32167), (280, 32182), (346, 32353), (384, 32452), (393, 32467), (398, 32482), (420, 32488), (444, 32530), (445, 32533), (470, 32587), (511, 32665), (522, 32698),

Gene: BillKnuckles\_11 Start: 6674, Stop: 7642, Start Num: 111

Candidate Starts for BillKnuckles\_11:

(Start: 111 @6674 has 315 MA's), (Start: 126 @6707 has 6 MA's), (Start: 135 @6725 has 1 MA's), (Start: 138 @6728 has 2 MA's), (266, 6995), (286, 7046), (289, 7058), (327, 7133), (349, 7196), (355, 7208), (361, 7229), (365, 7241), (369, 7259), (374, 7277), (386, 7301), (407, 7340), (437, 7421), (445, 7445), (446, 7448), (448, 7451), (454, 7460), (486, 7526), (495, 7547), (531, 7634),

Gene: Bipolar\_28 Start: 26593, Stop: 27594, Start Num: 95

Candidate Starts for Bipolar\_28:

(Start: 95 @26593 has 260 MA's), (130, 26668), (149, 26701), (168, 26731), (177, 26752), (Start: 214 @26836 has 1 MA's), (223, 26860), (235, 26875), (241, 26887), (286, 26998), (333, 27109), (341, 27130), (357, 27169), (365, 27193), (374, 27229), (388, 27256), (400, 27280), (407, 27295), (445, 27403), (468, 27451), (501, 27520), (515, 27550),

Gene: Bipolarisk\_250 Start: 144521, Stop: 145549, Start Num: 87

Candidate Starts for Bipolarisk\_250:

(Start: 87 @144521 has 167 MA's), (Start: 105 @144551 has 4 MA's), (Start: 112 @144563 has 111 MA's), (130, 144605), (168, 144668), (177, 144689), (Start: 214 @144773 has 1 MA's), (235, 144815), (241, 144827), (250, 144842), (273, 144911), (286, 144938), (309, 144992), (324, 145037), (326,



145040), (354, 145118), (361, 145139), (407, 145250), (440, 145340), (445, 145358), (480, 145430), (496, 145463),

Gene: Bircsak\_10 Start: 6218, Stop: 7186, Start Num: 111

Candidate Starts for Bircsak\_10:

(Start: 111 @6218 has 315 MA's), (Start: 126 @6251 has 6 MA's), (Start: 135 @6269 has 1 MA's), (Start: 138 @6272 has 2 MA's), (266, 6539), (286, 6590), (289, 6602), (327, 6677), (349, 6740), (361, 6773), (365, 6785), (369, 6803), (374, 6821), (386, 6845), (407, 6884), (437, 6965), (445, 6989), (446, 6992), (448, 6995), (454, 7004), (495, 7091), (531, 7178),

Gene: BirdsNest\_51 Start: 41335, Stop: 42336, Start Num: 112

Candidate Starts for BirdsNest\_51:

(Start: 112 @41335 has 111 MA's), (125, 41362), (Start: 138 @41386 has 2 MA's), (285, 41692), (286, 41698), (302, 41734), (320, 41761), (369, 41893), (380, 41923), (396, 41953), (413, 41989), (428, 42043), (433, 42067), (435, 42073), (448, 42109), (537, 42310),

Gene: Blackbrain\_251 Start: 144538, Stop: 145566, Start Num: 87

Candidate Starts for Blackbrain\_251:

(Start: 87 @144538 has 167 MA's), (Start: 105 @144568 has 4 MA's), (Start: 112 @144580 has 111 MA's), (130, 144622), (168, 144685), (177, 144706), (Start: 214 @144790 has 1 MA's), (235, 144832), (241, 144844), (250, 144859), (273, 144928), (286, 144955), (309, 145009), (324, 145054), (326, 145057), (354, 145135), (361, 145156), (407, 145267), (440, 145357), (445, 145375), (480, 145447), (496, 145480),

Gene: Blackdragon\_247 Start: 144086, Stop: 145114, Start Num: 87

Candidate Starts for Blackdragon\_247:

(Start: 87 @144086 has 167 MA's), (Start: 105 @144116 has 4 MA's), (130, 144170), (168, 144233), (177, 144254), (Start: 214 @144338 has 1 MA's), (235, 144380), (241, 144392), (250, 144407), (273, 144476), (286, 144503), (309, 144557), (324, 144602), (326, 144605), (354, 144683), (361, 144704), (407, 144815), (440, 144905), (445, 144923), (480, 144995), (496, 145028),

Gene: Blackmoor\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Blackmoor\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Blarby\_39 Start: 27985, Stop: 28986, Start Num: 95

Candidate Starts for Blarby\_39:

(Start: 95 @27985 has 260 MA's), (Start: 105 @28006 has 4 MA's), (Start: 112 @28018 has 111 MA's), (130, 28060), (168, 28123), (177, 28144), (189, 28174), (196, 28186), (Start: 214 @28228 has 1 MA's), (223, 28252), (235, 28267), (241, 28279), (286, 28390), (334, 28504), (341, 28522), (357, 28561), (365, 28585), (374, 28621), (388, 28648), (400, 28672), (407, 28687), (445, 28795), (468, 28843), (501, 28912), (515, 28942),

Gene: Blessica\_68 Start: 43732, Stop: 44772, Start Num: 95

Candidate Starts for Blessica\_68:

(Start: 95 @43732 has 260 MA's), (130, 43807), (168, 43888), (170, 43894), (177, 43909), (213, 43990), (Start: 214 @43993 has 1 MA's), (241, 44047), (250, 44062), (286, 44158), (304, 44197), (312, 44227), (324, 44257), (326, 44260), (336, 44293), (361, 44359), (374, 44407), (388, 44434), (407, 44473), (478, 44647), (501, 44698),

Gene: Blexus\_31 Start: 27836, Stop: 28837, Start Num: 95

Candidate Starts for Blexus\_31:

(83, 27809), (Start: 95 @27836 has 260 MA's), (130, 27911), (149, 27944), (168, 27974), (177, 27995), (189, 28025), (196, 28037), (Start: 214 @28079 has 1 MA's), (241, 28130), (250, 28145), (286, 28241), (333, 28352), (341, 28373), (357, 28412), (361, 28424), (374, 28472), (388, 28499), (400, 28523), (407, 28538), (445, 28646), (468, 28694), (501, 28763), (515, 28793),

Gene: Blizzard\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for Blizzard\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242, 26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: BluSpix\_10 Start: 6017, Stop: 6985, Start Num: 111

Candidate Starts for BluSpix\_10:

(Start: 111 @6017 has 315 MA's), (Start: 126 @6050 has 6 MA's), (Start: 135 @6068 has 1 MA's), (Start: 138 @6071 has 2 MA's), (266, 6338), (286, 6389), (289, 6401), (327, 6476), (349, 6539), (355, 6551), (361, 6572), (365, 6584), (369, 6602), (374, 6620), (407, 6683), (437, 6764), (445, 6788), (446, 6791), (448, 6794), (454, 6803), (495, 6890), (515, 6935), (531, 6977),

Gene: Blubba\_239 Start: 147265, Stop: 148299, Start Num: 87

Candidate Starts for Blubba\_239:

(Start: 87 @147265 has 167 MA's), (Start: 105 @147295 has 4 MA's), (130, 147349), (168, 147412), (177, 147433), (Start: 214 @147517 has 1 MA's), (235, 147559), (241, 147571), (250, 147586), (273, 147655), (286, 147682), (309, 147736), (324, 147781), (326, 147784), (354, 147862), (361, 147883), (407, 147994), (440, 148084), (445, 148102), (480, 148174), (496, 148207), (534, 148294),

Gene: Blue\_10 Start: 6124, Stop: 7092, Start Num: 111

Candidate Starts for Blue\_10:

(Start: 111 @6124 has 315 MA's), (Start: 126 @6157 has 6 MA's), (Start: 135 @6175 has 1 MA's), (Start: 138 @6178 has 2 MA's), (266, 6445), (286, 6496), (289, 6508), (327, 6583), (361, 6679), (365, 6691), (369, 6709), (374, 6727), (386, 6751), (407, 6790), (437, 6871), (445, 6895), (446, 6898), (448, 6901), (454, 6910), (495, 6997), (531, 7084),

Gene: BlueBird\_11 Start: 5739, Stop: 6479, Start Num: 224

Candidate Starts for BlueBird\_11:

(Start: 152 @5622 has 16 MA's), (Start: 224 @5739 has 17 MA's), (263, 5826), (286, 5883), (289, 5895), (291, 5898), (304, 5922), (313, 5937), (321, 5955), (333, 5985), (336, 5991), (337, 6000), (347, 6018), (365, 6069), (369, 6087), (401, 6159), (419, 6201), (428, 6228), (434, 6255), (445, 6288), (447, 6291), (465, 6330), (533, 6471),

Gene: BlueCrab\_31 Start: 27687, Stop: 28688, Start Num: 95

Candidate Starts for BlueCrab\_31:

(Start: 56 @27588 has 7 MA's), (Start: 95 @27687 has 260 MA's), (Start: 105 @27708 has 4 MA's), (Start: 112 @27720 has 111 MA's), (130, 27762), (168, 27825), (177, 27846), (Start: 214 @27930 has 1 MA's), (223, 27954), (235, 27969), (241, 27981), (286, 28092), (334, 28206), (341, 28224), (357, 28263), (365, 28287), (374, 28323), (388, 28350), (407, 28389), (428, 28437), (445, 28497), (468, 28545), (474, 28557), (496, 28602), (501, 28614),

Gene: Bob3\_9 Start: 5573, Stop: 6541, Start Num: 111

Candidate Starts for Bob3\_9:

(Start: 111 @5573 has 315 MA's), (Start: 126 @5606 has 6 MA's), (Start: 135 @5624 has 1 MA's), (Start: 138 @5627 has 2 MA's), (266, 5894), (286, 5945), (289, 5957), (327, 6032), (349, 6095), (355, 6107), (361, 6128), (365, 6140), (369, 6158), (374, 6176), (386, 6200), (407, 6239), (437, 6320), (445, 6344), (446, 6347), (448, 6350), (454, 6359), (495, 6446), (531, 6533),

Gene: BobSwaget\_14 Start: 8111, Stop: 9097, Start Num: 111

Candidate Starts for BobSwaget\_14:

(Start: 111 @8111 has 315 MA's), (125, 8141), (Start: 135 @8162 has 1 MA's), (Start: 138 @8165 has 2 MA's), (155, 8198), (263, 8414), (285, 8465), (286, 8471), (289, 8483), (301, 8504), (345, 8594), (369, 8660), (428, 8810), (432, 8831), (477, 8945), (511, 9017),

Gene: BobaPhett\_31 Start: 27708, Stop: 28709, Start Num: 95

Candidate Starts for BobaPhett\_31:

(Start: 95 @27708 has 260 MA's), (130, 27783), (168, 27846), (177, 27867), (Start: 214 @27951 has 1 MA's), (223, 27975), (235, 27990), (241, 28002), (286, 28113), (334, 28227), (341, 28245), (357, 28284), (365, 28308), (374, 28344), (407, 28410), (445, 28518), (468, 28566), (474, 28578), (496, 28623), (501, 28635), (515, 28665),

Gene: Bobby\_48 Start: 41009, Stop: 42013, Start Num: 49

Candidate Starts for Bobby\_48:

(Start: 49 @41009 has 10 MA's), (64, 41063), (Start: 88 @41114 has 3 MA's), (125, 41183), (Start: 126 @41186 has 6 MA's), (147, 41228), (Start: 214 @41366 has 1 MA's), (218, 41375), (242, 41420), (272, 41489), (282, 41513), (284, 41516), (299, 41561), (306, 41579), (363, 41741), (367, 41756), (370, 41765), (521, 41966),

Gene: Bobi\_33 Start: 28223, Stop: 29221, Start Num: 95

Candidate Starts for Bobi\_33:

(Start: 95 @28223 has 260 MA's), (130, 28298), (168, 28358), (177, 28379), (Start: 214 @28463 has 1 MA's), (241, 28514), (250, 28529), (286, 28625), (333, 28736), (341, 28757), (357, 28796), (361, 28808), (374, 28856), (388, 28883), (400, 28907), (407, 28922), (445, 29030), (468, 29078), (501, 29147), (515, 29177),

Gene: BobsGarage\_28 Start: 26303, Stop: 27274, Start Num: 51

Candidate Starts for BobsGarage\_28:

(Start: 51 @26303 has 22 MA's), (67, 26357), (141, 26507), (144, 26516), (147, 26522), (Start: 161 @26555 has 1 MA's), (162, 26558), (166, 26567), (175, 26588), (205, 26651), (218, 26678), (232, 26702), (272, 26783), (277, 26795), (300, 26858), (306, 26873), (325, 26933), (330, 26948), (363, 27029), (368, 27047), (369, 27050), (371, 27053), (449, 27104), (470, 27149), (494, 27191), (514, 27233),

Gene: BodEinwohner17\_31 Start: 27906, Stop: 28907, Start Num: 95

Candidate Starts for BodEinwohner17\_31:

(Start: 95 @27906 has 260 MA's), (130, 27981), (149, 28014), (168, 28044), (177, 28065), (189, 28095), (196, 28107), (Start: 214 @28149 has 1 MA's), (223, 28173), (235, 28188), (241, 28200), (286, 28311), (334, 28425), (341, 28443), (357, 28482), (361, 28494), (374, 28542), (388, 28569), (400, 28593), (407, 28608), (445, 28716), (468, 28764), (501, 28833), (515, 28863),

Gene: Boiiii\_31 Start: 26496, Stop: 27368, Start Num: 153

Candidate Starts for Boiiii\_31:

(32, 26166), (100, 26394), (140, 26469), (Start: 153 @26496 has 137 MA's), (Start: 161 @26508 has 1 MA's), (192, 26577), (205, 26604), (Start: 214 @26634 has 1 MA's), (218, 26643), (238, 26679), (242, 26688), (254, 26721), (259, 26739), (274, 26769), (296, 26829), (349, 26964), (363, 26991), (369, 27012), (377, 27036), (405, 27087), (448, 27189), (466, 27225), (477, 27249), (523, 27348), (529,

27357),

Gene: Boilgate\_28 Start: 28389, Stop: 29168, Start Num: 143

Candidate Starts for Boilgate\_28:

(113, 28332), (Start: 143 @28389 has 20 MA's), (Start: 161 @28422 has 1 MA's), (175, 28455), (200, 28509), (205, 28518), (218, 28545), (238, 28581), (242, 28590), (276, 28662), (349, 28869), (363, 28896), (369, 28917), (378, 28944), (443, 28962), (470, 29019), (477, 29031), (489, 29055),

Gene: Bombitas\_46 Start: 42161, Stop: 43027, Start Num: 91

Candidate Starts for Bombitas\_46:

(Start: 91 @42161 has 31 MA's), (Start: 104 @42188 has 1 MA's), (116, 42209), (158, 42296), (168, 42317), (190, 42362), (202, 42383), (Start: 214 @42404 has 1 MA's), (243, 42458), (266, 42509), (288, 42560), (344, 42710), (360, 42752), (373, 42803), (380, 42821), (460, 42887), (463, 42899), (466, 42908), (479, 42938), (516, 43001),

Gene: Bombshell\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Bombshell\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (320, 6301), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Bones\_10 Start: 5768, Stop: 6736, Start Num: 111

Candidate Starts for Bones\_10:

(Start: 111 @5768 has 315 MA's), (Start: 126 @5801 has 6 MA's), (Start: 135 @5819 has 1 MA's), (Start: 138 @5822 has 2 MA's), (266, 6089), (286, 6140), (289, 6152), (327, 6227), (349, 6290), (355, 6302), (361, 6323), (365, 6335), (369, 6353), (374, 6371), (386, 6395), (407, 6434), (437, 6515), (445, 6539), (446, 6542), (448, 6545), (454, 6554), (495, 6641), (531, 6728),

Gene: Bongo\_38 Start: 31794, Stop: 32765, Start Num: 58

Candidate Starts for Bongo\_38:

(Start: 58 @31794 has 13 MA's), (63, 31818), (69, 31833), (134, 31971), (150, 31998), (158, 32016), (162, 32028), (166, 32037), (185, 32082), (191, 32094), (206, 32121), (218, 32148), (222, 32160), (246, 32205), (257, 32232), (272, 32262), (276, 32271), (277, 32274), (310, 32361), (317, 32376), (371, 32529), (372, 32532), (441, 32592), (444, 32604), (448, 32613), (466, 32649), (471, 32664), (494, 32703), (509, 32736),

Gene: Bonray\_255 Start: 146338, Stop: 147366, Start Num: 87

Candidate Starts for Bonray\_255:

(Start: 87 @146338 has 167 MA's), (Start: 105 @146368 has 4 MA's), (Start: 112 @146380 has 111 MA's), (130, 146422), (168, 146485), (177, 146506), (Start: 214 @146590 has 1 MA's), (235, 146632), (241, 146644), (250, 146659), (273, 146728), (286, 146755), (309, 146809), (324, 146854), (326, 146857), (354, 146935), (361, 146956), (407, 147067), (440, 147157), (445, 147175), (480, 147247), (496, 147280),

Gene: Boomer\_33 Start: 27576, Stop: 28577, Start Num: 95

Candidate Starts for Boomer\_33:

(Start: 95 @27576 has 260 MA's), (130, 27651), (149, 27684), (168, 27714), (177, 27735), (189, 27765), (196, 27777), (Start: 214 @27819 has 1 MA's), (223, 27843), (235, 27858), (241, 27870), (286, 27981), (334, 28095), (341, 28113), (357, 28152), (365, 28176), (374, 28212), (388, 28239), (407, 28278), (445, 28386), (468, 28434), (474, 28446), (496, 28491), (501, 28503), (515, 28533),

Gene: BoostSeason\_30 Start: 24885, Stop: 26096, Start Num: 48

Candidate Starts for BoostSeason\_30:

(1, 24174), (2, 24237), (3, 24261), (27, 24762), (30, 24783), (42, 24846), (Start: 48 @24885 has 10 MA's), (57, 24912), (61, 24933), (76, 24969), (99, 25014), (146, 25110), (Start: 161 @25143 has 1 MA's), (162, 25146), (175, 25176), (205, 25242), (218, 25281), (257, 25359), (278, 25404), (299, 25461), (306, 25479), (329, 25551), (363, 25644), (369, 25665), (375, 25686), (377, 25689), (423, 25803), (426, 25818), (444, 25887), (470, 25944), (509, 26025),

Gene: Bora\_65 Start: 43113, Stop: 44153, Start Num: 95

Candidate Starts for Bora\_65:

(Start: 95 @43113 has 260 MA's), (130, 43188), (168, 43269), (177, 43290), (213, 43371), (Start: 214 @43374 has 1 MA's), (241, 43428), (250, 43443), (286, 43539), (304, 43578), (312, 43608), (324, 43638), (326, 43641), (336, 43674), (361, 43740), (374, 43788), (388, 43815), (407, 43854), (478, 44028), (501, 44079),

Gene: BourbonZero\_27 Start: 26811, Stop: 27854, Start Num: 46

Candidate Starts for BourbonZero\_27:

(Start: 46 @26811 has 17 MA's), (47, 26817), (55, 26844), (60, 26865), (83, 26916), (124, 26997), (178, 27102), (216, 27183), (218, 27189), (240, 27231), (268, 27285), (275, 27303), (277, 27309), (280, 27315), (306, 27387), (329, 27444), (352, 27504), (378, 27579), (441, 27624), (445, 27639), (448, 27645), (477, 27708), (523, 27810), (532, 27831), (537, 27837),

Gene: Bradman\_10 Start: 5599, Stop: 6363, Start Num: 229

Candidate Starts for Bradman\_10:

(Start: 229 @5599 has 16 MA's), (286, 5743), (334, 5857), (336, 5860), (337, 5869), (365, 5938), (369, 5956), (397, 6019), (428, 6097), (434, 6124), (440, 6139), (445, 6157), (447, 6160), (490, 6250), (518, 6319),

Gene: BrainDrainer\_27 Start: 25485, Stop: 26507, Start Num: 96

Candidate Starts for BrainDrainer\_27:

(Start: 96 @25485 has 29 MA's), (Start: 152 @25596 has 16 MA's), (176, 25629), (179, 25635), (182, 25641), (222, 25743), (223, 25746), (241, 25785), (250, 25806), (263, 25848), (286, 25905), (334, 26019), (369, 26124), (404, 26205), (406, 26208), (425, 26253), (446, 26316), (454, 26328), (486, 26394), (490, 26403), (501, 26430),

Gene: BreSam8\_12 Start: 5955, Stop: 6920, Start Num: 101

Candidate Starts for BreSam8\_12:

(Start: 101 @5955 has 93 MA's), (Start: 126 @6000 has 6 MA's), (Start: 138 @6021 has 2 MA's), (201, 6141), (263, 6279), (286, 6336), (291, 6351), (333, 6432), (337, 6447), (347, 6465), (365, 6516), (369, 6534), (388, 6579), (428, 6675), (447, 6738), (465, 6777), (490, 6828),

Gene: Bread\_249 Start: 144305, Stop: 145333, Start Num: 87

Candidate Starts for Bread\_249:

(Start: 87 @144305 has 167 MA's), (Start: 105 @144335 has 4 MA's), (Start: 112 @144347 has 111 MA's), (130, 144389), (168, 144452), (177, 144473), (Start: 214 @144557 has 1 MA's), (235, 144599), (241, 144611), (250, 144626), (273, 144695), (286, 144722), (309, 144776), (324, 144821), (326, 144824), (354, 144902), (361, 144923), (407, 145034), (440, 145124), (445, 145142), (480, 145214), (496, 145247),

Gene: Breeniome\_252 Start: 143293, Stop: 144321, Start Num: 87

Candidate Starts for Breeniome\_252:

(Start: 87 @143293 has 167 MA's), (Start: 105 @143323 has 4 MA's), (Start: 112 @143335 has 111 MA's), (130, 143377), (168, 143440), (177, 143461), (Start: 214 @143545 has 1 MA's), (235, 143587), (241, 143599), (250, 143614), (273, 143683), (286, 143710), (309, 143764), (324, 143809), (326,

143812), (354, 143890), (361, 143911), (407, 144022), (440, 144112), (445, 144130), (480, 144202), (496, 144235),

Gene: Breezona\_28 Start: 26303, Stop: 27274, Start Num: 51

Candidate Starts for Breezona\_28:

(Start: 51 @26303 has 22 MA's), (67, 26357), (141, 26507), (144, 26516), (147, 26522), (Start: 161 @26555 has 1 MA's), (162, 26558), (166, 26567), (175, 26588), (205, 26651), (218, 26678), (232, 26702), (272, 26783), (277, 26795), (300, 26858), (306, 26873), (325, 26933), (330, 26948), (363, 27029), (368, 27047), (369, 27050), (371, 27053), (449, 27104), (470, 27149), (494, 27191), (514, 27233),

Gene: Briakila\_48 Start: 42303, Stop: 43367, Start Num: 84

Candidate Starts for Briakila\_48:

(Start: 84 @42303 has 45 MA's), (115, 42366), (157, 42447), (189, 42513), (197, 42528), (203, 42540), (215, 42567), (245, 42624), (250, 42633), (308, 42780), (315, 42795), (333, 42849), (347, 42882), (362, 42921), (366, 42933), (401, 43014), (411, 43032), (412, 43035), (468, 43191), (521, 43302), (527, 43323), (541, 43356),

Gene: Bricole\_38 Start: 31780, Stop: 32751, Start Num: 58

Candidate Starts for Bricole\_38:

(Start: 58 @31780 has 13 MA's), (63, 31804), (69, 31819), (134, 31957), (150, 31984), (158, 32002), (162, 32014), (166, 32023), (185, 32068), (191, 32080), (206, 32107), (218, 32134), (222, 32146), (246, 32191), (257, 32218), (272, 32248), (276, 32257), (277, 32260), (310, 32347), (317, 32362), (371, 32515), (372, 32518), (441, 32578), (444, 32590), (448, 32599), (466, 32635), (471, 32650), (494, 32689), (509, 32722),

Gene: Briton15\_11 Start: 5784, Stop: 6752, Start Num: 111

Candidate Starts for Briton15\_11:

(Start: 111 @5784 has 315 MA's), (Start: 126 @5817 has 6 MA's), (Start: 135 @5835 has 1 MA's), (Start: 138 @5838 has 2 MA's), (266, 6105), (286, 6156), (289, 6168), (327, 6243), (361, 6339), (369, 6369), (407, 6450), (437, 6531), (445, 6555), (446, 6558), (448, 6561), (454, 6570), (495, 6657), (531, 6744),

Gene: Brocalys\_26 Start: 23309, Stop: 24310, Start Num: 95

Candidate Starts for Brocalys\_26:

(Start: 95 @23309 has 260 MA's), (130, 23384), (168, 23447), (177, 23468), (Start: 214 @23552 has 1 MA's), (223, 23576), (235, 23591), (241, 23603), (286, 23714), (341, 23846), (357, 23885), (361, 23897), (388, 23972), (407, 24011), (501, 24236), (515, 24266),

Gene: Bromden\_28 Start: 25913, Stop: 26935, Start Num: 96

Candidate Starts for Bromden\_28:

(Start: 96 @25913 has 29 MA's), (176, 26057), (179, 26063), (182, 26069), (222, 26171), (223, 26174), (228, 26189), (241, 26213), (250, 26234), (263, 26276), (286, 26333), (334, 26447), (337, 26459), (369, 26552), (404, 26633), (425, 26681), (446, 26744), (454, 26756), (486, 26822), (490, 26831), (501, 26858),

Gene: Broseidon\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Broseidon\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Bruin\_35 Start: 31878, Stop: 32735, Start Num: 136

Candidate Starts for Bruin\_35:

(Start: 136 @31878 has 124 MA's), (Start: 156 @31917 has 3 MA's), (166, 31947), (175, 31968), (191, 32004), (205, 32034), (236, 32109), (259, 32157), (262, 32160), (272, 32184), (274, 32187), (280, 32202), (346, 32373), (393, 32487), (398, 32502), (420, 32508), (444, 32550), (445, 32553), (470, 32607), (511, 32685), (522, 32718),

Gene: Bruiser\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Bruiser\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Bruns\_8 Start: 5434, Stop: 6402, Start Num: 111

Candidate Starts for Bruns\_8:

(Start: 111 @5434 has 315 MA's), (Start: 126 @5467 has 6 MA's), (Start: 135 @5485 has 1 MA's), (Start: 138 @5488 has 2 MA's), (266, 5755), (286, 5806), (289, 5818), (327, 5893), (349, 5956), (359, 5980), (369, 6019), (374, 6037), (407, 6100), (437, 6181), (445, 6205), (446, 6208), (448, 6211), (454, 6220), (495, 6307), (515, 6352), (531, 6394),

Gene: Bryler\_31 Start: 25864, Stop: 26607, Start Num: 153

Candidate Starts for Bryler\_31:

(140, 25837), (Start: 153 @25864 has 137 MA's), (162, 25882), (173, 25906), (175, 25912), (192, 25948), (Start: 214 @25996 has 1 MA's), (218, 26005), (238, 26041), (254, 26083), (296, 26191), (349, 26326), (360, 26341), (363, 26353), (369, 26374), (385, 26389), (387, 26392), (421, 26398), (470, 26476), (509, 26557), (521, 26578), (523, 26587),

Gene: BubbleTrouble\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for BubbleTrouble\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Bubbles123\_33 Start: 28498, Stop: 29499, Start Num: 95

Candidate Starts for Bubbles123\_33:

(Start: 95 @28498 has 260 MA's), (130, 28573), (149, 28606), (168, 28636), (177, 28657), (Start: 214 @28741 has 1 MA's), (241, 28792), (250, 28807), (286, 28903), (333, 29014), (341, 29035), (357, 29074), (361, 29086), (374, 29134), (388, 29161), (400, 29185), (407, 29200), (445, 29308), (468, 29356), (501, 29425), (515, 29455),

Gene: Buck\_34 Start: 31814, Stop: 32671, Start Num: 136

Candidate Starts for Buck\_34:

(Start: 136 @31814 has 124 MA's), (Start: 156 @31853 has 3 MA's), (166, 31883), (175, 31904), (191, 31940), (205, 31970), (236, 32045), (259, 32093), (262, 32096), (272, 32120), (274, 32123), (280, 32138), (346, 32309), (384, 32408), (393, 32423), (398, 32438), (420, 32444), (444, 32486), (445, 32489), (470, 32543), (511, 32621), (522, 32654),

Gene: Bugatti\_10 Start: 5739, Stop: 6479, Start Num: 224

Candidate Starts for Bugatti\_10:

(Start: 152 @5622 has 16 MA's), (Start: 224 @5739 has 17 MA's), (263, 5826), (286, 5883), (289, 5895), (291, 5898), (304, 5922), (313, 5937), (321, 5955), (333, 5985), (336, 5991), (337, 6000), (347, 6018), (365, 6069), (369, 6087), (401, 6159), (419, 6201), (428, 6228), (434, 6255), (445, 6288), (447, 6291), (465, 6330), (533, 6471),

Gene: BugsBunny\_33 Start: 31447, Stop: 32304, Start Num: 136

Candidate Starts for BugsBunny\_33:

(Start: 136 @31447 has 124 MA's), (Start: 156 @31486 has 3 MA's), (166, 31516), (175, 31537), (191, 31573), (205, 31603), (236, 31678), (259, 31726), (262, 31729), (272, 31753), (274, 31756), (280, 31771), (346, 31942), (393, 32056), (398, 32071), (420, 32077), (444, 32119), (445, 32122), (470, 32176), (511, 32254), (522, 32287),

Gene: Buggy\_13 Start: 6872, Stop: 7864, Start Num: 111

Candidate Starts for Buggy\_13:

(Start: 111 @6872 has 315 MA's), (Start: 135 @6923 has 1 MA's), (Start: 138 @6926 has 2 MA's), (233, 7094), (235, 7100), (247, 7127), (268, 7187), (286, 7232), (327, 7319), (341, 7364), (361, 7403), (376, 7451), (384, 7466), (417, 7532), (427, 7574), (458, 7661), (477, 7709), (507, 7775),

Gene: Bumblebee11\_10 Start: 5887, Stop: 6870, Start Num: 111

Candidate Starts for Bumblebee11\_10:

(Start: 111 @5887 has 315 MA's), (125, 5917), (Start: 135 @5938 has 1 MA's), (Start: 138 @5941 has 2 MA's), (263, 6190), (285, 6241), (286, 6247), (289, 6259), (305, 6289), (328, 6331), (345, 6379), (362, 6409), (369, 6436), (428, 6586), (470, 6709), (477, 6721), (481, 6730), (511, 6787), (540, 6862),

Gene: Burger\_9 Start: 5884, Stop: 6861, Start Num: 114

Candidate Starts for Burger\_9:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Burrough\_253 Start: 145666, Stop: 146694, Start Num: 87

Candidate Starts for Burrough\_253:

(Start: 87 @145666 has 167 MA's), (Start: 105 @145696 has 4 MA's), (Start: 112 @145708 has 111 MA's), (130, 145750), (168, 145813), (177, 145834), (Start: 214 @145918 has 1 MA's), (235, 145960), (241, 145972), (250, 145987), (273, 146056), (286, 146083), (309, 146137), (324, 146182), (326, 146185), (354, 146263), (361, 146284), (407, 146395), (440, 146485), (445, 146503), (480, 146575), (496, 146608),

Gene: Burton\_10 Start: 5634, Stop: 6602, Start Num: 111

Candidate Starts for Burton\_10:

(Start: 111 @5634 has 315 MA's), (Start: 126 @5667 has 6 MA's), (Start: 135 @5685 has 1 MA's), (Start: 138 @5688 has 2 MA's), (266, 5955), (286, 6006), (289, 6018), (327, 6093), (349, 6156), (355, 6168), (361, 6189), (365, 6201), (369, 6219), (374, 6237), (386, 6261), (407, 6300), (437, 6381), (445, 6405), (446, 6408), (448, 6411), (454, 6420), (495, 6507), (531, 6594),

Gene: Burwell21\_31 Start: 27697, Stop: 28698, Start Num: 95

Candidate Starts for Burwell21\_31:

(Start: 95 @27697 has 260 MA's), (Start: 105 @27718 has 4 MA's), (Start: 112 @27730 has 111 MA's), (130, 27772), (168, 27835), (177, 27856), (189, 27886), (Start: 214 @27940 has 1 MA's), (223, 27964), (235, 27979), (241, 27991), (286, 28102), (334, 28216), (341, 28234), (357, 28273), (365, 28297), (374, 28333), (388, 28360), (407, 28399), (428, 28447), (445, 28507), (474, 28567), (501, 28624), (515, 28654),

Gene: Buttons\_11 Start: 6206, Stop: 7174, Start Num: 111

Candidate Starts for Buttons\_11:

(Start: 111 @6206 has 315 MA's), (Start: 126 @6239 has 6 MA's), (Start: 135 @6257 has 1 MA's), (Start: 138 @6260 has 2 MA's), (266, 6527), (286, 6578), (289, 6590), (327, 6665), (349, 6728), (355, 6740), (361, 6761), (365, 6773), (369, 6791), (374, 6809), (407, 6872), (437, 6953), (445, 6977), (446,



6980), (448, 6983), (454, 6992), (495, 7079), (515, 7124), (531, 7166),

Gene: BuzzBuzz\_11 Start: 6046, Stop: 7011, Start Num: 101

Candidate Starts for BuzzBuzz\_11:

(Start: 101 @6046 has 93 MA's), (Start: 126 @6091 has 6 MA's), (Start: 138 @6112 has 2 MA's), (201, 6232), (263, 6370), (286, 6427), (291, 6442), (333, 6523), (337, 6538), (347, 6556), (365, 6607), (369, 6625), (388, 6670), (428, 6766), (447, 6829), (490, 6919),

Gene: BuzzLyseyear\_34 Start: 28312, Stop: 29313, Start Num: 95

Candidate Starts for BuzzLyseyear\_34:

(Start: 95 @28312 has 260 MA's), (130, 28387), (149, 28420), (168, 28450), (177, 28471), (189, 28501), (196, 28513), (Start: 214 @28555 has 1 MA's), (223, 28579), (235, 28594), (241, 28606), (286, 28717), (334, 28831), (341, 28849), (357, 28888), (365, 28912), (374, 28948), (388, 28975), (407, 29014), (445, 29122), (468, 29170), (501, 29239), (515, 29269),

Gene: Bxb1\_9 Start: 6043, Stop: 7011, Start Num: 111

Candidate Starts for Bxb1\_9:

(Start: 111 @6043 has 315 MA's), (Start: 126 @6076 has 6 MA's), (Start: 135 @6094 has 1 MA's), (Start: 138 @6097 has 2 MA's), (266, 6364), (286, 6415), (289, 6427), (327, 6502), (349, 6565), (355, 6577), (361, 6598), (369, 6628), (374, 6646), (386, 6670), (407, 6709), (437, 6790), (445, 6814), (446, 6817), (448, 6820), (454, 6829), (495, 6916), (515, 6961), (531, 7003),

Gene: Bxz1\_238 Start: 145870, Stop: 146898, Start Num: 87

Candidate Starts for Bxz1\_238:

(Start: 87 @145870 has 167 MA's), (Start: 105 @145900 has 4 MA's), (Start: 112 @145912 has 111 MA's), (130, 145954), (168, 146017), (177, 146038), (Start: 214 @146122 has 1 MA's), (235, 146164), (241, 146176), (250, 146191), (273, 146260), (286, 146287), (309, 146341), (324, 146386), (326, 146389), (354, 146467), (361, 146488), (407, 146599), (440, 146689), (445, 146707), (480, 146779), (496, 146812),

Gene: Bxz2\_12 Start: 6056, Stop: 7021, Start Num: 101

Candidate Starts for Bxz2\_12:

(Start: 101 @6056 has 93 MA's), (Start: 126 @6101 has 6 MA's), (Start: 138 @6122 has 2 MA's), (201, 6242), (263, 6380), (286, 6437), (291, 6452), (333, 6533), (337, 6548), (347, 6566), (365, 6617), (369, 6635), (388, 6680), (428, 6776), (447, 6839), (465, 6878), (490, 6929),

Gene: Byougenkin\_31 Start: 27595, Stop: 28596, Start Num: 95

Candidate Starts for Byougenkin\_31:

(Start: 95 @27595 has 260 MA's), (130, 27670), (149, 27703), (168, 27733), (177, 27754), (Start: 214 @27838 has 1 MA's), (223, 27862), (235, 27877), (241, 27889), (286, 28000), (334, 28114), (341, 28132), (357, 28171), (365, 28195), (374, 28231), (388, 28258), (400, 28282), (407, 28297), (445, 28405), (468, 28453), (501, 28522), (515, 28552),

Gene: C3\_09 Start: 6596, Stop: 7345, Start Num: 229

Candidate Starts for C3\_09:

(Start: 229 @6596 has 16 MA's), (233, 6602), (287, 6743), (327, 6830), (333, 6854), (336, 6860), (347, 6887), (365, 6938), (369, 6956), (428, 7100), (447, 7163), (468, 7211), (469, 7214), (486, 7244), (490, 7253),

Gene: CRB1\_11 Start: 6408, Stop: 7385, Start Num: 111

Candidate Starts for CRB1\_11:

(Start: 111 @6408 has 315 MA's), (Start: 138 @6462 has 2 MA's), (180, 6519), (247, 6651), (257, 6687), (263, 6699), (286, 6756), (302, 6792), (327, 6840), (337, 6879), (366, 6951), (369, 6966), (397,

7029), (416, 7071), (428, 7119), (434, 7146), (440, 7161), (445, 7179), (447, 7182), (464, 7218), (490, 7272), (527, 7371),

Gene: CREW\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for CREW\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242, 26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: Cabrinians\_31 Start: 27775, Stop: 28776, Start Num: 95

Candidate Starts for Cabrinians\_31:

(Start: 95 @27775 has 260 MA's), (130, 27850), (149, 27883), (168, 27913), (177, 27934), (189, 27964), (196, 27976), (Start: 214 @28018 has 1 MA's), (223, 28042), (235, 28057), (241, 28069), (286, 28180), (334, 28294), (341, 28312), (357, 28351), (365, 28375), (374, 28411), (407, 28477), (445, 28585), (468, 28633), (474, 28645), (496, 28690), (501, 28702), (515, 28732),

Gene: Cactojaque\_247 Start: 143484, Stop: 144512, Start Num: 87

Candidate Starts for Cactojaque\_247:

(Start: 87 @143484 has 167 MA's), (Start: 105 @143514 has 4 MA's), (Start: 112 @143526 has 111 MA's), (130, 143568), (168, 143631), (177, 143652), (Start: 214 @143736 has 1 MA's), (235, 143778), (241, 143790), (250, 143805), (273, 143874), (286, 143901), (309, 143955), (324, 144000), (326, 144003), (354, 144081), (361, 144102), (407, 144213), (440, 144303), (445, 144321), (480, 144393), (496, 144426),

Gene: Cactus\_36 Start: 31069, Stop: 31926, Start Num: 136

Candidate Starts for Cactus\_36:

(Start: 136 @31069 has 124 MA's), (Start: 156 @31108 has 3 MA's), (166, 31138), (175, 31159), (191, 31195), (205, 31225), (236, 31300), (259, 31348), (262, 31351), (272, 31375), (274, 31378), (280, 31393), (346, 31564), (393, 31678), (398, 31693), (420, 31699), (444, 31741), (445, 31744), (470, 31798), (511, 31876), (522, 31909),

Gene: CactusRose\_9 Start: 5756, Stop: 6724, Start Num: 111

Candidate Starts for CactusRose\_9:

(Start: 111 @5756 has 315 MA's), (Start: 126 @5789 has 6 MA's), (Start: 135 @5807 has 1 MA's), (Start: 138 @5810 has 2 MA's), (266, 6077), (286, 6128), (289, 6140), (327, 6215), (349, 6278), (355, 6290), (361, 6311), (365, 6323), (369, 6341), (374, 6359), (386, 6383), (407, 6422), (437, 6503), (445, 6527), (446, 6530), (448, 6533), (454, 6542), (515, 6674), (531, 6716),

Gene: Caelakin\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Caelakin\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Cain\_31 Start: 25852, Stop: 26595, Start Num: 153

Candidate Starts for Cain\_31:

(140, 25825), (Start: 153 @25852 has 137 MA's), (162, 25870), (173, 25894), (175, 25900), (192, 25936), (Start: 214 @25984 has 1 MA's), (218, 25993), (238, 26029), (254, 26071), (296, 26179), (349, 26314), (360, 26329), (363, 26341), (369, 26362), (385, 26377), (387, 26380), (421, 26386), (470, 26464), (509, 26545), (521, 26566), (523, 26575),

Gene: Cali\_242 Start: 144263, Stop: 145291, Start Num: 87

Candidate Starts for Cali\_242:

(Start: 87 @144263 has 167 MA's), (Start: 105 @144293 has 4 MA's), (130, 144347), (168, 144410), (177, 144431), (Start: 214 @144515 has 1 MA's), (235, 144557), (241, 144569), (250, 144584), (273, 144653), (286, 144680), (309, 144734), (324, 144779), (326, 144782), (354, 144860), (361, 144881), (407, 144992), (440, 145082), (445, 145100), (480, 145172), (496, 145205),

Gene: Calm\_26 Start: 25561, Stop: 26592, Start Num: 96

Candidate Starts for Calm\_26:

(Start: 96 @25561 has 29 MA's), (181, 25714), (182, 25717), (194, 25741), (198, 25753), (206, 25771), (211, 25789), (218, 25807), (219, 25813), (223, 25822), (228, 25837), (237, 25852), (263, 25924), (286, 25981), (304, 26020), (336, 26098), (337, 26107), (339, 26110), (347, 26125), (364, 26179), (369, 26200), (373, 26215), (414, 26299), (425, 26329), (446, 26398), (454, 26410), (465, 26434), (471, 26452), (473, 26455), (480, 26467), (482, 26470), (496, 26500), (501, 26512),

Gene: Camperdownii\_9 Start: 5498, Stop: 6478, Start Num: 112

Candidate Starts for Camperdownii\_9:

(Start: 112 @5498 has 111 MA's), (125, 5525), (Start: 135 @5546 has 1 MA's), (Start: 138 @5549 has 2 MA's), (263, 5798), (286, 5855), (289, 5867), (302, 5891), (320, 5918), (328, 5939), (345, 5987), (369, 6044), (428, 6194), (466, 6305), (470, 6317), (477, 6329), (511, 6395),

Gene: Candle\_39 Start: 35346, Stop: 36395, Start Num: 90

Candidate Starts for Candle\_39:

(Start: 90 @35346 has 9 MA's), (130, 35430), (Start: 138 @35439 has 2 MA's), (150, 35463), (168, 35493), (177, 35514), (184, 35532), (193, 35550), (203, 35571), (208, 35580), (Start: 214 @35598 has 1 MA's), (Start: 231 @35625 has 2 MA's), (250, 35667), (285, 35757), (303, 35799), (310, 35820), (340, 35919), (352, 35946), (374, 36018), (407, 36072), (464, 36222), (476, 36249), (480, 36258), (498, 36300), (501, 36303), (504, 36309), (510, 36318), (524, 36354), (527, 36363), (534, 36372),

Gene: Cane17\_241 Start: 147674, Stop: 148708, Start Num: 87

Candidate Starts for Cane17\_241:

(Start: 87 @147674 has 167 MA's), (Start: 105 @147704 has 4 MA's), (130, 147758), (168, 147821), (177, 147842), (Start: 214 @147926 has 1 MA's), (235, 147968), (241, 147980), (250, 147995), (273, 148064), (286, 148091), (309, 148145), (324, 148190), (326, 148193), (354, 148271), (361, 148292), (407, 148403), (440, 148493), (445, 148511), (480, 148583), (496, 148616), (534, 148703),

Gene: Capablanca\_257 Start: 146517, Stop: 147545, Start Num: 87

Candidate Starts for Capablanca\_257:

(Start: 87 @146517 has 167 MA's), (Start: 105 @146547 has 4 MA's), (Start: 112 @146559 has 111 MA's), (130, 146601), (168, 146664), (177, 146685), (Start: 214 @146769 has 1 MA's), (235, 146811), (241, 146823), (250, 146838), (273, 146907), (286, 146934), (309, 146988), (324, 147033), (326, 147036), (354, 147114), (361, 147135), (407, 147246), (440, 147336), (445, 147354), (480, 147426), (496, 147459),

Gene: Capricorn\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for Capricorn\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242, 26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: CaptainTrips\_32 Start: 27915, Stop: 28916, Start Num: 95

Candidate Starts for CaptainTrips\_32:

(Start: 95 @27915 has 260 MA's), (Start: 105 @27936 has 4 MA's), (Start: 112 @27948 has 111 MA's), (130, 27990), (168, 28053), (177, 28074), (Start: 214 @28158 has 1 MA's), (223, 28182), (235, 28197), (241, 28209), (286, 28320), (334, 28434), (341, 28452), (357, 28491), (365, 28515), (374, 28551), (388, 28578), (407, 28617), (445, 28725), (468, 28773), (474, 28785), (496, 28830), (501, 28842), (515, 28872),

Gene: Caravan\_242 Start: 144567, Stop: 145595, Start Num: 87

Candidate Starts for Caravan\_242:

(Start: 87 @144567 has 167 MA's), (Start: 105 @144597 has 4 MA's), (Start: 112 @144609 has 111 MA's), (130, 144651), (168, 144714), (177, 144735), (Start: 214 @144819 has 1 MA's), (235, 144861), (241, 144873), (250, 144888), (273, 144957), (286, 144984), (309, 145038), (324, 145083), (326, 145086), (354, 145164), (361, 145185), (407, 145296), (440, 145386), (445, 145404), (480, 145476), (496, 145509),

Gene: Carlyle\_12 Start: 6604, Stop: 7572, Start Num: 111

Candidate Starts for Carlyle\_12:

(Start: 111 @6604 has 315 MA's), (Start: 126 @6637 has 6 MA's), (Start: 135 @6655 has 1 MA's), (Start: 138 @6658 has 2 MA's), (266, 6925), (286, 6976), (289, 6988), (327, 7063), (349, 7126), (355, 7138), (361, 7159), (365, 7171), (369, 7189), (374, 7207), (386, 7231), (407, 7270), (437, 7351), (445, 7375), (446, 7378), (448, 7381), (454, 7390), (495, 7477), (515, 7522), (531, 7564),

Gene: Casbah\_46 Start: 41385, Stop: 42449, Start Num: 84

Candidate Starts for Casbah\_46:

(Start: 84 @41385 has 45 MA's), (115, 41448), (157, 41529), (189, 41595), (197, 41610), (203, 41622), (215, 41649), (245, 41706), (250, 41715), (308, 41862), (315, 41877), (333, 41931), (347, 41964), (362, 42003), (366, 42015), (401, 42096), (411, 42114), (412, 42117), (428, 42162), (468, 42273), (521, 42384), (527, 42405), (541, 42438),

Gene: CaseJules\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for CaseJules\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242, 26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: Catdawg\_67 Start: 43468, Stop: 44508, Start Num: 95

Candidate Starts for Catdawg\_67:

(Start: 95 @43468 has 260 MA's), (130, 43543), (168, 43624), (170, 43630), (177, 43645), (213, 43726), (Start: 214 @43729 has 1 MA's), (241, 43783), (250, 43798), (286, 43894), (304, 43933), (312, 43963), (324, 43993), (326, 43996), (336, 44029), (361, 44095), (374, 44143), (388, 44170), (407, 44209), (478, 44383), (501, 44434),

Gene: Catera\_241 Start: 143006, Stop: 144034, Start Num: 87

Candidate Starts for Catera\_241:

(Start: 87 @143006 has 167 MA's), (Start: 105 @143036 has 4 MA's), (Start: 112 @143048 has 111 MA's), (130, 143090), (168, 143153), (177, 143174), (Start: 214 @143258 has 1 MA's), (235, 143300), (241, 143312), (250, 143327), (273, 143396), (286, 143423), (309, 143477), (324, 143522), (326, 143525), (354, 143603), (361, 143624), (407, 143735), (440, 143825), (445, 143843), (480, 143915), (496, 143948),

Gene: Caviar\_11 Start: 6052, Stop: 7017, Start Num: 101

Candidate Starts for Caviar\_11:

(Start: 101 @6052 has 93 MA's), (Start: 126 @6097 has 6 MA's), (Start: 138 @6118 has 2 MA's), (201, 6238), (209, 6253), (Start: 231 @6292 has 2 MA's), (263, 6376), (286, 6433), (291, 6448), (333, 6529), (337, 6544), (347, 6562), (365, 6613), (369, 6631), (388, 6676), (428, 6772), (447, 6835), (465, 6874), (490, 6925),

Gene: Centaur\_13 Start: 6923, Stop: 7900, Start Num: 111

Candidate Starts for Centaur\_13:

(Start: 111 @6923 has 315 MA's), (Start: 138 @6977 has 2 MA's), (180, 7034), (247, 7166), (263, 7214), (286, 7271), (302, 7307), (327, 7355), (337, 7394), (366, 7466), (369, 7481), (388, 7526), (397, 7544), (416, 7586), (428, 7634), (434, 7661), (440, 7676), (445, 7694), (447, 7697), (490, 7787),

Gene: CentreCat\_10 Start: 5882, Stop: 6862, Start Num: 112

Candidate Starts for CentreCat\_10:

(Start: 112 @5882 has 111 MA's), (Start: 114 @5885 has 13 MA's), (125, 5909), (Start: 135 @5930 has 1 MA's), (Start: 138 @5933 has 2 MA's), (263, 6182), (286, 6239), (328, 6323), (333, 6344), (345, 6371), (362, 6401), (369, 6428), (428, 6578), (466, 6689), (470, 6701), (477, 6713), (511, 6779),

Gene: Cerasum\_27 Start: 23733, Stop: 24731, Start Num: 95

Candidate Starts for Cerasum\_27:

(Start: 95 @23733 has 260 MA's), (130, 23808), (168, 23868), (177, 23889), (Start: 214 @23973 has 1 MA's), (241, 24024), (250, 24039), (286, 24135), (327, 24222), (333, 24246), (341, 24267), (357, 24306), (361, 24318), (374, 24366), (388, 24393), (400, 24417), (407, 24432), (445, 24540), (468, 24588), (501, 24657), (515, 24687),

Gene: Cerulean\_10 Start: 5859, Stop: 6839, Start Num: 112

Candidate Starts for Cerulean\_10:

(Start: 112 @5859 has 111 MA's), (125, 5886), (Start: 135 @5907 has 1 MA's), (Start: 138 @5910 has 2 MA's), (263, 6159), (286, 6216), (289, 6228), (320, 6279), (328, 6300), (345, 6348), (369, 6405), (428, 6555), (470, 6678), (477, 6690), (511, 6756),

Gene: ChaChing\_47 Start: 41548, Stop: 42612, Start Num: 84

Candidate Starts for ChaChing\_47:

(Start: 84 @41548 has 45 MA's), (115, 41611), (157, 41692), (189, 41758), (197, 41773), (203, 41785), (215, 41812), (245, 41869), (250, 41878), (308, 42025), (315, 42040), (333, 42094), (347, 42127), (362, 42166), (366, 42178), (401, 42259), (411, 42277), (412, 42280), (428, 42325), (468, 42436), (521, 42547), (527, 42568), (541, 42601),

Gene: ChampagnePapi\_10 Start: 5858, Stop: 6838, Start Num: 112

Candidate Starts for ChampagnePapi\_10:

(Start: 112 @5858 has 111 MA's), (125, 5885), (Start: 135 @5906 has 1 MA's), (Start: 138 @5909 has 2 MA's), (263, 6158), (286, 6215), (289, 6227), (320, 6278), (328, 6299), (345, 6347), (369, 6404), (428, 6554), (470, 6677), (477, 6689), (511, 6755),

Gene: Chanagan\_9 Start: 5600, Stop: 6568, Start Num: 111

Candidate Starts for Chanagan\_9:

(Start: 111 @5600 has 315 MA's), (Start: 126 @5633 has 6 MA's), (Start: 135 @5651 has 1 MA's), (Start: 138 @5654 has 2 MA's), (266, 5921), (286, 5972), (289, 5984), (327, 6059), (349, 6122), (355, 6134), (361, 6155), (365, 6167), (369, 6185), (374, 6203), (386, 6227), (407, 6266), (437, 6347), (445, 6371), (446, 6374), (448, 6377), (454, 6386), (495, 6473), (531, 6560),

Gene: Chancellor\_32 Start: 27640, Stop: 28431, Start Num: 143

Candidate Starts for Chancellor\_32:

(Start: 143 @27640 has 20 MA's), (Start: 161 @27673 has 1 MA's), (175, 27706), (185, 27730), (196, 27751), (200, 27760), (211, 27790), (Start: 214 @27799 has 1 MA's), (218, 27808), (238, 27844), (276, 27925), (349, 28132), (363, 28159), (369, 28180), (377, 28204), (445, 28228), (470, 28282), (477, 28294), (511, 28366),

Gene: Chandler\_47 Start: 42316, Stop: 43380, Start Num: 84

Candidate Starts for Chandler\_47:

(Start: 84 @42316 has 45 MA's), (115, 42379), (157, 42460), (189, 42526), (197, 42541), (203, 42553), (215, 42580), (245, 42637), (250, 42646), (308, 42793), (315, 42808), (333, 42862), (347, 42895), (362, 42934), (366, 42946), (401, 43027), (411, 43045), (412, 43048), (468, 43204), (521, 43315), (527, 43336), (541, 43369),

Gene: Changeling\_14 Start: 8284, Stop: 9261, Start Num: 111

Candidate Starts for Changeling\_14:

(Start: 111 @8284 has 315 MA's), (Start: 138 @8338 has 2 MA's), (247, 8527), (257, 8563), (263, 8575), (286, 8632), (302, 8668), (327, 8716), (337, 8755), (365, 8824), (369, 8842), (388, 8887), (397, 8905), (416, 8947), (428, 8995), (434, 9022), (440, 9037), (447, 9058), (464, 9094), (465, 9097), (490, 9148),

Gene: Chaph\_10 Start: 5890, Stop: 6870, Start Num: 112

Candidate Starts for Chaph\_10:

(Start: 112 @5890 has 111 MA's), (Start: 114 @5893 has 13 MA's), (125, 5917), (Start: 135 @5938 has 1 MA's), (Start: 138 @5941 has 2 MA's), (263, 6190), (286, 6247), (328, 6331), (333, 6352), (345, 6379), (362, 6409), (369, 6436), (428, 6586), (466, 6697), (470, 6709), (477, 6721), (511, 6787),

Gene: Chargie21\_250 Start: 142761, Stop: 143789, Start Num: 87

Candidate Starts for Chargie21\_250:

(Start: 87 @142761 has 167 MA's), (Start: 105 @142791 has 4 MA's), (Start: 112 @142803 has 111 MA's), (130, 142845), (168, 142908), (177, 142929), (Start: 214 @143013 has 1 MA's), (235, 143055), (241, 143067), (250, 143082), (273, 143151), (286, 143178), (309, 143232), (324, 143277), (326, 143280), (327, 143283), (354, 143358), (361, 143379), (407, 143490), (440, 143580), (445, 143598), (480, 143670), (496, 143703),

Gene: CharlieB\_247 Start: 144029, Stop: 145057, Start Num: 87

Candidate Starts for CharlieB\_247:

(Start: 87 @144029 has 167 MA's), (Start: 105 @144059 has 4 MA's), (130, 144113), (168, 144176), (177, 144197), (Start: 214 @144281 has 1 MA's), (235, 144323), (241, 144335), (250, 144350), (273, 144419), (286, 144446), (309, 144500), (324, 144545), (326, 144548), (354, 144626), (361, 144647), (407, 144758), (440, 144848), (445, 144866), (480, 144938), (496, 144971),

Gene: Chaser\_26 Start: 25327, Stop: 26349, Start Num: 96

Candidate Starts for Chaser\_26:

(Start: 96 @25327 has 29 MA's), (Start: 152 @25438 has 16 MA's), (176, 25471), (179, 25477), (182, 25483), (222, 25585), (223, 25588), (241, 25627), (250, 25648), (263, 25690), (286, 25747), (334, 25861), (337, 25873), (369, 25966), (404, 26047), (406, 26050), (425, 26095), (446, 26158), (454, 26170), (490, 26245), (501, 26272),

Gene: ChaylaJr\_251 Start: 143703, Stop: 144731, Start Num: 87

Candidate Starts for ChaylaJr\_251:

(Start: 87 @143703 has 167 MA's), (Start: 105 @143733 has 4 MA's), (Start: 112 @143745 has 111 MA's), (130, 143787), (168, 143850), (177, 143871), (Start: 214 @143955 has 1 MA's), (235, 143997), (241, 144009), (250, 144024), (273, 144093), (286, 144120), (309, 144174), (324, 144219), (326, 144222), (354, 144300), (361, 144321), (407, 144432), (440, 144522), (445, 144540), (480, 144612),

(496, 144645),

Gene: Che8\_33 Start: 27957, Stop: 28958, Start Num: 95

Candidate Starts for Che8\_33:

(Start: 56 @27858 has 7 MA's), (Start: 95 @27957 has 260 MA's), (130, 28032), (149, 28065), (168, 28095), (177, 28116), (189, 28146), (Start: 214 @28200 has 1 MA's), (223, 28224), (235, 28239), (241, 28251), (286, 28362), (334, 28476), (341, 28494), (357, 28533), (365, 28557), (374, 28593), (388, 28620), (407, 28659), (428, 28707), (445, 28767), (468, 28815), (474, 28827), (496, 28872), (501, 28884), (515, 28914),

Gene: Che9d\_36 Start: 26815, Stop: 27888, Start Num: 95

Candidate Starts for Che9d\_36:

(Start: 95 @26815 has 260 MA's), (Start: 109 @26842 has 1 MA's), (124, 26872), (168, 26953), (173, 26965), (180, 26983), (208, 27040), (217, 27064), (218, 27067), (Start: 231 @27085 has 2 MA's), (245, 27118), (250, 27127), (266, 27178), (285, 27220), (291, 27244), (294, 27253), (298, 27265), (308, 27295), (317, 27325), (318, 27328), (333, 27385), (334, 27388), (346, 27415), (348, 27424), (366, 27472), (401, 27553), (428, 27628), (468, 27736), (491, 27781), (493, 27784), (495, 27790), (501, 27805), (529, 27871),

Gene: CheetoDust\_31 Start: 26471, Stop: 27343, Start Num: 153

Candidate Starts for CheetoDust\_31:

(140, 26444), (Start: 153 @26471 has 137 MA's), (Start: 161 @26483 has 1 MA's), (192, 26552), (205, 26579), (Start: 214 @26609 has 1 MA's), (218, 26618), (238, 26654), (242, 26663), (254, 26696), (259, 26714), (274, 26744), (296, 26804), (349, 26939), (363, 26966), (369, 26987), (377, 27011), (405, 27062), (466, 27200), (477, 27224), (523, 27323), (529, 27332),

Gene: Cheetobro\_32 Start: 27637, Stop: 28428, Start Num: 143

Candidate Starts for Cheetobro\_32:

(Start: 143 @27637 has 20 MA's), (Start: 161 @27670 has 1 MA's), (175, 27703), (185, 27727), (196, 27748), (200, 27757), (211, 27787), (Start: 214 @27796 has 1 MA's), (218, 27805), (238, 27841), (276, 27922), (349, 28129), (363, 28156), (369, 28177), (377, 28201), (445, 28225), (470, 28279), (477, 28291), (511, 28363),

Gene: Chevrolet\_32 Start: 28051, Stop: 29067, Start Num: 95

Candidate Starts for Chevrolet\_32:

(29, 27820), (31, 27823), (37, 27871), (74, 28006), (78, 28015), (Start: 95 @28051 has 260 MA's), (160, 28183), (168, 28204), (177, 28225), (189, 28255), (196, 28267), (Start: 214 @28309 has 1 MA's), (241, 28360), (286, 28471), (334, 28585), (341, 28603), (357, 28642), (365, 28666), (374, 28702), (388, 28729), (407, 28768), (445, 28876), (468, 28924), (474, 28936), (496, 28981), (501, 28993), (515, 29023),

Gene: ChickenDinner\_33 Start: 28140, Stop: 29141, Start Num: 95

Candidate Starts for ChickenDinner\_33:

(26, 27879), (Start: 56 @28041 has 7 MA's), (Start: 95 @28140 has 260 MA's), (130, 28215), (168, 28278), (177, 28299), (Start: 214 @28383 has 1 MA's), (223, 28407), (235, 28422), (241, 28434), (286, 28545), (334, 28659), (341, 28677), (357, 28716), (365, 28740), (374, 28776), (388, 28803), (407, 28842), (445, 28950), (468, 28998), (474, 29010), (501, 29067), (515, 29097),

Gene: ChickenPhender\_248 Start: 142459, Stop: 143487, Start Num: 87

Candidate Starts for ChickenPhender\_248:

(Start: 87 @142459 has 167 MA's), (Start: 105 @142489 has 4 MA's), (Start: 112 @142501 has 111 MA's), (130, 142543), (168, 142606), (177, 142627), (Start: 214 @142711 has 1 MA's), (235, 142753), (241, 142765), (250, 142780), (273, 142849), (286, 142876), (309, 142930), (324, 142975), (326,

142978), (354, 143056), (361, 143077), (407, 143188), (440, 143278), (445, 143296), (480, 143368), (496, 143401),

Gene: ChipMunk\_13 Start: 6810, Stop: 7802, Start Num: 111

Candidate Starts for ChipMunk\_13:

(Start: 111 @6810 has 315 MA's), (Start: 135 @6861 has 1 MA's), (Start: 138 @6864 has 2 MA's), (233, 7032), (247, 7065), (268, 7125), (286, 7170), (327, 7257), (341, 7302), (361, 7341), (376, 7389), (384, 7404), (417, 7470), (422, 7494), (427, 7512), (458, 7599), (477, 7647), (507, 7713), (538, 7788),

Gene: Chiqui\_9 Start: 5958, Stop: 6698, Start Num: 224

Candidate Starts for Chiqui\_9:

(118, 5772), (Start: 152 @5841 has 16 MA's), (Start: 224 @5958 has 17 MA's), (263, 6045), (286, 6102), (289, 6114), (291, 6117), (304, 6141), (313, 6156), (327, 6180), (333, 6204), (336, 6210), (347, 6237), (369, 6306), (401, 6378), (419, 6420), (428, 6447), (434, 6474), (445, 6507), (447, 6510), (465, 6549), (533, 6690),

Gene: Chomp\_251 Start: 145895, Stop: 146923, Start Num: 87

Candidate Starts for Chomp\_251:

(Start: 87 @145895 has 167 MA's), (Start: 105 @145925 has 4 MA's), (Start: 112 @145937 has 111 MA's), (130, 145979), (168, 146042), (177, 146063), (Start: 214 @146147 has 1 MA's), (235, 146189), (241, 146201), (250, 146216), (273, 146285), (286, 146312), (309, 146366), (324, 146411), (326, 146414), (354, 146492), (361, 146513), (407, 146624), (440, 146714), (445, 146732), (480, 146804), (496, 146837),

Gene: ChosenOne\_35 Start: 31066, Stop: 31923, Start Num: 136

Candidate Starts for ChosenOne\_35:

(Start: 136 @31066 has 124 MA's), (Start: 156 @31105 has 3 MA's), (166, 31135), (175, 31156), (191, 31192), (205, 31222), (236, 31297), (259, 31345), (262, 31348), (272, 31372), (274, 31375), (280, 31390), (346, 31561), (393, 31675), (398, 31690), (420, 31696), (444, 31738), (445, 31741), (470, 31795), (511, 31873), (522, 31906),

Gene: ChotaBhai\_35 Start: 31104, Stop: 31961, Start Num: 136

Candidate Starts for ChotaBhai\_35:

(Start: 136 @31104 has 124 MA's), (Start: 156 @31143 has 3 MA's), (166, 31173), (175, 31194), (191, 31230), (205, 31260), (236, 31335), (259, 31383), (262, 31386), (272, 31410), (274, 31413), (280, 31428), (346, 31599), (393, 31713), (398, 31728), (420, 31734), (444, 31776), (445, 31779), (470, 31833), (511, 31911), (522, 31944),

Gene: Chris\_30 Start: 25746, Stop: 26486, Start Num: 153

Candidate Starts for Chris\_30:

(140, 25719), (Start: 153 @25746 has 137 MA's), (162, 25761), (175, 25791), (192, 25827), (218, 25884), (238, 25920), (254, 25962), (296, 26070), (363, 26232), (371, 26259), (377, 26277), (442, 26289), (445, 26301), (466, 26343), (475, 26364), (477, 26367), (523, 26466), (529, 26475),

Gene: Chuckly\_31 Start: 27691, Stop: 28692, Start Num: 95

Candidate Starts for Chuckly\_31:

(Start: 95 @27691 has 260 MA's), (Start: 105 @27712 has 4 MA's), (Start: 112 @27724 has 111 MA's), (130, 27766), (168, 27829), (177, 27850), (189, 27880), (Start: 214 @27934 has 1 MA's), (223, 27958), (241, 27985), (286, 28096), (334, 28210), (341, 28228), (357, 28267), (365, 28291), (374, 28327), (388, 28354), (407, 28393), (428, 28441), (445, 28501), (474, 28561), (501, 28618), (515, 28648),

Gene: Chupacabra\_10 Start: 5710, Stop: 6684, Start Num: 111



Candidate Starts for Chupacabra\_10:

(89, 5671), (Start: 111 @5710 has 315 MA's), (Start: 138 @5764 has 2 MA's), (216, 5917), (286, 6079), (291, 6094), (302, 6115), (327, 6163), (333, 6187), (336, 6193), (337, 6202), (365, 6271), (369, 6289), (388, 6334), (397, 6352), (428, 6430), (434, 6457), (440, 6472), (447, 6493), (490, 6583), (508, 6625), (534, 6676),

Gene: Ciao\_10 Start: 5986, Stop: 6954, Start Num: 111

Candidate Starts for Ciao\_10:

(Start: 111 @5986 has 315 MA's), (Start: 126 @6019 has 6 MA's), (Start: 135 @6037 has 1 MA's), (Start: 138 @6040 has 2 MA's), (266, 6307), (286, 6358), (289, 6370), (327, 6445), (349, 6508), (355, 6520), (361, 6541), (365, 6553), (369, 6571), (374, 6589), (386, 6613), (407, 6652), (437, 6733), (445, 6757), (446, 6760), (448, 6763), (454, 6772), (515, 6904), (531, 6946),

Gene: CicholasNage\_26 Start: 25549, Stop: 26580, Start Num: 96

Candidate Starts for CicholasNage\_26:

(Start: 96 @25549 has 29 MA's), (181, 25702), (182, 25705), (194, 25729), (198, 25741), (206, 25759), (211, 25777), (218, 25795), (219, 25801), (223, 25810), (228, 25825), (237, 25840), (263, 25912), (286, 25969), (304, 26008), (336, 26086), (337, 26095), (339, 26098), (347, 26113), (364, 26167), (369, 26188), (373, 26203), (414, 26287), (425, 26317), (446, 26386), (454, 26398), (465, 26422), (471, 26440), (473, 26443), (480, 26455), (482, 26458), (496, 26488), (501, 26500),

Gene: Cici\_10 Start: 5878, Stop: 6858, Start Num: 112

Candidate Starts for Cici\_10:

(73, 5818), (82, 5836), (Start: 112 @5878 has 111 MA's), (Start: 114 @5881 has 13 MA's), (125, 5905), (Start: 135 @5926 has 1 MA's), (Start: 138 @5929 has 2 MA's), (263, 6178), (285, 6229), (286, 6235), (289, 6247), (305, 6277), (328, 6319), (345, 6367), (362, 6397), (369, 6424), (428, 6574), (470, 6697), (477, 6709), (481, 6718), (511, 6775), (540, 6850),

Gene: Cindaradix\_9 Start: 5587, Stop: 6567, Start Num: 112

Candidate Starts for Cindaradix\_9:

(Start: 112 @5587 has 111 MA's), (125, 5614), (Start: 135 @5635 has 1 MA's), (Start: 138 @5638 has 2 MA's), (239, 5818), (263, 5887), (273, 5914), (286, 5944), (289, 5956), (320, 6007), (328, 6028), (333, 6049), (345, 6076), (362, 6106), (369, 6133), (428, 6283), (477, 6418), (481, 6427), (511, 6484), (540, 6559),

Gene: CindyLou\_253 Start: 146155, Stop: 147183, Start Num: 87

Candidate Starts for CindyLou\_253:

(Start: 87 @146155 has 167 MA's), (Start: 105 @146185 has 4 MA's), (Start: 112 @146197 has 111 MA's), (130, 146239), (168, 146302), (177, 146323), (Start: 214 @146407 has 1 MA's), (235, 146449), (241, 146461), (250, 146476), (273, 146545), (286, 146572), (309, 146626), (324, 146671), (326, 146674), (354, 146752), (361, 146773), (407, 146884), (440, 146974), (445, 146992), (480, 147064), (496, 147097),

Gene: Cintron\_10 Start: 5926, Stop: 6906, Start Num: 112

Candidate Starts for Cintron\_10:

(Start: 112 @5926 has 111 MA's), (125, 5953), (Start: 135 @5974 has 1 MA's), (Start: 138 @5977 has 2 MA's), (263, 6226), (285, 6277), (286, 6283), (289, 6295), (325, 6358), (328, 6367), (345, 6415), (369, 6472), (428, 6622), (433, 6646), (444, 6679), (467, 6736), (477, 6757), (511, 6823), (540, 6898),

Gene: Citius\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Citius\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345,

6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Cjw1\_35 Start: 32618, Stop: 33475, Start Num: 136

Candidate Starts for Cjw1\_35:

(Start: 136 @32618 has 124 MA's), (Start: 156 @32657 has 3 MA's), (166, 32687), (175, 32708), (191, 32744), (205, 32774), (236, 32849), (259, 32897), (262, 32900), (272, 32924), (274, 32927), (280, 32942), (346, 33113), (393, 33227), (398, 33242), (420, 33248), (444, 33290), (445, 33293), (470, 33347), (511, 33425), (522, 33458),

Gene: Clarenza\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Clarenza\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Claus\_28 Start: 26280, Stop: 27251, Start Num: 51

Candidate Starts for Claus\_28:

(Start: 51 @26280 has 22 MA's), (67, 26334), (125, 26454), (130, 26469), (141, 26484), (147, 26499), (Start: 161 @26532 has 1 MA's), (175, 26565), (205, 26628), (218, 26655), (232, 26679), (272, 26760), (277, 26772), (288, 26799), (300, 26835), (306, 26850), (310, 26865), (325, 26910), (330, 26925), (363, 27006), (368, 27024), (369, 27027), (371, 27030), (380, 27057), (470, 27126), (494, 27168), (514, 27210),

Gene: Clautastrophe\_28 Start: 26850, Stop: 27893, Start Num: 46

Candidate Starts for Clautastrophe\_28:

(Start: 46 @26850 has 17 MA's), (47, 26856), (55, 26883), (60, 26904), (83, 26955), (124, 27036), (178, 27141), (216, 27222), (218, 27228), (268, 27324), (275, 27342), (277, 27348), (280, 27354), (306, 27426), (329, 27483), (352, 27543), (378, 27618), (389, 27639), (441, 27663), (445, 27678), (450, 27690), (477, 27747), (523, 27849), (532, 27870),

Gene: Clifton\_25 Start: 23661, Stop: 24662, Start Num: 95

Candidate Starts for Clifton\_25:

(Start: 95 @23661 has 260 MA's), (Start: 105 @23682 has 4 MA's), (Start: 112 @23694 has 111 MA's), (130, 23736), (168, 23799), (177, 23820), (189, 23850), (Start: 214 @23904 has 1 MA's), (223, 23928), (235, 23943), (241, 23955), (286, 24066), (334, 24180), (341, 24198), (357, 24237), (365, 24261), (374, 24297), (388, 24324), (407, 24363), (428, 24411), (445, 24471), (474, 24531), (501, 24588), (515, 24618),

Gene: Coco12\_31 Start: 27582, Stop: 28580, Start Num: 95

Candidate Starts for Coco12\_31:

(Start: 95 @27582 has 260 MA's), (130, 27657), (168, 27717), (177, 27738), (Start: 214 @27822 has 1 MA's), (241, 27873), (250, 27888), (286, 27984), (327, 28071), (333, 28095), (341, 28116), (357, 28155), (361, 28167), (374, 28215), (388, 28242), (400, 28266), (407, 28281), (445, 28389), (468, 28437), (501, 28506), (515, 28536),

Gene: Cocoaberry\_10 Start: 5885, Stop: 6865, Start Num: 112

Candidate Starts for Cocoaberry\_10:

(Start: 112 @5885 has 111 MA's), (Start: 114 @5888 has 13 MA's), (125, 5912), (Start: 135 @5933 has 1 MA's), (Start: 138 @5936 has 2 MA's), (263, 6185), (286, 6242), (328, 6326), (333, 6347), (345, 6374), (362, 6404), (369, 6431), (428, 6581), (466, 6692), (470, 6704), (477, 6716), (511, 6782),

Gene: Colbster\_12 Start: 5962, Stop: 6927, Start Num: 101

Candidate Starts for Colbster\_12:

(Start: 101 @5962 has 93 MA's), (Start: 126 @6007 has 6 MA's), (Start: 138 @6028 has 2 MA's), (201, 6148), (263, 6286), (286, 6343), (291, 6358), (333, 6439), (337, 6454), (347, 6472), (365, 6523), (369, 6541), (388, 6586), (428, 6682), (447, 6745), (465, 6784), (490, 6835),

Gene: Colin\_15 Start: 8102, Stop: 9079, Start Num: 111

Candidate Starts for Colin\_15:

(80, 8060), (Start: 111 @8102 has 315 MA's), (Start: 138 @8156 has 2 MA's), (263, 8393), (286, 8450), (327, 8534), (336, 8564), (337, 8573), (365, 8642), (369, 8660), (397, 8723), (416, 8765), (428, 8813), (434, 8840), (440, 8855), (445, 8873), (447, 8876), (465, 8915), (486, 8957), (490, 8966),

Gene: Collard\_30 Start: 27188, Stop: 27949, Start Num: 152

Candidate Starts for Collard\_30:

(129, 27140), (Start: 152 @27188 has 16 MA's), (Start: 161 @27200 has 1 MA's), (162, 27203), (164, 27206), (175, 27233), (192, 27269), (216, 27329), (218, 27335), (234, 27365), (238, 27371), (242, 27380), (254, 27413), (271, 27455), (272, 27458), (277, 27470), (290, 27506), (296, 27521), (308, 27557), (349, 27656), (363, 27683), (369, 27704), (448, 27767), (462, 27791), (470, 27815), (503, 27884), (523, 27929), (529, 27938),

Gene: Colt\_242 Start: 146866, Stop: 147900, Start Num: 87

Candidate Starts for Colt\_242:

(Start: 87 @146866 has 167 MA's), (Start: 105 @146896 has 4 MA's), (130, 146950), (168, 147013), (177, 147034), (Start: 214 @147118 has 1 MA's), (235, 147160), (241, 147172), (250, 147187), (273, 147256), (286, 147283), (309, 147337), (324, 147382), (326, 147385), (354, 147463), (361, 147484), (407, 147595), (440, 147685), (445, 147703), (480, 147775), (496, 147808), (534, 147895),

Gene: Command613\_36 Start: 32125, Stop: 32982, Start Num: 136

Candidate Starts for Command613\_36:

(Start: 136 @32125 has 124 MA's), (Start: 156 @32164 has 3 MA's), (166, 32194), (175, 32215), (191, 32251), (205, 32281), (236, 32356), (259, 32404), (262, 32407), (272, 32431), (274, 32434), (280, 32449), (346, 32620), (393, 32734), (398, 32749), (420, 32755), (444, 32797), (445, 32800), (470, 32854), (511, 32932), (522, 32965),

Gene: Commander\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Commander\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (320, 6301), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Compostia\_48 Start: 41964, Stop: 43028, Start Num: 84

Candidate Starts for Compostia\_48:

(Start: 84 @41964 has 45 MA's), (115, 42027), (157, 42108), (189, 42174), (197, 42189), (203, 42201), (215, 42228), (245, 42285), (250, 42294), (308, 42441), (315, 42456), (333, 42510), (347, 42543), (362, 42582), (366, 42594), (401, 42675), (411, 42693), (412, 42696), (428, 42741), (468, 42852), (521, 42963), (527, 42984), (541, 43017),

Gene: ConceptII\_10 Start: 6237, Stop: 7205, Start Num: 111

Candidate Starts for ConceptII\_10:

(Start: 111 @6237 has 315 MA's), (Start: 126 @6270 has 6 MA's), (Start: 135 @6288 has 1 MA's), (Start: 138 @6291 has 2 MA's), (266, 6558), (286, 6609), (289, 6621), (327, 6696), (349, 6759), (361, 6792), (365, 6804), (369, 6822), (374, 6840), (386, 6864), (407, 6903), (437, 6984), (445, 7008), (446, 7011), (448, 7014), (454, 7023), (495, 7110), (531, 7197),

Gene: Concombres\_258 Start: 146500, Stop: 147528, Start Num: 87

Candidate Starts for Concombres\_258:

(Start: 87 @146500 has 167 MA's), (Start: 105 @146530 has 4 MA's), (Start: 112 @146542 has 111 MA's), (130, 146584), (168, 146647), (177, 146668), (Start: 214 @146752 has 1 MA's), (235, 146794), (241, 146806), (250, 146821), (273, 146890), (286, 146917), (309, 146971), (324, 147016), (326, 147019), (354, 147097), (361, 147118), (407, 147229), (440, 147319), (445, 147337), (480, 147409), (496, 147442),

Gene: Connomayer\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Connomayer\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Constella\_41 Start: 38707, Stop: 39573, Start Num: 91

Candidate Starts for Constella\_41:

(Start: 91 @38707 has 31 MA's), (Start: 104 @38734 has 1 MA's), (158, 38842), (168, 38863), (190, 38908), (202, 38929), (Start: 214 @38950 has 1 MA's), (243, 39004), (266, 39055), (288, 39106), (344, 39256), (360, 39298), (373, 39349), (380, 39367), (460, 39433), (463, 39445), (466, 39454), (479, 39484), (516, 39547),

Gene: Contagion\_34 Start: 31362, Stop: 32219, Start Num: 136

Candidate Starts for Contagion\_34:

(Start: 136 @31362 has 124 MA's), (Start: 156 @31401 has 3 MA's), (166, 31431), (175, 31452), (191, 31488), (205, 31518), (236, 31593), (259, 31641), (262, 31644), (272, 31668), (274, 31671), (280, 31686), (346, 31857), (393, 31971), (398, 31986), (420, 31992), (444, 32034), (445, 32037), (470, 32091), (511, 32169), (522, 32202),

Gene: Cookies\_35 Start: 31727, Stop: 32584, Start Num: 136

Candidate Starts for Cookies\_35:

(Start: 136 @31727 has 124 MA's), (Start: 156 @31766 has 3 MA's), (166, 31796), (175, 31817), (191, 31853), (205, 31883), (236, 31958), (259, 32006), (262, 32009), (272, 32033), (274, 32036), (280, 32051), (346, 32222), (393, 32336), (398, 32351), (420, 32357), (444, 32399), (445, 32402), (470, 32456), (511, 32534), (522, 32567),

Gene: Corndog\_70 Start: 44462, Stop: 45502, Start Num: 95

Candidate Starts for Corndog\_70:

(Start: 95 @44462 has 260 MA's), (130, 44537), (168, 44618), (170, 44624), (177, 44639), (213, 44720), (Start: 214 @44723 has 1 MA's), (241, 44777), (250, 44792), (286, 44888), (304, 44927), (312, 44957), (324, 44987), (326, 44990), (336, 45023), (361, 45089), (372, 45128), (374, 45137), (388, 45164), (407, 45203), (478, 45377), (501, 45428),

Gene: Cornie\_31 Start: 28018, Stop: 29019, Start Num: 95

Candidate Starts for Cornie\_31:

(Start: 95 @28018 has 260 MA's), (130, 28093), (149, 28126), (168, 28156), (177, 28177), (189, 28207), (196, 28219), (Start: 214 @28261 has 1 MA's), (223, 28285), (235, 28300), (241, 28312), (286, 28423), (334, 28537), (341, 28555), (357, 28594), (365, 28618), (374, 28654), (388, 28681), (400, 28705), (407, 28720), (445, 28828), (468, 28876), (501, 28945), (515, 28975),

Gene: Cornucopia\_32 Start: 27534, Stop: 28535, Start Num: 95

Candidate Starts for Cornucopia\_32:

(Start: 95 @27534 has 260 MA's), (130, 27609), (149, 27642), (168, 27672), (177, 27693), (Start: 214 @27777 has 1 MA's), (241, 27828), (286, 27939), (333, 28050), (341, 28071), (357, 28110), (361,

28122), (374, 28170), (388, 28197), (400, 28221), (407, 28236), (445, 28344), (474, 28404), (501, 28461), (515, 28491),

Gene: Corofin\_47 Start: 41559, Stop: 42623, Start Num: 84

Candidate Starts for Corofin\_47:

(Start: 84 @41559 has 45 MA's), (115, 41622), (157, 41703), (189, 41769), (197, 41784), (203, 41796), (215, 41823), (245, 41880), (250, 41889), (308, 42036), (315, 42051), (333, 42105), (347, 42138), (362, 42177), (366, 42189), (401, 42270), (411, 42288), (412, 42291), (468, 42447), (521, 42558), (527, 42579), (541, 42612),

Gene: Corvo\_10 Start: 6181, Stop: 7149, Start Num: 111

Candidate Starts for Corvo\_10:

(Start: 111 @6181 has 315 MA's), (Start: 126 @6214 has 6 MA's), (Start: 135 @6232 has 1 MA's), (Start: 138 @6235 has 2 MA's), (266, 6502), (286, 6553), (289, 6565), (327, 6640), (349, 6703), (355, 6715), (361, 6736), (365, 6748), (369, 6766), (374, 6784), (386, 6808), (407, 6847), (437, 6928), (445, 6952), (446, 6955), (448, 6958), (454, 6967), (495, 7054), (531, 7141),

Gene: Cosmo\_52 Start: 38381, Stop: 39346, Start Num: 95

Candidate Starts for Cosmo\_52:

(Start: 95 @38381 has 260 MA's), (Start: 126 @38444 has 6 MA's), (169, 38504), (175, 38519), (177, 38522), (183, 38534), (185, 38540), (203, 38576), (204, 38579), (241, 38651), (250, 38666), (252, 38672), (273, 38735), (286, 38765), (301, 38798), (333, 38861), (334, 38864), (349, 38903), (361, 38936), (369, 38963), (372, 38972), (386, 39005), (442, 39140), (446, 39155), (468, 39200), (490, 39242), (501, 39269), (521, 39311),

Gene: Courthouse\_48 Start: 39086, Stop: 40090, Start Num: 49

Candidate Starts for Courthouse\_48:

(Start: 49 @39086 has 10 MA's), (64, 39140), (Start: 88 @39191 has 3 MA's), (Start: 126 @39263 has 6 MA's), (166, 39338), (218, 39452), (222, 39464), (242, 39497), (272, 39566), (277, 39578), (282, 39590), (284, 39593), (299, 39638), (306, 39656), (363, 39818), (367, 39833), (370, 39842), (521, 40043),

Gene: CrimD\_31 Start: 26431, Stop: 27303, Start Num: 153

Candidate Starts for CrimD\_31:

(140, 26404), (Start: 153 @26431 has 137 MA's), (Start: 161 @26443 has 1 MA's), (192, 26512), (205, 26539), (Start: 214 @26569 has 1 MA's), (218, 26578), (238, 26614), (242, 26623), (254, 26656), (259, 26674), (296, 26764), (349, 26899), (363, 26926), (369, 26947), (377, 26971), (405, 27022), (448, 27124), (466, 27160), (477, 27184), (523, 27283), (529, 27292),

Gene: Crispicous1\_9 Start: 5465, Stop: 6433, Start Num: 111

Candidate Starts for Crispicous1\_9:

(Start: 111 @5465 has 315 MA's), (Start: 126 @5498 has 6 MA's), (Start: 135 @5516 has 1 MA's), (Start: 138 @5519 has 2 MA's), (266, 5786), (286, 5837), (289, 5849), (327, 5924), (349, 5987), (355, 5999), (361, 6020), (365, 6032), (369, 6050), (374, 6068), (386, 6092), (407, 6131), (437, 6212), (445, 6236), (446, 6239), (448, 6242), (454, 6251), (495, 6338), (515, 6383), (531, 6425),

Gene: Crossroads\_28 Start: 26303, Stop: 27274, Start Num: 51

Candidate Starts for Crossroads\_28:

(Start: 51 @26303 has 22 MA's), (67, 26357), (125, 26477), (141, 26507), (147, 26522), (Start: 161 @26555 has 1 MA's), (162, 26558), (166, 26567), (175, 26588), (205, 26651), (218, 26678), (232, 26702), (245, 26732), (272, 26783), (277, 26795), (300, 26858), (306, 26873), (325, 26933), (330, 26948), (363, 27029), (368, 27047), (369, 27050), (371, 27053), (449, 27104), (470, 27149), (494, 27191), (514, 27233),

Gene: Crucio\_11 Start: 6372, Stop: 7364, Start Num: 111

Candidate Starts for Crucio\_11:

(Start: 111 @6372 has 315 MA's), (Start: 135 @6423 has 1 MA's), (Start: 138 @6426 has 2 MA's), (155, 6459), (170, 6474), (233, 6594), (235, 6600), (268, 6687), (286, 6732), (341, 6864), (361, 6903), (376, 6951), (417, 7032), (427, 7074), (458, 7161), (477, 7209), (507, 7275), (538, 7350),

Gene: Crumble\_25 Start: 23705, Stop: 24706, Start Num: 95

Candidate Starts for Crumble\_25:

(Start: 95 @23705 has 260 MA's), (130, 23780), (149, 23813), (168, 23843), (177, 23864), (189, 23894), (196, 23906), (Start: 214 @23948 has 1 MA's), (223, 23972), (235, 23987), (241, 23999), (286, 24110), (334, 24224), (341, 24242), (357, 24281), (365, 24305), (374, 24341), (407, 24407), (445, 24515), (468, 24563), (474, 24575), (496, 24620), (501, 24632), (515, 24662),

Gene: CrystalP\_35 Start: 31858, Stop: 32715, Start Num: 136

Candidate Starts for CrystalP\_35:

(Start: 136 @31858 has 124 MA's), (Start: 156 @31897 has 3 MA's), (166, 31927), (175, 31948), (191, 31984), (205, 32014), (236, 32089), (259, 32137), (262, 32140), (272, 32164), (274, 32167), (280, 32182), (346, 32353), (384, 32452), (393, 32467), (398, 32482), (420, 32488), (444, 32530), (445, 32533), (470, 32587), (511, 32665), (522, 32698),

Gene: Cueyllyss\_10 Start: 6167, Stop: 7102, Start Num: 126

Candidate Starts for Cueyllyss\_10:

(Start: 111 @6134 has 315 MA's), (Start: 126 @6167 has 6 MA's), (Start: 135 @6185 has 1 MA's), (Start: 138 @6188 has 2 MA's), (266, 6455), (286, 6506), (289, 6518), (327, 6593), (349, 6656), (355, 6668), (361, 6689), (365, 6701), (369, 6719), (374, 6737), (386, 6761), (407, 6800), (437, 6881), (445, 6905), (446, 6908), (448, 6911), (454, 6920), (515, 7052), (531, 7094),

Gene: Cullens\_12 Start: 5960, Stop: 6925, Start Num: 101

Candidate Starts for Cullens\_12:

(Start: 101 @5960 has 93 MA's), (Start: 126 @6005 has 6 MA's), (Start: 138 @6026 has 2 MA's), (201, 6146), (286, 6341), (291, 6356), (333, 6437), (337, 6452), (347, 6470), (365, 6521), (369, 6539), (388, 6584), (428, 6680), (447, 6743), (465, 6782), (490, 6833),

Gene: Curiosium\_32 Start: 26281, Stop: 27129, Start Num: 153

Candidate Starts for Curiosium\_32:

(129, 26233), (140, 26254), (Start: 153 @26281 has 137 MA's), (Start: 161 @26293 has 1 MA's), (173, 26320), (175, 26326), (188, 26356), (218, 26425), (242, 26470), (254, 26503), (259, 26521), (290, 26596), (326, 26683), (349, 26746), (363, 26773), (369, 26794), (377, 26818), (394, 26854), (448, 26950), (466, 26986), (477, 27010), (529, 27118),

Gene: Czyszczone1\_36 Start: 31603, Stop: 32460, Start Num: 136

Candidate Starts for Czyszczone1\_36:

(Start: 136 @31603 has 124 MA's), (Start: 156 @31642 has 3 MA's), (166, 31672), (175, 31693), (191, 31729), (205, 31759), (236, 31834), (259, 31882), (262, 31885), (272, 31909), (274, 31912), (280, 31927), (346, 32098), (393, 32212), (398, 32227), (420, 32233), (444, 32275), (445, 32278), (470, 32332), (511, 32410), (522, 32443),

Gene: D29\_12 Start: 6597, Stop: 7361, Start Num: 229

Candidate Starts for D29\_12:

(Start: 229 @6597 has 16 MA's), (286, 6741), (327, 6828), (334, 6855), (337, 6867), (369, 6954), (428, 7095), (445, 7155), (447, 7158), (464, 7194), (490, 7248), (512, 7296),

Gene: D32\_14 Start: 6597, Stop: 7361, Start Num: 229

Candidate Starts for D32\_14:

(Start: 229 @6597 has 16 MA's), (286, 6741), (327, 6828), (334, 6855), (337, 6867), (369, 6954), (428, 7095), (445, 7155), (447, 7158), (464, 7194), (490, 7248), (512, 7296),

Gene: DBQu4n\_14 Start: 6597, Stop: 7361, Start Num: 229

Candidate Starts for DBQu4n\_14:

(Start: 229 @6597 has 16 MA's), (286, 6741), (327, 6828), (334, 6855), (337, 6867), (369, 6954), (419, 7068), (428, 7095), (445, 7155), (447, 7158), (464, 7194), (490, 7248), (512, 7296),

Gene: DD5\_11 Start: 6716, Stop: 7684, Start Num: 111

Candidate Starts for DD5\_11:

(Start: 111 @6716 has 315 MA's), (Start: 126 @6749 has 6 MA's), (Start: 135 @6767 has 1 MA's), (Start: 138 @6770 has 2 MA's), (266, 7037), (286, 7088), (289, 7100), (327, 7175), (349, 7238), (355, 7250), (361, 7271), (365, 7283), (369, 7301), (374, 7319), (386, 7343), (407, 7382), (437, 7463), (445, 7487), (446, 7490), (448, 7493), (454, 7502), (495, 7589), (531, 7676),

Gene: DHan\_28 Start: 26216, Stop: 27187, Start Num: 51

Candidate Starts for DHan\_28:

(Start: 51 @26216 has 22 MA's), (67, 26270), (125, 26390), (130, 26405), (141, 26420), (147, 26435), (Start: 161 @26468 has 1 MA's), (175, 26501), (205, 26564), (218, 26591), (232, 26615), (272, 26696), (277, 26708), (288, 26735), (300, 26771), (306, 26786), (310, 26801), (325, 26846), (330, 26861), (363, 26942), (368, 26960), (369, 26963), (371, 26966), (380, 26993), (470, 27062), (494, 27104), (514, 27146),

Gene: DLane\_31 Start: 27486, Stop: 28484, Start Num: 95

Candidate Starts for DLane\_31:

(Start: 95 @27486 has 260 MA's), (130, 27561), (168, 27621), (177, 27642), (Start: 214 @27726 has 1 MA's), (241, 27777), (250, 27792), (286, 27888), (333, 27999), (341, 28020), (357, 28059), (361, 28071), (374, 28119), (388, 28146), (400, 28170), (407, 28185), (445, 28293), (468, 28341), (501, 28410), (515, 28440),

Gene: DRBy19\_31 Start: 27617, Stop: 28618, Start Num: 95

Candidate Starts for DRBy19\_31:

(Start: 95 @27617 has 260 MA's), (130, 27692), (149, 27725), (168, 27755), (177, 27776), (189, 27806), (196, 27818), (Start: 214 @27860 has 1 MA's), (223, 27884), (235, 27899), (241, 27911), (286, 28022), (334, 28136), (341, 28154), (357, 28193), (365, 28217), (374, 28253), (407, 28319), (445, 28427), (468, 28475), (474, 28487), (496, 28532), (501, 28544), (515, 28574),

Gene: DS6A\_31 Start: 26756, Stop: 27793, Start Num: 105

Candidate Starts for DS6A\_31:

(79, 26702), (97, 26738), (Start: 105 @26756 has 4 MA's), (119, 26783), (167, 26864), (179, 26888), (210, 26954), (218, 26975), (223, 26990), (241, 27032), (248, 27047), (251, 27053), (286, 27146), (301, 27179), (334, 27260), (336, 27263), (337, 27272), (352, 27305), (353, 27308), (361, 27329), (365, 27341), (369, 27359), (390, 27407), (395, 27419), (439, 27545), (441, 27551), (445, 27566), (446, 27569), (454, 27581), (471, 27623), (473, 27626), (501, 27683), (515, 27716), (531, 27758),

Gene: DTDevon\_253 Start: 146534, Stop: 147562, Start Num: 87

Candidate Starts for DTDevon\_253:

(Start: 87 @146534 has 167 MA's), (Start: 105 @146564 has 4 MA's), (Start: 112 @146576 has 111 MA's), (130, 146618), (168, 146681), (177, 146702), (Start: 214 @146786 has 1 MA's), (235, 146828), (241, 146840), (250, 146855), (273, 146924), (286, 146951), (309, 147005), (324, 147050), (326, 147053), (354, 147131), (361, 147152), (407, 147263), (440, 147353), (445, 147371), (480, 147443),

(496, 147476),

Gene: DaHudson\_12 Start: 5954, Stop: 6919, Start Num: 101

Candidate Starts for DaHudson\_12:

(Start: 101 @5954 has 93 MA's), (Start: 126 @5999 has 6 MA's), (Start: 138 @6020 has 2 MA's), (201, 6140), (263, 6278), (286, 6335), (291, 6350), (333, 6431), (337, 6446), (347, 6464), (365, 6515), (369, 6533), (388, 6578), (428, 6674), (447, 6737), (465, 6776), (490, 6827),

Gene: DaWorst\_33 Start: 28055, Stop: 29056, Start Num: 95

Candidate Starts for DaWorst\_33:

(5, 27434), (7, 27512), (9, 27575), (15, 27614), (22, 27767), (26, 27803), (Start: 95 @28055 has 260 MA's), (Start: 105 @28076 has 4 MA's), (Start: 112 @28088 has 111 MA's), (130, 28130), (168, 28193), (177, 28214), (189, 28244), (Start: 214 @28298 has 1 MA's), (223, 28322), (241, 28349), (286, 28460), (334, 28574), (341, 28592), (357, 28631), (365, 28655), (374, 28691), (388, 28718), (407, 28757), (428, 28805), (445, 28865), (474, 28925), (501, 28982), (515, 29012),

Gene: DaddyRickover\_31 Start: 27698, Stop: 28699, Start Num: 95

Candidate Starts for DaddyRickover\_31:

(Start: 95 @27698 has 260 MA's), (Start: 105 @27719 has 4 MA's), (130, 27773), (149, 27806), (168, 27836), (177, 27857), (189, 27887), (196, 27899), (Start: 214 @27941 has 1 MA's), (223, 27965), (235, 27980), (241, 27992), (286, 28103), (334, 28217), (341, 28235), (357, 28274), (365, 28298), (374, 28334), (388, 28361), (407, 28400), (428, 28448), (445, 28508), (468, 28556), (474, 28568), (496, 28613), (501, 28625), (515, 28655),

Gene: Dadosky\_31 Start: 27159, Stop: 27920, Start Num: 152

Candidate Starts for Dadosky\_31:

(129, 27111), (Start: 152 @27159 has 16 MA's), (Start: 161 @27171 has 1 MA's), (164, 27177), (175, 27204), (192, 27240), (216, 27300), (218, 27306), (234, 27336), (238, 27342), (242, 27351), (254, 27384), (271, 27426), (272, 27429), (277, 27441), (290, 27477), (296, 27492), (308, 27528), (349, 27627), (363, 27654), (369, 27675), (448, 27738), (462, 27762), (470, 27786), (503, 27855), (523, 27900), (529, 27909),

Gene: Daenerys\_31 Start: 27519, Stop: 28520, Start Num: 95

Candidate Starts for Daenerys\_31:

(43, 27357), (Start: 95 @27519 has 260 MA's), (130, 27594), (149, 27627), (168, 27657), (177, 27678), (189, 27708), (196, 27720), (Start: 214 @27762 has 1 MA's), (223, 27786), (235, 27801), (241, 27813), (286, 27924), (334, 28038), (341, 28056), (357, 28095), (365, 28119), (374, 28155), (388, 28182), (407, 28221), (428, 28269), (445, 28329), (468, 28377), (474, 28389), (496, 28434), (501, 28446), (515, 28476),

Gene: Daffodil\_258 Start: 144821, Stop: 145849, Start Num: 87

Candidate Starts for Daffodil\_258:

(Start: 87 @144821 has 167 MA's), (Start: 105 @144851 has 4 MA's), (Start: 112 @144863 has 111 MA's), (130, 144905), (168, 144968), (177, 144989), (Start: 214 @145073 has 1 MA's), (235, 145115), (241, 145127), (250, 145142), (273, 145211), (286, 145238), (309, 145292), (324, 145337), (326, 145340), (354, 145418), (361, 145439), (407, 145550), (440, 145640), (445, 145658), (480, 145730), (496, 145763),

Gene: Daikon\_34 Start: 31596, Stop: 32453, Start Num: 136

Candidate Starts for Daikon\_34:

(Start: 136 @31596 has 124 MA's), (Start: 156 @31635 has 3 MA's), (166, 31665), (175, 31686), (191, 31722), (205, 31752), (236, 31827), (259, 31875), (262, 31878), (272, 31902), (274, 31905), (280, 31920), (346, 32091), (393, 32205), (398, 32220), (420, 32226), (444, 32268), (445, 32271), (470,



32325), (511, 32403), (522, 32436),

Gene: Daishi\_11 Start: 4878, Stop: 5852, Start Num: 111

Candidate Starts for Daishi\_11:

(Start: 111 @4878 has 315 MA's), (Start: 138 @4932 has 2 MA's), (139, 4935), (223, 5106), (247, 5163), (263, 5211), (283, 5259), (286, 5268), (333, 5364), (337, 5379), (347, 5397), (364, 5445), (365, 5448), (369, 5466), (428, 5607), (434, 5634), (445, 5667), (447, 5670), (465, 5709), (471, 5727),

Gene: Daisy\_47 Start: 41560, Stop: 42624, Start Num: 84

Candidate Starts for Daisy\_47:

(Start: 84 @41560 has 45 MA's), (115, 41623), (157, 41704), (189, 41770), (197, 41785), (203, 41797), (215, 41824), (245, 41881), (250, 41890), (308, 42037), (315, 42052), (333, 42106), (347, 42139), (362, 42178), (366, 42190), (401, 42271), (411, 42289), (412, 42292), (428, 42337), (468, 42448), (521, 42559), (527, 42580), (541, 42613),

Gene: Dallas\_51 Start: 42101, Stop: 42973, Start Num: 91

Candidate Starts for Dallas\_51:

(Start: 91 @42101 has 31 MA's), (Start: 104 @42128 has 1 MA's), (168, 42257), (190, 42302), (202, 42323), (Start: 214 @42344 has 1 MA's), (243, 42398), (279, 42479), (379, 42758), (380, 42761), (439, 42785), (452, 42821), (462, 42836), (466, 42848), (475, 42869),

Gene: Dalmatian\_11 Start: 6522, Stop: 7514, Start Num: 111

Candidate Starts for Dalmatian\_11:

(Start: 111 @6522 has 315 MA's), (Start: 126 @6555 has 6 MA's), (Start: 135 @6573 has 1 MA's), (Start: 138 @6576 has 2 MA's), (155, 6609), (170, 6624), (233, 6744), (235, 6750), (247, 6777), (268, 6837), (286, 6882), (341, 7014), (361, 7053), (376, 7101), (417, 7182), (427, 7224), (458, 7311), (470, 7347), (485, 7371), (502, 7413), (507, 7425), (538, 7500),

Gene: Dalmuri\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for Dalmuri\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242, 26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: DanBing\_27 Start: 26120, Stop: 27091, Start Num: 51

Candidate Starts for DanBing\_27:

(Start: 51 @26120 has 22 MA's), (67, 26174), (125, 26294), (130, 26309), (141, 26324), (147, 26339), (Start: 161 @26372 has 1 MA's), (175, 26405), (205, 26468), (218, 26495), (232, 26519), (272, 26600), (277, 26612), (288, 26639), (300, 26675), (306, 26690), (310, 26705), (325, 26750), (330, 26765), (363, 26846), (368, 26864), (369, 26867), (371, 26870), (380, 26897), (449, 26921), (470, 26966), (494, 27008), (514, 27050),

Gene: Dandelion\_258 Start: 147355, Stop: 148383, Start Num: 87

Candidate Starts for Dandelion\_258:

(Start: 87 @147355 has 167 MA's), (Start: 105 @147385 has 4 MA's), (Start: 112 @147397 has 111 MA's), (130, 147439), (168, 147502), (177, 147523), (Start: 214 @147607 has 1 MA's), (235, 147649), (241, 147661), (250, 147676), (273, 147745), (286, 147772), (309, 147826), (324, 147871), (326, 147874), (354, 147952), (361, 147973), (407, 148084), (440, 148174), (445, 148192), (480, 148264), (496, 148297),

Gene: Dante\_31 Start: 27637, Stop: 28638, Start Num: 95

Candidate Starts for Dante\_31:

(Start: 95 @27637 has 260 MA's), (130, 27712), (149, 27745), (168, 27775), (177, 27796), (Start: 214 @27880 has 1 MA's), (223, 27904), (235, 27919), (241, 27931), (286, 28042), (334, 28156), (341, 28174), (357, 28213), (365, 28237), (374, 28273), (388, 28300), (407, 28339), (445, 28447), (474, 28507), (501, 28564), (515, 28594),

Gene: Darko\_252 Start: 144479, Stop: 145507, Start Num: 87

Candidate Starts for Darko\_252:

(Start: 87 @144479 has 167 MA's), (Start: 105 @144509 has 4 MA's), (Start: 112 @144521 has 111 MA's), (130, 144563), (168, 144626), (177, 144647), (Start: 214 @144731 has 1 MA's), (235, 144773), (241, 144785), (250, 144800), (273, 144869), (286, 144896), (309, 144950), (324, 144995), (326, 144998), (354, 145076), (361, 145097), (407, 145208), (440, 145298), (445, 145316), (480, 145388), (496, 145421),

Gene: DarthP\_30 Start: 26891, Stop: 27631, Start Num: 153

Candidate Starts for DarthP\_30:

(28, 26546), (100, 26792), (Start: 110 @26813 has 4 MA's), (129, 26846), (140, 26867), (Start: 153 @26891 has 137 MA's), (Start: 161 @26903 has 1 MA's), (173, 26930), (175, 26936), (Start: 214 @27020 has 1 MA's), (218, 27029), (222, 27041), (242, 27074), (254, 27107), (296, 27215), (306, 27242), (349, 27350), (363, 27377), (369, 27398), (377, 27422), (442, 27434), (444, 27443), (470, 27500), (477, 27512), (523, 27611),

Gene: Dartin\_31 Start: 25850, Stop: 26611, Start Num: 153

Candidate Starts for Dartin\_31:

(140, 25820), (Start: 153 @25850 has 137 MA's), (175, 25895), (192, 25931), (216, 25991), (218, 25997), (234, 26027), (238, 26033), (242, 26042), (254, 26075), (271, 26117), (290, 26168), (296, 26183), (349, 26318), (363, 26345), (369, 26366), (371, 26372), (377, 26390), (445, 26423), (448, 26429), (470, 26477), (505, 26549), (523, 26591), (529, 26600),

Gene: Datway\_10 Start: 5887, Stop: 6870, Start Num: 111

Candidate Starts for Datway\_10:

(Start: 111 @5887 has 315 MA's), (125, 5917), (Start: 135 @5938 has 1 MA's), (Start: 138 @5941 has 2 MA's), (263, 6190), (286, 6247), (289, 6259), (305, 6289), (320, 6310), (328, 6331), (345, 6379), (362, 6409), (369, 6436), (428, 6586), (470, 6709), (477, 6721), (481, 6730), (511, 6787), (540, 6862),

Gene: DeadP\_31 Start: 27683, Stop: 28681, Start Num: 95

Candidate Starts for DeadP\_31:

(Start: 95 @27683 has 260 MA's), (130, 27758), (168, 27818), (177, 27839), (Start: 214 @27923 has 1 MA's), (241, 27974), (250, 27989), (286, 28085), (333, 28196), (341, 28217), (357, 28256), (361, 28268), (374, 28316), (388, 28343), (400, 28367), (407, 28382), (445, 28490), (468, 28538), (501, 28607), (515, 28637),

Gene: Deano\_10 Start: 5887, Stop: 6867, Start Num: 112

Candidate Starts for Deano\_10:

(Start: 112 @5887 has 111 MA's), (Start: 114 @5890 has 13 MA's), (125, 5914), (Start: 135 @5935 has 1 MA's), (Start: 138 @5938 has 2 MA's), (263, 6187), (286, 6244), (305, 6286), (328, 6328), (333, 6349), (345, 6376), (369, 6433), (428, 6583), (466, 6694), (470, 6706), (477, 6718), (511, 6784),

Gene: Deb65\_31 Start: 27521, Stop: 28522, Start Num: 95

Candidate Starts for Deb65\_31:

(Start: 56 @27422 has 7 MA's), (Start: 95 @27521 has 260 MA's), (Start: 105 @27542 has 4 MA's), (Start: 112 @27554 has 111 MA's), (130, 27596), (168, 27659), (177, 27680), (Start: 214 @27764 has 1 MA's), (223, 27788), (235, 27803), (241, 27815), (286, 27926), (334, 28040), (341, 28058), (357,

28097), (365, 28121), (374, 28157), (388, 28184), (407, 28223), (428, 28271), (445, 28331), (468, 28379), (474, 28391), (496, 28436), (501, 28448),

Gene: Deby\_31 Start: 26428, Stop: 27300, Start Num: 153

Candidate Starts for Deby\_31:

(32, 26098), (100, 26326), (140, 26401), (Start: 153 @26428 has 137 MA's), (Start: 161 @26440 has 1 MA's), (192, 26509), (205, 26536), (Start: 214 @26566 has 1 MA's), (218, 26575), (238, 26611), (242, 26620), (254, 26653), (259, 26671), (274, 26701), (296, 26761), (349, 26896), (363, 26923), (369, 26944), (377, 26968), (405, 27019), (448, 27121), (466, 27157), (477, 27181), (523, 27280), (529, 27289),

Gene: Deenasa\_47 Start: 42295, Stop: 43359, Start Num: 84

Candidate Starts for Deenasa\_47:

(Start: 84 @42295 has 45 MA's), (115, 42358), (157, 42439), (189, 42505), (197, 42520), (203, 42532), (215, 42559), (245, 42616), (250, 42625), (308, 42772), (315, 42787), (333, 42841), (347, 42874), (362, 42913), (366, 42925), (401, 43006), (411, 43024), (412, 43027), (428, 43072), (468, 43183), (521, 43294), (527, 43315), (541, 43348),

Gene: Delilah\_250 Start: 144914, Stop: 145942, Start Num: 87

Candidate Starts for Delilah\_250:

(Start: 87 @144914 has 167 MA's), (Start: 105 @144944 has 4 MA's), (Start: 112 @144956 has 111 MA's), (130, 144998), (168, 145061), (177, 145082), (Start: 214 @145166 has 1 MA's), (235, 145208), (241, 145220), (250, 145235), (273, 145304), (286, 145331), (309, 145385), (324, 145430), (326, 145433), (354, 145511), (361, 145532), (407, 145643), (440, 145733), (445, 145751), (480, 145823), (496, 145856),

Gene: Deloris\_12 Start: 6865, Stop: 7842, Start Num: 111

Candidate Starts for Deloris\_12:

(Start: 111 @6865 has 315 MA's), (Start: 138 @6919 has 2 MA's), (247, 7108), (263, 7156), (286, 7213), (302, 7249), (327, 7297), (337, 7336), (369, 7423), (397, 7486), (416, 7528), (428, 7576), (434, 7603), (440, 7618), (445, 7636), (447, 7639), (465, 7678), (490, 7729), (527, 7828),

Gene: Delylah\_254 Start: 145191, Stop: 146219, Start Num: 87

Candidate Starts for Delylah\_254:

(Start: 87 @145191 has 167 MA's), (Start: 105 @145221 has 4 MA's), (Start: 112 @145233 has 111 MA's), (130, 145275), (168, 145338), (177, 145359), (Start: 214 @145443 has 1 MA's), (235, 145485), (241, 145497), (250, 145512), (273, 145581), (286, 145608), (309, 145662), (324, 145707), (326, 145710), (354, 145788), (361, 145809), (407, 145920), (440, 146010), (445, 146028), (480, 146100), (496, 146133),

Gene: Demodog\_260 Start: 146510, Stop: 147538, Start Num: 87

Candidate Starts for Demodog\_260:

(Start: 87 @146510 has 167 MA's), (Start: 105 @146540 has 4 MA's), (Start: 112 @146552 has 111 MA's), (130, 146594), (168, 146657), (177, 146678), (Start: 214 @146762 has 1 MA's), (235, 146804), (241, 146816), (250, 146831), (273, 146900), (286, 146927), (309, 146981), (324, 147026), (326, 147029), (354, 147107), (361, 147128), (407, 147239), (440, 147329), (445, 147347), (480, 147419), (496, 147452),

Gene: Demsculpinboyz\_36 Start: 26749, Stop: 27822, Start Num: 95

Candidate Starts for Demsculpinboyz\_36:

(Start: 95 @26749 has 260 MA's), (Start: 109 @26776 has 1 MA's), (124, 26806), (173, 26899), (177, 26908), (180, 26917), (208, 26974), (Start: 231 @27019 has 2 MA's), (245, 27052), (250, 27061), (266, 27112), (285, 27154), (291, 27178), (294, 27187), (298, 27199), (308, 27229), (317, 27259),

(318, 27262), (333, 27319), (334, 27322), (339, 27337), (346, 27349), (348, 27358), (357, 27382), (366, 27406), (401, 27487), (428, 27562), (469, 27673), (491, 27715), (493, 27718), (495, 27724), (501, 27739), (529, 27805),

Gene: Derek\_248 Start: 145172, Stop: 146200, Start Num: 87

Candidate Starts for Derek\_248:

(Start: 87 @145172 has 167 MA's), (Start: 105 @145202 has 4 MA's), (Start: 112 @145214 has 111 MA's), (130, 145256), (168, 145319), (177, 145340), (Start: 214 @145424 has 1 MA's), (235, 145466), (241, 145478), (250, 145493), (273, 145562), (286, 145589), (309, 145643), (324, 145688), (326, 145691), (354, 145769), (361, 145790), (407, 145901), (440, 145991), (445, 146009), (480, 146081), (496, 146114),

Gene: Devera\_31 Start: 26468, Stop: 27340, Start Num: 153

Candidate Starts for Devera\_31:

(140, 26441), (Start: 153 @26468 has 137 MA's), (Start: 161 @26480 has 1 MA's), (192, 26549), (205, 26576), (Start: 214 @26606 has 1 MA's), (218, 26615), (238, 26651), (242, 26660), (254, 26693), (259, 26711), (296, 26801), (349, 26936), (363, 26963), (369, 26984), (377, 27008), (429, 27110), (448, 27161), (466, 27197), (477, 27221), (523, 27320), (529, 27329),

Gene: Devonte\_47 Start: 41524, Stop: 42588, Start Num: 84

Candidate Starts for Devonte\_47:

(Start: 84 @41524 has 45 MA's), (115, 41587), (157, 41668), (189, 41734), (197, 41749), (203, 41761), (215, 41788), (245, 41845), (250, 41854), (308, 42001), (315, 42016), (333, 42070), (347, 42103), (362, 42142), (366, 42154), (401, 42235), (411, 42253), (412, 42256), (428, 42301), (468, 42412), (521, 42523), (527, 42544), (541, 42577),

Gene: Dexes\_11 Start: 6621, Stop: 7589, Start Num: 111

Candidate Starts for Dexes\_11:

(Start: 111 @6621 has 315 MA's), (Start: 126 @6654 has 6 MA's), (Start: 135 @6672 has 1 MA's), (Start: 138 @6675 has 2 MA's), (266, 6942), (286, 6993), (289, 7005), (327, 7080), (349, 7143), (361, 7176), (365, 7188), (369, 7206), (374, 7224), (386, 7248), (407, 7287), (437, 7368), (445, 7392), (446, 7395), (448, 7398), (454, 7407), (495, 7494), (515, 7539), (531, 7581),

Gene: Dhanush\_10 Start: 5884, Stop: 6864, Start Num: 112

Candidate Starts for Dhanush\_10:

(Start: 112 @5884 has 111 MA's), (Start: 114 @5887 has 13 MA's), (125, 5911), (Start: 135 @5932 has 1 MA's), (Start: 138 @5935 has 2 MA's), (263, 6184), (286, 6241), (328, 6325), (333, 6346), (345, 6373), (362, 6403), (369, 6430), (428, 6580), (466, 6691), (470, 6703), (477, 6715), (511, 6781),

Gene: Dieselweasel\_12 Start: 5963, Stop: 6928, Start Num: 101

Candidate Starts for Dieselweasel\_12:

(Start: 101 @5963 has 93 MA's), (Start: 126 @6008 has 6 MA's), (Start: 138 @6029 has 2 MA's), (201, 6149), (263, 6287), (286, 6344), (291, 6359), (333, 6440), (337, 6455), (347, 6473), (365, 6524), (369, 6542), (388, 6587), (428, 6683), (447, 6746), (465, 6785), (490, 6836),

Gene: Dietrick\_241 Start: 143035, Stop: 144063, Start Num: 87

Candidate Starts for Dietrick\_241:

(Start: 87 @143035 has 167 MA's), (Start: 105 @143065 has 4 MA's), (Start: 112 @143077 has 111 MA's), (130, 143119), (168, 143182), (177, 143203), (Start: 214 @143287 has 1 MA's), (235, 143329), (241, 143341), (250, 143356), (273, 143425), (286, 143452), (309, 143506), (324, 143551), (326, 143554), (354, 143632), (361, 143653), (407, 143764), (440, 143854), (445, 143872), (480, 143944), (496, 143977),

Gene: Dignity\_13 Start: 6817, Stop: 7809, Start Num: 111

Candidate Starts for Dignity\_13:

(Start: 111 @6817 has 315 MA's), (Start: 135 @6868 has 1 MA's), (Start: 138 @6871 has 2 MA's), (233, 7039), (235, 7045), (247, 7072), (268, 7132), (286, 7177), (327, 7264), (341, 7309), (361, 7348), (376, 7396), (384, 7411), (417, 7477), (427, 7519), (458, 7606), (507, 7720),

Gene: DillTech15\_31 Start: 27607, Stop: 28608, Start Num: 95

Candidate Starts for DillTech15\_31:

(Start: 95 @27607 has 260 MA's), (Start: 105 @27628 has 4 MA's), (130, 27682), (149, 27715), (168, 27745), (177, 27766), (Start: 214 @27850 has 1 MA's), (223, 27874), (241, 27901), (250, 27916), (286, 28012), (334, 28126), (341, 28144), (357, 28183), (365, 28207), (374, 28243), (388, 28270), (407, 28309), (428, 28357), (445, 28417), (474, 28477), (495, 28519), (496, 28522), (501, 28534), (515, 28564),

Gene: Diminimus\_39 Start: 31793, Stop: 32764, Start Num: 58

Candidate Starts for Diminimus\_39:

(Start: 58 @31793 has 13 MA's), (63, 31817), (69, 31832), (134, 31970), (150, 31997), (158, 32015), (162, 32027), (166, 32036), (185, 32081), (191, 32093), (206, 32120), (218, 32147), (222, 32159), (246, 32204), (257, 32231), (272, 32261), (276, 32270), (277, 32273), (310, 32360), (317, 32375), (371, 32528), (372, 32531), (441, 32591), (444, 32603), (448, 32612), (466, 32648), (471, 32663), (494, 32702), (509, 32735),

Gene: DirkDirk\_26 Start: 25530, Stop: 26561, Start Num: 96

Candidate Starts for DirkDirk\_26:

(Start: 96 @25530 has 29 MA's), (182, 25686), (194, 25710), (198, 25722), (206, 25740), (211, 25758), (218, 25776), (219, 25782), (223, 25791), (228, 25806), (237, 25821), (255, 25869), (263, 25893), (286, 25950), (304, 25989), (336, 26067), (337, 26076), (339, 26079), (347, 26094), (364, 26148), (369, 26169), (373, 26184), (414, 26268), (425, 26298), (446, 26367), (454, 26379), (465, 26403), (471, 26421), (473, 26424), (480, 26436), (482, 26439), (496, 26469), (501, 26481),

Gene: DirtMcgirt\_32 Start: 27342, Stop: 28343, Start Num: 95

Candidate Starts for DirtMcgirt\_32:

(Start: 95 @27342 has 260 MA's), (130, 27417), (149, 27450), (168, 27480), (177, 27501), (189, 27531), (196, 27543), (Start: 214 @27585 has 1 MA's), (223, 27609), (235, 27624), (241, 27636), (286, 27747), (334, 27861), (341, 27879), (357, 27918), (365, 27942), (374, 27978), (388, 28005), (407, 28044), (445, 28152), (468, 28200), (474, 28212), (495, 28254), (496, 28257), (501, 28269), (515, 28299),

Gene: DirtMonster\_241 Start: 143767, Stop: 144795, Start Num: 87

Candidate Starts for DirtMonster\_241:

(Start: 87 @143767 has 167 MA's), (Start: 105 @143797 has 4 MA's), (Start: 112 @143809 has 111 MA's), (130, 143851), (168, 143914), (177, 143935), (Start: 214 @144019 has 1 MA's), (235, 144061), (241, 144073), (250, 144088), (273, 144157), (286, 144184), (309, 144238), (324, 144283), (326, 144286), (354, 144364), (361, 144385), (407, 144496), (440, 144586), (445, 144604), (480, 144676), (496, 144709),

Gene: DirtyDunning\_10 Start: 5877, Stop: 6857, Start Num: 112

Candidate Starts for DirtyDunning\_10:

(Start: 112 @5877 has 111 MA's), (125, 5904), (Start: 135 @5925 has 1 MA's), (Start: 138 @5928 has 2 MA's), (219, 6093), (263, 6177), (286, 6234), (289, 6246), (320, 6297), (328, 6318), (333, 6339), (345, 6366), (361, 6393), (369, 6423), (428, 6573), (470, 6696), (477, 6708), (511, 6774),

Gene: DismalFunk\_29 Start: 24807, Stop: 26009, Start Num: 48

Candidate Starts for DismalFunk\_29:

(42, 24765), (Start: 48 @24807 has 10 MA's), (57, 24834), (76, 24891), (86, 24912), (99, 24939), (128, 24999), (146, 25035), (Start: 161 @25068 has 1 MA's), (162, 25071), (175, 25101), (205, 25167), (218, 25206), (257, 25284), (278, 25329), (299, 25386), (306, 25404), (363, 25569), (369, 25590), (375, 25611), (423, 25716), (426, 25731), (444, 25800), (470, 25857), (509, 25938),

Gene: DismalStressor\_29 Start: 24807, Stop: 26009, Start Num: 48

Candidate Starts for DismalStressor\_29:

(42, 24765), (Start: 48 @24807 has 10 MA's), (57, 24834), (76, 24891), (86, 24912), (99, 24939), (128, 24999), (146, 25035), (Start: 161 @25068 has 1 MA's), (162, 25071), (175, 25101), (205, 25167), (218, 25206), (257, 25284), (278, 25329), (299, 25386), (306, 25404), (363, 25569), (369, 25590), (375, 25611), (423, 25716), (426, 25731), (444, 25800), (470, 25857), (509, 25938),

Gene: DmpstrDiver\_50 Start: 42106, Stop: 42978, Start Num: 91

Candidate Starts for DmpstrDiver\_50:

(Start: 91 @42106 has 31 MA's), (Start: 104 @42133 has 1 MA's), (132, 42193), (158, 42241), (190, 42307), (202, 42328), (Start: 214 @42349 has 1 MA's), (243, 42403), (279, 42484), (379, 42763), (380, 42766), (439, 42790), (452, 42826), (462, 42841), (466, 42853), (475, 42874),

Gene: DocMcStuffins\_33 Start: 28140, Stop: 29141, Start Num: 95

Candidate Starts for DocMcStuffins\_33:

(26, 27879), (Start: 56 @28041 has 7 MA's), (Start: 95 @28140 has 260 MA's), (130, 28215), (168, 28278), (177, 28299), (Start: 214 @28383 has 1 MA's), (223, 28407), (235, 28422), (241, 28434), (286, 28545), (334, 28659), (341, 28677), (357, 28716), (365, 28740), (374, 28776), (388, 28803), (407, 28842), (445, 28950), (468, 28998), (474, 29010), (501, 29067), (515, 29097),

Gene: DoctorDiddles\_35 Start: 31020, Stop: 31877, Start Num: 136

Candidate Starts for DoctorDiddles\_35:

(Start: 136 @31020 has 124 MA's), (Start: 156 @31059 has 3 MA's), (166, 31089), (175, 31110), (191, 31146), (205, 31176), (236, 31251), (259, 31299), (262, 31302), (272, 31326), (274, 31329), (280, 31344), (346, 31515), (393, 31629), (396, 31638), (398, 31644), (420, 31650), (444, 31692), (445, 31695), (470, 31749), (511, 31827), (522, 31860),

Gene: Dole\_31 Start: 26470, Stop: 27342, Start Num: 153

Candidate Starts for Dole\_31:

(140, 26443), (Start: 153 @26470 has 137 MA's), (Start: 161 @26482 has 1 MA's), (192, 26551), (205, 26578), (Start: 214 @26608 has 1 MA's), (218, 26617), (238, 26653), (242, 26662), (254, 26695), (259, 26713), (296, 26803), (349, 26938), (363, 26965), (369, 26986), (377, 27010), (429, 27112), (448, 27163), (466, 27199), (477, 27223), (523, 27322), (529, 27331),

Gene: Domi\_246 Start: 144374, Stop: 145402, Start Num: 87

Candidate Starts for Domi\_246:

(Start: 87 @144374 has 167 MA's), (Start: 105 @144404 has 4 MA's), (Start: 112 @144416 has 111 MA's), (130, 144458), (168, 144521), (177, 144542), (Start: 214 @144626 has 1 MA's), (235, 144668), (241, 144680), (250, 144695), (273, 144764), (286, 144791), (309, 144845), (324, 144890), (326, 144893), (354, 144971), (361, 144992), (407, 145103), (440, 145193), (445, 145211), (480, 145283), (496, 145316),

Gene: Donkeykong\_31 Start: 27705, Stop: 28706, Start Num: 95

Candidate Starts for Donkeykong\_31:

(Start: 95 @27705 has 260 MA's), (130, 27780), (149, 27813), (168, 27843), (177, 27864), (Start: 214 @27948 has 1 MA's), (241, 27999), (250, 28014), (286, 28110), (333, 28221), (341, 28242), (357, 28281), (361, 28293), (374, 28341), (388, 28368), (400, 28392), (407, 28407), (445, 28515), (468,

28563), (501, 28632), (515, 28662),

Gene: DontArgue\_9 Start: 3947, Stop: 4915, Start Num: 111

Candidate Starts for DontArgue\_9:

(Start: 111 @3947 has 315 MA's), (117, 3959), (Start: 126 @3980 has 6 MA's), (Start: 138 @4001 has 2 MA's), (139, 4004), (201, 4121), (219, 4166), (220, 4169), (237, 4187), (286, 4316), (291, 4331), (302, 4352), (333, 4424), (337, 4439), (347, 4457), (369, 4526), (397, 4589), (428, 4667), (434, 4694), (440, 4709), (447, 4730), (465, 4769), (490, 4820), (508, 4862),

Gene: Doom\_10 Start: 6259, Stop: 7227, Start Num: 111

Candidate Starts for Doom\_10:

(Start: 111 @6259 has 315 MA's), (Start: 126 @6292 has 6 MA's), (Start: 135 @6310 has 1 MA's), (Start: 138 @6313 has 2 MA's), (266, 6580), (286, 6631), (289, 6643), (327, 6718), (349, 6781), (355, 6793), (361, 6814), (365, 6826), (369, 6844), (374, 6862), (386, 6886), (407, 6925), (437, 7006), (445, 7030), (446, 7033), (448, 7036), (454, 7045), (495, 7132), (515, 7177), (531, 7219),

Gene: Doomphist\_31 Start: 27641, Stop: 28642, Start Num: 95

Candidate Starts for Doomphist\_31:

(43, 27479), (Start: 95 @27641 has 260 MA's), (130, 27716), (149, 27749), (168, 27779), (177, 27800), (189, 27830), (196, 27842), (Start: 214 @27884 has 1 MA's), (223, 27908), (235, 27923), (241, 27935), (286, 28046), (334, 28160), (341, 28178), (357, 28217), (365, 28241), (374, 28277), (388, 28304), (407, 28343), (428, 28391), (445, 28451), (468, 28499), (474, 28511), (496, 28556), (501, 28568), (515, 28598),

Gene: Dorothy\_31 Start: 27483, Stop: 28484, Start Num: 95

Candidate Starts for Dorothy\_31:

(Start: 95 @27483 has 260 MA's), (Start: 105 @27504 has 4 MA's), (130, 27558), (149, 27591), (168, 27621), (177, 27642), (189, 27672), (196, 27684), (Start: 214 @27726 has 1 MA's), (223, 27750), (235, 27765), (241, 27777), (286, 27888), (334, 28002), (341, 28020), (357, 28059), (365, 28083), (374, 28119), (388, 28146), (407, 28185), (428, 28233), (445, 28293), (468, 28341), (474, 28353), (496, 28398), (501, 28410), (515, 28440),

Gene: DosHalletts\_33 Start: 27903, Stop: 28904, Start Num: 95

Candidate Starts for DosHalletts\_33:

(Start: 95 @27903 has 260 MA's), (130, 27978), (149, 28011), (168, 28041), (177, 28062), (189, 28092), (196, 28104), (Start: 214 @28146 has 1 MA's), (223, 28170), (235, 28185), (241, 28197), (286, 28308), (326, 28392), (334, 28422), (341, 28440), (357, 28479), (365, 28503), (374, 28539), (388, 28566), (407, 28605), (428, 28653), (445, 28713), (468, 28761), (474, 28773), (496, 28818), (501, 28830), (515, 28860),

Gene: DotProduct\_31 Start: 27508, Stop: 28509, Start Num: 95

Candidate Starts for DotProduct\_31:

(Start: 95 @27508 has 260 MA's), (130, 27583), (149, 27616), (168, 27646), (177, 27667), (Start: 214 @27751 has 1 MA's), (223, 27775), (235, 27790), (241, 27802), (286, 27913), (334, 28027), (341, 28045), (357, 28084), (365, 28108), (374, 28144), (388, 28171), (407, 28210), (428, 28258), (445, 28318), (474, 28378), (495, 28420), (496, 28423), (501, 28435), (515, 28465),

Gene: Doug\_32 Start: 28084, Stop: 29085, Start Num: 95

Candidate Starts for Doug\_32:

(Start: 95 @28084 has 260 MA's), (130, 28159), (149, 28192), (168, 28222), (177, 28243), (Start: 214 @28327 has 1 MA's), (223, 28351), (235, 28366), (241, 28378), (286, 28489), (334, 28603), (341, 28621), (357, 28660), (365, 28684), (374, 28720), (388, 28747), (407, 28786), (445, 28894), (468, 28942), (501, 29011), (515, 29041),

Gene: Douge\_26 Start: 25265, Stop: 26287, Start Num: 96

Candidate Starts for Douge\_26:

(Start: 96 @25265 has 29 MA's), (Start: 152 @25376 has 16 MA's), (176, 25409), (179, 25415), (182, 25421), (222, 25523), (223, 25526), (241, 25565), (250, 25586), (263, 25628), (286, 25685), (334, 25799), (369, 25904), (404, 25985), (406, 25988), (425, 26033), (446, 26096), (454, 26108), (490, 26183), (501, 26210),

Gene: Douzhi\_26 Start: 25346, Stop: 26368, Start Num: 96

Candidate Starts for Douzhi\_26:

(Start: 96 @25346 has 29 MA's), (Start: 152 @25457 has 16 MA's), (176, 25490), (179, 25496), (182, 25502), (222, 25604), (223, 25607), (241, 25646), (250, 25667), (263, 25709), (286, 25766), (334, 25880), (369, 25985), (404, 26066), (406, 26069), (425, 26114), (446, 26177), (454, 26189), (486, 26255), (490, 26264), (501, 26291),

Gene: Dove\_46 Start: 41631, Stop: 42497, Start Num: 91

Candidate Starts for Dove\_46:

(Start: 91 @41631 has 31 MA's), (Start: 104 @41658 has 1 MA's), (158, 41766), (168, 41787), (190, 41832), (202, 41853), (Start: 214 @41874 has 1 MA's), (243, 41928), (266, 41979), (288, 42030), (344, 42180), (360, 42222), (373, 42273), (380, 42291), (460, 42357), (463, 42369), (466, 42378), (479, 42408), (516, 42471),

Gene: DrDrey\_36 Start: 32350, Stop: 33207, Start Num: 136

Candidate Starts for DrDrey\_36:

(Start: 136 @32350 has 124 MA's), (Start: 156 @32389 has 3 MA's), (166, 32419), (175, 32440), (191, 32476), (205, 32506), (236, 32581), (259, 32629), (262, 32632), (272, 32656), (274, 32659), (280, 32674), (346, 32845), (393, 32959), (398, 32974), (420, 32980), (444, 33022), (445, 33025), (470, 33079), (511, 33157), (522, 33190),

Gene: DrFeelGood\_9 Start: 5783, Stop: 6751, Start Num: 111

Candidate Starts for DrFeelGood\_9:

(Start: 111 @5783 has 315 MA's), (Start: 126 @5816 has 6 MA's), (Start: 135 @5834 has 1 MA's), (Start: 138 @5837 has 2 MA's), (266, 6104), (286, 6155), (289, 6167), (327, 6242), (349, 6305), (361, 6338), (365, 6350), (369, 6368), (374, 6386), (386, 6410), (407, 6449), (437, 6530), (445, 6554), (446, 6557), (448, 6560), (454, 6569), (495, 6656), (515, 6701), (531, 6743),

Gene: DrHayes\_31 Start: 26382, Stop: 27254, Start Num: 153

Candidate Starts for DrHayes\_31:

(100, 26280), (140, 26355), (Start: 153 @26382 has 137 MA's), (Start: 161 @26394 has 1 MA's), (192, 26463), (205, 26490), (Start: 214 @26520 has 1 MA's), (218, 26529), (238, 26565), (242, 26574), (254, 26607), (259, 26625), (296, 26715), (349, 26850), (363, 26877), (369, 26898), (377, 26922), (405, 26973), (448, 27075), (466, 27111), (477, 27135), (523, 27234), (529, 27243),

Gene: DrLupo\_42 Start: 32782, Stop: 33864, Start Num: 62

Candidate Starts for DrLupo\_42:

(Start: 62 @32782 has 3 MA's), (154, 32974), (177, 33019), (201, 33076), (Start: 231 @33130 has 2 MA's), (250, 33172), (255, 33190), (260, 33208), (265, 33223), (291, 33286), (315, 33319), (319, 33325), (334, 33376), (335, 33379), (374, 33493), (378, 33502), (383, 33511), (444, 33661), (464, 33688), (469, 33703), (486, 33733), (510, 33784), (531, 33838),

Gene: DrPhinkDaddy\_249 Start: 145599, Stop: 146627, Start Num: 87

Candidate Starts for DrPhinkDaddy\_249:



(Start: 87 @145599 has 167 MA's), (Start: 105 @145629 has 4 MA's), (Start: 112 @145641 has 111 MA's), (130, 145683), (168, 145746), (177, 145767), (Start: 214 @145851 has 1 MA's), (235, 145893), (241, 145905), (250, 145920), (273, 145989), (286, 146016), (309, 146070), (324, 146115), (326, 146118), (354, 146196), (361, 146217), (407, 146328), (440, 146418), (445, 146436), (480, 146508), (496, 146541),

Gene: DrSeegs\_28 Start: 26303, Stop: 27274, Start Num: 51

Candidate Starts for DrSeegs\_28:

(Start: 51 @26303 has 22 MA's), (67, 26357), (141, 26507), (144, 26516), (147, 26522), (Start: 161 @26555 has 1 MA's), (162, 26558), (166, 26567), (175, 26588), (205, 26651), (218, 26678), (232, 26702), (272, 26783), (277, 26795), (300, 26858), (306, 26873), (325, 26933), (330, 26948), (363, 27029), (368, 27047), (369, 27050), (371, 27053), (449, 27104), (470, 27149), (494, 27191), (514, 27233),

Gene: Drago\_32 Start: 27335, Stop: 28336, Start Num: 95

Candidate Starts for Drago\_32:

(26, 27083), (Start: 56 @27236 has 7 MA's), (Start: 95 @27335 has 260 MA's), (Start: 105 @27356 has 4 MA's), (Start: 112 @27368 has 111 MA's), (130, 27410), (168, 27473), (177, 27494), (189, 27524), (Start: 214 @27578 has 1 MA's), (223, 27602), (241, 27629), (286, 27740), (334, 27854), (341, 27872), (357, 27911), (365, 27935), (374, 27971), (388, 27998), (407, 28037), (428, 28085), (445, 28145), (474, 28205), (501, 28262), (515, 28292),

Gene: Drake55\_13 Start: 6940, Stop: 7917, Start Num: 111

Candidate Starts for Drake55\_13:

(Start: 111 @6940 has 315 MA's), (Start: 138 @6994 has 2 MA's), (180, 7051), (247, 7183), (263, 7231), (286, 7288), (302, 7324), (327, 7372), (337, 7411), (366, 7483), (369, 7498), (388, 7543), (397, 7561), (416, 7603), (428, 7651), (434, 7678), (440, 7693), (445, 7711), (447, 7714), (490, 7804),

Gene: Drake94\_9 Start: 3773, Stop: 4747, Start Num: 111

Candidate Starts for Drake94\_9:

(65, 3734), (Start: 111 @3773 has 315 MA's), (Start: 126 @3806 has 6 MA's), (Start: 138 @3827 has 2 MA's), (222, 3995), (241, 4037), (247, 4052), (286, 4157), (327, 4229), (334, 4256), (336, 4259), (337, 4268), (369, 4355), (428, 4502), (447, 4565), (465, 4604), (486, 4646),

Gene: Drazdys\_249 Start: 145179, Stop: 146207, Start Num: 87

Candidate Starts for Drazdys\_249:

(Start: 87 @145179 has 167 MA's), (Start: 105 @145209 has 4 MA's), (Start: 112 @145221 has 111 MA's), (130, 145263), (168, 145326), (177, 145347), (Start: 214 @145431 has 1 MA's), (235, 145473), (241, 145485), (250, 145500), (273, 145569), (286, 145596), (309, 145650), (324, 145695), (326, 145698), (354, 145776), (361, 145797), (407, 145908), (440, 145998), (445, 146016), (480, 146088), (496, 146121),

Gene: DreamCatcher\_11 Start: 6375, Stop: 7343, Start Num: 111

Candidate Starts for DreamCatcher\_11:

(Start: 111 @6375 has 315 MA's), (Start: 126 @6408 has 6 MA's), (Start: 135 @6426 has 1 MA's), (Start: 138 @6429 has 2 MA's), (266, 6696), (286, 6747), (289, 6759), (327, 6834), (361, 6930), (369, 6960), (407, 7041), (437, 7122), (445, 7146), (446, 7149), (448, 7152), (454, 7161), (495, 7248), (531, 7335),

Gene: Dreamboat\_11 Start: 5911, Stop: 6879, Start Num: 111

Candidate Starts for Dreamboat\_11:

(Start: 111 @5911 has 315 MA's), (Start: 126 @5944 has 6 MA's), (Start: 135 @5962 has 1 MA's), (Start: 138 @5965 has 2 MA's), (235, 6154), (266, 6232), (286, 6283), (289, 6295), (327, 6370), (349,

6433), (361, 6466), (365, 6478), (369, 6496), (374, 6514), (386, 6538), (407, 6577), (437, 6658), (445, 6682), (446, 6685), (448, 6688), (454, 6697), (495, 6784), (515, 6829), (531, 6871),

Gene: DroogsArmy\_11 Start: 7064, Stop: 8041, Start Num: 111

Candidate Starts for DroogsArmy\_11:

(Start: 111 @7064 has 315 MA's), (Start: 138 @7118 has 2 MA's), (173, 7172), (186, 7205), (247, 7337), (286, 7442), (327, 7514), (334, 7541), (337, 7553), (347, 7571), (369, 7640), (397, 7703), (428, 7781), (434, 7808), (445, 7841), (447, 7844), (468, 7892), (490, 7934), (498, 7958), (518, 8000),

Gene: DropBear\_10 Start: 5799, Stop: 6539, Start Num: 224

Candidate Starts for DropBear\_10:

(Start: 224 @5799 has 17 MA's), (263, 5886), (286, 5943), (289, 5955), (291, 5958), (304, 5982), (313, 5997), (321, 6015), (333, 6045), (336, 6051), (337, 6060), (347, 6078), (365, 6129), (369, 6147), (401, 6219), (419, 6261), (428, 6288), (434, 6315), (445, 6348), (447, 6351), (465, 6390), (533, 6531),

Gene: Druantia\_10 Start: 5882, Stop: 6862, Start Num: 112

Candidate Starts for Druantia\_10:

(Start: 112 @5882 has 111 MA's), (Start: 114 @5885 has 13 MA's), (125, 5909), (Start: 135 @5930 has 1 MA's), (Start: 138 @5933 has 2 MA's), (263, 6182), (286, 6239), (328, 6323), (333, 6344), (345, 6371), (362, 6401), (369, 6428), (428, 6578), (466, 6689), (470, 6701), (477, 6713), (511, 6779),

Gene: DudeLittle\_11 Start: 6524, Stop: 7516, Start Num: 111

Candidate Starts for DudeLittle\_11:

(Start: 111 @6524 has 315 MA's), (Start: 126 @6557 has 6 MA's), (Start: 135 @6575 has 1 MA's), (Start: 138 @6578 has 2 MA's), (155, 6611), (170, 6626), (209, 6713), (233, 6746), (235, 6752), (247, 6779), (268, 6839), (286, 6884), (341, 7016), (361, 7055), (376, 7103), (417, 7184), (427, 7226), (458, 7313), (470, 7349), (485, 7373), (502, 7415), (507, 7427), (538, 7502),

Gene: Duke13\_52 Start: 42424, Stop: 43296, Start Num: 91

Candidate Starts for Duke13\_52:

(Start: 91 @42424 has 31 MA's), (Start: 104 @42451 has 1 MA's), (132, 42511), (158, 42559), (190, 42625), (202, 42646), (Start: 214 @42667 has 1 MA's), (243, 42721), (279, 42802), (379, 43081), (380, 43084), (439, 43108), (452, 43144), (462, 43159), (466, 43171), (475, 43192),

Gene: Dulcie\_9 Start: 5658, Stop: 6626, Start Num: 111

Candidate Starts for Dulcie\_9:

(Start: 111 @5658 has 315 MA's), (Start: 126 @5691 has 6 MA's), (Start: 135 @5709 has 1 MA's), (Start: 138 @5712 has 2 MA's), (266, 5979), (286, 6030), (289, 6042), (327, 6117), (361, 6213), (365, 6225), (369, 6243), (374, 6261), (386, 6285), (407, 6324), (437, 6405), (445, 6429), (446, 6432), (448, 6435), (454, 6444), (515, 6576), (531, 6618),

Gene: Dulcita\_39 Start: 31793, Stop: 32764, Start Num: 58

Candidate Starts for Dulcita\_39:

(Start: 58 @31793 has 13 MA's), (63, 31817), (69, 31832), (134, 31970), (150, 31997), (158, 32015), (162, 32027), (166, 32036), (185, 32081), (191, 32093), (206, 32120), (218, 32147), (222, 32159), (246, 32204), (257, 32231), (272, 32261), (276, 32270), (277, 32273), (310, 32360), (317, 32375), (371, 32528), (372, 32531), (441, 32591), (444, 32603), (448, 32612), (466, 32648), (471, 32663), (494, 32702), (509, 32735),

Gene: Dumbo\_35 Start: 31325, Stop: 32182, Start Num: 136

Candidate Starts for Dumbo\_35:

(Start: 136 @31325 has 124 MA's), (Start: 156 @31364 has 3 MA's), (166, 31394), (175, 31415), (191, 31451), (205, 31481), (236, 31556), (259, 31604), (262, 31607), (272, 31631), (274, 31634), (280,

31649), (346, 31820), (393, 31934), (398, 31949), (420, 31955), (444, 31997), (445, 32000), (469, 32051), (470, 32054), (511, 32132), (522, 32165),

Gene: DuncansLeg\_28 Start: 26834, Stop: 27877, Start Num: 46

Candidate Starts for DuncansLeg\_28:

(Start: 46 @26834 has 17 MA's), (47, 26840), (55, 26867), (60, 26888), (83, 26939), (124, 27020), (178, 27125), (218, 27212), (240, 27254), (268, 27308), (275, 27326), (277, 27332), (280, 27338), (306, 27410), (329, 27467), (352, 27527), (378, 27602), (441, 27647), (445, 27662), (448, 27668), (477, 27731), (523, 27833), (532, 27854), (537, 27860),

Gene: Duplo\_14 Start: 6638, Stop: 7402, Start Num: 229

Candidate Starts for Duplo\_14:

(Start: 229 @6638 has 16 MA's), (286, 6782), (327, 6869), (334, 6896), (337, 6908), (369, 6995), (419, 7109), (428, 7136), (445, 7196), (447, 7199), (464, 7235), (490, 7289), (512, 7337),

Gene: Durfee\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for Durfee\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242, 26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: Dusk\_34 Start: 31510, Stop: 32367, Start Num: 136

Candidate Starts for Dusk\_34:

(Start: 136 @31510 has 124 MA's), (Start: 156 @31549 has 3 MA's), (166, 31579), (175, 31600), (191, 31636), (205, 31666), (236, 31741), (259, 31789), (262, 31792), (272, 31816), (274, 31819), (280, 31834), (346, 32005), (393, 32119), (398, 32134), (420, 32140), (444, 32182), (445, 32185), (470, 32239), (511, 32317), (522, 32350),

Gene: Dussy\_11 Start: 6019, Stop: 6987, Start Num: 111

Candidate Starts for Dussy\_11:

(Start: 111 @6019 has 315 MA's), (Start: 126 @6052 has 6 MA's), (Start: 135 @6070 has 1 MA's), (Start: 138 @6073 has 2 MA's), (266, 6340), (286, 6391), (289, 6403), (327, 6478), (349, 6541), (355, 6553), (361, 6574), (365, 6586), (369, 6604), (374, 6622), (386, 6646), (407, 6685), (437, 6766), (445, 6790), (446, 6793), (448, 6796), (454, 6805), (495, 6892), (515, 6937), (531, 6979),

Gene: DustyMartin\_13 Start: 5759, Stop: 6733, Start Num: 111

Candidate Starts for DustyMartin\_13:

(Start: 111 @5759 has 315 MA's), (Start: 138 @5813 has 2 MA's), (170, 5861), (216, 5966), (286, 6128), (291, 6143), (302, 6164), (333, 6236), (337, 6251), (365, 6320), (369, 6338), (388, 6383), (397, 6401), (428, 6479), (434, 6506), (440, 6521), (447, 6542), (465, 6581), (490, 6632), (508, 6674), (534, 6725),

Gene: Dylan\_67 Start: 43515, Stop: 44555, Start Num: 95

Candidate Starts for Dylan\_67:

(Start: 95 @43515 has 260 MA's), (130, 43590), (168, 43671), (170, 43677), (177, 43692), (213, 43773), (Start: 214 @43776 has 1 MA's), (241, 43830), (250, 43845), (286, 43941), (304, 43980), (312, 44010), (324, 44040), (326, 44043), (336, 44076), (361, 44142), (372, 44181), (374, 44190), (388, 44217), (407, 44256), (478, 44430), (501, 44481),

Gene: Dynamix\_10 Start: 5732, Stop: 6700, Start Num: 111

Candidate Starts for Dynamix\_10:

(Start: 111 @5732 has 315 MA's), (Start: 126 @5765 has 6 MA's), (Start: 135 @5783 has 1 MA's), (Start: 138 @5786 has 2 MA's), (266, 6053), (286, 6104), (289, 6116), (327, 6191), (349, 6254), (361, 6287), (365, 6299), (369, 6317), (374, 6335), (386, 6359), (407, 6398), (437, 6479), (445, 6503), (446, 6506), (448, 6509), (454, 6518), (495, 6605), (531, 6692),

Gene: DyoEdafos\_27 Start: 25472, Stop: 26494, Start Num: 96

Candidate Starts for DyoEdafos\_27:

(Start: 96 @25472 has 29 MA's), (Start: 152 @25583 has 16 MA's), (Start: 153 @25586 has 137 MA's), (176, 25616), (179, 25622), (182, 25628), (206, 25682), (222, 25730), (228, 25748), (237, 25763), (250, 25793), (263, 25835), (286, 25892), (334, 26006), (337, 26018), (369, 26111), (404, 26192), (425, 26240), (431, 26258), (446, 26303), (454, 26315), (490, 26390), (501, 26417),

Gene: ET08\_238 Start: 143503, Stop: 144531, Start Num: 87

Candidate Starts for ET08\_238:

(Start: 87 @143503 has 167 MA's), (Start: 105 @143533 has 4 MA's), (130, 143587), (168, 143650), (177, 143671), (Start: 214 @143755 has 1 MA's), (235, 143797), (241, 143809), (250, 143824), (273, 143893), (286, 143920), (309, 143974), (324, 144019), (326, 144022), (354, 144100), (361, 144121), (407, 144232), (440, 144322), (445, 144340), (480, 144412), (496, 144445),

Gene: EZMoney23\_15 Start: 8407, Stop: 9384, Start Num: 111

Candidate Starts for EZMoney23\_15:

(Start: 111 @8407 has 315 MA's), (Start: 138 @8461 has 2 MA's), (165, 8500), (247, 8650), (263, 8698), (286, 8755), (302, 8791), (327, 8839), (337, 8878), (365, 8947), (366, 8950), (369, 8965), (388, 9010), (397, 9028), (416, 9070), (428, 9118), (434, 9145), (440, 9160), (445, 9178), (447, 9181), (490, 9271),

Gene: Eagle\_9 Start: 5884, Stop: 6861, Start Num: 114

Candidate Starts for Eagle\_9:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Eaglepride\_11 Start: 5708, Stop: 6676, Start Num: 111

Candidate Starts for Eaglepride\_11:

(89, 5669), (Start: 111 @5708 has 315 MA's), (117, 5720), (Start: 126 @5741 has 6 MA's), (Start: 138 @5762 has 2 MA's), (139, 5765), (216, 5915), (220, 5930), (237, 5948), (286, 6077), (291, 6092), (327, 6161), (333, 6185), (336, 6191), (337, 6200), (365, 6269), (369, 6287), (397, 6350), (428, 6428), (434, 6455), (440, 6470), (447, 6491), (465, 6530), (490, 6581), (495, 6593), (498, 6605), (508, 6623),

Gene: Eapen\_10 Start: 5883, Stop: 6863, Start Num: 112

Candidate Starts for Eapen\_10:

(Start: 112 @5883 has 111 MA's), (Start: 114 @5886 has 13 MA's), (125, 5910), (Start: 135 @5931 has 1 MA's), (Start: 138 @5934 has 2 MA's), (263, 6183), (286, 6240), (328, 6324), (333, 6345), (345, 6372), (362, 6402), (369, 6429), (428, 6579), (466, 6690), (470, 6702), (477, 6714), (511, 6780),

Gene: Easy2Say\_37 Start: 33108, Stop: 33965, Start Num: 136

Candidate Starts for Easy2Say\_37:

(Start: 136 @33108 has 124 MA's), (Start: 156 @33147 has 3 MA's), (166, 33177), (175, 33198), (191, 33234), (205, 33264), (236, 33339), (259, 33387), (262, 33390), (272, 33414), (274, 33417), (280, 33432), (346, 33603), (393, 33717), (398, 33732), (420, 33738), (444, 33780), (445, 33783), (470, 33837), (511, 33915), (522, 33948),

Gene: EasyJones\_253 Start: 143585, Stop: 144583, Start Num: 105

Candidate Starts for EasyJones\_253:

(Start: 87 @143555 has 167 MA's), (Start: 105 @143585 has 4 MA's), (Start: 112 @143597 has 111 MA's), (130, 143639), (168, 143702), (177, 143723), (Start: 214 @143807 has 1 MA's), (235, 143849), (241, 143861), (250, 143876), (273, 143945), (286, 143972), (309, 144026), (324, 144071), (326, 144074), (354, 144152), (361, 144173), (407, 144284), (440, 144374), (445, 144392), (480, 144464), (496, 144497),

Gene: Echild\_11 Start: 6541, Stop: 7518, Start Num: 111

Candidate Starts for Echild\_11:

(Start: 111 @6541 has 315 MA's), (Start: 138 @6595 has 2 MA's), (247, 6784), (257, 6820), (263, 6832), (286, 6889), (302, 6925), (327, 6973), (337, 7012), (358, 7060), (364, 7078), (366, 7084), (369, 7099), (388, 7144), (397, 7162), (416, 7204), (428, 7252), (434, 7279), (440, 7294), (445, 7312), (447, 7315), (490, 7405), (527, 7504),

Gene: Edison31\_10 Start: 5718, Stop: 6692, Start Num: 111

Candidate Starts for Edison31\_10:

(Start: 111 @5718 has 315 MA's), (Start: 114 @5724 has 13 MA's), (Start: 138 @5772 has 2 MA's), (216, 5925), (286, 6087), (291, 6102), (302, 6123), (333, 6195), (336, 6201), (337, 6210), (356, 6252), (365, 6279), (369, 6297), (388, 6342), (397, 6360), (428, 6438), (434, 6465), (440, 6480), (447, 6501), (465, 6540), (490, 6591), (508, 6633), (534, 6684),

Gene: Edtherson\_11 Start: 6516, Stop: 7484, Start Num: 111

Candidate Starts for Edtherson\_11:

(Start: 111 @6516 has 315 MA's), (Start: 126 @6549 has 6 MA's), (Start: 135 @6567 has 1 MA's), (266, 6837), (286, 6888), (289, 6900), (327, 6975), (349, 7038), (355, 7050), (361, 7071), (365, 7083), (369, 7101), (374, 7119), (386, 7143), (407, 7182), (437, 7263), (445, 7287), (446, 7290), (448, 7293), (454, 7302), (495, 7389), (506, 7413), (515, 7434), (531, 7476),

Gene: Edugator\_30 Start: 27158, Stop: 27919, Start Num: 152

Candidate Starts for Edugator\_30:

(129, 27110), (Start: 152 @27158 has 16 MA's), (Start: 161 @27170 has 1 MA's), (164, 27176), (175, 27203), (192, 27239), (216, 27299), (218, 27305), (234, 27335), (238, 27341), (242, 27350), (254, 27383), (271, 27425), (272, 27428), (277, 27440), (290, 27476), (296, 27491), (308, 27527), (349, 27626), (363, 27653), (369, 27674), (448, 27737), (462, 27761), (470, 27785), (503, 27854), (523, 27899), (529, 27908),

Gene: Efra2\_31 Start: 25702, Stop: 26571, Start Num: 153

Candidate Starts for Efra2\_31:

(129, 25654), (140, 25675), (Start: 153 @25702 has 137 MA's), (Start: 161 @25714 has 1 MA's), (173, 25741), (175, 25747), (188, 25777), (192, 25783), (218, 25846), (238, 25882), (242, 25891), (254, 25924), (274, 25972), (299, 26041), (363, 26194), (369, 26215), (377, 26239), (385, 26257), (396, 26278), (421, 26317), (448, 26392), (509, 26521), (523, 26551), (529, 26560),

Gene: EggyFarm\_260 Start: 146394, Stop: 147422, Start Num: 87

Candidate Starts for EggyFarm\_260:

(Start: 87 @146394 has 167 MA's), (Start: 105 @146424 has 4 MA's), (Start: 112 @146436 has 111 MA's), (130, 146478), (168, 146541), (177, 146562), (Start: 214 @146646 has 1 MA's), (235, 146688), (241, 146700), (250, 146715), (273, 146784), (286, 146811), (309, 146865), (324, 146910), (326, 146913), (354, 146991), (361, 147012), (407, 147123), (440, 147213), (445, 147231), (480, 147303), (496, 147336),

Gene: Eish\_31 Start: 27924, Stop: 29228, Start Num: 23

Candidate Starts for Eish\_31:

(18, 27894), (19, 27900), (21, 27912), (Start: 23 @27924 has 1 MA's), (24, 27936), (Start: 95 @28212 has 260 MA's), (160, 28344), (168, 28365), (177, 28386), (189, 28416), (196, 28428), (Start: 214 @28470 has 1 MA's), (223, 28494), (235, 28509), (241, 28521), (286, 28632), (334, 28746), (341, 28764), (357, 28803), (365, 28827), (374, 28863), (388, 28890), (407, 28929), (445, 29037), (468, 29085), (474, 29097), (496, 29142), (501, 29154), (515, 29184),

Gene: Ejimix\_49 Start: 43361, Stop: 44233, Start Num: 91

Candidate Starts for Ejimix\_49:

(Start: 91 @43361 has 31 MA's), (Start: 104 @43388 has 1 MA's), (132, 43448), (158, 43496), (190, 43562), (202, 43583), (Start: 214 @43604 has 1 MA's), (243, 43658), (279, 43739), (379, 44018), (380, 44021), (439, 44045), (452, 44081), (462, 44096), (466, 44108), (475, 44129),

Gene: Ekdilam\_28 Start: 26650, Stop: 27390, Start Num: 153

Candidate Starts for Ekdilam\_28:

(100, 26551), (Start: 110 @26572 has 4 MA's), (129, 26605), (140, 26626), (Start: 153 @26650 has 137 MA's), (Start: 161 @26662 has 1 MA's), (175, 26695), (Start: 214 @26779 has 1 MA's), (218, 26788), (222, 26800), (242, 26833), (254, 26866), (296, 26974), (306, 27001), (363, 27136), (369, 27157), (377, 27181), (442, 27193), (444, 27202), (470, 27259), (477, 27271), (509, 27340), (523, 27370),

Gene: EleanorGeorge\_32 Start: 28150, Stop: 29220, Start Num: 95

Candidate Starts for EleanorGeorge\_32:

(70, 28096), (Start: 95 @28150 has 260 MA's), (203, 28366), (204, 28369), (Start: 231 @28420 has 2 MA's), (250, 28462), (266, 28513), (308, 28627), (318, 28660), (339, 28735), (348, 28756), (401, 28885), (428, 28957), (464, 29053), (468, 29065), (501, 29134), (525, 29191), (529, 29200),

Gene: Elite2014\_34 Start: 31065, Stop: 31922, Start Num: 136

Candidate Starts for Elite2014\_34:

(Start: 136 @31065 has 124 MA's), (Start: 156 @31104 has 3 MA's), (166, 31134), (175, 31155), (191, 31191), (205, 31221), (236, 31296), (259, 31344), (262, 31347), (272, 31371), (274, 31374), (280, 31389), (346, 31560), (393, 31674), (398, 31689), (420, 31695), (444, 31737), (445, 31740), (470, 31794), (511, 31872), (522, 31905),

Gene: Ellie\_28 Start: 26652, Stop: 27389, Start Num: 153

Candidate Starts for Ellie\_28:

(100, 26541), (Start: 110 @26562 has 4 MA's), (129, 26601), (140, 26622), (Start: 153 @26652 has 137 MA's), (Start: 161 @26664 has 1 MA's), (175, 26697), (192, 26733), (Start: 214 @26781 has 1 MA's), (218, 26790), (222, 26802), (238, 26826), (254, 26868), (296, 26976), (306, 27003), (342, 27090), (349, 27108), (360, 27123), (363, 27135), (369, 27156), (377, 27180), (442, 27192), (444, 27201), (448, 27210), (470, 27258), (523, 27369), (528, 27378),

Gene: Ellson\_28 Start: 26821, Stop: 27864, Start Num: 46

Candidate Starts for Ellson\_28:

(Start: 46 @26821 has 17 MA's), (47, 26827), (55, 26854), (60, 26875), (83, 26926), (124, 27007), (178, 27112), (216, 27193), (218, 27199), (240, 27241), (268, 27295), (275, 27313), (277, 27319), (280, 27325), (306, 27397), (329, 27454), (352, 27514), (378, 27589), (441, 27634), (445, 27649), (448, 27655), (477, 27718), (523, 27820), (532, 27841), (537, 27847),

Gene: Elph10\_36 Start: 31328, Stop: 32185, Start Num: 136

Candidate Starts for Elph10\_36:

(Start: 136 @31328 has 124 MA's), (Start: 156 @31367 has 3 MA's), (166, 31397), (175, 31418), (191, 31454), (205, 31484), (236, 31559), (259, 31607), (262, 31610), (272, 31634), (274, 31637), (280, 31652), (346, 31823), (393, 31937), (398, 31952), (420, 31958), (444, 32000), (445, 32003), (470,

32057), (511, 32135), (522, 32168),

Gene: EmToTheThree\_253 Start: 145387, Stop: 146415, Start Num: 87

Candidate Starts for EmToTheThree\_253:

(Start: 87 @145387 has 167 MA's), (Start: 105 @145417 has 4 MA's), (Start: 112 @145429 has 111 MA's), (130, 145471), (168, 145534), (177, 145555), (Start: 214 @145639 has 1 MA's), (235, 145681), (241, 145693), (250, 145708), (273, 145777), (286, 145804), (309, 145858), (324, 145903), (326, 145906), (354, 145984), (361, 146005), (407, 146116), (440, 146206), (445, 146224), (480, 146296), (496, 146329),

Gene: Emerson\_31 Start: 26454, Stop: 27326, Start Num: 153

Candidate Starts for Emerson\_31:

(140, 26427), (Start: 153 @26454 has 137 MA's), (Start: 161 @26466 has 1 MA's), (192, 26535), (205, 26562), (Start: 214 @26592 has 1 MA's), (218, 26601), (238, 26637), (242, 26646), (254, 26679), (259, 26697), (274, 26727), (295, 26784), (296, 26787), (349, 26922), (363, 26949), (369, 26970), (377, 26994), (405, 27045), (448, 27147), (466, 27183), (497, 27255), (523, 27306), (529, 27315),

Gene: Emma\_33 Start: 28128, Stop: 29126, Start Num: 95

Candidate Starts for Emma\_33:

(Start: 95 @28128 has 260 MA's), (130, 28203), (168, 28263), (177, 28284), (Start: 214 @28368 has 1 MA's), (241, 28419), (250, 28434), (286, 28530), (333, 28641), (341, 28662), (357, 28701), (361, 28713), (374, 28761), (388, 28788), (400, 28812), (407, 28827), (445, 28935), (468, 28983), (501, 29052), (515, 29082),

Gene: EmmaElysia\_257 Start: 146050, Stop: 147078, Start Num: 87

Candidate Starts for EmmaElysia\_257:

(Start: 87 @146050 has 167 MA's), (Start: 105 @146080 has 4 MA's), (Start: 112 @146092 has 111 MA's), (130, 146134), (168, 146197), (177, 146218), (Start: 214 @146302 has 1 MA's), (235, 146344), (241, 146356), (250, 146371), (273, 146440), (286, 146467), (309, 146521), (324, 146566), (326, 146569), (354, 146647), (361, 146668), (407, 146779), (440, 146869), (445, 146887), (480, 146959), (496, 146992),

Gene: Emmina\_36 Start: 31686, Stop: 32543, Start Num: 136

Candidate Starts for Emmina\_36:

(Start: 136 @31686 has 124 MA's), (Start: 156 @31725 has 3 MA's), (166, 31755), (175, 31776), (191, 31812), (205, 31842), (236, 31917), (259, 31965), (262, 31968), (272, 31992), (274, 31995), (280, 32010), (346, 32181), (393, 32295), (398, 32310), (420, 32316), (444, 32358), (445, 32361), (470, 32415), (511, 32493), (522, 32526),

Gene: Empress\_32 Start: 28933, Stop: 29934, Start Num: 95

Candidate Starts for Empress\_32:

(Start: 95 @28933 has 260 MA's), (130, 29008), (149, 29041), (168, 29071), (177, 29092), (Start: 214 @29176 has 1 MA's), (223, 29200), (235, 29215), (241, 29227), (286, 29338), (334, 29452), (341, 29470), (357, 29509), (365, 29533), (374, 29569), (388, 29596), (407, 29635), (445, 29743), (474, 29803), (501, 29860), (515, 29890),

Gene: Enby\_33 Start: 27679, Stop: 28749, Start Num: 95

Candidate Starts for Enby\_33:

(70, 27625), (Start: 95 @27679 has 260 MA's), (203, 27895), (204, 27898), (Start: 231 @27949 has 2 MA's), (250, 27991), (266, 28042), (308, 28156), (318, 28189), (339, 28264), (348, 28285), (401, 28414), (428, 28486), (464, 28582), (468, 28594), (501, 28663), (525, 28720), (529, 28729),

Gene: Enceladus\_26 Start: 25531, Stop: 26562, Start Num: 96

Candidate Starts for Enceladus\_26:

(Start: 96 @25531 has 29 MA's), (182, 25687), (194, 25711), (198, 25723), (206, 25741), (211, 25759), (218, 25777), (219, 25783), (223, 25792), (228, 25807), (237, 25822), (255, 25870), (263, 25894), (286, 25951), (304, 25990), (336, 26068), (337, 26077), (339, 26080), (347, 26095), (364, 26149), (369, 26170), (373, 26185), (414, 26269), (425, 26299), (446, 26368), (454, 26380), (465, 26404), (471, 26422), (473, 26425), (480, 26437), (482, 26440), (496, 26470), (501, 26482),

Gene: EniyanLRS\_49 Start: 38079, Stop: 39044, Start Num: 95

Candidate Starts for EniyanLRS\_49:

(Start: 95 @38079 has 260 MA's), (Start: 126 @38142 has 6 MA's), (169, 38202), (175, 38217), (177, 38220), (183, 38232), (185, 38238), (203, 38274), (204, 38277), (241, 38349), (250, 38364), (252, 38370), (273, 38433), (286, 38463), (301, 38496), (333, 38559), (334, 38562), (349, 38601), (361, 38634), (369, 38661), (372, 38670), (386, 38703), (442, 38838), (446, 38853), (468, 38898), (490, 38940), (501, 38967), (521, 39009),

Gene: Enkosi\_27 Start: 25978, Stop: 26736, Start Num: 152

Candidate Starts for Enkosi\_27:

(100, 25876), (129, 25930), (140, 25951), (Start: 152 @25978 has 16 MA's), (175, 26023), (192, 26059), (216, 26119), (218, 26125), (234, 26155), (254, 26203), (271, 26245), (296, 26311), (308, 26347), (349, 26446), (363, 26473), (369, 26494), (371, 26500), (442, 26539), (445, 26551), (448, 26557), (462, 26581), (470, 26605), (523, 26716), (529, 26725),

Gene: EpicPhail\_12 Start: 5962, Stop: 6927, Start Num: 101

Candidate Starts for EpicPhail\_12:

(Start: 101 @5962 has 93 MA's), (Start: 126 @6007 has 6 MA's), (Start: 138 @6028 has 2 MA's), (201, 6148), (263, 6286), (286, 6343), (291, 6358), (333, 6439), (337, 6454), (347, 6472), (365, 6523), (369, 6541), (388, 6586), (428, 6682), (447, 6745), (465, 6784), (490, 6835),

Gene: Eponine\_34 Start: 28394, Stop: 29185, Start Num: 143

Candidate Starts for Eponine\_34:

(Start: 143 @28394 has 20 MA's), (Start: 161 @28427 has 1 MA's), (175, 28460), (185, 28484), (196, 28505), (200, 28514), (211, 28544), (Start: 214 @28553 has 1 MA's), (218, 28562), (238, 28598), (276, 28679), (349, 28886), (363, 28913), (369, 28934), (373, 28949), (377, 28958), (445, 28982), (470, 29036), (477, 29048), (511, 29120),

Gene: Equemioh13\_13 Start: 6926, Stop: 7903, Start Num: 111

Candidate Starts for Equemioh13\_13:

(Start: 111 @6926 has 315 MA's), (Start: 138 @6980 has 2 MA's), (180, 7037), (247, 7169), (263, 7217), (286, 7274), (302, 7310), (327, 7358), (337, 7397), (366, 7469), (369, 7484), (388, 7529), (397, 7547), (416, 7589), (428, 7637), (434, 7664), (440, 7679), (445, 7697), (447, 7700), (490, 7790),

Gene: Eradicator\_31 Start: 27626, Stop: 28627, Start Num: 95

Candidate Starts for Eradicator\_31:

(Start: 95 @27626 has 260 MA's), (130, 27701), (168, 27764), (177, 27785), (Start: 214 @27869 has 1 MA's), (223, 27893), (235, 27908), (241, 27920), (286, 28031), (334, 28145), (341, 28163), (357, 28202), (365, 28226), (374, 28262), (388, 28289), (407, 28328), (428, 28376), (445, 28436), (474, 28496), (496, 28541), (501, 28553), (515, 28583),

Gene: Erdmann\_254 Start: 145355, Stop: 146383, Start Num: 87

Candidate Starts for Erdmann\_254:

(Start: 87 @145355 has 167 MA's), (Start: 105 @145385 has 4 MA's), (Start: 112 @145397 has 111 MA's), (130, 145439), (168, 145502), (177, 145523), (Start: 214 @145607 has 1 MA's), (235, 145649), (241, 145661), (250, 145676), (273, 145745), (286, 145772), (309, 145826), (324, 145871), (326,



145874), (354, 145952), (361, 145973), (407, 146084), (440, 146174), (445, 146192), (480, 146264), (496, 146297),

Gene: EricMillard\_49 Start: 42862, Stop: 43734, Start Num: 91

Candidate Starts for EricMillard\_49:

(Start: 91 @42862 has 31 MA's), (Start: 104 @42889 has 1 MA's), (132, 42949), (158, 42997), (190, 43063), (202, 43084), (Start: 214 @43105 has 1 MA's), (243, 43159), (279, 43240), (379, 43519), (380, 43522), (439, 43546), (452, 43582), (462, 43597), (466, 43609), (475, 43630),

Gene: Eris\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Eris\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (320, 6301), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: ErnieJ\_246 Start: 142183, Stop: 143211, Start Num: 87

Candidate Starts for ErnieJ\_246:

(Start: 87 @142183 has 167 MA's), (Start: 105 @142213 has 4 MA's), (130, 142267), (168, 142330), (177, 142351), (Start: 214 @142435 has 1 MA's), (235, 142477), (241, 142489), (250, 142504), (273, 142573), (286, 142600), (309, 142654), (324, 142699), (326, 142702), (354, 142780), (361, 142801), (407, 142912), (440, 143002), (445, 143020), (480, 143092), (496, 143125),

Gene: Eros\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Eros\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Espresso\_10 Start: 6112, Stop: 7080, Start Num: 111

Candidate Starts for Espresso\_10:

(Start: 111 @6112 has 315 MA's), (Start: 126 @6145 has 6 MA's), (Start: 135 @6163 has 1 MA's), (Start: 138 @6166 has 2 MA's), (266, 6433), (286, 6484), (289, 6496), (327, 6571), (349, 6634), (361, 6667), (369, 6697), (374, 6715), (386, 6739), (407, 6778), (437, 6859), (445, 6883), (446, 6886), (448, 6889), (454, 6898), (459, 6901), (495, 6985), (515, 7030), (531, 7072),

Gene: Essence\_250 Start: 144391, Stop: 145419, Start Num: 87

Candidate Starts for Essence\_250:

(Start: 87 @144391 has 167 MA's), (Start: 105 @144421 has 4 MA's), (Start: 112 @144433 has 111 MA's), (130, 144475), (168, 144538), (177, 144559), (Start: 214 @144643 has 1 MA's), (235, 144685), (241, 144697), (250, 144712), (273, 144781), (286, 144808), (309, 144862), (324, 144907), (326, 144910), (354, 144988), (361, 145009), (407, 145120), (440, 145210), (445, 145228), (480, 145300), (496, 145333),

Gene: Estave1\_29 Start: 27038, Stop: 28039, Start Num: 95

Candidate Starts for Estave1\_29:

(Start: 95 @27038 has 260 MA's), (130, 27113), (149, 27146), (168, 27176), (177, 27197), (Start: 214 @27281 has 1 MA's), (223, 27305), (235, 27320), (241, 27332), (286, 27443), (334, 27557), (341, 27575), (357, 27614), (365, 27638), (374, 27674), (388, 27701), (407, 27740), (445, 27848), (468, 27896), (474, 27908), (495, 27950), (496, 27953), (501, 27965), (515, 27995),

Gene: Estes\_44 Start: 33069, Stop: 34046, Start Num: 56

Candidate Starts for Estes\_44:

(Start: 56 @33069 has 7 MA's), (63, 33096), (71, 33114), (93, 33162), (107, 33192), (120, 33219), (134, 33249), (162, 33306), (166, 33315), (185, 33360), (191, 33372), (207, 33402), (218, 33426), (228, 33444), (242, 33471), (257, 33510), (276, 33549), (277, 33552), (317, 33654), (371, 33807), (372, 33810), (374, 33819), (379, 33831), (384, 33840), (394, 33861), (444, 33882), (479, 33957),

Gene: Euphoria\_10 Start: 6008, Stop: 6976, Start Num: 111

Candidate Starts for Euphoria\_10:

(Start: 111 @6008 has 315 MA's), (Start: 126 @6041 has 6 MA's), (Start: 135 @6059 has 1 MA's), (Start: 138 @6062 has 2 MA's), (235, 6251), (266, 6329), (273, 6347), (286, 6380), (289, 6392), (327, 6467), (349, 6530), (361, 6563), (369, 6593), (374, 6611), (386, 6635), (407, 6674), (437, 6755), (445, 6779), (446, 6782), (448, 6785), (454, 6794), (495, 6881), (515, 6926), (531, 6968),

Gene: Eureka\_35 Start: 31841, Stop: 32698, Start Num: 136

Candidate Starts for Eureka\_35:

(Start: 136 @31841 has 124 MA's), (Start: 156 @31880 has 3 MA's), (166, 31910), (175, 31931), (191, 31967), (205, 31997), (236, 32072), (259, 32120), (262, 32123), (272, 32147), (274, 32150), (280, 32165), (346, 32336), (393, 32450), (398, 32465), (420, 32471), (444, 32513), (445, 32516), (470, 32570), (511, 32648), (522, 32681),

Gene: Eurydice\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Eurydice\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (209, 6067), (218, 6091), (263, 6181), (286, 6238), (320, 6301), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (470, 6700), (477, 6712), (526, 6823),

Gene: EvilGenius\_13 Start: 6871, Stop: 7812, Start Num: 135

Candidate Starts for EvilGenius\_13:

(Start: 111 @6820 has 315 MA's), (Start: 135 @6871 has 1 MA's), (Start: 138 @6874 has 2 MA's), (170, 6922), (235, 7048), (247, 7075), (268, 7135), (286, 7180), (297, 7204), (341, 7312), (361, 7351), (376, 7399), (384, 7414), (417, 7480), (427, 7522), (458, 7609), (477, 7657), (507, 7723), (538, 7798),

Gene: Ewok\_251 Start: 144849, Stop: 145877, Start Num: 87

Candidate Starts for Ewok\_251:

(Start: 87 @144849 has 167 MA's), (Start: 105 @144879 has 4 MA's), (Start: 112 @144891 has 111 MA's), (130, 144933), (168, 144996), (177, 145017), (Start: 214 @145101 has 1 MA's), (235, 145143), (241, 145155), (250, 145170), (273, 145239), (286, 145266), (309, 145320), (324, 145365), (326, 145368), (354, 145446), (361, 145467), (407, 145578), (440, 145668), (445, 145686), (480, 145758), (496, 145791),

Gene: Eyeball\_10 Start: 5755, Stop: 6723, Start Num: 111

Candidate Starts for Eyeball\_10:

(Start: 111 @5755 has 315 MA's), (Start: 126 @5788 has 6 MA's), (Start: 135 @5806 has 1 MA's), (Start: 138 @5809 has 2 MA's), (266, 6076), (286, 6127), (289, 6139), (327, 6214), (349, 6277), (355, 6289), (361, 6310), (365, 6322), (369, 6340), (374, 6358), (386, 6382), (407, 6421), (437, 6502), (445, 6526), (446, 6529), (448, 6532), (454, 6541), (515, 6673), (531, 6715),

Gene: Faith1\_28 Start: 26303, Stop: 27274, Start Num: 51

Candidate Starts for Faith1\_28:

(Start: 51 @26303 has 22 MA's), (67, 26357), (141, 26507), (144, 26516), (147, 26522), (Start: 161 @26555 has 1 MA's), (162, 26558), (166, 26567), (175, 26588), (205, 26651), (218, 26678), (232, 26702), (272, 26783), (277, 26795), (300, 26858), (306, 26873), (325, 26933), (330, 26948), (363, 27029), (368, 27047), (369, 27050), (371, 27053), (449, 27104), (470, 27149), (494, 27191), (514,

27233),

Gene: Fajezeel\_11 Start: 5830, Stop: 6798, Start Num: 111

Candidate Starts for Fajezeel\_11:

(Start: 111 @5830 has 315 MA's), (Start: 126 @5863 has 6 MA's), (Start: 135 @5881 has 1 MA's), (Start: 138 @5884 has 2 MA's), (266, 6151), (286, 6202), (289, 6214), (327, 6289), (349, 6352), (355, 6364), (361, 6385), (365, 6397), (369, 6415), (374, 6433), (386, 6457), (407, 6496), (437, 6577), (445, 6601), (446, 6604), (448, 6607), (454, 6616), (495, 6703), (531, 6790),

Gene: Fameo\_11 Start: 6448, Stop: 7431, Start Num: 111

Candidate Starts for Fameo\_11:

(82, 6406), (Start: 111 @6448 has 315 MA's), (125, 6478), (Start: 126 @6481 has 6 MA's), (Start: 135 @6499 has 1 MA's), (Start: 138 @6502 has 2 MA's), (257, 6739), (263, 6751), (286, 6808), (289, 6820), (326, 6886), (369, 6997), (428, 7144), (461, 7237), (477, 7279), (511, 7351), (530, 7405),

Gene: Familton\_68 Start: 43425, Stop: 44465, Start Num: 95

Candidate Starts for Familton\_68:

(Start: 95 @43425 has 260 MA's), (130, 43500), (168, 43581), (170, 43587), (177, 43602), (213, 43683), (Start: 214 @43686 has 1 MA's), (241, 43740), (250, 43755), (286, 43851), (304, 43890), (312, 43920), (324, 43950), (326, 43953), (336, 43986), (361, 44052), (374, 44100), (388, 44127), (407, 44166), (478, 44340), (501, 44391),

Gene: Fancypants\_31 Start: 27528, Stop: 28529, Start Num: 95

Candidate Starts for Fancypants\_31:

(Start: 56 @27429 has 7 MA's), (Start: 95 @27528 has 260 MA's), (Start: 105 @27549 has 4 MA's), (Start: 112 @27561 has 111 MA's), (130, 27603), (149, 27636), (168, 27666), (177, 27687), (189, 27717), (196, 27729), (Start: 214 @27771 has 1 MA's), (223, 27795), (235, 27810), (241, 27822), (286, 27933), (326, 28017), (334, 28047), (341, 28065), (357, 28104), (365, 28128), (374, 28164), (388, 28191), (407, 28230), (445, 28338), (468, 28386), (474, 28398), (496, 28443), (501, 28455), (515, 28485),

Gene: Farber\_12 Start: 5955, Stop: 6920, Start Num: 101

Candidate Starts for Farber\_12:

(Start: 101 @5955 has 93 MA's), (Start: 126 @6000 has 6 MA's), (Start: 138 @6021 has 2 MA's), (201, 6141), (263, 6279), (286, 6336), (291, 6351), (333, 6432), (337, 6447), (347, 6465), (365, 6516), (369, 6534), (388, 6579), (428, 6675), (447, 6738), (465, 6777), (490, 6828),

Gene: FarmResident\_26 Start: 25309, Stop: 26331, Start Num: 96

Candidate Starts for FarmResident\_26:

(Start: 96 @25309 has 29 MA's), (Start: 152 @25420 has 16 MA's), (176, 25453), (179, 25459), (182, 25465), (222, 25567), (223, 25570), (241, 25609), (250, 25630), (263, 25672), (286, 25729), (334, 25843), (369, 25948), (404, 26029), (406, 26032), (425, 26077), (446, 26140), (454, 26152), (490, 26227), (501, 26254),

Gene: Fascinus\_9 Start: 5758, Stop: 6726, Start Num: 111

Candidate Starts for Fascinus\_9:

(Start: 111 @5758 has 315 MA's), (Start: 126 @5791 has 6 MA's), (Start: 135 @5809 has 1 MA's), (Start: 138 @5812 has 2 MA's), (266, 6079), (286, 6130), (289, 6142), (327, 6217), (349, 6280), (355, 6292), (361, 6313), (365, 6325), (369, 6343), (374, 6361), (386, 6385), (407, 6424), (437, 6505), (445, 6529), (446, 6532), (448, 6535), (454, 6544), (515, 6676), (531, 6718),

Gene: Fastidio\_33 Start: 27836, Stop: 28837, Start Num: 95

Candidate Starts for Fastidio\_33:

(Start: 95 @27836 has 260 MA's), (Start: 105 @27857 has 4 MA's), (130, 27911), (149, 27944), (168, 27974), (177, 27995), (Start: 214 @28079 has 1 MA's), (223, 28103), (241, 28130), (250, 28145), (286, 28241), (334, 28355), (341, 28373), (357, 28412), (365, 28436), (374, 28472), (388, 28499), (407, 28538), (428, 28586), (445, 28646), (474, 28706), (495, 28748), (496, 28751), (501, 28763), (515, 28793),

Gene: Fefferhead\_30 Start: 26852, Stop: 27589, Start Num: 153

Candidate Starts for Fefferhead\_30:

(100, 26741), (Start: 110 @26762 has 4 MA's), (129, 26801), (140, 26822), (Start: 153 @26852 has 137 MA's), (Start: 161 @26864 has 1 MA's), (175, 26897), (192, 26933), (Start: 214 @26981 has 1 MA's), (218, 26990), (238, 27026), (254, 27068), (296, 27176), (306, 27203), (342, 27290), (349, 27308), (363, 27335), (369, 27356), (377, 27380), (442, 27392), (444, 27401), (448, 27410), (470, 27458), (523, 27569), (528, 27578),

Gene: Fenn\_10 Start: 5962, Stop: 6930, Start Num: 111

Candidate Starts for Fenn\_10:

(Start: 111 @5962 has 315 MA's), (Start: 126 @5995 has 6 MA's), (Start: 135 @6013 has 1 MA's), (Start: 138 @6016 has 2 MA's), (266, 6283), (286, 6334), (289, 6346), (327, 6421), (349, 6484), (361, 6517), (369, 6547), (407, 6628), (437, 6709), (445, 6733), (446, 6736), (448, 6739), (454, 6748), (495, 6835), (531, 6922),

Gene: Fernando\_12 Start: 5960, Stop: 6925, Start Num: 101

Candidate Starts for Fernando\_12:

(Start: 101 @5960 has 93 MA's), (Start: 126 @6005 has 6 MA's), (Start: 138 @6026 has 2 MA's), (201, 6146), (286, 6341), (291, 6356), (333, 6437), (337, 6452), (347, 6470), (365, 6521), (369, 6539), (388, 6584), (428, 6680), (447, 6743), (465, 6782), (490, 6833),

Gene: Feyre\_30 Start: 26964, Stop: 27836, Start Num: 153

Candidate Starts for Feyre\_30:

(Start: 153 @26964 has 137 MA's), (Start: 161 @26976 has 1 MA's), (164, 26982), (175, 27009), (188, 27039), (192, 27045), (Start: 214 @27099 has 1 MA's), (218, 27108), (222, 27120), (242, 27153), (254, 27186), (274, 27234), (363, 27456), (368, 27474), (369, 27477), (394, 27537), (405, 27555), (421, 27582), (448, 27654), (460, 27669), (466, 27690), (467, 27693), (477, 27714), (521, 27807), (523, 27816), (529, 27825),

Gene: Filch\_36 Start: 31616, Stop: 32473, Start Num: 136

Candidate Starts for Filch\_36:

(Start: 136 @31616 has 124 MA's), (Start: 156 @31655 has 3 MA's), (166, 31685), (175, 31706), (191, 31742), (205, 31772), (236, 31847), (259, 31895), (262, 31898), (272, 31922), (274, 31925), (280, 31940), (346, 32111), (393, 32225), (398, 32240), (420, 32246), (444, 32288), (445, 32291), (470, 32345), (511, 32423), (522, 32456),

Gene: Filuzino\_31 Start: 27478, Stop: 28476, Start Num: 95

Candidate Starts for Filuzino\_31:

(Start: 95 @27478 has 260 MA's), (130, 27553), (168, 27613), (177, 27634), (Start: 214 @27718 has 1 MA's), (241, 27769), (250, 27784), (286, 27880), (333, 27991), (341, 28012), (357, 28051), (361, 28063), (374, 28111), (388, 28138), (400, 28162), (407, 28177), (445, 28285), (468, 28333), (501, 28402), (515, 28432),

Gene: Findley\_29 Start: 24799, Stop: 26001, Start Num: 48

Candidate Starts for Findley\_29:

(42, 24757), (Start: 48 @24799 has 10 MA's), (57, 24826), (61, 24847), (76, 24883), (86, 24904), (99, 24931), (128, 24991), (146, 25027), (Start: 161 @25060 has 1 MA's), (162, 25063), (175, 25093),

(205, 25159), (218, 25198), (257, 25276), (278, 25321), (299, 25378), (306, 25396), (363, 25561), (369, 25582), (375, 25603), (423, 25708), (426, 25723), (444, 25792), (470, 25849), (509, 25930),

Gene: Finemlucis\_28 Start: 26525, Stop: 27553, Start Num: 96

Candidate Starts for Finemlucis\_28:

(Start: 96 @26525 has 29 MA's), (176, 26669), (230, 26804), (286, 26945), (336, 27062), (337, 27071), (339, 27074), (347, 27089), (369, 27164), (425, 27293), (432, 27320), (445, 27359), (446, 27362), (454, 27374), (480, 27431), (486, 27440), (496, 27464),

Gene: Finnry\_28 Start: 26854, Stop: 27897, Start Num: 46

Candidate Starts for Finnry\_28:

(Start: 46 @26854 has 17 MA's), (47, 26860), (55, 26887), (60, 26908), (83, 26959), (124, 27040), (178, 27145), (216, 27226), (218, 27232), (268, 27328), (275, 27346), (277, 27352), (280, 27358), (306, 27430), (329, 27487), (331, 27490), (352, 27547), (378, 27622), (389, 27643), (441, 27667), (445, 27682), (450, 27694), (477, 27751), (523, 27853), (532, 27874),

Gene: Fionnbharth\_32 Start: 27630, Stop: 28421, Start Num: 143

Candidate Starts for Fionnbharth\_32:

(Start: 143 @27630 has 20 MA's), (Start: 161 @27663 has 1 MA's), (175, 27696), (185, 27720), (196, 27741), (Start: 214 @27789 has 1 MA's), (218, 27798), (238, 27834), (276, 27915), (349, 28122), (363, 28149), (366, 28155), (369, 28170), (377, 28194), (445, 28218), (460, 28239), (470, 28272), (477, 28284), (511, 28356),

Gene: FireRed\_35 Start: 31886, Stop: 32743, Start Num: 136

Candidate Starts for FireRed\_35:

(Start: 136 @31886 has 124 MA's), (Start: 156 @31925 has 3 MA's), (166, 31955), (175, 31976), (191, 32012), (205, 32042), (236, 32117), (259, 32165), (262, 32168), (272, 32192), (274, 32195), (280, 32210), (346, 32381), (384, 32480), (393, 32495), (398, 32510), (420, 32516), (444, 32558), (445, 32561), (470, 32615), (511, 32693), (522, 32726),

Gene: Firecracker\_69 Start: 43815, Stop: 44855, Start Num: 95

Candidate Starts for Firecracker\_69:

(Start: 95 @43815 has 260 MA's), (130, 43890), (168, 43971), (170, 43977), (177, 43992), (213, 44073), (Start: 214 @44076 has 1 MA's), (241, 44130), (250, 44145), (286, 44241), (304, 44280), (312, 44310), (324, 44340), (326, 44343), (336, 44376), (361, 44442), (372, 44481), (374, 44490), (388, 44517), (407, 44556), (478, 44730), (501, 44781),

Gene: Firehouse51\_32 Start: 28314, Stop: 29315, Start Num: 95

Candidate Starts for Firehouse51\_32:

(Start: 95 @28314 has 260 MA's), (130, 28389), (149, 28422), (168, 28452), (177, 28473), (189, 28503), (196, 28515), (Start: 214 @28557 has 1 MA's), (223, 28581), (235, 28596), (241, 28608), (250, 28623), (286, 28719), (333, 28830), (341, 28851), (357, 28890), (361, 28902), (374, 28950), (388, 28977), (400, 29001), (407, 29016), (445, 29124), (468, 29172), (501, 29241), (515, 29271),

Gene: FiringLine\_11 Start: 6372, Stop: 7364, Start Num: 111

Candidate Starts for FiringLine\_11:

(Start: 111 @6372 has 315 MA's), (Start: 135 @6423 has 1 MA's), (Start: 138 @6426 has 2 MA's), (155, 6459), (170, 6474), (233, 6594), (235, 6600), (268, 6687), (286, 6732), (341, 6864), (361, 6903), (376, 6951), (417, 7032), (427, 7074), (458, 7161), (477, 7209), (507, 7275), (538, 7350),

Gene: First\_0011 Start: 6443, Stop: 7420, Start Num: 111

Candidate Starts for First\_0011:

(Start: 111 @6443 has 315 MA's), (Start: 138 @6497 has 2 MA's), (247, 6686), (257, 6722), (263, 6734), (286, 6791), (302, 6827), (327, 6875), (337, 6914), (366, 6986), (369, 7001), (397, 7064), (416, 7106), (428, 7154), (434, 7181), (440, 7196), (445, 7214), (447, 7217), (465, 7256), (490, 7307), (527, 7406),

Gene: Flabslab\_247 Start: 141448, Stop: 142476, Start Num: 87

Candidate Starts for Flabslab\_247:

(Start: 87 @141448 has 167 MA's), (Start: 105 @141478 has 4 MA's), (130, 141532), (168, 141595), (177, 141616), (Start: 214 @141700 has 1 MA's), (235, 141742), (241, 141754), (250, 141769), (273, 141838), (286, 141865), (309, 141919), (324, 141964), (326, 141967), (354, 142045), (361, 142066), (407, 142177), (440, 142267), (445, 142285), (480, 142357), (496, 142390),

Gene: Flare16\_11 Start: 6484, Stop: 7461, Start Num: 111

Candidate Starts for Flare16\_11:

(Start: 111 @6484 has 315 MA's), (Start: 138 @6538 has 2 MA's), (180, 6595), (247, 6727), (252, 6739), (263, 6775), (286, 6832), (302, 6868), (327, 6916), (337, 6955), (366, 7027), (369, 7042), (388, 7087), (397, 7105), (416, 7147), (428, 7195), (434, 7222), (440, 7237), (445, 7255), (447, 7258), (490, 7348),

Gene: Flathead\_31 Start: 28105, Stop: 29121, Start Num: 95

Candidate Starts for Flathead\_31:

(29, 27874), (31, 27877), (37, 27925), (74, 28060), (78, 28069), (Start: 95 @28105 has 260 MA's), (160, 28237), (168, 28258), (177, 28279), (189, 28309), (196, 28321), (Start: 214 @28363 has 1 MA's), (241, 28414), (250, 28429), (286, 28525), (333, 28636), (341, 28657), (357, 28696), (361, 28708), (374, 28756), (388, 28783), (400, 28807), (407, 28822), (445, 28930), (468, 28978), (501, 29047), (515, 29077),

Gene: Florean\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Florean\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Florinda\_31 Start: 27520, Stop: 28521, Start Num: 95

Candidate Starts for Florinda\_31:

(Start: 95 @27520 has 260 MA's), (130, 27595), (149, 27628), (168, 27658), (177, 27679), (Start: 214 @27763 has 1 MA's), (223, 27787), (235, 27802), (241, 27814), (286, 27925), (334, 28039), (341, 28057), (357, 28096), (365, 28120), (374, 28156), (388, 28183), (407, 28222), (428, 28270), (445, 28330), (468, 28378), (474, 28390), (496, 28435), (501, 28447), (515, 28477),

Gene: Fludd\_252 Start: 143267, Stop: 144295, Start Num: 87

Candidate Starts for Fludd\_252:

(Start: 87 @143267 has 167 MA's), (Start: 105 @143297 has 4 MA's), (Start: 112 @143309 has 111 MA's), (130, 143351), (168, 143414), (177, 143435), (Start: 214 @143519 has 1 MA's), (235, 143561), (241, 143573), (250, 143588), (273, 143657), (286, 143684), (309, 143738), (324, 143783), (326, 143786), (354, 143864), (361, 143885), (407, 143996), (440, 144086), (445, 144104), (480, 144176), (496, 144209),

Gene: Flux\_10 Start: 5884, Stop: 6861, Start Num: 114

Candidate Starts for Flux\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: FlyCatcher\_14 Start: 7534, Stop: 8301, Start Num: 226

Candidate Starts for FlyCatcher\_14:

(203, 7486), (Start: 226 @7534 has 1 MA's), (247, 7570), (286, 7675), (327, 7747), (334, 7774), (337, 7786), (347, 7804), (369, 7873), (397, 7936), (419, 7987), (428, 8014), (434, 8041), (447, 8077), (468, 8125), (490, 8167),

Gene: Flypotenuse\_33 Start: 31454, Stop: 32311, Start Num: 136

Candidate Starts for Flypotenuse\_33:

(Start: 136 @31454 has 124 MA's), (Start: 156 @31493 has 3 MA's), (166, 31523), (175, 31544), (191, 31580), (205, 31610), (236, 31685), (259, 31733), (262, 31736), (272, 31760), (274, 31763), (280, 31778), (346, 31949), (393, 32063), (398, 32078), (420, 32084), (444, 32126), (445, 32129), (470, 32183), (511, 32261), (522, 32294),

Gene: Forsytheast\_9 Start: 6022, Stop: 6990, Start Num: 111

Candidate Starts for Forsytheast\_9:

(Start: 111 @6022 has 315 MA's), (Start: 126 @6055 has 6 MA's), (Start: 135 @6073 has 1 MA's), (Start: 138 @6076 has 2 MA's), (266, 6343), (286, 6394), (289, 6406), (327, 6481), (349, 6544), (361, 6577), (365, 6589), (369, 6607), (374, 6625), (386, 6649), (407, 6688), (437, 6769), (445, 6793), (446, 6796), (448, 6799), (454, 6808), (495, 6895), (515, 6940), (531, 6982),

Gene: FoulBall\_67 Start: 43419, Stop: 44459, Start Num: 95

Candidate Starts for FoulBall\_67:

(Start: 95 @43419 has 260 MA's), (130, 43494), (168, 43575), (170, 43581), (177, 43596), (213, 43677), (Start: 214 @43680 has 1 MA's), (241, 43734), (250, 43749), (286, 43845), (304, 43884), (312, 43914), (324, 43944), (326, 43947), (336, 43980), (361, 44046), (372, 44085), (374, 44094), (388, 44121), (407, 44160), (478, 44334), (501, 44385),

Gene: FoxtrotP1\_251 Start: 145941, Stop: 146969, Start Num: 87

Candidate Starts for FoxtrotP1\_251:

(Start: 87 @145941 has 167 MA's), (Start: 105 @145971 has 4 MA's), (Start: 112 @145983 has 111 MA's), (130, 146025), (168, 146088), (177, 146109), (Start: 214 @146193 has 1 MA's), (235, 146235), (241, 146247), (250, 146262), (273, 146331), (286, 146358), (309, 146412), (324, 146457), (326, 146460), (354, 146538), (361, 146559), (407, 146670), (440, 146760), (445, 146778), (480, 146850), (496, 146883),

Gene: Francis47\_10 Start: 6259, Stop: 7227, Start Num: 111

Candidate Starts for Francis47\_10:

(Start: 111 @6259 has 315 MA's), (Start: 126 @6292 has 6 MA's), (Start: 135 @6310 has 1 MA's), (Start: 138 @6313 has 2 MA's), (266, 6580), (286, 6631), (289, 6643), (327, 6718), (349, 6781), (355, 6793), (361, 6814), (365, 6826), (369, 6844), (374, 6862), (407, 6925), (437, 7006), (445, 7030), (446, 7033), (448, 7036), (454, 7045), (495, 7132), (531, 7219),

Gene: Frankie\_35 Start: 28662, Stop: 29663, Start Num: 95

Candidate Starts for Frankie\_35:

(Start: 95 @28662 has 260 MA's), (130, 28737), (168, 28800), (177, 28821), (Start: 214 @28905 has 1 MA's), (223, 28929), (235, 28944), (241, 28956), (286, 29067), (334, 29181), (341, 29199), (357, 29238), (365, 29262), (374, 29298), (388, 29325), (407, 29364), (428, 29412), (445, 29472), (468, 29520), (474, 29532), (496, 29577), (501, 29589), (515, 29619),

Gene: FrayBell\_255 Start: 143398, Stop: 144426, Start Num: 87

Candidate Starts for FrayBell\_255:

(Start: 87 @143398 has 167 MA's), (Start: 105 @143428 has 4 MA's), (Start: 112 @143440 has 111 MA's), (130, 143482), (168, 143545), (177, 143566), (Start: 214 @143650 has 1 MA's), (235, 143692), (241, 143704), (250, 143719), (273, 143788), (286, 143815), (309, 143869), (324, 143914), (326, 143917), (354, 143995), (361, 144016), (407, 144127), (440, 144217), (445, 144235), (480, 144307), (496, 144340),

Gene: Fred313\_10 Start: 5440, Stop: 6180, Start Num: 224

Candidate Starts for Fred313\_10:

(Start: 224 @5440 has 17 MA's), (263, 5527), (286, 5584), (289, 5596), (291, 5599), (304, 5623), (313, 5638), (333, 5686), (336, 5692), (347, 5719), (369, 5788), (401, 5860), (419, 5902), (428, 5929), (434, 5956), (445, 5989), (447, 5992), (465, 6031), (533, 6172),

Gene: FreddyB\_31 Start: 27784, Stop: 28785, Start Num: 95

Candidate Starts for FreddyB\_31:

(Start: 95 @27784 has 260 MA's), (130, 27859), (149, 27892), (168, 27922), (177, 27943), (189, 27973), (196, 27985), (Start: 214 @28027 has 1 MA's), (223, 28051), (235, 28066), (241, 28078), (286, 28189), (334, 28303), (341, 28321), (357, 28360), (365, 28384), (374, 28420), (407, 28486), (445, 28594), (468, 28642), (474, 28654), (496, 28699), (501, 28711), (515, 28741),

Gene: Froghopper\_11 Start: 5734, Stop: 6669, Start Num: 126

Candidate Starts for Froghopper\_11:

(Start: 111 @5701 has 315 MA's), (Start: 126 @5734 has 6 MA's), (Start: 135 @5752 has 1 MA's), (Start: 138 @5755 has 2 MA's), (266, 6022), (286, 6073), (289, 6085), (327, 6160), (349, 6223), (355, 6235), (361, 6256), (365, 6268), (369, 6286), (374, 6304), (386, 6328), (407, 6367), (437, 6448), (445, 6472), (446, 6475), (448, 6478), (454, 6487), (495, 6574), (515, 6619), (531, 6661),

Gene: Fruitloop\_30 Start: 27672, Stop: 28670, Start Num: 95

Candidate Starts for Fruitloop\_30:

(Start: 95 @27672 has 260 MA's), (130, 27747), (168, 27807), (177, 27828), (Start: 214 @27912 has 1 MA's), (241, 27963), (250, 27978), (286, 28074), (327, 28161), (333, 28185), (341, 28206), (357, 28245), (361, 28257), (374, 28305), (388, 28332), (400, 28356), (407, 28371), (445, 28479), (468, 28527), (501, 28596), (515, 28626),

Gene: FudgeTart\_248 Start: 144445, Stop: 145473, Start Num: 87

Candidate Starts for FudgeTart\_248:

(Start: 87 @144445 has 167 MA's), (Start: 105 @144475 has 4 MA's), (Start: 112 @144487 has 111 MA's), (130, 144529), (168, 144592), (177, 144613), (Start: 214 @144697 has 1 MA's), (235, 144739), (241, 144751), (250, 144766), (273, 144835), (286, 144862), (309, 144916), (324, 144961), (326, 144964), (354, 145042), (361, 145063), (407, 145174), (440, 145264), (445, 145282), (480, 145354), (496, 145387),

Gene: Funsized\_52 Start: 45288, Stop: 46286, Start Num: 110

Candidate Starts for Funsized\_52:

(Start: 110 @45288 has 4 MA's), (125, 45318), (Start: 135 @45339 has 1 MA's), (Start: 138 @45342 has 2 MA's), (142, 45348), (186, 45429), (209, 45477), (212, 45486), (285, 45642), (286, 45648), (302, 45684), (320, 45711), (328, 45732), (369, 45843), (380, 45873), (413, 45939), (432, 46014), (433, 46017), (477, 46128),

Gene: Funston\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Funston\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (320, 6301), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511,



6778),

Gene: Fushigi\_10 Start: 5921, Stop: 6889, Start Num: 111

Candidate Starts for Fushigi\_10:

(Start: 111 @5921 has 315 MA's), (Start: 126 @5954 has 6 MA's), (Start: 135 @5972 has 1 MA's), (Start: 138 @5975 has 2 MA's), (266, 6242), (286, 6293), (289, 6305), (327, 6380), (357, 6464), (361, 6476), (365, 6488), (369, 6506), (374, 6524), (386, 6548), (407, 6587), (437, 6668), (445, 6692), (446, 6695), (448, 6698), (454, 6707), (495, 6794), (531, 6881),

Gene: GUmbie\_31 Start: 27537, Stop: 28538, Start Num: 95

Candidate Starts for GUmbie\_31:

(5, 26916), (7, 26994), (9, 27057), (15, 27096), (22, 27249), (26, 27285), (Start: 95 @27537 has 260 MA's), (Start: 105 @27558 has 4 MA's), (Start: 112 @27570 has 111 MA's), (130, 27612), (168, 27675), (177, 27696), (189, 27726), (Start: 214 @27780 has 1 MA's), (223, 27804), (241, 27831), (286, 27942), (334, 28056), (341, 28074), (357, 28113), (365, 28137), (374, 28173), (388, 28200), (407, 28239), (428, 28287), (445, 28347), (474, 28407), (501, 28464), (515, 28494),

Gene: Gabriel\_255 Start: 143426, Stop: 144454, Start Num: 87

Candidate Starts for Gabriel\_255:

(Start: 87 @143426 has 167 MA's), (Start: 105 @143456 has 4 MA's), (Start: 112 @143468 has 111 MA's), (130, 143510), (168, 143573), (177, 143594), (Start: 214 @143678 has 1 MA's), (235, 143720), (241, 143732), (250, 143747), (273, 143816), (286, 143843), (309, 143897), (324, 143942), (326, 143945), (354, 144023), (361, 144044), (407, 144155), (440, 144245), (445, 144263), (480, 144335), (496, 144368),

Gene: Gabriela\_28 Start: 26517, Stop: 27545, Start Num: 96

Candidate Starts for Gabriela\_28:

(Start: 96 @26517 has 29 MA's), (179, 26667), (230, 26796), (234, 26805), (286, 26937), (336, 27054), (337, 27063), (339, 27066), (347, 27081), (369, 27156), (373, 27171), (425, 27285), (432, 27312), (442, 27339), (446, 27354), (454, 27366), (486, 27432),

Gene: Gadjet\_48 Start: 41547, Stop: 42611, Start Num: 84

Candidate Starts for Gadjet\_48:

(Start: 84 @41547 has 45 MA's), (115, 41610), (157, 41691), (189, 41757), (197, 41772), (203, 41784), (215, 41811), (245, 41868), (250, 41877), (308, 42024), (315, 42039), (333, 42093), (347, 42126), (362, 42165), (366, 42177), (401, 42258), (411, 42276), (412, 42279), (468, 42435), (521, 42546), (527, 42567), (541, 42600),

Gene: Gadost\_10 Start: 5885, Stop: 6865, Start Num: 112

Candidate Starts for Gadost\_10:

(Start: 112 @5885 has 111 MA's), (Start: 114 @5888 has 13 MA's), (125, 5912), (Start: 135 @5933 has 1 MA's), (Start: 138 @5936 has 2 MA's), (263, 6185), (286, 6242), (328, 6326), (333, 6347), (345, 6374), (362, 6404), (369, 6431), (428, 6581), (466, 6692), (470, 6704), (477, 6716), (511, 6782),

Gene: Gage\_37 Start: 31848, Stop: 32705, Start Num: 136

Candidate Starts for Gage\_37:

(Start: 136 @31848 has 124 MA's), (Start: 156 @31887 has 3 MA's), (166, 31917), (175, 31938), (191, 31974), (205, 32004), (236, 32079), (259, 32127), (262, 32130), (272, 32154), (274, 32157), (280, 32172), (346, 32343), (393, 32457), (398, 32472), (420, 32478), (444, 32520), (445, 32523), (470, 32577), (511, 32655), (522, 32688),

Gene: GageAP\_11 Start: 6246, Stop: 7214, Start Num: 111

Candidate Starts for GageAP\_11:

(Start: 111 @6246 has 315 MA's), (Start: 126 @6279 has 6 MA's), (Start: 135 @6297 has 1 MA's), (Start: 138 @6300 has 2 MA's), (266, 6567), (286, 6618), (289, 6630), (327, 6705), (349, 6768), (355, 6780), (361, 6801), (365, 6813), (369, 6831), (374, 6849), (386, 6873), (407, 6912), (437, 6993), (445, 7017), (446, 7020), (448, 7023), (454, 7032), (495, 7119), (515, 7164), (531, 7206),

Gene: Gaia\_34 Start: 30705, Stop: 31589, Start Num: 91

Candidate Starts for Gaia\_34:

(Start: 91 @30705 has 31 MA's), (94, 30714), (Start: 104 @30735 has 1 MA's), (168, 30864), (172, 30870), (185, 30900), (190, 30909), (Start: 214 @30951 has 1 MA's), (249, 31020), (309, 31167), (311, 31179), (334, 31236), (344, 31257), (360, 31299), (373, 31350), (379, 31365), (380, 31368), (439, 31392), (462, 31443), (475, 31476), (505, 31527), (529, 31581),

Gene: Galactic\_33 Start: 28347, Stop: 29363, Start Num: 95

Candidate Starts for Galactic\_33:

(29, 28116), (31, 28119), (37, 28167), (74, 28302), (78, 28311), (Start: 95 @28347 has 260 MA's), (160, 28479), (168, 28500), (177, 28521), (189, 28551), (196, 28563), (Start: 214 @28605 has 1 MA's), (241, 28656), (250, 28671), (286, 28767), (333, 28878), (341, 28899), (357, 28938), (361, 28950), (374, 28998), (388, 29025), (400, 29049), (407, 29064), (445, 29172), (468, 29220), (501, 29289), (515, 29319),

Gene: Gamgam\_254 Start: 143783, Stop: 144811, Start Num: 87

Candidate Starts for Gamgam\_254:

(Start: 87 @143783 has 167 MA's), (Start: 105 @143813 has 4 MA's), (Start: 112 @143825 has 111 MA's), (130, 143867), (168, 143930), (177, 143951), (Start: 214 @144035 has 1 MA's), (235, 144077), (241, 144089), (250, 144104), (273, 144173), (286, 144200), (309, 144254), (324, 144299), (326, 144302), (354, 144380), (361, 144401), (407, 144512), (440, 144602), (445, 144620), (480, 144692), (496, 144725),

Gene: Gandalf20\_11 Start: 6816, Stop: 7784, Start Num: 111

Candidate Starts for Gandalf20\_11:

(Start: 111 @6816 has 315 MA's), (Start: 126 @6849 has 6 MA's), (Start: 135 @6867 has 1 MA's), (Start: 138 @6870 has 2 MA's), (266, 7137), (286, 7188), (289, 7200), (327, 7275), (349, 7338), (355, 7350), (361, 7371), (365, 7383), (369, 7401), (374, 7419), (386, 7443), (407, 7482), (437, 7563), (445, 7587), (446, 7590), (448, 7593), (454, 7602), (495, 7689), (515, 7734), (531, 7776),

Gene: Gandalph\_32 Start: 27860, Stop: 28861, Start Num: 95

Candidate Starts for Gandalph\_32:

(Start: 95 @27860 has 260 MA's), (Start: 105 @27881 has 4 MA's), (Start: 112 @27893 has 111 MA's), (130, 27935), (168, 27998), (177, 28019), (189, 28049), (Start: 214 @28103 has 1 MA's), (223, 28127), (241, 28154), (286, 28265), (334, 28379), (341, 28397), (357, 28436), (365, 28460), (374, 28496), (388, 28523), (407, 28562), (445, 28670), (468, 28718), (501, 28787), (515, 28817),

Gene: Ganymede\_32 Start: 26474, Stop: 27346, Start Num: 153

Candidate Starts for Ganymede\_32:

(140, 26447), (Start: 153 @26474 has 137 MA's), (Start: 161 @26486 has 1 MA's), (192, 26555), (205, 26582), (Start: 214 @26612 has 1 MA's), (218, 26621), (238, 26657), (242, 26666), (254, 26699), (259, 26717), (274, 26747), (296, 26807), (349, 26942), (363, 26969), (369, 26990), (377, 27014), (405, 27065), (448, 27167), (466, 27203), (477, 27227), (523, 27326), (529, 27335),

Gene: Gardann\_28 Start: 26305, Stop: 27276, Start Num: 51

Candidate Starts for Gardann\_28:

(Start: 51 @26305 has 22 MA's), (67, 26359), (125, 26479), (141, 26509), (147, 26524), (Start: 161 @26557 has 1 MA's), (162, 26560), (166, 26569), (175, 26590), (205, 26653), (218, 26680), (232,

26704), (245, 26734), (272, 26785), (277, 26797), (300, 26860), (306, 26875), (325, 26935), (330, 26950), (363, 27031), (368, 27049), (369, 27052), (371, 27055), (449, 27106), (470, 27151), (494, 27193), (514, 27235),

Gene: GardenSalsa\_43 Start: 32893, Stop: 33870, Start Num: 56

Candidate Starts for GardenSalsa\_43:

(Start: 56 @32893 has 7 MA's), (63, 32920), (120, 33043), (134, 33073), (162, 33130), (166, 33139), (185, 33184), (191, 33196), (207, 33226), (218, 33250), (228, 33268), (242, 33295), (257, 33334), (276, 33373), (277, 33376), (310, 33463), (317, 33478), (371, 33631), (372, 33634), (374, 33643), (379, 33655), (384, 33664), (394, 33685), (444, 33706), (479, 33781),

Gene: Gator\_33 Start: 31466, Stop: 32323, Start Num: 136

Candidate Starts for Gator\_33:

(Start: 136 @31466 has 124 MA's), (Start: 156 @31505 has 3 MA's), (166, 31535), (175, 31556), (191, 31592), (205, 31622), (236, 31697), (259, 31745), (262, 31748), (272, 31772), (274, 31775), (280, 31790), (346, 31961), (393, 32075), (398, 32090), (420, 32096), (444, 32138), (445, 32141), (470, 32195), (511, 32273), (522, 32306),

Gene: GaugeLDP\_13 Start: 7785, Stop: 8762, Start Num: 111

Candidate Starts for GaugeLDP\_13:

(Start: 111 @7785 has 315 MA's), (125, 7815), (Start: 135 @7836 has 1 MA's), (Start: 138 @7839 has 2 MA's), (155, 7872), (209, 7974), (218, 7998), (257, 8076), (263, 8088), (286, 8145), (289, 8157), (343, 8274), (369, 8334), (408, 8418), (428, 8481), (477, 8616), (511, 8682), (530, 8736),

Gene: Gemini\_38 Start: 32365, Stop: 33222, Start Num: 136

Candidate Starts for Gemini\_38:

(Start: 136 @32365 has 124 MA's), (Start: 156 @32404 has 3 MA's), (166, 32434), (175, 32455), (191, 32491), (205, 32521), (236, 32596), (259, 32644), (262, 32647), (272, 32671), (274, 32674), (280, 32689), (346, 32860), (393, 32974), (398, 32989), (420, 32995), (444, 33037), (445, 33040), (470, 33094), (511, 33172), (522, 33205),

Gene: Gemma\_12 Start: 6033, Stop: 6998, Start Num: 101

Candidate Starts for Gemma\_12:

(Start: 101 @6033 has 93 MA's), (Start: 138 @6099 has 2 MA's), (173, 6153), (208, 6231), (263, 6354), (286, 6411), (327, 6483), (337, 6522), (347, 6540), (369, 6609), (419, 6726), (428, 6753), (447, 6816), (490, 6906), (493, 6912),

Gene: GenevaB15\_43 Start: 32938, Stop: 33918, Start Num: 56

Candidate Starts for GenevaB15\_43:

(Start: 56 @32938 has 7 MA's), (63, 32965), (107, 33061), (120, 33088), (134, 33118), (162, 33175), (166, 33184), (218, 33295), (276, 33418), (277, 33421), (310, 33511), (317, 33526), (371, 33679), (372, 33682), (374, 33691), (379, 33703), (384, 33712), (394, 33733), (444, 33754), (479, 33829),

Gene: Gengar\_30 Start: 27074, Stop: 27946, Start Num: 153

Candidate Starts for Gengar\_30:

(Start: 153 @27074 has 137 MA's), (Start: 161 @27086 has 1 MA's), (164, 27092), (175, 27119), (188, 27149), (192, 27155), (Start: 214 @27209 has 1 MA's), (218, 27218), (222, 27230), (242, 27263), (254, 27296), (274, 27344), (363, 27566), (368, 27584), (369, 27587), (394, 27647), (405, 27665), (421, 27692), (448, 27764), (460, 27779), (466, 27800), (467, 27803), (477, 27824), (521, 27917), (523, 27926), (529, 27935),

Gene: Georgie2\_12 Start: 6373, Stop: 7365, Start Num: 111

Candidate Starts for Georgie2\_12:

(Start: 111 @6373 has 315 MA's), (Start: 135 @6424 has 1 MA's), (Start: 138 @6427 has 2 MA's), (155, 6460), (170, 6475), (233, 6595), (235, 6601), (268, 6688), (286, 6733), (341, 6865), (361, 6904), (376, 6952), (417, 7033), (427, 7075), (458, 7162), (477, 7210), (507, 7276), (538, 7351),

Gene: Geraldini\_31 Start: 26471, Stop: 27343, Start Num: 153

Candidate Starts for Geraldini\_31:

(140, 26444), (Start: 153 @26471 has 137 MA's), (Start: 161 @26483 has 1 MA's), (192, 26552), (205, 26579), (Start: 214 @26609 has 1 MA's), (218, 26618), (238, 26654), (242, 26663), (254, 26696), (259, 26714), (274, 26744), (296, 26804), (349, 26939), (363, 26966), (369, 26987), (377, 27011), (405, 27062), (448, 27164), (466, 27200), (477, 27224), (523, 27323), (529, 27332),

Gene: Geralt\_31 Start: 27520, Stop: 28521, Start Num: 95

Candidate Starts for Geralt\_31:

(Start: 56 @27421 has 7 MA's), (Start: 95 @27520 has 260 MA's), (Start: 105 @27541 has 4 MA's), (Start: 112 @27553 has 111 MA's), (130, 27595), (168, 27658), (177, 27679), (Start: 214 @27763 has 1 MA's), (223, 27787), (235, 27802), (241, 27814), (286, 27925), (334, 28039), (341, 28057), (357, 28096), (365, 28120), (374, 28156), (388, 28183), (407, 28222), (428, 28270), (445, 28330), (468, 28378), (474, 28390), (496, 28435), (501, 28447),

Gene: Gervas\_47 Start: 41514, Stop: 42578, Start Num: 84

Candidate Starts for Gervas\_47:

(Start: 84 @41514 has 45 MA's), (115, 41577), (157, 41658), (189, 41724), (197, 41739), (203, 41751), (215, 41778), (245, 41835), (250, 41844), (308, 41991), (315, 42006), (333, 42060), (347, 42093), (362, 42132), (366, 42144), (401, 42225), (411, 42243), (412, 42246), (428, 42291), (468, 42402), (521, 42513), (527, 42534), (541, 42567),

Gene: Ghost\_252 Start: 144407, Stop: 145435, Start Num: 87

Candidate Starts for Ghost\_252:

(Start: 87 @144407 has 167 MA's), (Start: 105 @144437 has 4 MA's), (Start: 112 @144449 has 111 MA's), (130, 144491), (168, 144554), (177, 144575), (Start: 214 @144659 has 1 MA's), (235, 144701), (241, 144713), (250, 144728), (273, 144797), (286, 144824), (309, 144878), (324, 144923), (326, 144926), (354, 145004), (361, 145025), (407, 145136), (440, 145226), (445, 145244), (480, 145316), (496, 145349),

Gene: GigiOuiOui\_31 Start: 27649, Stop: 28650, Start Num: 95

Candidate Starts for GigiOuiOui\_31:

(5, 27028), (7, 27106), (9, 27169), (15, 27208), (22, 27361), (26, 27397), (Start: 95 @27649 has 260 MA's), (Start: 105 @27670 has 4 MA's), (Start: 112 @27682 has 111 MA's), (130, 27724), (168, 27787), (177, 27808), (189, 27838), (Start: 214 @27892 has 1 MA's), (223, 27916), (241, 27943), (286, 28054), (334, 28168), (341, 28186), (357, 28225), (365, 28249), (374, 28285), (388, 28312), (407, 28351), (428, 28399), (445, 28459), (474, 28519), (501, 28576), (515, 28606),

Gene: GingkoMaracino\_12 Start: 5848, Stop: 6813, Start Num: 101

Candidate Starts for GingkoMaracino\_12:

(Start: 101 @5848 has 93 MA's), (106, 5860), (Start: 126 @5893 has 6 MA's), (Start: 138 @5914 has 2 MA's), (247, 6124), (286, 6229), (333, 6325), (337, 6340), (347, 6358), (364, 6406), (365, 6409), (366, 6412), (369, 6427), (404, 6511), (428, 6568), (447, 6631), (465, 6670), (527, 6802),

Gene: Girafales\_32 Start: 27328, Stop: 28329, Start Num: 95

Candidate Starts for Girafales\_32:

(Start: 95 @27328 has 260 MA's), (130, 27403), (149, 27436), (168, 27466), (177, 27487), (Start: 214 @27571 has 1 MA's), (223, 27595), (235, 27610), (241, 27622), (286, 27733), (334, 27847), (341, 27865), (357, 27904), (365, 27928), (374, 27964), (388, 27991), (407, 28030), (428, 28078), (445,

28138), (468, 28186), (474, 28198), (496, 28243), (501, 28255), (515, 28285),

Gene: Giroux\_10 Start: 5739, Stop: 6479, Start Num: 224

Candidate Starts for Giroux\_10:

(Start: 152 @5622 has 16 MA's), (Start: 224 @5739 has 17 MA's), (263, 5826), (286, 5883), (289, 5895), (291, 5898), (304, 5922), (313, 5937), (321, 5955), (333, 5985), (336, 5991), (337, 6000), (347, 6018), (365, 6069), (369, 6087), (401, 6159), (419, 6201), (428, 6228), (434, 6255), (445, 6288), (447, 6291), (465, 6330), (533, 6471),

Gene: Girr\_33 Start: 28455, Stop: 29525, Start Num: 95

Candidate Starts for Girr\_33:

(70, 28404), (Start: 95 @28455 has 260 MA's), (Start: 105 @28476 has 4 MA's), (Start: 109 @28482 has 1 MA's), (121, 28509), (Start: 126 @28518 has 6 MA's), (157, 28578), (173, 28605), (203, 28671), (Start: 231 @28725 has 2 MA's), (250, 28767), (266, 28818), (298, 28902), (308, 28932), (318, 28965), (339, 29040), (348, 29061), (401, 29190), (428, 29262), (464, 29358), (468, 29370), (501, 29439), (525, 29496), (529, 29505),

Gene: Gizmo\_258 Start: 147272, Stop: 148300, Start Num: 87

Candidate Starts for Gizmo\_258:

(Start: 87 @147272 has 167 MA's), (Start: 105 @147302 has 4 MA's), (Start: 112 @147314 has 111 MA's), (130, 147356), (168, 147419), (177, 147440), (Start: 214 @147524 has 1 MA's), (235, 147566), (241, 147578), (250, 147593), (273, 147662), (286, 147689), (309, 147743), (324, 147788), (326, 147791), (354, 147869), (361, 147890), (407, 148001), (440, 148091), (445, 148109), (480, 148181), (496, 148214),

Gene: Glaske16\_39 Start: 31793, Stop: 32764, Start Num: 58

Candidate Starts for Glaske16\_39:

(Start: 58 @31793 has 13 MA's), (63, 31817), (69, 31832), (134, 31970), (150, 31997), (158, 32015), (162, 32027), (166, 32036), (185, 32081), (191, 32093), (206, 32120), (218, 32147), (222, 32159), (246, 32204), (257, 32231), (272, 32261), (276, 32270), (277, 32273), (310, 32360), (317, 32375), (371, 32528), (372, 32531), (441, 32591), (444, 32603), (448, 32612), (466, 32648), (471, 32663), (494, 32702), (509, 32735),

Gene: GlenHope\_48 Start: 41527, Stop: 42591, Start Num: 84

Candidate Starts for GlenHope\_48:

(Start: 84 @41527 has 45 MA's), (115, 41590), (157, 41671), (189, 41737), (197, 41752), (203, 41764), (215, 41791), (245, 41848), (250, 41857), (308, 42004), (315, 42019), (333, 42073), (347, 42106), (362, 42145), (366, 42157), (401, 42238), (411, 42256), (412, 42259), (468, 42415), (521, 42526), (527, 42547), (541, 42580),

Gene: Glexan\_33 Start: 31454, Stop: 32311, Start Num: 136

Candidate Starts for Glexan\_33:

(Start: 136 @31454 has 124 MA's), (Start: 156 @31493 has 3 MA's), (166, 31523), (175, 31544), (191, 31580), (205, 31610), (236, 31685), (259, 31733), (262, 31736), (272, 31760), (274, 31763), (280, 31778), (346, 31949), (393, 32063), (398, 32078), (420, 32084), (444, 32126), (445, 32129), (470, 32183), (511, 32261), (522, 32294),

Gene: Goku\_35 Start: 31570, Stop: 32427, Start Num: 136

Candidate Starts for Goku\_35:

(Start: 136 @31570 has 124 MA's), (Start: 156 @31609 has 3 MA's), (166, 31639), (175, 31660), (191, 31696), (205, 31726), (236, 31801), (259, 31849), (262, 31852), (272, 31876), (274, 31879), (280, 31894), (346, 32065), (393, 32179), (398, 32194), (420, 32200), (444, 32242), (445, 32245), (470, 32299), (511, 32377), (522, 32410),

Gene: GoldenSpark\_37 Start: 31848, Stop: 32705, Start Num: 136

Candidate Starts for GoldenSpark\_37:

(Start: 136 @31848 has 124 MA's), (Start: 156 @31887 has 3 MA's), (166, 31917), (175, 31938), (191, 31974), (205, 32004), (236, 32079), (259, 32127), (262, 32130), (272, 32154), (274, 32157), (280, 32172), (346, 32343), (393, 32457), (398, 32472), (420, 32478), (444, 32520), (445, 32523), (470, 32577), (511, 32655), (522, 32688),

Gene: Goldilocks\_36 Start: 31268, Stop: 32125, Start Num: 136

Candidate Starts for Goldilocks\_36:

(Start: 136 @31268 has 124 MA's), (Start: 156 @31307 has 3 MA's), (166, 31337), (175, 31358), (191, 31394), (205, 31424), (236, 31499), (259, 31547), (262, 31550), (272, 31574), (274, 31577), (280, 31592), (346, 31763), (393, 31877), (398, 31892), (420, 31898), (444, 31940), (445, 31943), (470, 31997), (511, 32075), (522, 32108),

Gene: Gompeii16\_10 Start: 6219, Stop: 7187, Start Num: 111

Candidate Starts for Gompeii16\_10:

(Start: 111 @6219 has 315 MA's), (Start: 126 @6252 has 6 MA's), (Start: 135 @6270 has 1 MA's), (Start: 138 @6273 has 2 MA's), (266, 6540), (286, 6591), (289, 6603), (327, 6678), (349, 6741), (361, 6774), (365, 6786), (369, 6804), (374, 6822), (386, 6846), (407, 6885), (437, 6966), (445, 6990), (446, 6993), (448, 6996), (454, 7005), (495, 7092), (531, 7179),

Gene: Gonephishing\_50 Start: 40364, Stop: 41368, Start Num: 49

Candidate Starts for Gonephishing\_50:

(Start: 49 @40364 has 10 MA's), (64, 40418), (Start: 88 @40469 has 3 MA's), (Start: 126 @40541 has 6 MA's), (166, 40616), (218, 40730), (222, 40742), (242, 40775), (272, 40844), (277, 40856), (282, 40868), (284, 40871), (299, 40916), (306, 40934), (363, 41096), (367, 41111), (370, 41120), (521, 41321),

Gene: GooberAzure\_37 Start: 31848, Stop: 32705, Start Num: 136

Candidate Starts for GooberAzure\_37:

(Start: 136 @31848 has 124 MA's), (Start: 156 @31887 has 3 MA's), (166, 31917), (175, 31938), (191, 31974), (205, 32004), (236, 32079), (259, 32127), (262, 32130), (272, 32154), (274, 32157), (280, 32172), (346, 32343), (393, 32457), (398, 32472), (420, 32478), (444, 32520), (445, 32523), (470, 32577), (511, 32655), (522, 32688),

Gene: Goose\_10 Start: 5711, Stop: 6685, Start Num: 111

Candidate Starts for Goose\_10:

(89, 5672), (Start: 111 @5711 has 315 MA's), (Start: 138 @5765 has 2 MA's), (216, 5918), (286, 6080), (291, 6095), (327, 6164), (333, 6188), (336, 6194), (337, 6203), (365, 6272), (369, 6290), (388, 6335), (397, 6353), (428, 6431), (434, 6458), (440, 6473), (447, 6494), (490, 6584), (508, 6626), (534, 6677),

Gene: Gorge\_31 Start: 27751, Stop: 28752, Start Num: 95

Candidate Starts for Gorge\_31:

(Start: 95 @27751 has 260 MA's), (130, 27826), (149, 27859), (168, 27889), (177, 27910), (189, 27940), (196, 27952), (Start: 214 @27994 has 1 MA's), (223, 28018), (235, 28033), (241, 28045), (286, 28156), (334, 28270), (341, 28288), (357, 28327), (365, 28351), (374, 28387), (407, 28453), (445, 28561), (468, 28609), (474, 28621), (496, 28666), (501, 28678), (515, 28708),

Gene: Graduation\_12 Start: 6781, Stop: 7749, Start Num: 111

Candidate Starts for Graduation\_12:

(Start: 111 @6781 has 315 MA's), (Start: 126 @6814 has 6 MA's), (Start: 135 @6832 has 1 MA's), (Start: 138 @6835 has 2 MA's), (266, 7102), (286, 7153), (289, 7165), (327, 7240), (349, 7303), (361, 7336), (365, 7348), (369, 7366), (374, 7384), (407, 7447), (437, 7528), (445, 7552), (446, 7555), (448, 7558), (454, 7567), (495, 7654), (515, 7699), (531, 7741),

Gene: Grasshills\_259 Start: 146393, Stop: 147421, Start Num: 87

Candidate Starts for Grasshills\_259:

(Start: 87 @146393 has 167 MA's), (Start: 105 @146423 has 4 MA's), (Start: 112 @146435 has 111 MA's), (130, 146477), (168, 146540), (177, 146561), (Start: 214 @146645 has 1 MA's), (235, 146687), (241, 146699), (250, 146714), (273, 146783), (286, 146810), (309, 146864), (324, 146909), (326, 146912), (354, 146990), (361, 147011), (407, 147122), (440, 147212), (445, 147230), (480, 147302), (496, 147335),

Gene: GrecoEtereo\_11 Start: 6325, Stop: 7287, Start Num: 111

Candidate Starts for GrecoEtereo\_11:

(Start: 111 @6325 has 315 MA's), (Start: 126 @6358 has 6 MA's), (Start: 135 @6376 has 1 MA's), (Start: 138 @6379 has 2 MA's), (241, 6580), (266, 6646), (286, 6691), (328, 6781), (357, 6862), (361, 6874), (365, 6886), (369, 6904), (374, 6922), (386, 6946), (407, 6985), (437, 7066), (445, 7090), (446, 7093), (448, 7096), (454, 7105), (495, 7192), (515, 7237), (531, 7279),

Gene: Greg\_11 Start: 5830, Stop: 6798, Start Num: 111

Candidate Starts for Greg\_11:

(Start: 111 @5830 has 315 MA's), (Start: 126 @5863 has 6 MA's), (Start: 135 @5881 has 1 MA's), (Start: 138 @5884 has 2 MA's), (266, 6151), (286, 6202), (289, 6214), (327, 6289), (349, 6352), (355, 6364), (361, 6385), (365, 6397), (369, 6415), (374, 6433), (386, 6457), (407, 6496), (437, 6577), (445, 6601), (446, 6604), (448, 6607), (454, 6616), (495, 6703), (531, 6790),

Gene: Grif\_12 Start: 6045, Stop: 7010, Start Num: 101

Candidate Starts for Grif\_12:

(Start: 101 @6045 has 93 MA's), (Start: 126 @6090 has 6 MA's), (Start: 138 @6111 has 2 MA's), (201, 6231), (263, 6369), (286, 6426), (291, 6441), (333, 6522), (337, 6537), (347, 6555), (365, 6606), (369, 6624), (388, 6669), (428, 6765), (447, 6828), (465, 6867), (490, 6918),

Gene: Groupthink\_13 Start: 6033, Stop: 6998, Start Num: 101

Candidate Starts for Groupthink\_13:

(Start: 101 @6033 has 93 MA's), (Start: 138 @6099 has 2 MA's), (173, 6153), (208, 6231), (263, 6354), (286, 6411), (327, 6483), (337, 6522), (347, 6540), (369, 6609), (419, 6726), (428, 6753), (447, 6816), (490, 6906), (493, 6912),

Gene: Grub\_12 Start: 5954, Stop: 6919, Start Num: 101

Candidate Starts for Grub\_12:

(Start: 101 @5954 has 93 MA's), (Start: 126 @5999 has 6 MA's), (Start: 138 @6020 has 2 MA's), (201, 6140), (263, 6278), (286, 6335), (291, 6350), (333, 6431), (337, 6446), (347, 6464), (365, 6515), (369, 6533), (388, 6578), (428, 6674), (447, 6737), (465, 6776), (490, 6827),

Gene: Grum1\_12 Start: 5955, Stop: 6920, Start Num: 101

Candidate Starts for Grum1\_12:

(Start: 101 @5955 has 93 MA's), (Start: 126 @6000 has 6 MA's), (Start: 138 @6021 has 2 MA's), (201, 6141), (263, 6279), (286, 6336), (291, 6351), (333, 6432), (337, 6447), (347, 6465), (365, 6516), (369, 6534), (388, 6579), (428, 6675), (447, 6738), (465, 6777), (490, 6828),

Gene: Grungle\_234 Start: 141672, Stop: 142700, Start Num: 87

Candidate Starts for Grungle\_234:

(Start: 87 @141672 has 167 MA's), (Start: 105 @141702 has 4 MA's), (Start: 112 @141714 has 111 MA's), (130, 141756), (168, 141819), (177, 141840), (Start: 214 @141924 has 1 MA's), (235, 141966), (241, 141978), (250, 141993), (273, 142062), (286, 142089), (309, 142143), (324, 142188), (326, 142191), (354, 142269), (361, 142290), (407, 142401), (440, 142491), (445, 142509), (480, 142581), (496, 142614),

Gene: GtownJaz\_12 Start: 5963, Stop: 6928, Start Num: 101

Candidate Starts for GtownJaz\_12:

(Start: 101 @5963 has 93 MA's), (Start: 126 @6008 has 6 MA's), (Start: 138 @6029 has 2 MA's), (201, 6149), (263, 6287), (286, 6344), (291, 6359), (333, 6440), (337, 6455), (347, 6473), (365, 6524), (369, 6542), (388, 6587), (428, 6683), (447, 6746), (465, 6785), (490, 6836),

Gene: Guanica15\_31 Start: 25719, Stop: 26588, Start Num: 153

Candidate Starts for Guanica15\_31:

(129, 25671), (140, 25692), (Start: 153 @25719 has 137 MA's), (Start: 161 @25731 has 1 MA's), (173, 25758), (175, 25764), (188, 25794), (192, 25800), (218, 25863), (238, 25899), (242, 25908), (254, 25941), (274, 25989), (299, 26058), (363, 26211), (369, 26232), (377, 26256), (385, 26274), (396, 26295), (421, 26334), (448, 26409), (466, 26445), (509, 26538), (523, 26568), (529, 26577),

Gene: Guillsminger\_30 Start: 27046, Stop: 27918, Start Num: 153

Candidate Starts for Guillsminger\_30:

(Start: 153 @27046 has 137 MA's), (Start: 161 @27058 has 1 MA's), (164, 27064), (175, 27091), (188, 27121), (192, 27127), (Start: 214 @27181 has 1 MA's), (218, 27190), (222, 27202), (242, 27235), (254, 27268), (274, 27316), (299, 27385), (363, 27538), (368, 27556), (369, 27559), (394, 27619), (405, 27637), (421, 27664), (448, 27736), (466, 27772), (467, 27775), (477, 27796), (503, 27853), (521, 27889), (523, 27898), (529, 27907),

Gene: Guppsters\_33 Start: 28042, Stop: 29043, Start Num: 95

Candidate Starts for Guppsters\_33:

(Start: 95 @28042 has 260 MA's), (130, 28117), (149, 28150), (168, 28180), (177, 28201), (Start: 214 @28285 has 1 MA's), (241, 28336), (250, 28351), (286, 28447), (333, 28558), (341, 28579), (357, 28618), (361, 28630), (374, 28678), (388, 28705), (400, 28729), (407, 28744), (445, 28852), (468, 28900), (501, 28969), (515, 28999),

Gene: GuuelaD\_28 Start: 26337, Stop: 27308, Start Num: 51

Candidate Starts for GuuelaD\_28:

(Start: 51 @26337 has 22 MA's), (67, 26391), (125, 26511), (141, 26541), (147, 26556), (Start: 161 @26589 has 1 MA's), (162, 26592), (166, 26601), (175, 26622), (205, 26685), (218, 26712), (232, 26736), (245, 26766), (272, 26817), (277, 26829), (300, 26892), (306, 26907), (325, 26967), (330, 26982), (363, 27063), (368, 27081), (369, 27084), (371, 27087), (449, 27138), (470, 27183), (494, 27225), (514, 27267),

Gene: Guwapp\_248 Start: 143241, Stop: 144269, Start Num: 87

Candidate Starts for Guwapp\_248:

(Start: 87 @143241 has 167 MA's), (Start: 105 @143271 has 4 MA's), (Start: 112 @143283 has 111 MA's), (130, 143325), (168, 143388), (177, 143409), (Start: 214 @143493 has 1 MA's), (235, 143535), (241, 143547), (250, 143562), (273, 143631), (286, 143658), (309, 143712), (324, 143757), (326, 143760), (354, 143838), (361, 143859), (407, 143970), (440, 144060), (445, 144078), (480, 144150), (496, 144183),

Gene: Gwendoluna\_11 Start: 6701, Stop: 7669, Start Num: 111

Candidate Starts for Gwendoluna\_11:



(Start: 111 @6701 has 315 MA's), (Start: 126 @6734 has 6 MA's), (Start: 135 @6752 has 1 MA's), (Start: 138 @6755 has 2 MA's), (266, 7022), (286, 7073), (289, 7085), (327, 7160), (349, 7223), (355, 7235), (361, 7256), (365, 7268), (369, 7286), (374, 7304), (386, 7328), (407, 7367), (437, 7448), (445, 7472), (446, 7475), (448, 7478), (454, 7487), (495, 7574),

Gene: Gyzlar\_11 Start: 6460, Stop: 7428, Start Num: 111

Candidate Starts for Gyzlar\_11:

(Start: 111 @6460 has 315 MA's), (Start: 126 @6493 has 6 MA's), (Start: 135 @6511 has 1 MA's), (Start: 138 @6514 has 2 MA's), (266, 6781), (286, 6832), (289, 6844), (327, 6919), (349, 6982), (355, 6994), (361, 7015), (365, 7027), (369, 7045), (374, 7063), (386, 7087), (407, 7126), (437, 7207), (445, 7231), (446, 7234), (448, 7237), (454, 7246), (495, 7333), (515, 7378), (531, 7420),

Gene: HINdeR\_10 Start: 7162, Stop: 8142, Start Num: 111

Candidate Starts for HINdeR\_10:

(Start: 111 @7162 has 315 MA's), (Start: 138 @7216 has 2 MA's), (173, 7270), (186, 7303), (203, 7339), (247, 7438), (286, 7543), (327, 7615), (334, 7642), (347, 7672), (369, 7741), (397, 7804), (428, 7882), (434, 7909), (440, 7924), (447, 7945), (468, 7993), (490, 8035), (518, 8101),

Gene: Hades\_32 Start: 27853, Stop: 28854, Start Num: 95

Candidate Starts for Hades\_32:

(4, 27232), (6, 27310), (8, 27373), (14, 27412), (18, 27544), (22, 27565), (26, 27601), (Start: 56 @27754 has 7 MA's), (83, 27826), (Start: 95 @27853 has 260 MA's), (130, 27928), (149, 27961), (168, 27991), (177, 28012), (Start: 214 @28096 has 1 MA's), (223, 28120), (235, 28135), (241, 28147), (286, 28258), (334, 28372), (341, 28390), (357, 28429), (365, 28453), (374, 28489), (388, 28516), (407, 28555), (428, 28603), (445, 28663), (474, 28723), (501, 28780), (515, 28810),

Gene: Hafay\_28 Start: 26336, Stop: 27307, Start Num: 51

Candidate Starts for Hafay\_28:

(Start: 51 @26336 has 22 MA's), (67, 26390), (125, 26510), (141, 26540), (147, 26555), (Start: 161 @26588 has 1 MA's), (162, 26591), (166, 26600), (175, 26621), (205, 26684), (218, 26711), (232, 26735), (245, 26765), (272, 26816), (277, 26828), (300, 26891), (306, 26906), (325, 26966), (330, 26981), (363, 27062), (368, 27080), (369, 27083), (371, 27086), (449, 27137), (470, 27182), (494, 27224), (514, 27266),

Gene: Halena\_26 Start: 25558, Stop: 26589, Start Num: 96

Candidate Starts for Halena\_26:

(Start: 96 @25558 has 29 MA's), (181, 25711), (182, 25714), (194, 25738), (198, 25750), (206, 25768), (211, 25786), (218, 25804), (219, 25810), (223, 25819), (237, 25849), (263, 25921), (286, 25978), (304, 26017), (336, 26095), (337, 26104), (339, 26107), (347, 26122), (364, 26176), (369, 26197), (373, 26212), (414, 26296), (425, 26326), (446, 26395), (454, 26407), (465, 26431), (471, 26449), (473, 26452), (480, 26464), (482, 26467), (496, 26497), (501, 26509),

Gene: Halfpint\_46 Start: 41352, Stop: 42416, Start Num: 84

Candidate Starts for Halfpint\_46:

(Start: 84 @41352 has 45 MA's), (115, 41415), (157, 41496), (189, 41562), (197, 41577), (203, 41589), (215, 41616), (245, 41673), (250, 41682), (308, 41829), (315, 41844), (333, 41898), (347, 41931), (362, 41970), (366, 41982), (401, 42063), (411, 42081), (412, 42084), (428, 42129), (468, 42240), (521, 42351), (527, 42372), (541, 42405),

Gene: Halldule\_244 Start: 142854, Stop: 143882, Start Num: 87

Candidate Starts for Halldule\_244:

(Start: 87 @142854 has 167 MA's), (Start: 105 @142884 has 4 MA's), (Start: 112 @142896 has 111 MA's), (130, 142938), (168, 143001), (177, 143022), (Start: 214 @143106 has 1 MA's), (235, 143148),

(241, 143160), (250, 143175), (273, 143244), (286, 143271), (309, 143325), (324, 143370), (326, 143373), (354, 143451), (361, 143472), (407, 143583), (440, 143673), (445, 143691), (480, 143763), (496, 143796),

Gene: Halley\_49 Start: 42575, Stop: 43447, Start Num: 91

Candidate Starts for Halley\_49:

(Start: 91 @42575 has 31 MA's), (Start: 104 @42602 has 1 MA's), (132, 42662), (158, 42710), (190, 42776), (202, 42797), (Start: 214 @42818 has 1 MA's), (243, 42872), (279, 42953), (379, 43232), (380, 43235), (439, 43259), (452, 43295), (462, 43310), (466, 43322), (475, 43343),

Gene: HamSlice\_9 Start: 5885, Stop: 6862, Start Num: 114

Candidate Starts for HamSlice\_9:

(Start: 112 @5882 has 111 MA's), (Start: 114 @5885 has 13 MA's), (125, 5909), (Start: 135 @5930 has 1 MA's), (Start: 138 @5933 has 2 MA's), (263, 6182), (286, 6239), (328, 6323), (333, 6344), (345, 6371), (362, 6401), (369, 6428), (428, 6578), (466, 6689), (470, 6701), (477, 6713), (511, 6779),

Gene: Hami1\_11 Start: 6230, Stop: 7198, Start Num: 111

Candidate Starts for Hami1\_11:

(Start: 111 @6230 has 315 MA's), (Start: 126 @6263 has 6 MA's), (Start: 135 @6281 has 1 MA's), (Start: 138 @6284 has 2 MA's), (266, 6551), (286, 6602), (289, 6614), (327, 6689), (349, 6752), (355, 6764), (361, 6785), (365, 6797), (369, 6815), (374, 6833), (407, 6896), (437, 6977), (445, 7001), (446, 7004), (448, 7007), (454, 7016), (459, 7019), (515, 7148), (531, 7190),

Gene: Hammy\_30 Start: 26882, Stop: 27622, Start Num: 153

Candidate Starts for Hammy\_30:

(28, 26537), (100, 26783), (Start: 110 @26804 has 4 MA's), (129, 26837), (140, 26858), (Start: 153 @26882 has 137 MA's), (Start: 161 @26894 has 1 MA's), (173, 26921), (175, 26927), (Start: 214 @27011 has 1 MA's), (218, 27020), (222, 27032), (242, 27065), (254, 27098), (296, 27206), (306, 27233), (349, 27341), (363, 27368), (369, 27389), (377, 27413), (442, 27425), (444, 27434), (470, 27491), (477, 27503), (523, 27602),

Gene: Hamulus\_32 Start: 28436, Stop: 29479, Start Num: 109

Candidate Starts for Hamulus\_32:

(70, 28358), (Start: 95 @28409 has 260 MA's), (Start: 105 @28430 has 4 MA's), (Start: 109 @28436 has 1 MA's), (121, 28463), (Start: 126 @28472 has 6 MA's), (157, 28532), (173, 28559), (203, 28625), (Start: 231 @28679 has 2 MA's), (250, 28721), (266, 28772), (298, 28856), (308, 28886), (318, 28919), (339, 28994), (348, 29015), (401, 29144), (428, 29216), (464, 29312), (468, 29324), (501, 29393), (525, 29450), (529, 29459),

Gene: HanKaySha\_36 Start: 31600, Stop: 32457, Start Num: 136

Candidate Starts for HanKaySha\_36:

(Start: 136 @31600 has 124 MA's), (Start: 156 @31639 has 3 MA's), (166, 31669), (175, 31690), (191, 31726), (205, 31756), (236, 31831), (259, 31879), (262, 31882), (272, 31906), (274, 31909), (280, 31924), (346, 32095), (393, 32209), (398, 32224), (420, 32230), (444, 32272), (445, 32275), (470, 32329), (511, 32407), (522, 32440),

Gene: HanShotFirst\_10 Start: 5623, Stop: 6591, Start Num: 111

Candidate Starts for HanShotFirst\_10:

(Start: 111 @5623 has 315 MA's), (Start: 126 @5656 has 6 MA's), (Start: 135 @5674 has 1 MA's), (Start: 138 @5677 has 2 MA's), (266, 5944), (286, 5995), (289, 6007), (327, 6082), (361, 6178), (365, 6190), (369, 6208), (374, 6226), (386, 6250), (407, 6289), (437, 6370), (445, 6394), (446, 6397), (448, 6400), (454, 6409), (495, 6496), (515, 6541), (531, 6583),

Gene: Hannaconda\_45 Start: 37054, Stop: 37926, Start Num: 91

Candidate Starts for Hannaconda\_45:

(38, 36883), (Start: 91 @37054 has 31 MA's), (Start: 104 @37081 has 1 MA's), (132, 37141), (163, 37198), (168, 37210), (190, 37255), (202, 37276), (Start: 214 @37297 has 1 MA's), (243, 37351), (279, 37432), (329, 37573), (379, 37711), (380, 37714), (439, 37738), (452, 37774), (462, 37789), (466, 37801), (475, 37822),

Gene: Happiness\_10 Start: 5886, Stop: 6866, Start Num: 112

Candidate Starts for Happiness\_10:

(Start: 112 @5886 has 111 MA's), (Start: 114 @5889 has 13 MA's), (125, 5913), (Start: 135 @5934 has 1 MA's), (Start: 138 @5937 has 2 MA's), (263, 6186), (286, 6243), (328, 6327), (333, 6348), (345, 6375), (362, 6405), (369, 6432), (428, 6582), (466, 6693), (470, 6705), (477, 6717), (511, 6783),

Gene: Harella\_34 Start: 31970, Stop: 32827, Start Num: 136

Candidate Starts for Harella\_34:

(Start: 136 @31970 has 124 MA's), (Start: 156 @32009 has 3 MA's), (166, 32039), (175, 32060), (191, 32096), (205, 32126), (236, 32201), (259, 32249), (262, 32252), (272, 32276), (274, 32279), (280, 32294), (346, 32465), (393, 32579), (398, 32594), (420, 32600), (444, 32642), (445, 32645), (470, 32699), (511, 32777), (522, 32810),

Gene: Harley\_31 Start: 27457, Stop: 28458, Start Num: 95

Candidate Starts for Harley\_31:

(Start: 56 @27358 has 7 MA's), (Start: 95 @27457 has 260 MA's), (Start: 105 @27478 has 4 MA's), (Start: 112 @27490 has 111 MA's), (130, 27532), (149, 27565), (168, 27595), (177, 27616), (Start: 214 @27700 has 1 MA's), (223, 27724), (235, 27739), (241, 27751), (286, 27862), (334, 27976), (341, 27994), (357, 28033), (365, 28057), (374, 28093), (388, 28120), (407, 28159), (428, 28207), (445, 28267), (468, 28315), (474, 28327), (496, 28372), (501, 28384), (515, 28414),

Gene: HarryHoudini\_13 Start: 6940, Stop: 7917, Start Num: 111

Candidate Starts for HarryHoudini\_13:

(Start: 111 @6940 has 315 MA's), (Start: 138 @6994 has 2 MA's), (180, 7051), (247, 7183), (263, 7231), (286, 7288), (302, 7324), (327, 7372), (337, 7411), (366, 7483), (369, 7498), (388, 7543), (397, 7561), (416, 7603), (428, 7651), (434, 7678), (440, 7693), (445, 7711), (447, 7714), (490, 7804),

Gene: HarryOW\_11 Start: 6325, Stop: 7287, Start Num: 111

Candidate Starts for HarryOW\_11:

(Start: 111 @6325 has 315 MA's), (Start: 126 @6358 has 6 MA's), (Start: 135 @6376 has 1 MA's), (Start: 138 @6379 has 2 MA's), (241, 6580), (266, 6646), (286, 6691), (328, 6781), (357, 6862), (361, 6874), (365, 6886), (369, 6904), (374, 6922), (386, 6946), (407, 6985), (437, 7066), (445, 7090), (446, 7093), (448, 7096), (454, 7105), (495, 7192), (531, 7279),

Gene: HarveySr\_47 Start: 41520, Stop: 42584, Start Num: 84

Candidate Starts for HarveySr\_47:

(Start: 84 @41520 has 45 MA's), (115, 41583), (157, 41664), (189, 41730), (197, 41745), (203, 41757), (215, 41784), (245, 41841), (250, 41850), (308, 41997), (315, 42012), (333, 42066), (347, 42099), (362, 42138), (366, 42150), (401, 42231), (411, 42249), (412, 42252), (428, 42297), (468, 42408), (521, 42519), (527, 42540), (541, 42573),

Gene: HashRod\_13 Start: 6046, Stop: 7011, Start Num: 101

Candidate Starts for HashRod\_13:

(Start: 101 @6046 has 93 MA's), (Start: 126 @6091 has 6 MA's), (Start: 138 @6112 has 2 MA's), (201, 6232), (263, 6370), (286, 6427), (291, 6442), (333, 6523), (337, 6538), (347, 6556), (365, 6607), (369, 6625), (388, 6670), (428, 6766), (447, 6829), (465, 6868), (490, 6919),

Gene: Hashim76\_52 Start: 41795, Stop: 42796, Start Num: 112

Candidate Starts for Hashim76\_52:

(Start: 112 @41795 has 111 MA's), (125, 41822), (Start: 138 @41846 has 2 MA's), (209, 41987), (285, 42152), (286, 42158), (320, 42221), (328, 42242), (361, 42323), (362, 42326), (369, 42353), (396, 42413), (413, 42449), (432, 42524), (433, 42527), (453, 42581), (477, 42638), (481, 42647), (537, 42770),

Gene: HaveUMetTed\_13 Start: 6033, Stop: 6998, Start Num: 101

Candidate Starts for HaveUMetTed\_13:

(Start: 101 @6033 has 93 MA's), (Start: 138 @6099 has 2 MA's), (173, 6153), (208, 6231), (263, 6354), (286, 6411), (327, 6483), (337, 6522), (347, 6540), (369, 6609), (419, 6726), (428, 6753), (447, 6816), (490, 6906), (493, 6912),

Gene: Heathcliff\_47 Start: 41498, Stop: 42562, Start Num: 84

Candidate Starts for Heathcliff\_47:

(Start: 84 @41498 has 45 MA's), (115, 41561), (157, 41642), (189, 41708), (197, 41723), (203, 41735), (215, 41762), (245, 41819), (250, 41828), (308, 41975), (315, 41990), (333, 42044), (347, 42077), (362, 42116), (366, 42128), (401, 42209), (411, 42227), (412, 42230), (428, 42275), (468, 42386), (521, 42497), (527, 42518), (541, 42551),

Gene: Heathen\_10 Start: 5538, Stop: 6278, Start Num: 224

Candidate Starts for Heathen\_10:

(Start: 224 @5538 has 17 MA's), (263, 5625), (286, 5682), (289, 5694), (291, 5697), (304, 5721), (313, 5736), (321, 5754), (333, 5784), (336, 5790), (347, 5817), (369, 5886), (401, 5958), (419, 6000), (428, 6027), (434, 6054), (445, 6087), (447, 6090), (465, 6129), (533, 6270),

Gene: HedwigODU\_31 Start: 26463, Stop: 27335, Start Num: 153

Candidate Starts for HedwigODU\_31:

(140, 26436), (Start: 153 @26463 has 137 MA's), (Start: 161 @26475 has 1 MA's), (192, 26544), (205, 26571), (Start: 214 @26601 has 1 MA's), (218, 26610), (238, 26646), (242, 26655), (254, 26688), (259, 26706), (274, 26736), (295, 26793), (296, 26796), (349, 26931), (363, 26958), (369, 26979), (377, 27003), (405, 27054), (448, 27156), (466, 27192), (477, 27216), (523, 27315), (529, 27324),

Gene: Heffalump\_13 Start: 8247, Stop: 9230, Start Num: 111

Candidate Starts for Heffalump\_13:

(82, 8205), (Start: 111 @8247 has 315 MA's), (125, 8277), (Start: 126 @8280 has 6 MA's), (Start: 135 @8298 has 1 MA's), (Start: 138 @8301 has 2 MA's), (257, 8538), (263, 8550), (286, 8607), (289, 8619), (326, 8685), (369, 8796), (428, 8943), (461, 9036), (477, 9078), (511, 9150), (530, 9204),

Gene: Heftyboy\_30 Start: 27195, Stop: 28064, Start Num: 153

Candidate Starts for Heftyboy\_30:

(100, 27093), (129, 27147), (Start: 153 @27195 has 137 MA's), (Start: 161 @27207 has 1 MA's), (164, 27213), (175, 27240), (188, 27270), (192, 27276), (Start: 214 @27330 has 1 MA's), (218, 27339), (222, 27351), (242, 27384), (254, 27417), (274, 27465), (292, 27513), (326, 27597), (363, 27687), (368, 27705), (369, 27708), (396, 27771), (405, 27786), (421, 27810), (448, 27882), (466, 27918), (467, 27921), (477, 27942), (503, 27999), (521, 28035), (523, 28044), (529, 28053),

Gene: Hegedechwinu\_32 Start: 27550, Stop: 28551, Start Num: 95

Candidate Starts for Hegedechwinu\_32:

(Start: 95 @27550 has 260 MA's), (130, 27625), (149, 27658), (168, 27688), (177, 27709), (Start: 214 @27793 has 1 MA's), (241, 27844), (250, 27859), (286, 27955), (333, 28066), (341, 28087), (357, 28126), (361, 28138), (374, 28186), (388, 28213), (400, 28237), (407, 28252), (445, 28360), (468,

28408), (501, 28477), (515, 28507),

Gene: HelDan\_10 Start: 5790, Stop: 6530, Start Num: 224

Candidate Starts for HelDan\_10:

(Start: 224 @5790 has 17 MA's), (263, 5877), (286, 5934), (289, 5946), (291, 5949), (304, 5973), (313, 5988), (321, 6006), (333, 6036), (336, 6042), (347, 6069), (369, 6138), (401, 6210), (419, 6252), (428, 6279), (434, 6306), (445, 6339), (447, 6342), (465, 6381), (533, 6522),

Gene: Heliosoles\_12 Start: 6033, Stop: 6998, Start Num: 101

Candidate Starts for Heliosoles\_12:

(Start: 101 @6033 has 93 MA's), (Start: 138 @6099 has 2 MA's), (173, 6153), (208, 6231), (263, 6354), (286, 6411), (327, 6483), (337, 6522), (347, 6540), (369, 6609), (419, 6726), (428, 6753), (447, 6816), (490, 6906), (493, 6912),

Gene: Henry\_36 Start: 31858, Stop: 32715, Start Num: 136

Candidate Starts for Henry\_36:

(Start: 136 @31858 has 124 MA's), (Start: 156 @31897 has 3 MA's), (166, 31927), (175, 31948), (191, 31984), (205, 32014), (236, 32089), (259, 32137), (262, 32140), (272, 32164), (274, 32167), (280, 32182), (346, 32353), (393, 32467), (398, 32482), (420, 32488), (444, 32530), (445, 32533), (470, 32587), (511, 32665), (522, 32698),

Gene: Hercules11\_12 Start: 5969, Stop: 6934, Start Num: 101

Candidate Starts for Hercules11\_12:

(Start: 101 @5969 has 93 MA's), (Start: 126 @6014 has 6 MA's), (Start: 138 @6035 has 2 MA's), (201, 6155), (286, 6350), (291, 6365), (333, 6446), (337, 6461), (347, 6479), (365, 6530), (369, 6548), (388, 6593), (428, 6689), (447, 6752), (465, 6791), (490, 6842),

Gene: Hermia\_12 Start: 6769, Stop: 7731, Start Num: 111

Candidate Starts for Hermia\_12:

(Start: 111 @6769 has 315 MA's), (Start: 126 @6802 has 6 MA's), (Start: 135 @6820 has 1 MA's), (Start: 138 @6823 has 2 MA's), (266, 7090), (286, 7135), (328, 7225), (357, 7306), (361, 7318), (365, 7330), (369, 7348), (374, 7366), (386, 7390), (407, 7429), (437, 7510), (445, 7534), (446, 7537), (448, 7540), (454, 7549), (495, 7636), (515, 7681), (531, 7723),

Gene: HermioneGrange\_11 Start: 5732, Stop: 6700, Start Num: 111

Candidate Starts for HermioneGrange\_11:

(Start: 111 @5732 has 315 MA's), (Start: 126 @5765 has 6 MA's), (Start: 135 @5783 has 1 MA's), (Start: 138 @5786 has 2 MA's), (266, 6053), (273, 6071), (286, 6104), (289, 6116), (327, 6191), (349, 6254), (355, 6266), (361, 6287), (365, 6299), (369, 6317), (374, 6335), (386, 6359), (407, 6398), (437, 6479), (445, 6503), (446, 6506), (448, 6509), (454, 6518), (495, 6605), (531, 6692),

Gene: Highbury\_36 Start: 31516, Stop: 32373, Start Num: 136

Candidate Starts for Highbury\_36:

(Start: 136 @31516 has 124 MA's), (Start: 156 @31555 has 3 MA's), (166, 31585), (175, 31606), (191, 31642), (205, 31672), (236, 31747), (259, 31795), (262, 31798), (272, 31822), (274, 31825), (280, 31840), (346, 32011), (393, 32125), (398, 32140), (420, 32146), (444, 32188), (445, 32191), (470, 32245), (511, 32323), (522, 32356),

Gene: Hlubikazi\_32 Start: 28332, Stop: 29348, Start Num: 95

Candidate Starts for Hlubikazi\_32:

(18, 28014), (19, 28020), (21, 28032), (Start: 23 @28044 has 1 MA's), (24, 28056), (Start: 95 @28332 has 260 MA's), (160, 28464), (168, 28485), (177, 28506), (189, 28536), (196, 28548), (Start: 214 @28590 has 1 MA's), (223, 28614), (235, 28629), (241, 28641), (250, 28656), (286, 28752), (333,

28863), (341, 28884), (357, 28923), (361, 28935), (374, 28983), (388, 29010), (400, 29034), (407, 29049), (445, 29157), (468, 29205), (501, 29274), (515, 29304),

Gene: HokkenD\_42 Start: 40844, Stop: 41716, Start Num: 91

Candidate Starts for HokkenD\_42:

(Start: 91 @40844 has 31 MA's), (Start: 104 @40871 has 1 MA's), (132, 40931), (158, 40979), (190, 41045), (202, 41066), (Start: 214 @41087 has 1 MA's), (243, 41141), (279, 41222), (379, 41501), (380, 41504), (439, 41528), (452, 41564), (462, 41579), (466, 41591), (475, 41612),

Gene: Holli\_10 Start: 5677, Stop: 6654, Start Num: 114

Candidate Starts for Holli\_10:

(Start: 112 @5674 has 111 MA's), (Start: 114 @5677 has 13 MA's), (125, 5701), (Start: 135 @5722 has 1 MA's), (Start: 138 @5725 has 2 MA's), (263, 5974), (286, 6031), (328, 6115), (333, 6136), (345, 6163), (369, 6220), (428, 6370), (466, 6481), (470, 6493), (477, 6505), (511, 6571),

Gene: Holt\_36 Start: 31135, Stop: 31992, Start Num: 136

Candidate Starts for Holt\_36:

(Start: 136 @31135 has 124 MA's), (Start: 156 @31174 has 3 MA's), (166, 31204), (175, 31225), (191, 31261), (205, 31291), (236, 31366), (259, 31414), (262, 31417), (272, 31441), (274, 31444), (280, 31459), (346, 31630), (393, 31744), (398, 31759), (420, 31765), (444, 31807), (445, 31810), (470, 31864), (511, 31942), (522, 31975),

Gene: Homines\_10 Start: 6038, Stop: 7006, Start Num: 111

Candidate Starts for Homines\_10:

(Start: 111 @6038 has 315 MA's), (Start: 126 @6071 has 6 MA's), (Start: 135 @6089 has 1 MA's), (Start: 138 @6092 has 2 MA's), (266, 6359), (286, 6410), (289, 6422), (327, 6497), (349, 6560), (355, 6572), (361, 6593), (365, 6605), (369, 6623), (374, 6641), (386, 6665), (407, 6704), (437, 6785), (445, 6809), (446, 6812), (448, 6815), (454, 6824), (495, 6911), (531, 6998),

Gene: Homura\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for Homura\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242, 26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: Hookmount\_11 Start: 6052, Stop: 7017, Start Num: 101

Candidate Starts for Hookmount\_11:

(Start: 101 @6052 has 93 MA's), (Start: 126 @6097 has 6 MA's), (Start: 138 @6118 has 2 MA's), (201, 6238), (209, 6253), (Start: 231 @6292 has 2 MA's), (263, 6376), (286, 6433), (291, 6448), (333, 6529), (337, 6544), (347, 6562), (365, 6613), (369, 6631), (388, 6676), (428, 6772), (447, 6835), (465, 6874), (490, 6925),

Gene: Hoonter\_37 Start: 31848, Stop: 32705, Start Num: 136

Candidate Starts for Hoonter\_37:

(Start: 136 @31848 has 124 MA's), (Start: 156 @31887 has 3 MA's), (166, 31917), (175, 31938), (191, 31974), (205, 32004), (236, 32079), (259, 32127), (262, 32130), (272, 32154), (274, 32157), (280, 32172), (346, 32343), (393, 32457), (398, 32472), (420, 32478), (444, 32520), (445, 32523), (470, 32577), (511, 32655), (522, 32688),

Gene: Hope4ever\_10 Start: 6140, Stop: 7108, Start Num: 111

Candidate Starts for Hope4ever\_10:

(Start: 111 @6140 has 315 MA's), (Start: 126 @6173 has 6 MA's), (Start: 135 @6191 has 1 MA's), (Start: 138 @6194 has 2 MA's), (266, 6461), (286, 6512), (289, 6524), (327, 6599), (349, 6662), (355, 6674), (361, 6695), (365, 6707), (369, 6725), (374, 6743), (386, 6767), (407, 6806), (437, 6887), (445, 6911), (446, 6914), (448, 6917), (454, 6926), (459, 6929), (515, 7058), (531, 7100),

Gene: Hopey\_37 Start: 32135, Stop: 32992, Start Num: 136

Candidate Starts for Hopey\_37:

(Start: 136 @32135 has 124 MA's), (Start: 156 @32174 has 3 MA's), (166, 32204), (175, 32225), (191, 32261), (205, 32291), (236, 32366), (259, 32414), (262, 32417), (272, 32441), (274, 32444), (280, 32459), (346, 32630), (393, 32744), (398, 32759), (420, 32765), (444, 32807), (445, 32810), (470, 32864), (511, 32942), (522, 32975),

Gene: Hosp\_040 Start: 38571, Stop: 39566, Start Num: 111

Candidate Starts for Hosp\_040:

(Start: 111 @38571 has 315 MA's), (125, 38601), (Start: 135 @38622 has 1 MA's), (Start: 138 @38625 has 2 MA's), (186, 38712), (209, 38760), (233, 38793), (257, 38862), (285, 38925), (286, 38931), (302, 38967), (328, 39015), (369, 39126), (408, 39213), (410, 39216), (428, 39276), (430, 39288), (433, 39300), (435, 39306), (477, 39411), (537, 39543),

Gene: Houdini22\_10 Start: 5885, Stop: 6865, Start Num: 112

Candidate Starts for Houdini22\_10:

(Start: 112 @5885 has 111 MA's), (Start: 114 @5888 has 13 MA's), (125, 5912), (Start: 135 @5933 has 1 MA's), (Start: 138 @5936 has 2 MA's), (263, 6185), (286, 6242), (328, 6326), (333, 6347), (345, 6374), (362, 6404), (369, 6431), (428, 6581), (466, 6692), (470, 6704), (477, 6716), (511, 6782),

Gene: HufflyPuff\_34 Start: 31842, Stop: 32699, Start Num: 136

Candidate Starts for HufflyPuff\_34:

(Start: 136 @31842 has 124 MA's), (Start: 156 @31881 has 3 MA's), (166, 31911), (175, 31932), (191, 31968), (205, 31998), (236, 32073), (259, 32121), (262, 32124), (272, 32148), (274, 32151), (280, 32166), (346, 32337), (384, 32436), (393, 32451), (398, 32466), (420, 32472), (444, 32514), (445, 32517), (470, 32571), (511, 32649), (522, 32682),

Gene: Hughesyang\_47 Start: 42504, Stop: 43376, Start Num: 91

Candidate Starts for Hughesyang\_47:

(Start: 91 @42504 has 31 MA's), (Start: 104 @42531 has 1 MA's), (132, 42591), (158, 42639), (190, 42705), (202, 42726), (Start: 214 @42747 has 1 MA's), (243, 42801), (279, 42882), (379, 43161), (380, 43164), (439, 43188), (452, 43224), (462, 43239), (466, 43251), (475, 43272),

Gene: Hurricane\_32 Start: 27396, Stop: 28184, Start Num: 153

Candidate Starts for Hurricane\_32:

(17, 26904), (33, 27066), (113, 27318), (129, 27351), (Start: 153 @27396 has 137 MA's), (175, 27441), (192, 27477), (Start: 214 @27534 has 1 MA's), (218, 27543), (238, 27579), (259, 27633), (271, 27657), (326, 27798), (349, 27861), (363, 27903), (369, 27924), (371, 27930), (377, 27948), (444, 27978), (477, 28047), (511, 28119), (523, 28149),

Gene: HyRo\_237 Start: 143758, Stop: 144786, Start Num: 87

Candidate Starts for HyRo\_237:

(Start: 87 @143758 has 167 MA's), (Start: 105 @143788 has 4 MA's), (130, 143842), (168, 143905), (177, 143926), (Start: 214 @144010 has 1 MA's), (235, 144052), (241, 144064), (250, 144079), (273, 144148), (286, 144175), (309, 144229), (324, 144274), (326, 144277), (354, 144355), (361, 144376), (407, 144487), (440, 144577), (445, 144595), (480, 144667), (496, 144700),

Gene: Hyperbowlee\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for Hyperbowlee\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242, 26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: I3\_262 Start: 145549, Stop: 146577, Start Num: 87

Candidate Starts for I3\_262:

(Start: 87 @145549 has 167 MA's), (Start: 105 @145579 has 4 MA's), (Start: 112 @145591 has 111 MA's), (130, 145633), (168, 145696), (177, 145717), (Start: 214 @145801 has 1 MA's), (235, 145843), (241, 145855), (250, 145870), (273, 145939), (286, 145966), (309, 146020), (324, 146065), (326, 146068), (354, 146146), (361, 146167), (407, 146278), (440, 146368), (445, 146386), (496, 146491),

Gene: ICleared\_10 Start: 5884, Stop: 6861, Start Num: 114

Candidate Starts for ICleared\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: IHOP\_35 Start: 32035, Stop: 32892, Start Num: 136

Candidate Starts for IHOP\_35:

(Start: 136 @32035 has 124 MA's), (Start: 156 @32074 has 3 MA's), (166, 32104), (175, 32125), (191, 32161), (205, 32191), (236, 32266), (259, 32314), (262, 32317), (272, 32341), (274, 32344), (280, 32359), (346, 32530), (393, 32644), (398, 32659), (420, 32665), (444, 32707), (445, 32710), (470, 32764), (511, 32842), (522, 32875),

Gene: ILeeKay\_12 Start: 6192, Stop: 7160, Start Num: 111

Candidate Starts for ILeeKay\_12:

(Start: 111 @6192 has 315 MA's), (Start: 126 @6225 has 6 MA's), (Start: 135 @6243 has 1 MA's), (Start: 138 @6246 has 2 MA's), (266, 6513), (286, 6564), (289, 6576), (327, 6651), (349, 6714), (361, 6747), (365, 6759), (369, 6777), (374, 6795), (386, 6819), (407, 6858), (437, 6939), (445, 6963), (446, 6966), (448, 6969), (454, 6978), (495, 7065), (531, 7152),

Gene: IMpilo\_30 Start: 27328, Stop: 28329, Start Num: 95

Candidate Starts for IMpilo\_30:

(Start: 95 @27328 has 260 MA's), (Start: 105 @27349 has 4 MA's), (Start: 112 @27361 has 111 MA's), (130, 27403), (177, 27487), (189, 27517), (Start: 214 @27571 has 1 MA's), (223, 27595), (235, 27610), (241, 27622), (286, 27733), (334, 27847), (341, 27865), (357, 27904), (365, 27928), (374, 27964), (388, 27991), (400, 28015), (407, 28030), (445, 28138), (468, 28186), (501, 28255), (515, 28285),

Gene: IPhane7\_38 Start: 31794, Stop: 32765, Start Num: 58

Candidate Starts for IPhane7\_38:

(Start: 58 @31794 has 13 MA's), (63, 31818), (69, 31833), (134, 31971), (150, 31998), (158, 32016), (162, 32028), (166, 32037), (185, 32082), (191, 32094), (206, 32121), (218, 32148), (222, 32160), (246, 32205), (257, 32232), (272, 32262), (276, 32271), (277, 32274), (310, 32361), (317, 32376), (371, 32529), (372, 32532), (441, 32592), (444, 32604), (448, 32613), (466, 32649), (471, 32664), (494, 32703), (509, 32736),

Gene: IbOuu\_33 Start: 28383, Stop: 29102, Start Num: 235

Candidate Starts for IbOuu\_33:



(29, 27855), (31, 27858), (37, 27906), (74, 28041), (78, 28050), (Start: 95 @28086 has 260 MA's), (160, 28218), (168, 28239), (177, 28260), (189, 28290), (196, 28302), (Start: 214 @28344 has 1 MA's), (223, 28368), (235, 28383), (241, 28395), (250, 28410), (286, 28506), (334, 28620), (341, 28638), (357, 28677), (365, 28701), (374, 28737), (388, 28764), (400, 28788), (407, 28803), (445, 28911), (468, 28959), (501, 29028), (515, 29058),

Gene: lbhubesi\_31 Start: 27464, Stop: 28465, Start Num: 95

Candidate Starts for lbhubesi\_31:

(Start: 56 @27365 has 7 MA's), (Start: 95 @27464 has 260 MA's), (Start: 105 @27485 has 4 MA's), (Start: 112 @27497 has 111 MA's), (130, 27539), (149, 27572), (168, 27602), (177, 27623), (Start: 214 @27707 has 1 MA's), (223, 27731), (235, 27746), (241, 27758), (286, 27869), (334, 27983), (341, 28001), (357, 28040), (365, 28064), (374, 28100), (388, 28127), (407, 28166), (428, 28214), (445, 28274), (468, 28322), (474, 28334), (496, 28379), (501, 28391), (515, 28421),

Gene: lcee\_34 Start: 31516, Stop: 32373, Start Num: 136

Candidate Starts for lcee\_34:

(Start: 136 @31516 has 124 MA's), (Start: 156 @31555 has 3 MA's), (166, 31585), (175, 31606), (191, 31642), (205, 31672), (236, 31747), (259, 31795), (262, 31798), (272, 31822), (274, 31825), (280, 31840), (346, 32011), (393, 32125), (398, 32140), (420, 32146), (444, 32188), (445, 32191), (470, 32245), (511, 32323), (522, 32356),

Gene: lceman\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for lceman\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: lchabod\_10 Start: 5749, Stop: 6717, Start Num: 111

Candidate Starts for lchabod\_10:

(Start: 111 @5749 has 315 MA's), (Start: 126 @5782 has 6 MA's), (Start: 135 @5800 has 1 MA's), (Start: 138 @5803 has 2 MA's), (266, 6070), (286, 6121), (289, 6133), (327, 6208), (361, 6304), (369, 6334), (407, 6415), (437, 6496), (445, 6520), (446, 6523), (448, 6526), (454, 6535), (495, 6622), (531, 6709),

Gene: ldergollasper\_67 Start: 43419, Stop: 44459, Start Num: 95

Candidate Starts for ldergollasper\_67:

(Start: 95 @43419 has 260 MA's), (130, 43494), (168, 43575), (170, 43581), (177, 43596), (213, 43677), (Start: 214 @43680 has 1 MA's), (241, 43734), (250, 43749), (286, 43845), (304, 43884), (312, 43914), (324, 43944), (326, 43947), (336, 43980), (361, 44046), (374, 44094), (388, 44121), (407, 44160), (478, 44334), (501, 44385),

Gene: ldeandcovert\_10 Start: 5739, Stop: 6479, Start Num: 224

Candidate Starts for ldeandcovert\_10:

(Start: 152 @5622 has 16 MA's), (Start: 224 @5739 has 17 MA's), (263, 5826), (286, 5883), (289, 5895), (291, 5898), (304, 5922), (313, 5937), (321, 5955), (333, 5985), (336, 5991), (337, 6000), (347, 6018), (365, 6069), (369, 6087), (401, 6159), (419, 6201), (428, 6228), (434, 6255), (445, 6288), (447, 6291), (465, 6330), (533, 6471),

Gene: IgnatiusPatJac\_9 Start: 6018, Stop: 6986, Start Num: 111

Candidate Starts for IgnatiusPatJac\_9:

(Start: 111 @6018 has 315 MA's), (Start: 126 @6051 has 6 MA's), (Start: 135 @6069 has 1 MA's), (Start: 138 @6072 has 2 MA's), (266, 6339), (286, 6390), (289, 6402), (327, 6477), (349, 6540), (355, 6552), (361, 6573), (365, 6585), (369, 6603), (374, 6621), (407, 6684), (437, 6765), (445, 6789), (446,

6792), (448, 6795), (454, 6804), (495, 6891), (515, 6936), (531, 6978),

Gene: IkeLoa\_246 Start: 144139, Stop: 145167, Start Num: 87

Candidate Starts for IkeLoa\_246:

(Start: 87 @144139 has 167 MA's), (Start: 105 @144169 has 4 MA's), (Start: 112 @144181 has 111 MA's), (130, 144223), (168, 144286), (177, 144307), (Start: 214 @144391 has 1 MA's), (235, 144433), (241, 144445), (250, 144460), (273, 144529), (286, 144556), (309, 144610), (324, 144655), (326, 144658), (354, 144736), (361, 144757), (407, 144868), (440, 144958), (445, 144976), (480, 145048), (496, 145081),

Gene: Illumine\_31 Start: 26470, Stop: 27342, Start Num: 153

Candidate Starts for Illumine\_31:

(140, 26443), (Start: 153 @26470 has 137 MA's), (Start: 161 @26482 has 1 MA's), (192, 26551), (205, 26578), (Start: 214 @26608 has 1 MA's), (218, 26617), (238, 26653), (242, 26662), (254, 26695), (259, 26713), (296, 26803), (349, 26938), (363, 26965), (369, 26986), (377, 27010), (429, 27112), (448, 27163), (466, 27199), (477, 27223), (523, 27322), (529, 27331),

Gene: Imvubu\_41 Start: 39360, Stop: 40367, Start Num: 108

Candidate Starts for Imvubu\_41:

(Start: 108 @39360 has 1 MA's), (Start: 138 @39417 has 2 MA's), (257, 39654), (285, 39717), (286, 39723), (302, 39759), (320, 39786), (350, 39870), (369, 39918), (413, 40014), (430, 40080), (432, 40089), (433, 40092), (477, 40203), (481, 40212), (537, 40335),

Gene: Inca\_34 Start: 30537, Stop: 31394, Start Num: 136

Candidate Starts for Inca\_34:

(Start: 136 @30537 has 124 MA's), (Start: 156 @30576 has 3 MA's), (166, 30606), (175, 30627), (191, 30663), (205, 30693), (236, 30768), (259, 30816), (262, 30819), (272, 30843), (274, 30846), (280, 30861), (346, 31032), (384, 31131), (393, 31146), (398, 31161), (420, 31167), (444, 31209), (445, 31212), (470, 31266), (511, 31344), (522, 31377),

Gene: Indlulamithi\_36 Start: 31658, Stop: 32464, Start Num: 136

Candidate Starts for Indlulamithi\_36:

(Start: 95 @31580 has 260 MA's), (Start: 136 @31658 has 124 MA's), (166, 31724), (218, 31844), (238, 31880), (240, 31886), (258, 31925), (272, 31949), (290, 31988), (297, 32009), (322, 32078), (361, 32165), (372, 32204), (373, 32210), (391, 32246), (444, 32276), (513, 32429), (514, 32432),

Gene: InigoMontoya\_256 Start: 144457, Stop: 145485, Start Num: 87

Candidate Starts for InigoMontoya\_256:

(Start: 87 @144457 has 167 MA's), (Start: 105 @144487 has 4 MA's), (Start: 112 @144499 has 111 MA's), (130, 144541), (168, 144604), (177, 144625), (Start: 214 @144709 has 1 MA's), (235, 144751), (241, 144763), (250, 144778), (273, 144847), (286, 144874), (309, 144928), (324, 144973), (326, 144976), (354, 145054), (361, 145075), (407, 145186), (440, 145276), (445, 145294), (480, 145366), (496, 145399),

Gene: Inky\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for Inky\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242, 26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: InterFolia\_254 Start: 145203, Stop: 146231, Start Num: 87

Candidate Starts for InterFolia\_254:

(Start: 87 @145203 has 167 MA's), (Start: 105 @145233 has 4 MA's), (Start: 112 @145245 has 111 MA's), (130, 145287), (168, 145350), (177, 145371), (Start: 214 @145455 has 1 MA's), (235, 145497), (241, 145509), (250, 145524), (273, 145593), (286, 145620), (309, 145674), (324, 145719), (326, 145722), (354, 145800), (361, 145821), (407, 145932), (440, 146022), (445, 146040), (480, 146112), (496, 146145),

Gene: Inventum\_31 Start: 28184, Stop: 29200, Start Num: 95

Candidate Starts for Inventum\_31:

(29, 27953), (31, 27956), (37, 28004), (74, 28139), (78, 28148), (Start: 95 @28184 has 260 MA's), (160, 28316), (168, 28337), (177, 28358), (189, 28388), (196, 28400), (Start: 214 @28442 has 1 MA's), (241, 28493), (286, 28604), (334, 28718), (341, 28736), (357, 28775), (365, 28799), (374, 28835), (388, 28862), (407, 28901), (428, 28949), (445, 29009), (468, 29057), (474, 29069), (496, 29114), (501, 29126), (515, 29156),

Gene: InvictusManeo\_30 Start: 27231, Stop: 27992, Start Num: 152

Candidate Starts for InvictusManeo\_30:

(129, 27183), (Start: 152 @27231 has 16 MA's), (Start: 161 @27243 has 1 MA's), (162, 27246), (164, 27249), (175, 27276), (192, 27312), (216, 27372), (218, 27378), (234, 27408), (238, 27414), (242, 27423), (254, 27456), (271, 27498), (272, 27501), (277, 27513), (290, 27549), (296, 27564), (308, 27600), (349, 27699), (363, 27726), (369, 27747), (448, 27810), (462, 27834), (470, 27858), (503, 27927), (523, 27972), (529, 27981),

Gene: Inyanga\_9 Start: 5807, Stop: 6775, Start Num: 111

Candidate Starts for Inyanga\_9:

(Start: 111 @5807 has 315 MA's), (Start: 126 @5840 has 6 MA's), (Start: 135 @5858 has 1 MA's), (Start: 138 @5861 has 2 MA's), (266, 6128), (286, 6179), (289, 6191), (327, 6266), (349, 6329), (355, 6341), (361, 6362), (365, 6374), (369, 6392), (374, 6410), (386, 6434), (407, 6473), (437, 6554), (445, 6578), (446, 6581), (448, 6584), (454, 6593), (495, 6680), (515, 6725), (531, 6767),

Gene: Iota\_249 Start: 144169, Stop: 145197, Start Num: 87

Candidate Starts for Iota\_249:

(Start: 87 @144169 has 167 MA's), (Start: 105 @144199 has 4 MA's), (Start: 112 @144211 has 111 MA's), (130, 144253), (168, 144316), (177, 144337), (Start: 214 @144421 has 1 MA's), (235, 144463), (241, 144475), (250, 144490), (273, 144559), (286, 144586), (309, 144640), (324, 144685), (326, 144688), (354, 144766), (361, 144787), (407, 144898), (440, 144988), (445, 145006), (480, 145078), (496, 145111),

Gene: Iracema64\_10 Start: 5858, Stop: 6838, Start Num: 112

Candidate Starts for Iracema64\_10:

(Start: 112 @5858 has 111 MA's), (125, 5885), (Start: 135 @5906 has 1 MA's), (Start: 138 @5909 has 2 MA's), (263, 6158), (286, 6215), (289, 6227), (320, 6278), (328, 6299), (333, 6320), (345, 6347), (361, 6374), (369, 6404), (428, 6554), (470, 6677), (477, 6689), (511, 6755),

Gene: IrishSherpFalk\_33 Start: 29112, Stop: 30113, Start Num: 95

Candidate Starts for IrishSherpFalk\_33:

(Start: 56 @29013 has 7 MA's), (83, 29085), (Start: 95 @29112 has 260 MA's), (Start: 105 @29133 has 4 MA's), (Start: 112 @29145 has 111 MA's), (130, 29187), (149, 29220), (168, 29250), (177, 29271), (Start: 214 @29355 has 1 MA's), (223, 29379), (235, 29394), (241, 29406), (286, 29517), (333, 29628), (341, 29649), (357, 29688), (374, 29748), (388, 29775), (407, 29814), (445, 29922), (454, 29937), (468, 29970), (501, 30039), (515, 30069),

Gene: IronMan\_13 Start: 8151, Stop: 9137, Start Num: 111

Candidate Starts for IronMan\_13:

(Start: 111 @8151 has 315 MA's), (125, 8181), (Start: 138 @8205 has 2 MA's), (209, 8340), (285, 8505), (286, 8511), (325, 8586), (328, 8595), (338, 8631), (369, 8706), (396, 8766), (413, 8802), (428, 8856), (433, 8880), (435, 8886), (477, 8991), (481, 9000),

Gene: Isca\_10 Start: 5611, Stop: 6351, Start Num: 224

Candidate Starts for Isca\_10:

(Start: 224 @5611 has 17 MA's), (241, 5635), (263, 5698), (286, 5755), (289, 5767), (291, 5770), (304, 5794), (313, 5809), (333, 5857), (336, 5863), (347, 5890), (369, 5959), (401, 6031), (419, 6073), (428, 6100), (434, 6127), (445, 6160), (447, 6163), (465, 6202), (491, 6256), (533, 6343),

Gene: Issimir\_246 Start: 144544, Stop: 145572, Start Num: 87

Candidate Starts for Issimir\_246:

(Start: 87 @144544 has 167 MA's), (Start: 105 @144574 has 4 MA's), (Start: 112 @144586 has 111 MA's), (130, 144628), (168, 144691), (177, 144712), (Start: 214 @144796 has 1 MA's), (235, 144838), (241, 144850), (250, 144865), (273, 144934), (286, 144961), (309, 145015), (324, 145060), (326, 145063), (354, 145141), (361, 145162), (407, 145273), (440, 145363), (445, 145381), (480, 145453), (496, 145486),

Gene: Itos\_28 Start: 26303, Stop: 27274, Start Num: 51

Candidate Starts for Itos\_28:

(Start: 51 @26303 has 22 MA's), (67, 26357), (141, 26507), (144, 26516), (147, 26522), (Start: 161 @26555 has 1 MA's), (162, 26558), (166, 26567), (175, 26588), (205, 26651), (218, 26678), (232, 26702), (272, 26783), (277, 26795), (300, 26858), (306, 26873), (325, 26933), (330, 26948), (363, 27029), (368, 27047), (369, 27050), (371, 27053), (449, 27104), (470, 27149), (494, 27191), (514, 27233),

Gene: Iwokeuplikedis\_11 Start: 6191, Stop: 7168, Start Num: 111

Candidate Starts for Iwokeuplikedis\_11:

(Start: 98 @6170 has 3 MA's), (Start: 111 @6191 has 315 MA's), (Start: 138 @6245 has 2 MA's), (180, 6302), (247, 6434), (257, 6470), (263, 6482), (286, 6539), (302, 6575), (327, 6623), (337, 6662), (369, 6749), (388, 6794), (397, 6812), (416, 6854), (428, 6902), (434, 6929), (440, 6944), (445, 6962), (447, 6965), (490, 7055),

Gene: Izajani\_248 Start: 145019, Stop: 146017, Start Num: 105

Candidate Starts for Izajani\_248:

(Start: 87 @144989 has 167 MA's), (Start: 105 @145019 has 4 MA's), (Start: 112 @145031 has 111 MA's), (130, 145073), (168, 145136), (177, 145157), (Start: 214 @145241 has 1 MA's), (235, 145283), (241, 145295), (250, 145310), (273, 145379), (286, 145406), (309, 145460), (324, 145505), (326, 145508), (354, 145586), (361, 145607), (407, 145718), (440, 145808), (445, 145826), (480, 145898), (496, 145931),

Gene: JAWS\_31 Start: 26448, Stop: 27320, Start Num: 153

Candidate Starts for JAWS\_31:

(32, 26118), (100, 26346), (140, 26421), (Start: 153 @26448 has 137 MA's), (Start: 161 @26460 has 1 MA's), (192, 26529), (205, 26556), (Start: 214 @26586 has 1 MA's), (218, 26595), (238, 26631), (242, 26640), (254, 26673), (259, 26691), (274, 26721), (296, 26781), (349, 26916), (363, 26943), (369, 26964), (377, 26988), (448, 27141), (466, 27177), (523, 27300), (529, 27309),

Gene: JC27\_12 Start: 6644, Stop: 7612, Start Num: 111

Candidate Starts for JC27\_12:

(Start: 111 @6644 has 315 MA's), (Start: 126 @6677 has 6 MA's), (Start: 135 @6695 has 1 MA's), (Start: 138 @6698 has 2 MA's), (266, 6965), (286, 7016), (289, 7028), (327, 7103), (349, 7166), (355,

7178), (361, 7199), (365, 7211), (369, 7229), (374, 7247), (386, 7271), (407, 7310), (437, 7391), (445, 7415), (446, 7418), (448, 7421), (454, 7430), (495, 7517), (515, 7562), (531, 7604),

Gene: JF1\_32 Start: 27629, Stop: 28420, Start Num: 143

Candidate Starts for JF1\_32:

(Start: 143 @27629 has 20 MA's), (Start: 161 @27662 has 1 MA's), (175, 27695), (185, 27719), (196, 27740), (Start: 214 @27788 has 1 MA's), (218, 27797), (238, 27833), (276, 27914), (349, 28121), (363, 28148), (366, 28154), (369, 28169), (377, 28193), (445, 28217), (460, 28238), (470, 28271), (477, 28283), (511, 28355),

Gene: JF2\_10 Start: 5376, Stop: 6116, Start Num: 224

Candidate Starts for JF2\_10:

(Start: 224 @5376 has 17 MA's), (263, 5463), (286, 5520), (289, 5532), (291, 5535), (304, 5559), (313, 5574), (333, 5622), (336, 5628), (347, 5655), (369, 5724), (401, 5796), (419, 5838), (428, 5865), (434, 5892), (445, 5925), (447, 5928), (465, 5967), (491, 6021), (533, 6108),

Gene: JF4\_10 Start: 5376, Stop: 6116, Start Num: 224

Candidate Starts for JF4\_10:

(Start: 224 @5376 has 17 MA's), (263, 5463), (286, 5520), (289, 5532), (291, 5535), (304, 5559), (313, 5574), (333, 5622), (336, 5628), (347, 5655), (369, 5724), (401, 5796), (419, 5838), (428, 5865), (434, 5892), (445, 5925), (447, 5928), (465, 5967), (491, 6021), (533, 6108),

Gene: JHC117\_12 Start: 5960, Stop: 6925, Start Num: 101

Candidate Starts for JHC117\_12:

(Start: 101 @5960 has 93 MA's), (Start: 126 @6005 has 6 MA's), (Start: 138 @6026 has 2 MA's), (201, 6146), (286, 6341), (291, 6356), (333, 6437), (337, 6452), (347, 6470), (365, 6521), (369, 6539), (388, 6584), (428, 6680), (447, 6743), (465, 6782), (490, 6833),

Gene: JPickles\_250 Start: 143594, Stop: 144622, Start Num: 87

Candidate Starts for JPickles\_250:

(Start: 87 @143594 has 167 MA's), (Start: 105 @143624 has 4 MA's), (Start: 112 @143636 has 111 MA's), (130, 143678), (168, 143741), (177, 143762), (Start: 214 @143846 has 1 MA's), (235, 143888), (241, 143900), (250, 143915), (273, 143984), (286, 144011), (309, 144065), (324, 144110), (326, 144113), (354, 144191), (361, 144212), (407, 144323), (440, 144413), (445, 144431), (480, 144503), (496, 144536),

Gene: Jaan\_14 Start: 8541, Stop: 9527, Start Num: 111

Candidate Starts for Jaan\_14:

(Start: 111 @8541 has 315 MA's), (125, 8571), (Start: 138 @8595 has 2 MA's), (209, 8730), (286, 8901), (325, 8976), (328, 8985), (369, 9096), (396, 9156), (413, 9192), (428, 9246), (433, 9270), (435, 9276), (452, 9321), (477, 9381), (481, 9390),

Gene: Jabbawokkie\_39 Start: 28197, Stop: 29270, Start Num: 95

Candidate Starts for Jabbawokkie\_39:

(Start: 95 @28197 has 260 MA's), (Start: 109 @28224 has 1 MA's), (124, 28254), (173, 28347), (177, 28356), (180, 28365), (208, 28422), (Start: 231 @28467 has 2 MA's), (245, 28500), (250, 28509), (266, 28560), (285, 28602), (291, 28626), (294, 28635), (298, 28647), (308, 28677), (317, 28707), (318, 28710), (333, 28767), (334, 28770), (339, 28785), (346, 28797), (348, 28806), (357, 28830), (366, 28854), (401, 28935), (428, 29010), (469, 29121), (491, 29163), (493, 29166), (495, 29172), (501, 29187), (529, 29253),

Gene: JackSparrow\_10 Start: 6014, Stop: 6982, Start Num: 111

Candidate Starts for JackSparrow\_10:

(Start: 111 @6014 has 315 MA's), (Start: 126 @6047 has 6 MA's), (Start: 135 @6065 has 1 MA's), (Start: 138 @6068 has 2 MA's), (266, 6335), (286, 6386), (289, 6398), (327, 6473), (349, 6536), (361, 6569), (365, 6581), (369, 6599), (374, 6617), (386, 6641), (407, 6680), (437, 6761), (445, 6785), (446, 6788), (448, 6791), (454, 6800), (495, 6887), (531, 6974),

Gene: Jackstina\_44 Start: 41457, Stop: 42521, Start Num: 84

Candidate Starts for Jackstina\_44:

(Start: 84 @41457 has 45 MA's), (115, 41520), (157, 41601), (189, 41667), (197, 41682), (203, 41694), (215, 41721), (245, 41778), (250, 41787), (308, 41934), (315, 41949), (333, 42003), (347, 42036), (362, 42075), (366, 42087), (401, 42168), (411, 42186), (412, 42189), (428, 42234), (468, 42345), (521, 42456), (527, 42477), (541, 42510),

Gene: JalFarm20\_34 Start: 28603, Stop: 29601, Start Num: 95

Candidate Starts for JalFarm20\_34:

(Start: 95 @28603 has 260 MA's), (130, 28678), (168, 28738), (177, 28759), (Start: 214 @28843 has 1 MA's), (241, 28894), (250, 28909), (286, 29005), (333, 29116), (341, 29137), (357, 29176), (361, 29188), (374, 29236), (388, 29263), (400, 29287), (407, 29302), (445, 29410), (468, 29458), (501, 29527), (515, 29557),

Gene: James\_31 Start: 27708, Stop: 28709, Start Num: 95

Candidate Starts for James\_31:

(Start: 95 @27708 has 260 MA's), (130, 27783), (168, 27846), (177, 27867), (Start: 214 @27951 has 1 MA's), (223, 27975), (235, 27990), (241, 28002), (286, 28113), (334, 28227), (341, 28245), (357, 28284), (365, 28308), (374, 28344), (407, 28410), (445, 28518), (468, 28566), (474, 28578), (496, 28623), (501, 28635), (515, 28665),

Gene: JangDynasty\_67 Start: 43505, Stop: 44545, Start Num: 95

Candidate Starts for JangDynasty\_67:

(Start: 95 @43505 has 260 MA's), (130, 43580), (168, 43661), (170, 43667), (177, 43682), (213, 43763), (Start: 214 @43766 has 1 MA's), (241, 43820), (250, 43835), (286, 43931), (304, 43970), (312, 44000), (324, 44030), (326, 44033), (336, 44066), (361, 44132), (374, 44180), (388, 44207), (407, 44246), (478, 44420), (501, 44471),

Gene: Janiyra\_256 Start: 145131, Stop: 146159, Start Num: 87

Candidate Starts for Janiyra\_256:

(Start: 87 @145131 has 167 MA's), (Start: 105 @145161 has 4 MA's), (Start: 112 @145173 has 111 MA's), (130, 145215), (168, 145278), (177, 145299), (Start: 214 @145383 has 1 MA's), (235, 145425), (241, 145437), (250, 145452), (273, 145521), (286, 145548), (309, 145602), (324, 145647), (326, 145650), (354, 145728), (361, 145749), (407, 145860), (440, 145950), (445, 145968), (480, 146040), (496, 146073),

Gene: Jacob\_31 Start: 27749, Stop: 28750, Start Num: 95

Candidate Starts for Jacob\_31:

(Start: 95 @27749 has 260 MA's), (Start: 105 @27770 has 4 MA's), (Start: 112 @27782 has 111 MA's), (130, 27824), (168, 27887), (177, 27908), (189, 27938), (Start: 214 @27992 has 1 MA's), (223, 28016), (235, 28031), (241, 28043), (286, 28154), (334, 28268), (341, 28286), (357, 28325), (365, 28349), (374, 28385), (388, 28412), (407, 28451), (428, 28499), (445, 28559), (474, 28619), (501, 28676), (515, 28706),

Gene: Jarvi\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for Jarvi\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242,

26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: Jasper\_11 Start: 5855, Stop: 6823, Start Num: 111

Candidate Starts for Jasper\_11:

(Start: 111 @5855 has 315 MA's), (Start: 126 @5888 has 6 MA's), (Start: 135 @5906 has 1 MA's), (Start: 138 @5909 has 2 MA's), (266, 6176), (286, 6227), (289, 6239), (327, 6314), (349, 6377), (355, 6389), (361, 6410), (365, 6422), (369, 6440), (374, 6458), (386, 6482), (407, 6521), (437, 6602), (445, 6626), (446, 6629), (448, 6632), (454, 6641), (495, 6728), (515, 6773), (531, 6815),

Gene: JayJay\_248 Start: 143930, Stop: 144958, Start Num: 87

Candidate Starts for JayJay\_248:

(Start: 87 @143930 has 167 MA's), (Start: 105 @143960 has 4 MA's), (130, 144014), (168, 144077), (177, 144098), (Start: 214 @144182 has 1 MA's), (235, 144224), (241, 144236), (250, 144251), (273, 144320), (286, 144347), (309, 144401), (324, 144446), (326, 144449), (354, 144527), (361, 144548), (407, 144659), (440, 144749), (445, 144767), (480, 144839), (496, 144872),

Gene: Jaygup\_249 Start: 144316, Stop: 145344, Start Num: 87

Candidate Starts for Jaygup\_249:

(Start: 87 @144316 has 167 MA's), (Start: 105 @144346 has 4 MA's), (Start: 112 @144358 has 111 MA's), (130, 144400), (168, 144463), (177, 144484), (Start: 214 @144568 has 1 MA's), (235, 144610), (241, 144622), (250, 144637), (273, 144706), (286, 144733), (309, 144787), (324, 144832), (326, 144835), (354, 144913), (361, 144934), (407, 145045), (440, 145135), (445, 145153), (480, 145225), (496, 145258),

Gene: Jayhawk\_31 Start: 26461, Stop: 27333, Start Num: 153

Candidate Starts for Jayhawk\_31:

(140, 26434), (Start: 153 @26461 has 137 MA's), (Start: 161 @26473 has 1 MA's), (192, 26542), (205, 26569), (Start: 214 @26599 has 1 MA's), (218, 26608), (238, 26644), (242, 26653), (254, 26686), (259, 26704), (274, 26734), (295, 26791), (296, 26794), (349, 26929), (363, 26956), (369, 26977), (377, 27001), (405, 27052), (448, 27154), (466, 27190), (477, 27214), (523, 27313), (529, 27322),

Gene: Jaykayelowell\_10 Start: 5880, Stop: 6860, Start Num: 112

Candidate Starts for Jaykayelowell\_10:

(Start: 112 @5880 has 111 MA's), (Start: 114 @5883 has 13 MA's), (125, 5907), (Start: 135 @5928 has 1 MA's), (Start: 138 @5931 has 2 MA's), (263, 6180), (286, 6237), (328, 6321), (333, 6342), (345, 6369), (362, 6399), (369, 6426), (428, 6576), (466, 6687), (470, 6699), (477, 6711), (511, 6777),

Gene: JeTaime\_37 Start: 32659, Stop: 33516, Start Num: 136

Candidate Starts for JeTaime\_37:

(Start: 136 @32659 has 124 MA's), (Start: 156 @32698 has 3 MA's), (166, 32728), (175, 32749), (191, 32785), (205, 32815), (236, 32890), (259, 32938), (262, 32941), (272, 32965), (274, 32968), (280, 32983), (346, 33154), (393, 33268), (398, 33283), (420, 33289), (444, 33331), (445, 33334), (470, 33388), (511, 33466), (522, 33499),

Gene: Jeckyll\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for Jeckyll\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242, 26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: Jedediah\_254 Start: 145369, Stop: 146397, Start Num: 87

Candidate Starts for Jedediah\_254:

(Start: 87 @145369 has 167 MA's), (Start: 105 @145399 has 4 MA's), (Start: 112 @145411 has 111 MA's), (130, 145453), (168, 145516), (177, 145537), (Start: 214 @145621 has 1 MA's), (235, 145663), (241, 145675), (250, 145690), (273, 145759), (286, 145786), (309, 145840), (324, 145885), (326, 145888), (354, 145966), (361, 145987), (407, 146098), (440, 146188), (445, 146206), (480, 146278), (496, 146311),

Gene: Jemmno\_252 Start: 144088, Stop: 145116, Start Num: 87

Candidate Starts for Jemmno\_252:

(Start: 87 @144088 has 167 MA's), (Start: 105 @144118 has 4 MA's), (Start: 112 @144130 has 111 MA's), (130, 144172), (168, 144235), (177, 144256), (Start: 214 @144340 has 1 MA's), (235, 144382), (241, 144394), (250, 144409), (273, 144478), (286, 144505), (309, 144559), (324, 144604), (326, 144607), (354, 144685), (361, 144706), (407, 144817), (440, 144907), (445, 144925), (480, 144997), (496, 145030),

Gene: JenCasNa\_12 Start: 5960, Stop: 6925, Start Num: 101

Candidate Starts for JenCasNa\_12:

(Start: 101 @5960 has 93 MA's), (Start: 126 @6005 has 6 MA's), (Start: 138 @6026 has 2 MA's), (201, 6146), (286, 6341), (291, 6356), (333, 6437), (337, 6452), (347, 6470), (365, 6521), (369, 6539), (388, 6584), (428, 6680), (447, 6743), (465, 6782), (490, 6833),

Gene: JeppNRM\_13 Start: 6031, Stop: 6996, Start Num: 101

Candidate Starts for JeppNRM\_13:

(Start: 101 @6031 has 93 MA's), (Start: 138 @6097 has 2 MA's), (173, 6151), (208, 6229), (263, 6352), (286, 6409), (327, 6481), (337, 6520), (347, 6538), (369, 6607), (403, 6691), (419, 6724), (428, 6751), (447, 6814), (490, 6904), (493, 6910),

Gene: Jerm\_13 Start: 6833, Stop: 7825, Start Num: 111

Candidate Starts for Jerm\_13:

(Start: 111 @6833 has 315 MA's), (Start: 126 @6866 has 6 MA's), (Start: 135 @6884 has 1 MA's), (Start: 138 @6887 has 2 MA's), (233, 7055), (235, 7061), (247, 7088), (268, 7148), (286, 7193), (327, 7280), (341, 7325), (361, 7364), (376, 7412), (384, 7427), (417, 7493), (427, 7535), (458, 7622), (507, 7736),

Gene: Jerm2\_10 Start: 5731, Stop: 6699, Start Num: 111

Candidate Starts for Jerm2\_10:

(Start: 111 @5731 has 315 MA's), (Start: 126 @5764 has 6 MA's), (Start: 135 @5782 has 1 MA's), (Start: 138 @5785 has 2 MA's), (266, 6052), (286, 6103), (289, 6115), (327, 6190), (349, 6253), (361, 6286), (369, 6316), (374, 6334), (386, 6358), (407, 6397), (437, 6478), (445, 6502), (446, 6505), (448, 6508), (454, 6517), (495, 6604), (531, 6691),

Gene: Jessibeth14\_252 Start: 145564, Stop: 146592, Start Num: 87

Candidate Starts for Jessibeth14\_252:

(Start: 87 @145564 has 167 MA's), (Start: 105 @145594 has 4 MA's), (Start: 112 @145606 has 111 MA's), (130, 145648), (168, 145711), (177, 145732), (Start: 214 @145816 has 1 MA's), (235, 145858), (241, 145870), (250, 145885), (273, 145954), (286, 145981), (309, 146035), (324, 146080), (326, 146083), (354, 146161), (361, 146182), (407, 146293), (440, 146383), (445, 146401), (480, 146473), (496, 146506),

Gene: JetBlade\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for JetBlade\_10:



(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (320, 6301), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (470, 6700), (477, 6712), (511, 6778),

Gene: JigglyPuff\_258 Start: 146059, Stop: 147087, Start Num: 87

Candidate Starts for JigglyPuff\_258:

(Start: 87 @146059 has 167 MA's), (Start: 105 @146089 has 4 MA's), (Start: 112 @146101 has 111 MA's), (130, 146143), (168, 146206), (177, 146227), (Start: 214 @146311 has 1 MA's), (235, 146353), (241, 146365), (250, 146380), (273, 146449), (286, 146476), (309, 146530), (324, 146575), (326, 146578), (354, 146656), (361, 146677), (407, 146788), (440, 146878), (445, 146896), (480, 146968), (496, 147001),

Gene: Jinglebell\_30 Start: 27728, Stop: 28729, Start Num: 95

Candidate Starts for Jinglebell\_30:

(4, 27107), (6, 27185), (8, 27248), (14, 27287), (18, 27419), (22, 27440), (26, 27476), (Start: 56 @27629 has 7 MA's), (Start: 95 @27728 has 260 MA's), (Start: 105 @27749 has 4 MA's), (Start: 112 @27761 has 111 MA's), (130, 27803), (149, 27836), (168, 27866), (177, 27887), (Start: 214 @27971 has 1 MA's), (223, 27995), (235, 28010), (241, 28022), (286, 28133), (334, 28247), (341, 28265), (357, 28304), (365, 28328), (374, 28364), (388, 28391), (407, 28430), (445, 28538), (468, 28586), (474, 28598), (495, 28640), (496, 28643), (501, 28655), (515, 28685),

Gene: Job42\_35 Start: 29517, Stop: 30518, Start Num: 95

Candidate Starts for Job42\_35:

(Start: 95 @29517 has 260 MA's), (130, 29592), (149, 29625), (168, 29655), (177, 29676), (189, 29706), (196, 29718), (Start: 214 @29760 has 1 MA's), (223, 29784), (235, 29799), (241, 29811), (286, 29922), (326, 30006), (334, 30036), (341, 30054), (357, 30093), (365, 30117), (374, 30153), (388, 30180), (407, 30219), (428, 30267), (445, 30327), (468, 30375), (474, 30387), (496, 30432), (501, 30444), (515, 30474),

Gene: Jobu08\_12 Start: 6031, Stop: 6996, Start Num: 101

Candidate Starts for Jobu08\_12:

(Start: 101 @6031 has 93 MA's), (Start: 126 @6076 has 6 MA's), (Start: 138 @6097 has 2 MA's), (201, 6217), (263, 6355), (286, 6412), (291, 6427), (333, 6508), (337, 6523), (347, 6541), (365, 6592), (369, 6610), (388, 6655), (428, 6751), (447, 6814), (465, 6853), (490, 6904),

Gene: Jobypre\_28 Start: 26955, Stop: 27893, Start Num: 83

Candidate Starts for Jobypre\_28:

(Start: 46 @26850 has 17 MA's), (47, 26856), (55, 26883), (60, 26904), (83, 26955), (124, 27036), (178, 27141), (216, 27222), (218, 27228), (268, 27324), (275, 27342), (277, 27348), (280, 27354), (306, 27426), (329, 27483), (352, 27543), (378, 27618), (389, 27639), (441, 27663), (445, 27678), (450, 27690), (477, 27747), (523, 27849), (532, 27870),

Gene: JoeDirt\_26 Start: 25529, Stop: 26560, Start Num: 96

Candidate Starts for JoeDirt\_26:

(Start: 96 @25529 has 29 MA's), (182, 25685), (194, 25709), (198, 25721), (206, 25739), (211, 25757), (218, 25775), (219, 25781), (223, 25790), (228, 25805), (237, 25820), (255, 25868), (263, 25892), (286, 25949), (304, 25988), (336, 26066), (337, 26075), (339, 26078), (347, 26093), (364, 26147), (369, 26168), (373, 26183), (414, 26267), (425, 26297), (446, 26366), (454, 26378), (465, 26402), (471, 26420), (473, 26423), (480, 26435), (482, 26438), (496, 26468), (501, 26480),

Gene: JoeyJr\_31 Start: 27687, Stop: 28688, Start Num: 95

Candidate Starts for JoeyJr\_31:

(43, 27525), (Start: 95 @27687 has 260 MA's), (130, 27762), (149, 27795), (168, 27825), (177, 27846), (189, 27876), (196, 27888), (Start: 214 @27930 has 1 MA's), (223, 27954), (235, 27969), (241, 27981), (286, 28092), (334, 28206), (341, 28224), (357, 28263), (365, 28287), (374, 28323), (388, 28350), (407, 28389), (428, 28437), (445, 28497), (468, 28545), (474, 28557), (496, 28602), (501, 28614), (515, 28644),

Gene: Jolie1\_042 Start: 40346, Stop: 41341, Start Num: 111

Candidate Starts for Jolie1\_042:

(Start: 111 @40346 has 315 MA's), (125, 40376), (Start: 135 @40397 has 1 MA's), (Start: 138 @40400 has 2 MA's), (186, 40487), (209, 40535), (257, 40637), (285, 40700), (286, 40706), (302, 40742), (328, 40790), (365, 40883), (369, 40901), (408, 40988), (410, 40991), (428, 41051), (430, 41063), (433, 41075), (435, 41081), (477, 41186), (537, 41318),

Gene: JoongJeon\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for JoongJeon\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Jorgensen\_10 Start: 5816, Stop: 6784, Start Num: 111

Candidate Starts for Jorgensen\_10:

(Start: 111 @5816 has 315 MA's), (Start: 126 @5849 has 6 MA's), (Start: 135 @5867 has 1 MA's), (Start: 138 @5870 has 2 MA's), (235, 6059), (266, 6137), (286, 6188), (289, 6200), (327, 6275), (349, 6338), (361, 6371), (365, 6383), (369, 6401), (374, 6419), (386, 6443), (407, 6482), (437, 6563), (445, 6587), (446, 6590), (448, 6593), (454, 6602), (495, 6689), (531, 6776),

Gene: JoshKayV\_13 Start: 6822, Stop: 7814, Start Num: 111

Candidate Starts for JoshKayV\_13:

(Start: 111 @6822 has 315 MA's), (Start: 126 @6855 has 6 MA's), (Start: 135 @6873 has 1 MA's), (Start: 138 @6876 has 2 MA's), (155, 6909), (235, 7050), (247, 7077), (268, 7137), (286, 7182), (327, 7269), (341, 7314), (361, 7353), (376, 7401), (384, 7416), (417, 7482), (427, 7524), (458, 7611), (477, 7659), (507, 7725), (538, 7800),

Gene: Joy99\_31 Start: 26423, Stop: 27295, Start Num: 153

Candidate Starts for Joy99\_31:

(32, 26093), (100, 26321), (140, 26396), (Start: 153 @26423 has 137 MA's), (Start: 161 @26435 has 1 MA's), (192, 26504), (205, 26531), (Start: 214 @26561 has 1 MA's), (218, 26570), (238, 26606), (242, 26615), (254, 26648), (259, 26666), (274, 26696), (296, 26756), (349, 26891), (363, 26918), (369, 26939), (377, 26963), (405, 27014), (448, 27116), (466, 27152), (477, 27176), (523, 27275), (529, 27284),

Gene: Jsquared\_10 Start: 5553, Stop: 6317, Start Num: 229

Candidate Starts for Jsquared\_10:

(Start: 229 @5553 has 16 MA's), (286, 5697), (327, 5784), (334, 5811), (336, 5814), (337, 5823), (365, 5892), (369, 5910), (428, 6051), (434, 6078), (440, 6093), (445, 6111), (447, 6114), (490, 6204), (518, 6273),

Gene: Jubie\_28 Start: 26851, Stop: 27894, Start Num: 46

Candidate Starts for Jubie\_28:

(Start: 46 @26851 has 17 MA's), (47, 26857), (55, 26884), (60, 26905), (83, 26956), (124, 27037), (178, 27142), (216, 27223), (218, 27229), (268, 27325), (275, 27343), (277, 27349), (280, 27355), (306, 27427), (329, 27484), (352, 27544), (378, 27619), (389, 27640), (441, 27664), (445, 27679), (450, 27691), (477, 27748), (523, 27850), (532, 27871),

Gene: Juice456\_32 Start: 28821, Stop: 29822, Start Num: 95

Candidate Starts for Juice456\_32:

(Start: 95 @28821 has 260 MA's), (130, 28896), (149, 28929), (168, 28959), (177, 28980), (Start: 214 @29064 has 1 MA's), (241, 29115), (250, 29130), (286, 29226), (333, 29337), (341, 29358), (357, 29397), (361, 29409), (374, 29457), (388, 29484), (400, 29508), (407, 29523), (445, 29631), (468, 29679), (501, 29748), (515, 29778),

Gene: JuicyJay\_51 Start: 44324, Stop: 45190, Start Num: 91

Candidate Starts for JuicyJay\_51:

(Start: 91 @44324 has 31 MA's), (Start: 104 @44351 has 1 MA's), (116, 44372), (158, 44459), (168, 44480), (190, 44525), (202, 44546), (Start: 214 @44567 has 1 MA's), (243, 44621), (266, 44672), (288, 44723), (344, 44873), (360, 44915), (373, 44966), (380, 44984), (460, 45050), (463, 45062), (466, 45071), (479, 45101), (516, 45164),

Gene: JuliaChild\_12 Start: 6491, Stop: 7459, Start Num: 111

Candidate Starts for JuliaChild\_12:

(Start: 111 @6491 has 315 MA's), (Start: 126 @6524 has 6 MA's), (Start: 135 @6542 has 1 MA's), (Start: 138 @6545 has 2 MA's), (266, 6812), (286, 6863), (289, 6875), (327, 6950), (349, 7013), (355, 7025), (361, 7046), (369, 7076), (374, 7094), (386, 7118), (407, 7157), (437, 7238), (445, 7262), (446, 7265), (448, 7268), (454, 7277), (495, 7364), (515, 7409), (531, 7451),

Gene: JulietS\_244 Start: 141668, Stop: 142696, Start Num: 87

Candidate Starts for JulietS\_244:

(Start: 87 @141668 has 167 MA's), (Start: 105 @141698 has 4 MA's), (130, 141752), (168, 141815), (177, 141836), (Start: 214 @141920 has 1 MA's), (235, 141962), (241, 141974), (250, 141989), (273, 142058), (286, 142085), (309, 142139), (324, 142184), (326, 142187), (354, 142265), (361, 142286), (407, 142397), (440, 142487), (445, 142505), (480, 142577), (496, 142610),

Gene: Juliette\_34 Start: 27788, Stop: 28579, Start Num: 143

Candidate Starts for Juliette\_34:

(Start: 143 @27788 has 20 MA's), (Start: 161 @27821 has 1 MA's), (175, 27854), (185, 27878), (196, 27899), (200, 27908), (211, 27938), (Start: 214 @27947 has 1 MA's), (218, 27956), (238, 27992), (276, 28073), (349, 28280), (363, 28307), (369, 28328), (377, 28352), (445, 28376), (470, 28430), (477, 28442), (511, 28514),

Gene: Juniper1\_31 Start: 27486, Stop: 28487, Start Num: 95

Candidate Starts for Juniper1\_31:

(Start: 56 @27387 has 7 MA's), (Start: 95 @27486 has 260 MA's), (130, 27561), (149, 27594), (168, 27624), (177, 27645), (Start: 214 @27729 has 1 MA's), (223, 27753), (235, 27768), (241, 27780), (286, 27891), (334, 28005), (341, 28023), (357, 28062), (365, 28086), (374, 28122), (388, 28149), (407, 28188), (428, 28236), (445, 28296), (474, 28356), (496, 28401), (501, 28413), (515, 28443),

Gene: JustHall\_246 Start: 143618, Stop: 144646, Start Num: 87

Candidate Starts for JustHall\_246:

(Start: 87 @143618 has 167 MA's), (Start: 105 @143648 has 4 MA's), (Start: 112 @143660 has 111 MA's), (130, 143702), (168, 143765), (177, 143786), (Start: 214 @143870 has 1 MA's), (235, 143912), (241, 143924), (250, 143939), (273, 144008), (286, 144035), (309, 144089), (324, 144134), (326, 144137), (354, 144215), (361, 144236), (407, 144347), (440, 144437), (445, 144455), (480, 144527), (496, 144560),

Gene: KADY\_13 Start: 6046, Stop: 7011, Start Num: 101

Candidate Starts for KADY\_13:

(Start: 101 @6046 has 93 MA's), (Start: 126 @6091 has 6 MA's), (Start: 138 @6112 has 2 MA's), (201, 6232), (263, 6370), (286, 6427), (291, 6442), (333, 6523), (337, 6538), (347, 6556), (365, 6607), (369, 6625), (388, 6670), (428, 6766), (447, 6829), (490, 6919),

Gene: KBG\_11 Start: 6924, Stop: 7892, Start Num: 111

Candidate Starts for KBG\_11:

(Start: 111 @6924 has 315 MA's), (Start: 126 @6957 has 6 MA's), (Start: 135 @6975 has 1 MA's), (Start: 138 @6978 has 2 MA's), (266, 7245), (286, 7296), (289, 7308), (327, 7383), (349, 7446), (355, 7458), (361, 7479), (365, 7491), (369, 7509), (374, 7527), (386, 7551), (407, 7590), (437, 7671), (445, 7695), (446, 7698), (448, 7701), (454, 7710), (495, 7797), (531, 7884),

Gene: KFPoly\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for KFPoly\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: KSSJEB\_9 Start: 5491, Stop: 6459, Start Num: 111

Candidate Starts for KSSJEB\_9:

(Start: 111 @5491 has 315 MA's), (Start: 126 @5524 has 6 MA's), (Start: 135 @5542 has 1 MA's), (Start: 138 @5545 has 2 MA's), (266, 5812), (273, 5830), (286, 5863), (289, 5875), (327, 5950), (349, 6013), (361, 6046), (365, 6058), (369, 6076), (373, 6091), (374, 6094), (386, 6118), (407, 6157), (437, 6238), (445, 6262), (446, 6265), (448, 6268), (454, 6277), (495, 6364), (531, 6451),

Gene: Kachowdy\_10 Start: 5790, Stop: 6530, Start Num: 224

Candidate Starts for Kachowdy\_10:

(Start: 224 @5790 has 17 MA's), (263, 5877), (286, 5934), (289, 5946), (291, 5949), (304, 5973), (313, 5988), (321, 6006), (333, 6036), (336, 6042), (347, 6069), (369, 6138), (401, 6210), (419, 6252), (428, 6279), (434, 6306), (445, 6339), (447, 6342), (465, 6381), (533, 6522),

Gene: Kahlid\_28 Start: 26308, Stop: 27279, Start Num: 51

Candidate Starts for Kahlid\_28:

(Start: 51 @26308 has 22 MA's), (67, 26362), (125, 26482), (141, 26512), (147, 26527), (Start: 161 @26560 has 1 MA's), (162, 26563), (166, 26572), (175, 26593), (205, 26656), (218, 26683), (232, 26707), (245, 26737), (272, 26788), (277, 26800), (300, 26863), (306, 26878), (325, 26938), (330, 26953), (363, 27034), (368, 27052), (369, 27055), (371, 27058), (449, 27109), (470, 27154), (494, 27196), (514, 27238),

Gene: Kalah2\_49 Start: 42912, Stop: 43784, Start Num: 91

Candidate Starts for Kalah2\_49:

(Start: 91 @42912 has 31 MA's), (Start: 104 @42939 has 1 MA's), (132, 42999), (158, 43047), (190, 43113), (202, 43134), (Start: 214 @43155 has 1 MA's), (243, 43209), (279, 43290), (379, 43569), (380, 43572), (439, 43596), (452, 43632), (462, 43647), (466, 43659), (475, 43680),

Gene: Kalb97\_13 Start: 6031, Stop: 6996, Start Num: 101

Candidate Starts for Kalb97\_13:

(Start: 101 @6031 has 93 MA's), (Start: 138 @6097 has 2 MA's), (173, 6151), (208, 6229), (263, 6352), (286, 6409), (327, 6481), (337, 6520), (347, 6538), (369, 6607), (419, 6724), (428, 6751), (447, 6814), (490, 6904), (493, 6910),

Gene: Kalnoky\_13 Start: 6033, Stop: 6998, Start Num: 101

Candidate Starts for Kalnoky\_13:

(Start: 101 @6033 has 93 MA's), (Start: 138 @6099 has 2 MA's), (173, 6153), (208, 6231), (263, 6354), (286, 6411), (327, 6483), (337, 6522), (347, 6540), (369, 6609), (419, 6726), (428, 6753), (447, 6816), (490, 6906), (493, 6912),

Gene: Kalpine\_14 Start: 8215, Stop: 9192, Start Num: 111

Candidate Starts for Kalpine\_14:

(80, 8173), (Start: 111 @8215 has 315 MA's), (Start: 138 @8269 has 2 MA's), (263, 8506), (286, 8563), (327, 8647), (337, 8686), (365, 8755), (366, 8758), (369, 8773), (397, 8836), (416, 8878), (428, 8926), (434, 8953), (440, 8968), (445, 8986), (447, 8989),

Gene: Kamiyu\_47 Start: 41505, Stop: 42569, Start Num: 84

Candidate Starts for Kamiyu\_47:

(Start: 84 @41505 has 45 MA's), (115, 41568), (157, 41649), (189, 41715), (197, 41730), (203, 41742), (215, 41769), (245, 41826), (250, 41835), (308, 41982), (315, 41997), (333, 42051), (347, 42084), (362, 42123), (366, 42135), (401, 42216), (411, 42234), (412, 42237), (468, 42393), (521, 42504), (527, 42525), (541, 42558),

Gene: Kampy\_10 Start: 5882, Stop: 6862, Start Num: 112

Candidate Starts for Kampy\_10:

(Start: 112 @5882 has 111 MA's), (Start: 114 @5885 has 13 MA's), (125, 5909), (Start: 135 @5930 has 1 MA's), (Start: 138 @5933 has 2 MA's), (263, 6182), (286, 6239), (328, 6323), (333, 6344), (345, 6371), (362, 6401), (369, 6428), (428, 6578), (466, 6689), (470, 6701), (477, 6713), (511, 6779),

Gene: Kamryn\_251 Start: 145208, Stop: 146236, Start Num: 87

Candidate Starts for Kamryn\_251:

(Start: 87 @145208 has 167 MA's), (Start: 105 @145238 has 4 MA's), (Start: 112 @145250 has 111 MA's), (130, 145292), (168, 145355), (177, 145376), (Start: 214 @145460 has 1 MA's), (235, 145502), (241, 145514), (250, 145529), (273, 145598), (286, 145625), (309, 145679), (324, 145724), (326, 145727), (354, 145805), (361, 145826), (407, 145937), (440, 146027), (445, 146045), (480, 146117), (496, 146150),

Gene: Kanely\_11 Start: 6601, Stop: 7569, Start Num: 111

Candidate Starts for Kanely\_11:

(Start: 111 @6601 has 315 MA's), (Start: 126 @6634 has 6 MA's), (Start: 135 @6652 has 1 MA's), (Start: 138 @6655 has 2 MA's), (266, 6922), (286, 6973), (289, 6985), (327, 7060), (349, 7123), (361, 7156), (365, 7168), (369, 7186), (374, 7204), (386, 7228), (407, 7267), (437, 7348), (445, 7372), (446, 7375), (448, 7378), (454, 7387), (495, 7474), (531, 7561),

Gene: Kanye\_37 Start: 32844, Stop: 33701, Start Num: 136

Candidate Starts for Kanye\_37:

(Start: 136 @32844 has 124 MA's), (Start: 156 @32883 has 3 MA's), (166, 32913), (175, 32934), (191, 32970), (205, 33000), (236, 33075), (259, 33123), (262, 33126), (272, 33150), (274, 33153), (280, 33168), (346, 33339), (393, 33453), (398, 33468), (420, 33474), (444, 33516), (445, 33519), (470, 33573), (511, 33651), (522, 33684),

Gene: Karhdo\_31 Start: 27651, Stop: 28652, Start Num: 95

Candidate Starts for Karhdo\_31:

(5, 27030), (7, 27108), (9, 27171), (15, 27210), (22, 27363), (26, 27399), (Start: 95 @27651 has 260 MA's), (Start: 105 @27672 has 4 MA's), (Start: 112 @27684 has 111 MA's), (130, 27726), (168, 27789), (177, 27810), (189, 27840), (Start: 214 @27894 has 1 MA's), (223, 27918), (241, 27945), (286, 28056), (334, 28170), (341, 28188), (357, 28227), (365, 28251), (374, 28287), (388, 28314), (407, 28353), (428, 28401), (445, 28461), (474, 28521), (501, 28578), (515, 28608),

Gene: KashFlow\_42 Start: 36675, Stop: 37547, Start Num: 91

Candidate Starts for KashFlow\_42:

(38, 36504), (Start: 91 @36675 has 31 MA's), (Start: 104 @36702 has 1 MA's), (132, 36762), (163, 36819), (168, 36831), (190, 36876), (202, 36897), (Start: 214 @36918 has 1 MA's), (243, 36972), (279, 37053), (329, 37194), (379, 37332), (380, 37335), (439, 37359), (452, 37395), (462, 37410), (466, 37422), (475, 37443),

Gene: Katalie136\_10 Start: 5887, Stop: 6870, Start Num: 111

Candidate Starts for Katalie136\_10:

(Start: 111 @5887 has 315 MA's), (125, 5917), (Start: 135 @5938 has 1 MA's), (Start: 138 @5941 has 2 MA's), (263, 6190), (285, 6241), (286, 6247), (289, 6259), (305, 6289), (328, 6331), (345, 6379), (362, 6409), (369, 6436), (428, 6586), (470, 6709), (477, 6721), (481, 6730), (511, 6787), (540, 6862),

Gene: KayaCho\_42 Start: 40350, Stop: 41360, Start Num: 111

Candidate Starts for KayaCho\_42:

(Start: 111 @40350 has 315 MA's), (125, 40380), (Start: 135 @40401 has 1 MA's), (Start: 138 @40404 has 2 MA's), (186, 40491), (285, 40704), (286, 40710), (316, 40767), (320, 40773), (328, 40794), (360, 40884), (369, 40920), (408, 41007), (428, 41070), (430, 41082), (433, 41094), (449, 41139), (470, 41193), (477, 41205), (537, 41337),

Gene: Kboogie\_256 Start: 144247, Stop: 145275, Start Num: 87

Candidate Starts for Kboogie\_256:

(Start: 87 @144247 has 167 MA's), (Start: 105 @144277 has 4 MA's), (Start: 112 @144289 has 111 MA's), (130, 144331), (168, 144394), (177, 144415), (Start: 214 @144499 has 1 MA's), (235, 144541), (241, 144553), (250, 144568), (273, 144637), (286, 144664), (309, 144718), (324, 144763), (326, 144766), (354, 144844), (361, 144865), (407, 144976), (440, 145066), (445, 145084), (480, 145156), (496, 145189),

Gene: Kenmech\_12 Start: 6603, Stop: 7571, Start Num: 111

Candidate Starts for Kenmech\_12:

(Start: 111 @6603 has 315 MA's), (Start: 126 @6636 has 6 MA's), (Start: 135 @6654 has 1 MA's), (Start: 138 @6657 has 2 MA's), (266, 6924), (286, 6975), (289, 6987), (327, 7062), (361, 7158), (369, 7188), (374, 7206), (386, 7230), (407, 7269), (437, 7350), (445, 7374), (446, 7377), (448, 7380), (454, 7389), (495, 7476), (515, 7521), (531, 7563),

Gene: Kenuha5\_28 Start: 26636, Stop: 27637, Start Num: 95

Candidate Starts for Kenuha5\_28:

(Start: 95 @26636 has 260 MA's), (130, 26711), (149, 26744), (168, 26774), (177, 26795), (189, 26825), (196, 26837), (Start: 214 @26879 has 1 MA's), (241, 26930), (250, 26945), (286, 27041), (333, 27152), (341, 27173), (357, 27212), (361, 27224), (374, 27272), (388, 27299), (400, 27323), (407, 27338), (445, 27446), (468, 27494), (501, 27563), (515, 27593),

Gene: Kerberos\_14 Start: 6597, Stop: 7361, Start Num: 229

Candidate Starts for Kerberos\_14:

(Start: 229 @6597 has 16 MA's), (286, 6741), (327, 6828), (334, 6855), (337, 6867), (369, 6954), (419, 7068), (428, 7095), (445, 7155), (447, 7158), (464, 7194), (490, 7248), (512, 7296),

Gene: Kersh\_30 Start: 28727, Stop: 29728, Start Num: 95

Candidate Starts for Kersh\_30:

(Start: 56 @28628 has 7 MA's), (Start: 95 @28727 has 260 MA's), (Start: 105 @28748 has 4 MA's), (Start: 112 @28760 has 111 MA's), (130, 28802), (149, 28835), (168, 28865), (177, 28886), (Start: 214 @28970 has 1 MA's), (223, 28994), (235, 29009), (241, 29021), (286, 29132), (334, 29246), (341, 29264), (357, 29303), (365, 29327), (374, 29363), (388, 29390), (407, 29429), (428, 29477), (445,

29537), (468, 29585), (474, 29597), (496, 29642), (501, 29654), (515, 29684),

Gene: Keshu\_32 Start: 27384, Stop: 28172, Start Num: 153

Candidate Starts for Keshu\_32:

(140, 27360), (Start: 153 @27384 has 137 MA's), (175, 27429), (192, 27465), (Start: 214 @27522 has 1 MA's), (218, 27531), (238, 27567), (259, 27621), (271, 27645), (326, 27786), (349, 27849), (363, 27891), (369, 27912), (371, 27918), (377, 27936), (444, 27966), (477, 28035), (511, 28107), (523, 28137),

Gene: Khaleesi\_251 Start: 145031, Stop: 146059, Start Num: 87

Candidate Starts for Khaleesi\_251:

(Start: 87 @145031 has 167 MA's), (Start: 105 @145061 has 4 MA's), (Start: 112 @145073 has 111 MA's), (130, 145115), (168, 145178), (177, 145199), (Start: 214 @145283 has 1 MA's), (235, 145325), (241, 145337), (250, 145352), (273, 145421), (286, 145448), (309, 145502), (324, 145547), (326, 145550), (354, 145628), (361, 145649), (407, 145760), (440, 145850), (445, 145868), (480, 145940), (496, 145973),

Gene: KiSi\_30 Start: 25623, Stop: 26363, Start Num: 153

Candidate Starts for KiSi\_30:

(100, 25521), (Start: 110 @25542 has 4 MA's), (129, 25575), (140, 25596), (Start: 153 @25623 has 137 MA's), (175, 25668), (192, 25704), (218, 25761), (238, 25797), (254, 25839), (274, 25887), (296, 25947), (349, 26082), (363, 26109), (371, 26136), (377, 26154), (445, 26178), (466, 26220), (475, 26241), (477, 26244), (523, 26343),

Gene: Killigrew\_8 Start: 5466, Stop: 6434, Start Num: 111

Candidate Starts for Killigrew\_8:

(Start: 111 @5466 has 315 MA's), (Start: 126 @5499 has 6 MA's), (Start: 135 @5517 has 1 MA's), (Start: 138 @5520 has 2 MA's), (266, 5787), (273, 5805), (286, 5838), (289, 5850), (327, 5925), (349, 5988), (361, 6021), (369, 6051), (374, 6069), (386, 6093), (407, 6132), (437, 6213), (445, 6237), (446, 6240), (448, 6243), (454, 6252), (495, 6339), (531, 6426),

Gene: Kimberlium\_33 Start: 28888, Stop: 29646, Start Num: 214

Candidate Starts for Kimberlium\_33:

(Start: 214 @28888 has 1 MA's), (223, 28912), (235, 28927), (241, 28939), (286, 29050), (334, 29164), (341, 29182), (357, 29221), (365, 29245), (374, 29281), (388, 29308), (407, 29347), (445, 29455), (468, 29503), (474, 29515), (496, 29560), (501, 29572), (515, 29602),

Gene: Kimchi\_37 Start: 31851, Stop: 32708, Start Num: 136

Candidate Starts for Kimchi\_37:

(Start: 136 @31851 has 124 MA's), (Start: 156 @31890 has 3 MA's), (166, 31920), (175, 31941), (191, 31977), (205, 32007), (236, 32082), (259, 32130), (262, 32133), (272, 32157), (274, 32160), (280, 32175), (346, 32346), (393, 32460), (398, 32475), (420, 32481), (444, 32523), (445, 32526), (470, 32580), (511, 32658), (522, 32691),

Gene: Kimona\_7 Start: 3551, Stop: 4285, Start Num: 231

Candidate Starts for Kimona\_7:

(Start: 152 @3389 has 16 MA's), (Start: 231 @3551 has 2 MA's), (286, 3692), (291, 3707), (304, 3731), (336, 3800), (347, 3827), (369, 3896), (428, 4037), (434, 4064), (447, 4100), (465, 4139), (524, 4262),

Gene: KingCyrus\_13 Start: 6810, Stop: 7802, Start Num: 111

Candidate Starts for KingCyrus\_13:

(Start: 111 @6810 has 315 MA's), (Start: 135 @6861 has 1 MA's), (Start: 138 @6864 has 2 MA's), (170, 6912), (235, 7038), (247, 7065), (268, 7125), (286, 7170), (327, 7257), (341, 7302), (361, 7341), (376, 7389), (384, 7404), (417, 7470), (422, 7494), (427, 7512), (458, 7599), (477, 7647), (507, 7713), (538, 7788),

Gene: KingMidas\_33 Start: 29367, Stop: 30383, Start Num: 95

Candidate Starts for KingMidas\_33:

(40, 29223), (54, 29295), (Start: 95 @29367 has 260 MA's), (160, 29499), (168, 29520), (177, 29541), (Start: 214 @29625 has 1 MA's), (241, 29676), (286, 29787), (333, 29898), (341, 29919), (357, 29958), (361, 29970), (374, 30018), (388, 30045), (400, 30069), (407, 30084), (445, 30192), (474, 30252), (501, 30309), (515, 30339),

Gene: Kingmustik0402\_10 Start: 5873, Stop: 6853, Start Num: 112

Candidate Starts for Kingmustik0402\_10:

(Start: 112 @5873 has 111 MA's), (Start: 114 @5876 has 13 MA's), (125, 5900), (Start: 135 @5921 has 1 MA's), (Start: 138 @5924 has 2 MA's), (263, 6173), (286, 6230), (320, 6293), (328, 6314), (333, 6335), (345, 6362), (362, 6392), (369, 6419), (428, 6569), (466, 6680), (470, 6692), (477, 6704), (511, 6770),

Gene: Kingsley\_30 Start: 27238, Stop: 28308, Start Num: 95

Candidate Starts for Kingsley\_30:

(70, 27187), (Start: 95 @27238 has 260 MA's), (Start: 109 @27265 has 1 MA's), (121, 27292), (Start: 126 @27301 has 6 MA's), (157, 27361), (173, 27388), (203, 27454), (Start: 231 @27508 has 2 MA's), (250, 27550), (266, 27601), (308, 27715), (318, 27748), (339, 27823), (348, 27844), (401, 27973), (428, 28045), (464, 28141), (468, 28153), (501, 28222), (525, 28279), (529, 28288),

Gene: Kingsolomon\_28 Start: 26850, Stop: 27893, Start Num: 46

Candidate Starts for Kingsolomon\_28:

(Start: 46 @26850 has 17 MA's), (47, 26856), (55, 26883), (60, 26904), (83, 26955), (124, 27036), (178, 27141), (216, 27222), (218, 27228), (268, 27324), (275, 27342), (277, 27348), (280, 27354), (306, 27426), (329, 27483), (352, 27543), (378, 27618), (389, 27639), (441, 27663), (445, 27678), (450, 27690), (477, 27747), (523, 27849), (532, 27870),

Gene: Kinmap\_10 Start: 6423, Stop: 7412, Start Num: 111

Candidate Starts for Kinmap\_10:

(Start: 111 @6423 has 315 MA's), (125, 6453), (131, 6468), (Start: 138 @6477 has 2 MA's), (285, 6777), (286, 6783), (301, 6816), (302, 6819), (328, 6858), (345, 6906), (369, 6972), (428, 7122), (453, 7200), (461, 7215), (477, 7257), (494, 7293), (511, 7329),

Gene: KirDoubleO7\_26 Start: 26843, Stop: 27886, Start Num: 46

Candidate Starts for KirDoubleO7\_26:

(Start: 46 @26843 has 17 MA's), (47, 26849), (55, 26876), (60, 26897), (83, 26948), (124, 27029), (178, 27134), (216, 27215), (218, 27221), (240, 27263), (268, 27317), (275, 27335), (277, 27341), (280, 27347), (306, 27419), (329, 27476), (352, 27536), (378, 27611), (441, 27656), (445, 27671), (448, 27677), (477, 27740), (523, 27842), (532, 27863), (537, 27869),

Gene: KittenMittens\_9 Start: 3781, Stop: 4755, Start Num: 111

Candidate Starts for KittenMittens\_9:

(65, 3742), (Start: 111 @3781 has 315 MA's), (Start: 126 @3814 has 6 MA's), (Start: 138 @3835 has 2 MA's), (222, 4003), (241, 4045), (247, 4060), (286, 4165), (327, 4237), (334, 4264), (336, 4267), (337, 4276), (369, 4363), (428, 4510), (447, 4573), (465, 4612), (486, 4654),

Gene: Klein\_49 Start: 42136, Stop: 43002, Start Num: 91



Candidate Starts for Klein\_49:

(Start: 91 @42136 has 31 MA's), (Start: 104 @42163 has 1 MA's), (116, 42184), (158, 42271), (168, 42292), (190, 42337), (202, 42358), (Start: 214 @42379 has 1 MA's), (243, 42433), (266, 42484), (288, 42535), (344, 42685), (360, 42727), (373, 42778), (380, 42796), (460, 42862), (463, 42874), (466, 42883), (479, 42913), (516, 42976),

Gene: Knocker\_50 Start: 44291, Stop: 45292, Start Num: 110

Candidate Starts for Knocker\_50:

(Start: 110 @44291 has 4 MA's), (125, 44321), (Start: 135 @44342 has 1 MA's), (Start: 138 @44345 has 2 MA's), (170, 44393), (186, 44432), (235, 44519), (285, 44645), (286, 44651), (302, 44687), (320, 44714), (328, 44735), (350, 44798), (361, 44816), (369, 44846), (380, 44876), (413, 44942), (432, 45017), (433, 45020), (448, 45062), (452, 45071), (477, 45131), (481, 45140), (530, 45251), (537, 45263), (542, 45281),

Gene: Koduck\_11 Start: 5840, Stop: 6604, Start Num: 229

Candidate Starts for Koduck\_11:

(Start: 229 @5840 has 16 MA's), (286, 5984), (334, 6098), (336, 6101), (337, 6110), (369, 6197), (397, 6260), (428, 6338), (434, 6365), (440, 6380), (445, 6398), (447, 6401), (490, 6491), (518, 6560),

Gene: Koella\_25 Start: 23673, Stop: 24674, Start Num: 95

Candidate Starts for Koella\_25:

(Start: 95 @23673 has 260 MA's), (Start: 105 @23694 has 4 MA's), (Start: 112 @23706 has 111 MA's), (130, 23748), (168, 23811), (177, 23832), (189, 23862), (Start: 214 @23916 has 1 MA's), (223, 23940), (235, 23955), (241, 23967), (286, 24078), (334, 24192), (341, 24210), (357, 24249), (365, 24273), (374, 24309), (388, 24336), (407, 24375), (428, 24423), (445, 24483), (474, 24543), (501, 24600), (515, 24630),

Gene: Koguma\_251 Start: 143830, Stop: 144858, Start Num: 87

Candidate Starts for Koguma\_251:

(Start: 87 @143830 has 167 MA's), (Start: 105 @143860 has 4 MA's), (Start: 112 @143872 has 111 MA's), (130, 143914), (168, 143977), (177, 143998), (Start: 214 @144082 has 1 MA's), (235, 144124), (241, 144136), (250, 144151), (273, 144220), (286, 144247), (309, 144301), (324, 144346), (326, 144349), (354, 144427), (361, 144448), (407, 144559), (440, 144649), (445, 144667), (480, 144739), (496, 144772),

Gene: Koreni\_9 Start: 5530, Stop: 6510, Start Num: 112

Candidate Starts for Koreni\_9:

(Start: 112 @5530 has 111 MA's), (Start: 114 @5533 has 13 MA's), (125, 5557), (Start: 135 @5578 has 1 MA's), (Start: 138 @5581 has 2 MA's), (263, 5830), (286, 5887), (328, 5971), (333, 5992), (345, 6019), (369, 6076), (428, 6226), (466, 6337), (470, 6349), (477, 6361), (511, 6427),

Gene: Kostya\_36 Start: 31859, Stop: 32716, Start Num: 136

Candidate Starts for Kostya\_36:

(Start: 136 @31859 has 124 MA's), (Start: 156 @31898 has 3 MA's), (166, 31928), (175, 31949), (191, 31985), (205, 32015), (236, 32090), (259, 32138), (262, 32141), (272, 32165), (274, 32168), (280, 32183), (346, 32354), (393, 32468), (398, 32483), (420, 32489), (444, 32531), (445, 32534), (470, 32588), (511, 32666), (522, 32699),

Gene: Krakatau\_32 Start: 28214, Stop: 29215, Start Num: 95

Candidate Starts for Krakatau\_32:

(Start: 95 @28214 has 260 MA's), (Start: 105 @28235 has 4 MA's), (Start: 112 @28247 has 111 MA's), (130, 28289), (168, 28352), (177, 28373), (189, 28403), (Start: 214 @28457 has 1 MA's), (223, 28481), (241, 28508), (286, 28619), (334, 28733), (341, 28751), (357, 28790), (365, 28814), (374,

28850), (388, 28877), (407, 28916), (428, 28964), (445, 29024), (474, 29084), (501, 29141), (515, 29171),

Gene: Kratak\_10 Start: 5876, Stop: 6856, Start Num: 112

Candidate Starts for Kratak\_10:

(Start: 112 @5876 has 111 MA's), (125, 5903), (Start: 138 @5927 has 2 MA's), (219, 6092), (263, 6176), (286, 6233), (289, 6245), (320, 6296), (328, 6317), (333, 6338), (345, 6365), (361, 6392), (369, 6422), (428, 6572), (470, 6695), (477, 6707), (511, 6773),

Gene: Kratio\_29 Start: 26874, Stop: 27623, Start Num: 161

Candidate Starts for Kratio\_29:

(129, 26814), (Start: 152 @26862 has 16 MA's), (Start: 161 @26874 has 1 MA's), (162, 26877), (164, 26880), (175, 26907), (192, 26943), (216, 27003), (218, 27009), (234, 27039), (238, 27045), (242, 27054), (254, 27087), (271, 27129), (272, 27132), (277, 27144), (290, 27180), (296, 27195), (308, 27231), (349, 27330), (363, 27357), (369, 27378), (448, 27441), (462, 27465), (470, 27489), (503, 27558), (523, 27603), (529, 27612),

Gene: Kremtemulon\_10 Start: 5926, Stop: 6906, Start Num: 112

Candidate Starts for Kremtemulon\_10:

(Start: 112 @5926 has 111 MA's), (125, 5953), (Start: 135 @5974 has 1 MA's), (Start: 138 @5977 has 2 MA's), (263, 6226), (285, 6277), (286, 6283), (289, 6295), (325, 6358), (328, 6367), (345, 6415), (369, 6472), (428, 6622), (433, 6646), (444, 6679), (467, 6736), (477, 6757), (511, 6823), (540, 6898),

Gene: Krili\_66 Start: 42929, Stop: 43969, Start Num: 95

Candidate Starts for Krili\_66:

(Start: 95 @42929 has 260 MA's), (130, 43004), (168, 43085), (170, 43091), (177, 43106), (213, 43187), (Start: 214 @43190 has 1 MA's), (241, 43244), (250, 43259), (286, 43355), (304, 43394), (312, 43424), (324, 43454), (326, 43457), (336, 43490), (361, 43556), (372, 43595), (374, 43604), (388, 43631), (407, 43670), (478, 43844), (501, 43895),

Gene: KristaRAM\_32 Start: 28344, Stop: 29345, Start Num: 95

Candidate Starts for KristaRAM\_32:

(Start: 95 @28344 has 260 MA's), (130, 28419), (149, 28452), (168, 28482), (177, 28503), (Start: 214 @28587 has 1 MA's), (241, 28638), (250, 28653), (286, 28749), (333, 28860), (341, 28881), (357, 28920), (361, 28932), (374, 28980), (388, 29007), (400, 29031), (407, 29046), (445, 29154), (468, 29202), (501, 29271), (515, 29301),

Gene: Kristoff\_11 Start: 5884, Stop: 6858, Start Num: 111

Candidate Starts for Kristoff\_11:

(Start: 111 @5884 has 315 MA's), (Start: 138 @5938 has 2 MA's), (216, 6091), (286, 6253), (291, 6268), (302, 6289), (333, 6361), (336, 6367), (337, 6376), (365, 6445), (369, 6463), (388, 6508), (397, 6526), (428, 6604), (434, 6631), (440, 6646), (447, 6667), (465, 6706), (490, 6757), (508, 6799), (534, 6850),

Gene: Kronus\_46 Start: 42116, Stop: 43180, Start Num: 84

Candidate Starts for Kronus\_46:

(Start: 84 @42116 has 45 MA's), (115, 42179), (157, 42260), (189, 42326), (197, 42341), (203, 42353), (215, 42380), (245, 42437), (250, 42446), (308, 42593), (315, 42608), (333, 42662), (347, 42695), (362, 42734), (366, 42746), (401, 42827), (411, 42845), (412, 42848), (428, 42893), (468, 43004), (521, 43115), (527, 43136), (541, 43169),

Gene: Krueger\_31 Start: 25731, Stop: 26474, Start Num: 153

Candidate Starts for Krueger\_31:

(36, 25440), (45, 25482), (100, 25629), (Start: 110 @25650 has 4 MA's), (129, 25683), (140, 25704), (Start: 153 @25731 has 137 MA's), (173, 25773), (175, 25779), (192, 25815), (Start: 214 @25863 has 1 MA's), (218, 25872), (238, 25908), (254, 25950), (296, 26058), (349, 26193), (360, 26208), (363, 26220), (369, 26241), (385, 26256), (387, 26259), (421, 26265), (470, 26343), (509, 26424), (521, 26445), (523, 26454),

Gene: Krypton555\_28 Start: 26752, Stop: 27795, Start Num: 46

Candidate Starts for Krypton555\_28:

(Start: 46 @26752 has 17 MA's), (47, 26758), (50, 26764), (55, 26785), (60, 26806), (83, 26857), (99, 26887), (124, 26938), (141, 26971), (145, 26983), (178, 27043), (216, 27124), (218, 27130), (242, 27175), (268, 27226), (275, 27244), (277, 27250), (280, 27256), (306, 27328), (329, 27385), (352, 27445), (378, 27520), (389, 27541), (441, 27565), (445, 27580), (448, 27586), (477, 27649), (523, 27751), (532, 27772), (537, 27778),

Gene: Kugel\_11 Start: 6058, Stop: 7026, Start Num: 111

Candidate Starts for Kugel\_11:

(Start: 111 @6058 has 315 MA's), (Start: 126 @6091 has 6 MA's), (Start: 135 @6109 has 1 MA's), (Start: 138 @6112 has 2 MA's), (266, 6379), (286, 6430), (289, 6442), (327, 6517), (349, 6580), (355, 6592), (361, 6613), (365, 6625), (369, 6643), (374, 6661), (386, 6685), (407, 6724), (437, 6805), (445, 6829), (446, 6832), (448, 6835), (454, 6844), (495, 6931), (515, 6976), (531, 7018),

Gene: Kumao\_39 Start: 34279, Stop: 35301, Start Num: 49

Candidate Starts for Kumao\_39:

(41, 34234), (Start: 49 @34279 has 10 MA's), (57, 34306), (59, 34321), (81, 34375), (102, 34417), (107, 34429), (147, 34510), (166, 34549), (174, 34567), (185, 34594), (188, 34600), (198, 34621), (Start: 214 @34654 has 1 MA's), (218, 34663), (242, 34708), (256, 34741), (271, 34774), (272, 34777), (274, 34780), (277, 34789), (282, 34801), (284, 34804), (329, 34936), (363, 35029), (444, 35095), (448, 35104), (449, 35107), (450, 35110), (466, 35140), (470, 35152), (479, 35170), (523, 35263), (535, 35287),

Gene: KyMonks1A\_12 Start: 6335, Stop: 7303, Start Num: 111

Candidate Starts for KyMonks1A\_12:

(Start: 111 @6335 has 315 MA's), (Start: 126 @6368 has 6 MA's), (Start: 135 @6386 has 1 MA's), (Start: 138 @6389 has 2 MA's), (266, 6656), (286, 6707), (289, 6719), (327, 6794), (349, 6857), (355, 6869), (361, 6890), (365, 6902), (369, 6920), (374, 6938), (386, 6962), (407, 7001), (437, 7082), (445, 7106), (446, 7109), (448, 7112), (454, 7121), (495, 7208), (531, 7295),

Gene: Kyee\_10 Start: 5882, Stop: 6862, Start Num: 112

Candidate Starts for Kyee\_10:

(Start: 112 @5882 has 111 MA's), (Start: 114 @5885 has 13 MA's), (125, 5909), (Start: 135 @5930 has 1 MA's), (Start: 138 @5933 has 2 MA's), (263, 6182), (286, 6239), (328, 6323), (333, 6344), (345, 6371), (362, 6401), (369, 6428), (428, 6578), (466, 6689), (470, 6701), (477, 6713),

Gene: Kykar\_8 Start: 5555, Stop: 6523, Start Num: 111

Candidate Starts for Kykar\_8:

(Start: 111 @5555 has 315 MA's), (Start: 126 @5588 has 6 MA's), (Start: 135 @5606 has 1 MA's), (Start: 138 @5609 has 2 MA's), (266, 5876), (273, 5894), (286, 5927), (289, 5939), (327, 6014), (349, 6077), (359, 6101), (369, 6140), (374, 6158), (407, 6221), (437, 6302), (445, 6326), (446, 6329), (448, 6332), (454, 6341), (495, 6428), (515, 6473), (531, 6515),

Gene: L5\_12 Start: 5848, Stop: 6612, Start Num: 229

Candidate Starts for L5\_12:

(Start: 229 @5848 has 16 MA's), (286, 5992), (334, 6106), (336, 6109), (337, 6118), (369, 6205), (397, 6268), (428, 6346), (434, 6373), (440, 6388), (445, 6406), (447, 6409), (490, 6499), (518, 6568),

Gene: LBerry\_12 Start: 5962, Stop: 6927, Start Num: 101

Candidate Starts for LBerry\_12:

(Start: 101 @5962 has 93 MA's), (Start: 126 @6007 has 6 MA's), (Start: 138 @6028 has 2 MA's), (201, 6148), (263, 6286), (286, 6343), (291, 6358), (333, 6439), (337, 6454), (347, 6472), (365, 6523), (369, 6541), (388, 6586), (428, 6682), (447, 6745), (465, 6784), (490, 6835),

Gene: LHTSCC\_10 Start: 5858, Stop: 6838, Start Num: 112

Candidate Starts for LHTSCC\_10:

(Start: 112 @5858 has 111 MA's), (125, 5885), (Start: 135 @5906 has 1 MA's), (Start: 138 @5909 has 2 MA's), (263, 6158), (286, 6215), (289, 6227), (320, 6278), (328, 6299), (345, 6347), (369, 6404), (428, 6554), (470, 6677), (477, 6689), (511, 6755),

Gene: LRRHood\_244 Start: 143240, Stop: 144268, Start Num: 87

Candidate Starts for LRRHood\_244:

(Start: 87 @143240 has 167 MA's), (Start: 105 @143270 has 4 MA's), (Start: 112 @143282 has 111 MA's), (130, 143324), (168, 143387), (177, 143408), (Start: 214 @143492 has 1 MA's), (235, 143534), (241, 143546), (250, 143561), (273, 143630), (286, 143657), (309, 143711), (324, 143756), (326, 143759), (354, 143837), (361, 143858), (407, 143969), (440, 144059), (445, 144077), (480, 144149), (496, 144182),

Gene: Labelle\_41 Start: 35243, Stop: 36268, Start Num: 88

Candidate Starts for Labelle\_41:

(Start: 88 @35243 has 3 MA's), (168, 35378), (203, 35453), (245, 35537), (250, 35546), (256, 35570), (259, 35579), (300, 35672), (333, 35771), (347, 35804), (353, 35819), (361, 35840), (364, 35849), (401, 35936), (411, 35954), (424, 35984), (428, 36002), (436, 36038), (468, 36113), (474, 36125), (476, 36128), (495, 36167), (521, 36224),

Gene: LadyBird\_11 Start: 6410, Stop: 7387, Start Num: 111

Candidate Starts for LadyBird\_11:

(Start: 111 @6410 has 315 MA's), (Start: 138 @6464 has 2 MA's), (180, 6521), (247, 6653), (257, 6689), (263, 6701), (286, 6758), (302, 6794), (327, 6842), (337, 6881), (366, 6953), (369, 6968), (397, 7031), (416, 7073), (428, 7121), (434, 7148), (440, 7163), (445, 7181), (447, 7184), (490, 7274), (527, 7373),

Gene: Lambert1\_11 Start: 6052, Stop: 7017, Start Num: 101

Candidate Starts for Lambert1\_11:

(Start: 101 @6052 has 93 MA's), (Start: 126 @6097 has 6 MA's), (Start: 138 @6118 has 2 MA's), (201, 6238), (209, 6253), (Start: 231 @6292 has 2 MA's), (263, 6376), (286, 6433), (291, 6448), (333, 6529), (337, 6544), (347, 6562), (365, 6613), (369, 6631), (388, 6676), (428, 6772), (447, 6835), (465, 6874), (490, 6925),

Gene: Lamina13\_10 Start: 5611, Stop: 6579, Start Num: 111

Candidate Starts for Lamina13\_10:

(Start: 111 @5611 has 315 MA's), (Start: 126 @5644 has 6 MA's), (Start: 135 @5662 has 1 MA's), (Start: 138 @5665 has 2 MA's), (266, 5932), (286, 5983), (289, 5995), (327, 6070), (349, 6133), (361, 6166), (365, 6178), (369, 6196), (374, 6214), (407, 6277), (437, 6358), (445, 6382), (446, 6385), (448, 6388), (454, 6397), (495, 6484), (531, 6571),

Gene: Landor\_12 Start: 8193, Stop: 9179, Start Num: 111

Candidate Starts for Landor\_12:

(Start: 111 @8193 has 315 MA's), (125, 8223), (Start: 126 @8226 has 6 MA's), (Start: 138 @8247 has 2 MA's), (209, 8382), (285, 8547), (286, 8553), (325, 8628), (328, 8637), (369, 8748), (396, 8808), (413, 8844), (428, 8898), (433, 8922), (435, 8928), (452, 8973), (477, 9033), (481, 9042),

Gene: LappelDuVide\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for LappelDuVide\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Larenn\_12 Start: 6724, Stop: 7707, Start Num: 111

Candidate Starts for Larenn\_12:

(Start: 111 @6724 has 315 MA's), (125, 6754), (Start: 126 @6757 has 6 MA's), (Start: 138 @6778 has 2 MA's), (257, 7015), (263, 7027), (273, 7054), (286, 7084), (289, 7096), (297, 7108), (326, 7162), (343, 7213), (369, 7273), (428, 7420), (452, 7495), (460, 7510), (477, 7555), (511, 7627), (530, 7681),

Gene: LarryKay\_12 Start: 6048, Stop: 7013, Start Num: 101

Candidate Starts for LarryKay\_12:

(Start: 101 @6048 has 93 MA's), (Start: 126 @6093 has 6 MA's), (Start: 138 @6114 has 2 MA's), (201, 6234), (263, 6372), (286, 6429), (291, 6444), (333, 6525), (337, 6540), (347, 6558), (365, 6609), (369, 6627), (388, 6672), (428, 6768), (447, 6831), (465, 6870), (490, 6921),

Gene: Larva\_31 Start: 27026, Stop: 27787, Start Num: 152

Candidate Starts for Larva\_31:

(129, 26978), (Start: 152 @27026 has 16 MA's), (Start: 161 @27038 has 1 MA's), (164, 27044), (175, 27071), (192, 27107), (216, 27167), (218, 27173), (234, 27203), (238, 27209), (242, 27218), (254, 27251), (271, 27293), (272, 27296), (277, 27308), (290, 27344), (296, 27359), (308, 27395), (349, 27494), (363, 27521), (369, 27542), (448, 27605), (462, 27629), (470, 27653), (503, 27722), (523, 27767), (529, 27776),

Gene: LastHope\_31 Start: 25598, Stop: 26452, Start Num: 153

Candidate Starts for LastHope\_31:

(100, 25496), (Start: 110 @25517 has 4 MA's), (129, 25550), (140, 25571), (Start: 153 @25598 has 137 MA's), (Start: 161 @25610 has 1 MA's), (162, 25613), (173, 25637), (175, 25643), (188, 25673), (Start: 214 @25733 has 1 MA's), (218, 25742), (254, 25820), (349, 26063), (360, 26078), (363, 26090), (369, 26111), (377, 26135), (421, 26207), (448, 26273), (467, 26312), (477, 26333), (529, 26441),

Gene: LastJedi\_25 Start: 23704, Stop: 24705, Start Num: 95

Candidate Starts for LastJedi\_25:

(Start: 95 @23704 has 260 MA's), (Start: 105 @23725 has 4 MA's), (Start: 112 @23737 has 111 MA's), (130, 23779), (168, 23842), (177, 23863), (189, 23893), (Start: 214 @23947 has 1 MA's), (223, 23971), (235, 23986), (241, 23998), (286, 24109), (334, 24223), (341, 24241), (357, 24280), (365, 24304), (374, 24340), (388, 24367), (407, 24406), (428, 24454), (445, 24514), (474, 24574), (501, 24631), (515, 24661),

Gene: Latch\_252 Start: 143793, Stop: 144821, Start Num: 87

Candidate Starts for Latch\_252:

(Start: 87 @143793 has 167 MA's), (Start: 105 @143823 has 4 MA's), (Start: 112 @143835 has 111 MA's), (130, 143877), (168, 143940), (177, 143961), (Start: 214 @144045 has 1 MA's), (235, 144087), (241, 144099), (250, 144114), (273, 144183), (286, 144210), (309, 144264), (324, 144309), (326, 144312), (354, 144390), (361, 144411), (407, 144522), (440, 144612), (445, 144630), (480, 144702), (496, 144735),

Gene: LaterM\_31 Start: 26387, Stop: 27259, Start Num: 153

Candidate Starts for LaterM\_31:

(140, 26360), (Start: 153 @26387 has 137 MA's), (Start: 161 @26399 has 1 MA's), (192, 26468), (205, 26495), (Start: 214 @26525 has 1 MA's), (218, 26534), (238, 26570), (242, 26579), (254, 26612), (259, 26630), (296, 26720), (349, 26855), (363, 26882), (369, 26903), (377, 26927), (405, 26978), (448, 27080), (466, 27116), (477, 27140), (523, 27239), (529, 27248),

Gene: Latretium\_32 Start: 28306, Stop: 29304, Start Num: 95

Candidate Starts for Latretium\_32:

(Start: 95 @28306 has 260 MA's), (130, 28381), (168, 28441), (177, 28462), (Start: 214 @28546 has 1 MA's), (241, 28597), (250, 28612), (286, 28708), (334, 28822), (341, 28840), (357, 28879), (361, 28891), (374, 28939), (388, 28966), (400, 28990), (407, 29005), (445, 29113), (468, 29161), (501, 29230), (515, 29260),

Gene: LeBron\_26 Start: 25573, Stop: 26604, Start Num: 96

Candidate Starts for LeBron\_26:

(Start: 96 @25573 has 29 MA's), (182, 25729), (194, 25753), (198, 25765), (206, 25783), (211, 25801), (218, 25819), (219, 25825), (223, 25834), (228, 25849), (237, 25864), (255, 25912), (263, 25936), (286, 25993), (304, 26032), (336, 26110), (337, 26119), (339, 26122), (347, 26137), (364, 26191), (369, 26212), (373, 26227), (414, 26311), (425, 26341), (446, 26410), (454, 26422), (465, 26446), (471, 26464), (473, 26467), (480, 26479), (482, 26482), (496, 26512), (501, 26524),

Gene: LeMond\_30 Start: 25694, Stop: 26434, Start Num: 153

Candidate Starts for LeMond\_30:

(100, 25592), (Start: 110 @25613 has 4 MA's), (129, 25646), (140, 25667), (Start: 153 @25694 has 137 MA's), (175, 25739), (192, 25775), (218, 25832), (238, 25868), (254, 25910), (296, 26018), (349, 26153), (363, 26180), (377, 26225), (445, 26249), (466, 26291), (475, 26312), (477, 26315), (523, 26414),

Gene: Lee7\_253 Start: 146894, Stop: 147922, Start Num: 87

Candidate Starts for Lee7\_253:

(Start: 87 @146894 has 167 MA's), (Start: 105 @146924 has 4 MA's), (Start: 112 @146936 has 111 MA's), (130, 146978), (168, 147041), (177, 147062), (Start: 214 @147146 has 1 MA's), (235, 147188), (241, 147200), (250, 147215), (273, 147284), (286, 147311), (309, 147365), (324, 147410), (326, 147413), (354, 147491), (361, 147512), (407, 147623), (440, 147713), (445, 147731), (480, 147803), (496, 147836),

Gene: Lemur\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Lemur\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712),

Gene: LeoAvram\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for LeoAvram\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (Start: 138 @5932 has 2 MA's), (209, 6067), (218, 6091), (263, 6181), (286, 6238), (320, 6301), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (470, 6700), (477, 6712), (526, 6823),

Gene: Leogania\_13 Start: 8570, Stop: 9553, Start Num: 111

Candidate Starts for Leogania\_13:

(Start: 111 @8570 has 315 MA's), (Start: 135 @8621 has 1 MA's), (Start: 138 @8624 has 2 MA's), (286, 8948), (291, 8963), (327, 9032), (333, 9056), (337, 9071), (365, 9140), (369, 9158), (428, 9302), (447, 9365), (465, 9404), (475, 9428), (486, 9446),

Gene: Leopard\_46 Start: 36660, Stop: 37541, Start Num: 98

Candidate Starts for Leopard\_46:

(Start: 98 @36660 has 3 MA's), (148, 36756), (151, 36762), (190, 36846), (195, 36858), (244, 36960), (279, 37038), (288, 37059), (329, 37182), (342, 37221), (360, 37266), (380, 37335), (448, 37386), (452, 37395), (461, 37404), (465, 37419), (492, 37464), (507, 37500),

Gene: Leozinho\_33 Start: 27931, Stop: 28947, Start Num: 95

Candidate Starts for Leozinho\_33:

(40, 27787), (54, 27859), (Start: 95 @27931 has 260 MA's), (160, 28063), (168, 28084), (177, 28105), (Start: 214 @28189 has 1 MA's), (241, 28240), (286, 28351), (333, 28462), (341, 28483), (357, 28522), (361, 28534), (374, 28582), (388, 28609), (400, 28633), (407, 28648), (445, 28756), (468, 28804), (474, 28816), (496, 28861), (501, 28873), (515, 28903),

Gene: Leperchaun\_31 Start: 27593, Stop: 28594, Start Num: 95

Candidate Starts for Leperchaun\_31:

(Start: 95 @27593 has 260 MA's), (Start: 105 @27614 has 4 MA's), (Start: 112 @27626 has 111 MA's), (130, 27668), (168, 27731), (177, 27752), (189, 27782), (Start: 214 @27836 has 1 MA's), (223, 27860), (241, 27887), (286, 27998), (334, 28112), (341, 28130), (357, 28169), (365, 28193), (374, 28229), (388, 28256), (407, 28295), (445, 28403), (468, 28451), (474, 28463), (495, 28505), (496, 28508), (501, 28520), (515, 28550),

Gene: Lesedi\_9 Start: 5770, Stop: 6738, Start Num: 111

Candidate Starts for Lesedi\_9:

(Start: 111 @5770 has 315 MA's), (Start: 126 @5803 has 6 MA's), (Start: 138 @5824 has 2 MA's), (235, 6013), (266, 6091), (286, 6142), (289, 6154), (327, 6229), (349, 6292), (355, 6304), (361, 6325), (365, 6337), (369, 6355), (374, 6373), (386, 6397), (407, 6436), (437, 6517), (445, 6541), (446, 6544), (448, 6547), (454, 6556), (495, 6643), (531, 6730),

Gene: Leston\_30 Start: 27176, Stop: 28048, Start Num: 153

Candidate Starts for Leston\_30:

(Start: 153 @27176 has 137 MA's), (Start: 161 @27188 has 1 MA's), (164, 27194), (175, 27221), (188, 27251), (192, 27257), (Start: 214 @27311 has 1 MA's), (218, 27320), (222, 27332), (242, 27365), (254, 27398), (274, 27446), (299, 27515), (363, 27668), (368, 27686), (369, 27689), (394, 27749), (405, 27767), (421, 27794), (448, 27866), (466, 27902), (467, 27905), (477, 27926), (503, 27983), (521, 28019), (523, 28028), (529, 28037),

Gene: LestyG\_47 Start: 41537, Stop: 42601, Start Num: 84

Candidate Starts for LestyG\_47:

(Start: 84 @41537 has 45 MA's), (115, 41600), (157, 41681), (189, 41747), (197, 41762), (203, 41774), (215, 41801), (245, 41858), (250, 41867), (308, 42014), (315, 42029), (333, 42083), (347, 42116), (362, 42155), (366, 42167), (401, 42248), (411, 42266), (412, 42269), (468, 42425), (521, 42536), (527, 42557), (541, 42590),

Gene: Leviathan\_13 Start: 6865, Stop: 7857, Start Num: 111

Candidate Starts for Leviathan\_13:

(Start: 111 @6865 has 315 MA's), (Start: 135 @6916 has 1 MA's), (Start: 138 @6919 has 2 MA's), (233, 7087), (235, 7093), (247, 7120), (268, 7180), (286, 7225), (327, 7312), (341, 7357), (361, 7396), (376, 7444), (417, 7525), (427, 7567), (458, 7654), (507, 7768),

Gene: Lewan\_28 Start: 26303, Stop: 27274, Start Num: 51

Candidate Starts for Lewan\_28:

(Start: 51 @26303 has 22 MA's), (67, 26357), (125, 26477), (141, 26507), (147, 26522), (Start: 161 @26555 has 1 MA's), (162, 26558), (166, 26567), (175, 26588), (205, 26651), (218, 26678), (232, 26702), (245, 26732), (272, 26783), (277, 26795), (300, 26858), (306, 26873), (325, 26933), (330, 26948), (363, 27029), (368, 27047), (369, 27050), (371, 27053), (449, 27104), (470, 27149), (494, 27191), (514, 27233),

Gene: Licorice\_12 Start: 6660, Stop: 7595, Start Num: 126

Candidate Starts for Licorice\_12:

(Start: 111 @6627 has 315 MA's), (Start: 126 @6660 has 6 MA's), (Start: 135 @6678 has 1 MA's), (Start: 138 @6681 has 2 MA's), (266, 6948), (286, 6999), (289, 7011), (327, 7086), (349, 7149), (355, 7161), (361, 7182), (365, 7194), (369, 7212), (374, 7230), (407, 7293), (437, 7374), (445, 7398), (446, 7401), (448, 7404), (454, 7413), (495, 7500), (515, 7545), (531, 7587),

Gene: LifeSavor\_253 Start: 145021, Stop: 146049, Start Num: 87

Candidate Starts for LifeSavor\_253:

(Start: 87 @145021 has 167 MA's), (Start: 105 @145051 has 4 MA's), (Start: 112 @145063 has 111 MA's), (130, 145105), (168, 145168), (177, 145189), (Start: 214 @145273 has 1 MA's), (235, 145315), (241, 145327), (250, 145342), (273, 145411), (286, 145438), (309, 145492), (324, 145537), (326, 145540), (354, 145618), (361, 145639), (407, 145750), (440, 145840), (445, 145858), (480, 145930), (496, 145963),

Gene: LilBib\_11 Start: 6570, Stop: 7538, Start Num: 111

Candidate Starts for LilBib\_11:

(Start: 111 @6570 has 315 MA's), (Start: 126 @6603 has 6 MA's), (Start: 135 @6621 has 1 MA's), (Start: 138 @6624 has 2 MA's), (266, 6891), (286, 6942), (289, 6954), (327, 7029), (349, 7092), (361, 7125), (365, 7137), (369, 7155), (374, 7173), (386, 7197), (407, 7236), (437, 7317), (445, 7341), (446, 7344), (448, 7347), (454, 7356), (495, 7443), (531, 7530),

Gene: LilDestine\_28 Start: 26302, Stop: 27273, Start Num: 51

Candidate Starts for LilDestine\_28:

(Start: 51 @26302 has 22 MA's), (67, 26356), (125, 26476), (141, 26506), (147, 26521), (Start: 161 @26554 has 1 MA's), (162, 26557), (166, 26566), (175, 26587), (205, 26650), (218, 26677), (232, 26701), (272, 26782), (277, 26794), (300, 26857), (306, 26872), (325, 26932), (330, 26947), (363, 27028), (368, 27046), (369, 27049), (371, 27052), (449, 27103), (470, 27148), (494, 27190), (514, 27232),

Gene: LilMcDreamy\_46 Start: 42132, Stop: 43154, Start Num: 111

Candidate Starts for LilMcDreamy\_46:

(Start: 111 @42132 has 315 MA's), (125, 42162), (Start: 135 @42183 has 1 MA's), (Start: 138 @42186 has 2 MA's), (186, 42273), (217, 42342), (285, 42486), (286, 42492), (320, 42555), (325, 42567), (327, 42573), (328, 42576), (351, 42642), (360, 42666), (369, 42702), (380, 42732), (396, 42762), (408, 42789), (410, 42792), (428, 42852), (432, 42873), (444, 42909), (452, 42927), (455, 42933), (477, 42993), (517, 43080), (537, 43125), (542, 43143),

Gene: LilMoolah\_31 Start: 27797, Stop: 28798, Start Num: 95

Candidate Starts for LilMoolah\_31:

(Start: 95 @27797 has 260 MA's), (Start: 105 @27818 has 4 MA's), (Start: 112 @27830 has 111 MA's), (130, 27872), (168, 27935), (177, 27956), (189, 27986), (Start: 214 @28040 has 1 MA's), (223, 28064), (235, 28079), (241, 28091), (286, 28202), (334, 28316), (341, 28334), (357, 28373), (365, 28397), (374, 28433), (388, 28460), (407, 28499), (428, 28547), (445, 28607), (474, 28667), (501, 28724), (515, 28754),



Gene: LilPharaoh\_27 Start: 25978, Stop: 26736, Start Num: 152

Candidate Starts for LilPharaoh\_27:

(100, 25876), (129, 25930), (140, 25951), (Start: 152 @25978 has 16 MA's), (175, 26023), (192, 26059), (216, 26119), (218, 26125), (234, 26155), (254, 26203), (271, 26245), (296, 26311), (308, 26347), (349, 26446), (363, 26473), (369, 26494), (371, 26500), (442, 26539), (445, 26551), (448, 26557), (462, 26581), (470, 26605), (523, 26716), (529, 26725),

Gene: LilSpotty\_32 Start: 24959, Stop: 26029, Start Num: 95

Candidate Starts for LilSpotty\_32:

(Start: 95 @24959 has 260 MA's), (203, 25175), (Start: 231 @25229 has 2 MA's), (250, 25271), (266, 25322), (308, 25436), (318, 25469), (339, 25544), (348, 25565), (353, 25577), (401, 25694), (428, 25766), (468, 25874), (501, 25943), (529, 26009),

Gene: LilTurb\_13 Start: 6892, Stop: 7884, Start Num: 111

Candidate Starts for LilTurb\_13:

(Start: 111 @6892 has 315 MA's), (Start: 126 @6925 has 6 MA's), (Start: 135 @6943 has 1 MA's), (Start: 138 @6946 has 2 MA's), (233, 7114), (235, 7120), (247, 7147), (268, 7207), (286, 7252), (327, 7339), (341, 7384), (361, 7423), (376, 7471), (384, 7486), (417, 7552), (427, 7594), (458, 7681), (507, 7795),

Gene: Lilac\_37 Start: 31355, Stop: 32212, Start Num: 136

Candidate Starts for Lilac\_37:

(Start: 136 @31355 has 124 MA's), (Start: 156 @31394 has 3 MA's), (166, 31424), (175, 31445), (191, 31481), (205, 31511), (236, 31586), (259, 31634), (262, 31637), (272, 31661), (274, 31664), (280, 31679), (346, 31850), (393, 31964), (398, 31979), (420, 31985), (444, 32027), (445, 32030), (470, 32084), (511, 32162), (522, 32195),

Gene: LilhomieP\_37 Start: 31794, Stop: 32765, Start Num: 58

Candidate Starts for LilhomieP\_37:

(Start: 58 @31794 has 13 MA's), (63, 31818), (69, 31833), (134, 31971), (150, 31998), (158, 32016), (162, 32028), (166, 32037), (185, 32082), (191, 32094), (206, 32121), (218, 32148), (222, 32160), (246, 32205), (257, 32232), (272, 32262), (276, 32271), (277, 32274), (310, 32361), (317, 32376), (371, 32529), (372, 32532), (441, 32592), (444, 32604), (448, 32613), (466, 32649), (471, 32664), (494, 32703), (509, 32736),

Gene: Lilith\_12 Start: 5955, Stop: 6920, Start Num: 101

Candidate Starts for Lilith\_12:

(Start: 101 @5955 has 93 MA's), (Start: 126 @6000 has 6 MA's), (Start: 138 @6021 has 2 MA's), (201, 6141), (263, 6279), (286, 6336), (291, 6351), (333, 6432), (337, 6447), (347, 6465), (365, 6516), (369, 6534), (388, 6579), (428, 6675), (447, 6738), (465, 6777), (490, 6828),

Gene: Lilizi\_37 Start: 31563, Stop: 32420, Start Num: 136

Candidate Starts for Lilizi\_37:

(Start: 136 @31563 has 124 MA's), (Start: 156 @31602 has 3 MA's), (166, 31632), (175, 31653), (191, 31689), (205, 31719), (236, 31794), (259, 31842), (262, 31845), (272, 31869), (274, 31872), (280, 31887), (346, 32058), (393, 32172), (398, 32187), (420, 32193), (444, 32235), (445, 32238), (470, 32292), (511, 32370), (522, 32403),

Gene: Lilpickle\_34 Start: 31065, Stop: 31922, Start Num: 136

Candidate Starts for Lilpickle\_34:

(Start: 136 @31065 has 124 MA's), (Start: 156 @31104 has 3 MA's), (166, 31134), (175, 31155), (191, 31191), (205, 31221), (236, 31296), (259, 31344), (262, 31347), (272, 31371), (274, 31374), (280,

31389), (346, 31560), (393, 31674), (398, 31689), (420, 31695), (444, 31737), (445, 31740), (470, 31794), (511, 31872), (522, 31905),

Gene: LinStu\_249 Start: 143122, Stop: 144150, Start Num: 87

Candidate Starts for LinStu\_249:

(Start: 87 @143122 has 167 MA's), (Start: 105 @143152 has 4 MA's), (130, 143206), (168, 143269), (177, 143290), (Start: 214 @143374 has 1 MA's), (235, 143416), (241, 143428), (250, 143443), (273, 143512), (286, 143539), (309, 143593), (324, 143638), (326, 143641), (354, 143719), (361, 143740), (407, 143851), (440, 143941), (445, 143959), (480, 144031), (496, 144064),

Gene: LindNT\_31 Start: 26427, Stop: 27299, Start Num: 153

Candidate Starts for LindNT\_31:

(140, 26400), (Start: 153 @26427 has 137 MA's), (Start: 161 @26439 has 1 MA's), (192, 26508), (205, 26535), (Start: 214 @26565 has 1 MA's), (218, 26574), (238, 26610), (242, 26619), (254, 26652), (259, 26670), (296, 26760), (349, 26895), (363, 26922), (369, 26943), (377, 26967), (405, 27018), (448, 27120), (466, 27156), (477, 27180), (523, 27279), (529, 27288),

Gene: LittleB\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for LittleB\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: LittleE\_53 Start: 42373, Stop: 43245, Start Num: 91

Candidate Starts for LittleE\_53:

(Start: 91 @42373 has 31 MA's), (Start: 104 @42400 has 1 MA's), (168, 42529), (190, 42574), (202, 42595), (Start: 214 @42616 has 1 MA's), (243, 42670), (279, 42751), (379, 43030), (380, 43033), (452, 43093), (462, 43108), (466, 43120), (475, 43141),

Gene: LittleGuy\_10 Start: 5821, Stop: 6804, Start Num: 111

Candidate Starts for LittleGuy\_10:

(Start: 111 @5821 has 315 MA's), (Start: 135 @5872 has 1 MA's), (Start: 138 @5875 has 2 MA's), (209, 6010), (218, 6034), (263, 6124), (286, 6181), (320, 6244), (328, 6265), (333, 6286), (345, 6313), (369, 6370), (428, 6520), (470, 6643), (477, 6655), (526, 6766),

Gene: LittleShirley\_34 Start: 29159, Stop: 30160, Start Num: 95

Candidate Starts for LittleShirley\_34:

(Start: 95 @29159 has 260 MA's), (130, 29234), (149, 29267), (168, 29297), (177, 29318), (Start: 214 @29402 has 1 MA's), (223, 29426), (235, 29441), (241, 29453), (286, 29564), (334, 29678), (341, 29696), (357, 29735), (365, 29759), (374, 29795), (388, 29822), (407, 29861), (428, 29909), (445, 29969), (474, 30029), (495, 30071), (496, 30074), (501, 30086), (515, 30116),

Gene: Littleton\_256 Start: 145030, Stop: 146058, Start Num: 87

Candidate Starts for Littleton\_256:

(Start: 87 @145030 has 167 MA's), (Start: 105 @145060 has 4 MA's), (Start: 112 @145072 has 111 MA's), (130, 145114), (168, 145177), (177, 145198), (Start: 214 @145282 has 1 MA's), (235, 145324), (241, 145336), (250, 145351), (273, 145420), (286, 145447), (309, 145501), (324, 145546), (326, 145549), (354, 145627), (361, 145648), (407, 145759), (440, 145849), (445, 145867), (480, 145939), (496, 145972),

Gene: LiyuLake\_28 Start: 26813, Stop: 27856, Start Num: 46

Candidate Starts for LiyuLake\_28:

(Start: 46 @26813 has 17 MA's), (47, 26819), (55, 26846), (60, 26867), (83, 26918), (124, 26999), (178, 27104), (216, 27185), (218, 27191), (240, 27233), (268, 27287), (275, 27305), (277, 27311), (280, 27317), (306, 27389), (329, 27446), (352, 27506), (378, 27581), (441, 27626), (445, 27641), (448, 27647), (477, 27710), (523, 27812), (532, 27833), (537, 27839),

Gene: Lizziana\_31 Start: 27672, Stop: 28673, Start Num: 95

Candidate Starts for Lizziana\_31:

(Start: 95 @27672 has 260 MA's), (Start: 105 @27693 has 4 MA's), (Start: 112 @27705 has 111 MA's), (130, 27747), (168, 27810), (177, 27831), (189, 27861), (Start: 214 @27915 has 1 MA's), (223, 27939), (235, 27954), (241, 27966), (286, 28077), (334, 28191), (341, 28209), (357, 28248), (365, 28272), (374, 28308), (388, 28335), (407, 28374), (428, 28422), (445, 28482), (474, 28542), (501, 28599), (515, 28629),

Gene: Llama\_31 Start: 27727, Stop: 28728, Start Num: 95

Candidate Starts for Llama\_31:

(4, 27106), (6, 27184), (8, 27247), (14, 27286), (18, 27418), (22, 27439), (26, 27475), (Start: 56 @27628 has 7 MA's), (Start: 95 @27727 has 260 MA's), (Start: 105 @27748 has 4 MA's), (Start: 112 @27760 has 111 MA's), (130, 27802), (149, 27835), (168, 27865), (177, 27886), (Start: 214 @27970 has 1 MA's), (223, 27994), (235, 28009), (241, 28021), (286, 28132), (334, 28246), (341, 28264), (357, 28303), (365, 28327), (374, 28363), (388, 28390), (407, 28429), (445, 28537), (468, 28585), (474, 28597), (495, 28639), (496, 28642), (501, 28654), (515, 28684),

Gene: Llij\_31 Start: 27499, Stop: 28500, Start Num: 95

Candidate Starts for Llij\_31:

(26, 27247), (Start: 56 @27400 has 7 MA's), (Start: 95 @27499 has 260 MA's), (Start: 105 @27520 has 4 MA's), (Start: 112 @27532 has 111 MA's), (130, 27574), (168, 27637), (177, 27658), (189, 27688), (Start: 214 @27742 has 1 MA's), (223, 27766), (241, 27793), (286, 27904), (334, 28018), (341, 28036), (357, 28075), (365, 28099), (374, 28135), (388, 28162), (407, 28201), (428, 28249), (445, 28309), (474, 28369), (501, 28426), (515, 28456),

Gene: Llorens\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for Llorens\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242, 26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: Loadrie\_28 Start: 26335, Stop: 27306, Start Num: 51

Candidate Starts for Loadrie\_28:

(Start: 51 @26335 has 22 MA's), (67, 26389), (125, 26509), (141, 26539), (144, 26548), (147, 26554), (Start: 161 @26587 has 1 MA's), (162, 26590), (166, 26599), (175, 26620), (205, 26683), (218, 26710), (232, 26734), (272, 26815), (277, 26827), (300, 26890), (306, 26905), (325, 26965), (330, 26980), (363, 27061), (368, 27079), (369, 27082), (371, 27085), (449, 27136), (470, 27181), (494, 27223), (514, 27265),

Gene: Loanshark\_249 Start: 144380, Stop: 145408, Start Num: 87

Candidate Starts for Loanshark\_249:

(Start: 87 @144380 has 167 MA's), (Start: 105 @144410 has 4 MA's), (Start: 112 @144422 has 111 MA's), (130, 144464), (168, 144527), (177, 144548), (Start: 214 @144632 has 1 MA's), (235, 144674), (241, 144686), (250, 144701), (273, 144770), (286, 144797), (309, 144851), (324, 144896), (326, 144899), (354, 144977), (361, 144998), (407, 145109), (440, 145199), (445, 145217), (480, 145289), (496, 145322),

Gene: LochMonster\_10 Start: 5856, Stop: 6836, Start Num: 112

Candidate Starts for LochMonster\_10:

(Start: 112 @5856 has 111 MA's), (125, 5883), (Start: 135 @5904 has 1 MA's), (Start: 138 @5907 has 2 MA's), (263, 6156), (286, 6213), (289, 6225), (320, 6276), (328, 6297), (345, 6345), (361, 6372), (369, 6402), (428, 6552), (470, 6675), (477, 6687), (511, 6753),

Gene: Lockley\_10 Start: 5949, Stop: 6917, Start Num: 111

Candidate Starts for Lockley\_10:

(Start: 111 @5949 has 315 MA's), (Start: 126 @5982 has 6 MA's), (Start: 135 @6000 has 1 MA's), (Start: 138 @6003 has 2 MA's), (266, 6270), (286, 6321), (289, 6333), (327, 6408), (349, 6471), (355, 6483), (361, 6504), (365, 6516), (369, 6534), (374, 6552), (386, 6576), (407, 6615), (437, 6696), (445, 6720), (446, 6723), (448, 6726), (454, 6735), (495, 6822), (531, 6909),

Gene: Loka\_14 Start: 8131, Stop: 9117, Start Num: 111

Candidate Starts for Loka\_14:

(Start: 111 @8131 has 315 MA's), (125, 8161), (Start: 135 @8182 has 1 MA's), (Start: 138 @8185 has 2 MA's), (155, 8218), (263, 8434), (285, 8485), (286, 8491), (289, 8503), (301, 8524), (345, 8614), (369, 8680), (428, 8830), (432, 8851), (477, 8965), (511, 9037),

Gene: LolaVinca\_248 Start: 144633, Stop: 145661, Start Num: 87

Candidate Starts for LolaVinca\_248:

(Start: 87 @144633 has 167 MA's), (Start: 105 @144663 has 4 MA's), (Start: 112 @144675 has 111 MA's), (130, 144717), (168, 144780), (177, 144801), (Start: 214 @144885 has 1 MA's), (235, 144927), (241, 144939), (250, 144954), (273, 145023), (286, 145050), (309, 145104), (324, 145149), (326, 145152), (354, 145230), (361, 145251), (407, 145362), (440, 145452), (445, 145470), (480, 145542), (496, 145575),

Gene: Lolly9\_28 Start: 26618, Stop: 27661, Start Num: 46

Candidate Starts for Lolly9\_28:

(Start: 46 @26618 has 17 MA's), (47, 26624), (55, 26651), (60, 26672), (83, 26723), (99, 26753), (124, 26804), (178, 26909), (216, 26990), (218, 26996), (240, 27038), (268, 27092), (275, 27110), (277, 27116), (280, 27122), (306, 27194), (329, 27251), (352, 27311), (378, 27386), (389, 27407), (441, 27431), (445, 27446), (448, 27452), (477, 27515), (523, 27617), (532, 27638), (537, 27644),

Gene: Lopton\_11 Start: 6354, Stop: 7322, Start Num: 111

Candidate Starts for Lopton\_11:

(Start: 111 @6354 has 315 MA's), (Start: 126 @6387 has 6 MA's), (Start: 135 @6405 has 1 MA's), (Start: 138 @6408 has 2 MA's), (266, 6675), (286, 6726), (289, 6738), (327, 6813), (349, 6876), (355, 6888), (361, 6909), (365, 6921), (369, 6939), (374, 6957), (386, 6981), (407, 7020), (437, 7101), (445, 7125), (446, 7128), (448, 7131), (454, 7140), (495, 7227), (531, 7314),

Gene: LordLeafolot\_254 Start: 144246, Stop: 145274, Start Num: 87

Candidate Starts for LordLeafolot\_254:

(Start: 87 @144246 has 167 MA's), (Start: 105 @144276 has 4 MA's), (Start: 112 @144288 has 111 MA's), (130, 144330), (168, 144393), (177, 144414), (Start: 214 @144498 has 1 MA's), (235, 144540), (241, 144552), (250, 144567), (273, 144636), (286, 144663), (309, 144717), (324, 144762), (326, 144765), (354, 144843), (361, 144864), (407, 144975), (440, 145065), (445, 145083), (480, 145155), (496, 145188),

Gene: Lorde\_33 Start: 27654, Stop: 28724, Start Num: 95

Candidate Starts for Lorde\_33:

(70, 27600), (Start: 95 @27654 has 260 MA's), (203, 27870), (204, 27873), (Start: 231 @27924 has 2 MA's), (250, 27966), (266, 28017), (308, 28131), (318, 28164), (339, 28239), (348, 28260), (401, 28389), (428, 28461), (464, 28557), (468, 28569), (501, 28638), (525, 28695), (529, 28704),

Gene: Lorenzo\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Lorenzo\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Loser\_14 Start: 8241, Stop: 9218, Start Num: 111

Candidate Starts for Loser\_14:

(Start: 111 @8241 has 315 MA's), (Start: 138 @8295 has 2 MA's), (247, 8484), (257, 8520), (263, 8532), (286, 8589), (302, 8625), (327, 8673), (337, 8712), (365, 8781), (369, 8799), (388, 8844), (397, 8862), (416, 8904), (428, 8952), (434, 8979), (440, 8994), (447, 9015), (464, 9051), (465, 9054), (486, 9096), (490, 9105), (504, 9138),

Gene: Louie6\_12 Start: 6049, Stop: 7014, Start Num: 101

Candidate Starts for Louie6\_12:

(Start: 101 @6049 has 93 MA's), (Start: 126 @6094 has 6 MA's), (Start: 138 @6115 has 2 MA's), (201, 6235), (263, 6373), (286, 6430), (291, 6445), (333, 6526), (337, 6541), (347, 6559), (365, 6610), (369, 6628), (388, 6673), (428, 6769), (447, 6832), (465, 6871), (490, 6922),

Gene: Luchador\_11 Start: 6567, Stop: 7526, Start Num: 126

Candidate Starts for Luchador\_11:

(Start: 111 @6534 has 315 MA's), (Start: 126 @6567 has 6 MA's), (Start: 135 @6585 has 1 MA's), (Start: 138 @6588 has 2 MA's), (209, 6723), (235, 6762), (247, 6789), (268, 6849), (286, 6894), (327, 6981), (341, 7026), (346, 7035), (361, 7065), (376, 7113), (417, 7194), (427, 7236), (458, 7323), (500, 7422), (507, 7437), (538, 7512),

Gene: Lucky2013\_48 Start: 39222, Stop: 40226, Start Num: 49

Candidate Starts for Lucky2013\_48:

(Start: 49 @39222 has 10 MA's), (64, 39276), (Start: 88 @39327 has 3 MA's), (Start: 126 @39399 has 6 MA's), (166, 39474), (218, 39588), (222, 39600), (242, 39633), (272, 39702), (277, 39714), (282, 39726), (284, 39729), (299, 39774), (306, 39792), (363, 39954), (367, 39969), (370, 39978), (521, 40179),

Gene: LugYA\_14 Start: 5960, Stop: 6925, Start Num: 101

Candidate Starts for LugYA\_14:

(Start: 101 @5960 has 93 MA's), (Start: 126 @6005 has 6 MA's), (Start: 138 @6026 has 2 MA's), (201, 6146), (286, 6341), (291, 6356), (333, 6437), (337, 6452), (347, 6470), (365, 6521), (369, 6539), (388, 6584), (428, 6680), (447, 6743), (465, 6782), (490, 6833),

Gene: Lukilu\_241 Start: 145249, Stop: 146277, Start Num: 87

Candidate Starts for Lukilu\_241:

(Start: 87 @145249 has 167 MA's), (Start: 105 @145279 has 4 MA's), (Start: 112 @145291 has 111 MA's), (130, 145333), (168, 145396), (177, 145417), (Start: 214 @145501 has 1 MA's), (235, 145543), (241, 145555), (250, 145570), (273, 145639), (286, 145666), (309, 145720), (324, 145765), (326, 145768), (354, 145846), (361, 145867), (407, 145978), (440, 146068), (445, 146086), (480, 146158), (496, 146191),

Gene: Lumos\_28 Start: 26847, Stop: 27890, Start Num: 46

Candidate Starts for Lumos\_28:

(Start: 46 @26847 has 17 MA's), (47, 26853), (55, 26880), (60, 26901), (83, 26952), (124, 27033), (178, 27138), (216, 27219), (218, 27225), (268, 27321), (275, 27339), (277, 27345), (280, 27351), (306, 27423), (329, 27480), (352, 27540), (378, 27615), (389, 27636), (441, 27660), (445, 27675), (450, 27687), (477, 27744), (523, 27846), (532, 27867),

Gene: LunaBlu\_34 Start: 28521, Stop: 29537, Start Num: 95

Candidate Starts for LunaBlu\_34:

(29, 28290), (31, 28293), (37, 28341), (74, 28476), (78, 28485), (Start: 95 @28521 has 260 MA's), (160, 28653), (168, 28674), (177, 28695), (189, 28725), (196, 28737), (Start: 214 @28779 has 1 MA's), (241, 28830), (250, 28845), (286, 28941), (333, 29052), (341, 29073), (357, 29112), (361, 29124), (374, 29172), (388, 29199), (400, 29223), (407, 29238), (445, 29346), (468, 29394), (501, 29463), (515, 29493),

Gene: LunaStella\_33 Start: 28121, Stop: 29197, Start Num: 95

Candidate Starts for LunaStella\_33:

(Start: 95 @28121 has 260 MA's), (Start: 109 @28148 has 1 MA's), (124, 28178), (Start: 126 @28184 has 6 MA's), (168, 28259), (173, 28271), (180, 28289), (208, 28346), (245, 28424), (250, 28433), (266, 28484), (285, 28526), (291, 28550), (294, 28559), (308, 28601), (318, 28634), (333, 28691), (334, 28694), (339, 28709), (346, 28721), (353, 28742), (357, 28754), (366, 28778), (401, 28859), (409, 28883), (428, 28934), (459, 29012), (468, 29042), (469, 29045), (493, 29090), (501, 29111), (529, 29177),

Gene: Lunahalos\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for Lunahalos\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242, 26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: Lunsford\_11 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Lunsford\_11:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712),

Gene: MA5\_10 Start: 5337, Stop: 6077, Start Num: 224

Candidate Starts for MA5\_10:

(118, 5151), (Start: 152 @5220 has 16 MA's), (Start: 224 @5337 has 17 MA's), (263, 5424), (286, 5481), (289, 5493), (291, 5496), (304, 5520), (313, 5535), (333, 5583), (336, 5589), (347, 5616), (369, 5685), (401, 5757), (419, 5799), (428, 5826), (434, 5853), (445, 5886), (447, 5889), (465, 5928), (533, 6069),

Gene: MAckerman\_26 Start: 25547, Stop: 26578, Start Num: 96

Candidate Starts for MAckerman\_26:

(Start: 96 @25547 has 29 MA's), (182, 25703), (194, 25727), (198, 25739), (206, 25757), (211, 25775), (218, 25793), (219, 25799), (223, 25808), (228, 25823), (237, 25838), (255, 25886), (263, 25910), (286, 25967), (304, 26006), (336, 26084), (337, 26093), (339, 26096), (347, 26111), (364, 26165), (369, 26186), (373, 26201), (414, 26285), (425, 26315), (446, 26384), (454, 26396), (465, 26420), (471, 26438), (473, 26441), (480, 26453), (482, 26456), (496, 26486), (501, 26498),

Gene: MISSy\_34 Start: 31371, Stop: 32228, Start Num: 136

Candidate Starts for MISSy\_34:

(Start: 136 @31371 has 124 MA's), (Start: 156 @31410 has 3 MA's), (166, 31440), (175, 31461), (191, 31497), (205, 31527), (236, 31602), (259, 31650), (262, 31653), (272, 31677), (274, 31680), (280, 31695), (346, 31866), (384, 31965), (393, 31980), (398, 31995), (420, 32001), (444, 32043), (445, 32046), (470, 32100), (511, 32178), (522, 32211),

Gene: MK4\_10 Start: 5610, Stop: 6350, Start Num: 224

Candidate Starts for MK4\_10:

(Start: 224 @5610 has 17 MA's), (263, 5697), (286, 5754), (289, 5766), (291, 5769), (304, 5793), (313, 5808), (333, 5856), (336, 5862), (347, 5889), (369, 5958), (401, 6030), (419, 6072), (428, 6099), (434, 6126), (445, 6159), (447, 6162), (465, 6201), (491, 6255), (533, 6342),

Gene: MPhalcon\_34 Start: 31364, Stop: 32221, Start Num: 136

Candidate Starts for MPhalcon\_34:

(Start: 136 @31364 has 124 MA's), (Start: 156 @31403 has 3 MA's), (166, 31433), (175, 31454), (191, 31490), (205, 31520), (236, 31595), (259, 31643), (262, 31646), (272, 31670), (274, 31673), (280, 31688), (346, 31859), (393, 31973), (398, 31988), (420, 31994), (444, 32036), (445, 32039), (470, 32093), (511, 32171), (522, 32204),

Gene: MPlant7149\_9 Start: 5587, Stop: 6555, Start Num: 111

Candidate Starts for MPlant7149\_9:

(Start: 111 @5587 has 315 MA's), (Start: 126 @5620 has 6 MA's), (Start: 135 @5638 has 1 MA's), (Start: 138 @5641 has 2 MA's), (266, 5908), (286, 5959), (289, 5971), (327, 6046), (349, 6109), (355, 6121), (361, 6142), (365, 6154), (369, 6172), (374, 6190), (386, 6214), (407, 6253), (437, 6334), (445, 6358), (446, 6361), (448, 6364), (454, 6373), (495, 6460), (531, 6547),

Gene: Maby2021\_253 Start: 145933, Stop: 146961, Start Num: 87

Candidate Starts for Maby2021\_253:

(Start: 87 @145933 has 167 MA's), (Start: 105 @145963 has 4 MA's), (Start: 112 @145975 has 111 MA's), (130, 146017), (168, 146080), (177, 146101), (Start: 214 @146185 has 1 MA's), (235, 146227), (241, 146239), (250, 146254), (273, 146323), (286, 146350), (309, 146404), (324, 146449), (326, 146452), (354, 146530), (361, 146551), (407, 146662), (440, 146752), (445, 146770), (480, 146842), (496, 146875),

Gene: MacnCheese\_32 Start: 27431, Stop: 28219, Start Num: 153

Candidate Starts for MacnCheese\_32:

(140, 27407), (Start: 153 @27431 has 137 MA's), (175, 27476), (192, 27512), (Start: 214 @27569 has 1 MA's), (218, 27578), (238, 27614), (259, 27668), (271, 27692), (326, 27833), (349, 27896), (363, 27938), (369, 27959), (371, 27965), (377, 27983), (444, 28013), (445, 28016), (465, 28055), (477, 28082), (511, 28154), (523, 28184),

Gene: MadKillah\_68 Start: 43198, Stop: 44238, Start Num: 95

Candidate Starts for MadKillah\_68:

(Start: 95 @43198 has 260 MA's), (130, 43273), (168, 43354), (170, 43360), (177, 43375), (213, 43456), (Start: 214 @43459 has 1 MA's), (241, 43513), (250, 43528), (286, 43624), (304, 43663), (312, 43693), (324, 43723), (326, 43726), (336, 43759), (361, 43825), (372, 43864), (374, 43873), (388, 43900), (407, 43939), (478, 44113), (501, 44164),

Gene: MadMarie\_12 Start: 5964, Stop: 6929, Start Num: 101

Candidate Starts for MadMarie\_12:

(Start: 101 @5964 has 93 MA's), (Start: 126 @6009 has 6 MA's), (Start: 138 @6030 has 2 MA's), (201, 6150), (263, 6288), (286, 6345), (291, 6360), (333, 6441), (337, 6456), (347, 6474), (365, 6525), (369, 6543), (388, 6588), (428, 6684), (447, 6747), (465, 6786), (490, 6837),

Gene: MadMen\_29 Start: 26957, Stop: 27958, Start Num: 95

Candidate Starts for MadMen\_29:

(Start: 95 @26957 has 260 MA's), (130, 27032), (149, 27065), (168, 27095), (177, 27116), (Start: 214 @27200 has 1 MA's), (241, 27251), (250, 27266), (286, 27362), (333, 27473), (341, 27494), (357, 27533), (361, 27545), (374, 27593), (388, 27620), (400, 27644), (407, 27659), (445, 27767), (468, 27815), (501, 27884), (515, 27914),

Gene: MadamMonkfish\_35 Start: 31276, Stop: 32133, Start Num: 136

Candidate Starts for MadamMonkfish\_35:

(Start: 136 @31276 has 124 MA's), (Start: 156 @31315 has 3 MA's), (166, 31345), (175, 31366), (191, 31402), (205, 31432), (236, 31507), (259, 31555), (262, 31558), (272, 31582), (274, 31585), (280, 31600), (346, 31771), (393, 31885), (398, 31900), (420, 31906), (444, 31948), (445, 31951), (470, 32005), (511, 32083), (522, 32116),

Gene: Madiba\_29 Start: 26429, Stop: 27430, Start Num: 95

Candidate Starts for Madiba\_29:

(43, 26267), (Start: 95 @26429 has 260 MA's), (130, 26504), (149, 26537), (168, 26567), (177, 26588), (Start: 214 @26672 has 1 MA's), (223, 26696), (235, 26711), (241, 26723), (286, 26834), (334, 26948), (341, 26966), (357, 27005), (365, 27029), (374, 27065), (388, 27092), (407, 27131), (445, 27239), (468, 27287), (474, 27299), (496, 27344), (501, 27356), (515, 27386),

Gene: Madruga\_40 Start: 34911, Stop: 35936, Start Num: 88

Candidate Starts for Madruga\_40:

(Start: 88 @34911 has 3 MA's), (168, 35046), (203, 35121), (245, 35205), (250, 35214), (256, 35238), (259, 35247), (300, 35340), (333, 35439), (347, 35472), (353, 35487), (361, 35508), (364, 35517), (401, 35604), (411, 35622), (424, 35652), (428, 35670), (436, 35706), (468, 35781), (474, 35793), (476, 35796), (495, 35835), (521, 35892),

Gene: Magnar\_10 Start: 5741, Stop: 6703, Start Num: 111

Candidate Starts for Magnar\_10:

(Start: 111 @5741 has 315 MA's), (Start: 126 @5774 has 6 MA's), (Start: 135 @5792 has 1 MA's), (Start: 138 @5795 has 2 MA's), (241, 5996), (266, 6062), (286, 6107), (328, 6197), (357, 6278), (361, 6290), (365, 6302), (369, 6320), (374, 6338), (386, 6362), (407, 6401), (437, 6482), (445, 6506), (446, 6509), (448, 6512), (454, 6521), (495, 6608), (515, 6653), (531, 6695),

Gene: Magnito\_9 Start: 5486, Stop: 6454, Start Num: 111

Candidate Starts for Magnito\_9:

(Start: 111 @5486 has 315 MA's), (Start: 126 @5519 has 6 MA's), (Start: 135 @5537 has 1 MA's), (Start: 138 @5540 has 2 MA's), (266, 5807), (286, 5858), (289, 5870), (327, 5945), (349, 6008), (355, 6020), (361, 6041), (365, 6053), (369, 6071), (374, 6089), (386, 6113), (407, 6152), (437, 6233), (445, 6257), (446, 6260), (448, 6263), (454, 6272), (495, 6359), (531, 6446),

Gene: Mahavrat\_31 Start: 27558, Stop: 28559, Start Num: 95

Candidate Starts for Mahavrat\_31:

(Start: 56 @27459 has 7 MA's), (83, 27531), (Start: 95 @27558 has 260 MA's), (Start: 105 @27579 has 4 MA's), (Start: 112 @27591 has 111 MA's), (130, 27633), (149, 27666), (168, 27696), (177, 27717), (Start: 214 @27801 has 1 MA's), (223, 27825), (235, 27840), (241, 27852), (286, 27963), (334, 28077), (341, 28095), (357, 28134), (365, 28158), (374, 28194), (388, 28221), (407, 28260), (445, 28368), (474, 28428), (496, 28473), (501, 28485), (515, 28515),

Gene: Mainiac\_12 Start: 5955, Stop: 6920, Start Num: 101

Candidate Starts for Mainiac\_12:



(Start: 101 @5955 has 93 MA's), (Start: 126 @6000 has 6 MA's), (Start: 138 @6021 has 2 MA's), (201, 6141), (263, 6279), (286, 6336), (291, 6351), (333, 6432), (337, 6447), (347, 6465), (365, 6516), (369, 6534), (388, 6579), (428, 6675), (447, 6738), (465, 6777), (490, 6828),

Gene: MajorMajor\_10 Start: 5599, Stop: 6363, Start Num: 229

Candidate Starts for MajorMajor\_10:

(Start: 229 @5599 has 16 MA's), (286, 5743), (334, 5857), (336, 5860), (337, 5869), (365, 5938), (369, 5956), (397, 6019), (428, 6097), (434, 6124), (440, 6139), (445, 6157), (447, 6160), (490, 6250), (518, 6319),

Gene: Makemake\_10 Start: 6196, Stop: 7164, Start Num: 111

Candidate Starts for Makemake\_10:

(Start: 111 @6196 has 315 MA's), (Start: 126 @6229 has 6 MA's), (Start: 135 @6247 has 1 MA's), (Start: 138 @6250 has 2 MA's), (266, 6517), (286, 6568), (289, 6580), (327, 6655), (349, 6718), (361, 6751), (369, 6781), (374, 6799), (386, 6823), (407, 6862), (437, 6943), (445, 6967), (446, 6970), (448, 6973), (454, 6982), (495, 7069), (515, 7114), (531, 7156),

Gene: MalagasyRose\_31 Start: 25844, Stop: 26686, Start Num: 153

Candidate Starts for MalagasyRose\_31:

(140, 25817), (Start: 153 @25844 has 137 MA's), (Start: 161 @25856 has 1 MA's), (173, 25883), (175, 25889), (188, 25919), (200, 25943), (Start: 214 @25979 has 1 MA's), (218, 25988), (238, 26024), (254, 26066), (295, 26171), (360, 26324), (363, 26336), (369, 26357), (377, 26381), (391, 26408), (394, 26417), (448, 26507), (467, 26546), (477, 26567), (523, 26666),

Gene: Malec\_12 Start: 6729, Stop: 7712, Start Num: 111

Candidate Starts for Malec\_12:

(Start: 111 @6729 has 315 MA's), (125, 6759), (Start: 126 @6762 has 6 MA's), (Start: 138 @6783 has 2 MA's), (257, 7020), (263, 7032), (273, 7059), (286, 7089), (289, 7101), (297, 7113), (326, 7167), (343, 7218), (369, 7278), (428, 7425), (452, 7500), (477, 7560), (511, 7632), (530, 7686),

Gene: Malinsilva\_14 Start: 5954, Stop: 6919, Start Num: 101

Candidate Starts for Malinsilva\_14:

(Start: 101 @5954 has 93 MA's), (Start: 126 @5999 has 6 MA's), (Start: 138 @6020 has 2 MA's), (201, 6140), (263, 6278), (286, 6335), (291, 6350), (333, 6431), (337, 6446), (347, 6464), (365, 6515), (369, 6533), (388, 6578), (428, 6674), (447, 6737), (465, 6776), (490, 6827),

Gene: Malthus\_33 Start: 27553, Stop: 28344, Start Num: 143

Candidate Starts for Malthus\_33:

(Start: 143 @27553 has 20 MA's), (Start: 161 @27586 has 1 MA's), (175, 27619), (185, 27643), (196, 27664), (Start: 214 @27712 has 1 MA's), (218, 27721), (238, 27757), (276, 27838), (349, 28045), (363, 28072), (366, 28078), (369, 28093), (377, 28117), (445, 28141), (460, 28162), (470, 28195), (477, 28207), (511, 28279),

Gene: Manatee\_10 Start: 5683, Stop: 6651, Start Num: 111

Candidate Starts for Manatee\_10:

(Start: 111 @5683 has 315 MA's), (Start: 126 @5716 has 6 MA's), (Start: 135 @5734 has 1 MA's), (Start: 138 @5737 has 2 MA's), (266, 6004), (286, 6055), (289, 6067), (327, 6142), (349, 6205), (361, 6238), (365, 6250), (369, 6268), (374, 6286), (386, 6310), (407, 6349), (437, 6430), (445, 6454), (446, 6457), (448, 6460), (454, 6469), (495, 6556), (531, 6643),

Gene: Manda\_36 Start: 32343, Stop: 33200, Start Num: 136

Candidate Starts for Manda\_36:

(Start: 136 @32343 has 124 MA's), (Start: 156 @32382 has 3 MA's), (166, 32412), (175, 32433), (191, 32469), (205, 32499), (236, 32574), (259, 32622), (262, 32625), (272, 32649), (274, 32652), (280, 32667), (346, 32838), (393, 32952), (398, 32967), (420, 32973), (444, 33015), (445, 33018), (470, 33072), (511, 33150), (522, 33183),

Gene: Mandlovu\_32 Start: 28274, Stop: 29290, Start Num: 95

Candidate Starts for Mandlovu\_32:

(18, 27956), (19, 27962), (21, 27974), (Start: 23 @27986 has 1 MA's), (24, 27998), (Start: 95 @28274 has 260 MA's), (160, 28406), (168, 28427), (177, 28448), (189, 28478), (196, 28490), (Start: 214 @28532 has 1 MA's), (223, 28556), (235, 28571), (241, 28583), (250, 28598), (286, 28694), (333, 28805), (341, 28826), (357, 28865), (361, 28877), (374, 28925), (388, 28952), (400, 28976), (407, 28991), (445, 29099), (468, 29147), (501, 29216), (515, 29246),

Gene: Mangeria\_252 Start: 145144, Stop: 146172, Start Num: 87

Candidate Starts for Mangeria\_252:

(Start: 87 @145144 has 167 MA's), (Start: 105 @145174 has 4 MA's), (Start: 112 @145186 has 111 MA's), (130, 145228), (168, 145291), (177, 145312), (Start: 214 @145396 has 1 MA's), (235, 145438), (241, 145450), (250, 145465), (273, 145534), (286, 145561), (309, 145615), (324, 145660), (326, 145663), (354, 145741), (361, 145762), (407, 145873), (440, 145963), (445, 145981), (480, 146053), (496, 146086),

Gene: Mantra\_31 Start: 27618, Stop: 28619, Start Num: 95

Candidate Starts for Mantra\_31:

(5, 26997), (7, 27075), (9, 27138), (15, 27177), (22, 27330), (26, 27366), (Start: 95 @27618 has 260 MA's), (Start: 105 @27639 has 4 MA's), (Start: 112 @27651 has 111 MA's), (130, 27693), (168, 27756), (177, 27777), (189, 27807), (Start: 214 @27861 has 1 MA's), (223, 27885), (241, 27912), (286, 28023), (334, 28137), (341, 28155), (357, 28194), (365, 28218), (374, 28254), (388, 28281), (407, 28320), (428, 28368), (445, 28428), (474, 28488), (501, 28545), (515, 28575),

Gene: Manu\_13 Start: 6033, Stop: 6998, Start Num: 101

Candidate Starts for Manu\_13:

(Start: 101 @6033 has 93 MA's), (Start: 138 @6099 has 2 MA's), (173, 6153), (208, 6231), (263, 6354), (286, 6411), (327, 6483), (337, 6522), (347, 6540), (369, 6609), (419, 6726), (428, 6753), (447, 6816), (490, 6906), (493, 6912),

Gene: MarQuardt\_12 Start: 5963, Stop: 6928, Start Num: 101

Candidate Starts for MarQuardt\_12:

(Start: 101 @5963 has 93 MA's), (Start: 126 @6008 has 6 MA's), (Start: 138 @6029 has 2 MA's), (201, 6149), (286, 6344), (291, 6359), (333, 6440), (337, 6455), (347, 6473), (365, 6524), (369, 6542), (388, 6587), (428, 6683), (447, 6746), (465, 6785), (490, 6836),

Gene: Maravista\_31 Start: 27454, Stop: 28455, Start Num: 95

Candidate Starts for Maravista\_31:

(Start: 95 @27454 has 260 MA's), (Start: 105 @27475 has 4 MA's), (Start: 112 @27487 has 111 MA's), (130, 27529), (168, 27592), (177, 27613), (189, 27643), (Start: 214 @27697 has 1 MA's), (223, 27721), (235, 27736), (241, 27748), (286, 27859), (334, 27973), (341, 27991), (357, 28030), (365, 28054), (374, 28090), (388, 28117), (407, 28156), (428, 28204), (445, 28264), (474, 28324), (501, 28381), (515, 28411),

Gene: Marcell\_10 Start: 5946, Stop: 6914, Start Num: 111

Candidate Starts for Marcell\_10:

(Start: 111 @5946 has 315 MA's), (Start: 126 @5979 has 6 MA's), (Start: 135 @5997 has 1 MA's), (Start: 138 @6000 has 2 MA's), (266, 6267), (286, 6318), (289, 6330), (327, 6405), (349, 6468), (355,

6480), (361, 6501), (365, 6513), (369, 6531), (374, 6549), (386, 6573), (407, 6612), (437, 6693), (445, 6717), (446, 6720), (448, 6723), (454, 6732), (515, 6864), (531, 6906),

Gene: Marchesa\_10 Start: 5790, Stop: 6530, Start Num: 224

Candidate Starts for Marchesa\_10:

(Start: 224 @5790 has 17 MA's), (263, 5877), (286, 5934), (289, 5946), (291, 5949), (304, 5973), (313, 5988), (321, 6006), (333, 6036), (336, 6042), (337, 6051), (347, 6069), (365, 6120), (369, 6138), (401, 6210), (419, 6252), (428, 6279), (434, 6306), (445, 6339), (447, 6342), (465, 6381), (533, 6522),

Gene: Marchy\_9 Start: 5606, Stop: 6541, Start Num: 126

Candidate Starts for Marchy\_9:

(Start: 111 @5573 has 315 MA's), (Start: 126 @5606 has 6 MA's), (Start: 135 @5624 has 1 MA's), (Start: 138 @5627 has 2 MA's), (266, 5894), (286, 5945), (289, 5957), (327, 6032), (349, 6095), (361, 6128), (365, 6140), (369, 6158), (374, 6176), (407, 6239), (437, 6320), (445, 6344), (446, 6347), (448, 6350), (454, 6359), (495, 6446), (515, 6491), (531, 6533),

Gene: Marcoliusprime\_29 Start: 24807, Stop: 26009, Start Num: 48

Candidate Starts for Marcoliusprime\_29:

(42, 24765), (Start: 48 @24807 has 10 MA's), (57, 24834), (76, 24891), (86, 24912), (99, 24939), (128, 24999), (146, 25035), (Start: 161 @25068 has 1 MA's), (162, 25071), (175, 25101), (205, 25167), (218, 25206), (257, 25284), (278, 25329), (299, 25386), (306, 25404), (363, 25569), (369, 25590), (375, 25611), (423, 25716), (426, 25731), (444, 25800), (470, 25857), (509, 25938),

Gene: Marge\_10 Start: 5967, Stop: 6935, Start Num: 111

Candidate Starts for Marge\_10:

(Start: 111 @5967 has 315 MA's), (Start: 126 @6000 has 6 MA's), (Start: 135 @6018 has 1 MA's), (Start: 138 @6021 has 2 MA's), (266, 6288), (286, 6339), (289, 6351), (327, 6426), (349, 6489), (355, 6501), (361, 6522), (369, 6552), (374, 6570), (386, 6594), (407, 6633), (437, 6714), (445, 6738), (446, 6741), (448, 6744), (454, 6753), (495, 6840), (515, 6885), (531, 6927),

Gene: Margo\_11 Start: 6077, Stop: 7042, Start Num: 101

Candidate Starts for Margo\_11:

(Start: 101 @6077 has 93 MA's), (Start: 126 @6122 has 6 MA's), (Start: 138 @6143 has 2 MA's), (201, 6263), (209, 6278), (Start: 231 @6317 has 2 MA's), (263, 6401), (286, 6458), (291, 6473), (333, 6554), (337, 6569), (347, 6587), (365, 6638), (369, 6656), (388, 6701), (428, 6797), (447, 6860), (465, 6899), (490, 6950),

Gene: Marie\_12 Start: 5960, Stop: 6925, Start Num: 101

Candidate Starts for Marie\_12:

(Start: 101 @5960 has 93 MA's), (Start: 126 @6005 has 6 MA's), (Start: 138 @6026 has 2 MA's), (201, 6146), (286, 6341), (291, 6356), (333, 6437), (337, 6452), (347, 6470), (365, 6521), (369, 6539), (388, 6584), (428, 6680), (447, 6743), (465, 6782), (490, 6833),

Gene: Marius\_13 Start: 6033, Stop: 6998, Start Num: 101

Candidate Starts for Marius\_13:

(Start: 101 @6033 has 93 MA's), (Start: 138 @6099 has 2 MA's), (173, 6153), (208, 6231), (263, 6354), (286, 6411), (327, 6483), (337, 6522), (347, 6540), (369, 6609), (419, 6726), (428, 6753), (447, 6816), (490, 6906), (493, 6912),

Gene: MarkPhew\_31 Start: 25592, Stop: 26332, Start Num: 153

Candidate Starts for MarkPhew\_31:

(100, 25490), (Start: 110 @25511 has 4 MA's), (129, 25544), (140, 25565), (Start: 153 @25592 has 137 MA's), (173, 25631), (175, 25637), (192, 25673), (218, 25730), (238, 25766), (254, 25808), (274,

25856), (296, 25916), (363, 26078), (371, 26105), (377, 26123), (442, 26135), (466, 26189), (477, 26213), (523, 26312), (529, 26321),

Gene: Marker\_32 Start: 27383, Stop: 28384, Start Num: 95

Candidate Starts for Marker\_32:

(26, 27131), (Start: 56 @27284 has 7 MA's), (83, 27356), (Start: 95 @27383 has 260 MA's), (130, 27458), (168, 27521), (177, 27542), (189, 27572), (Start: 214 @27626 has 1 MA's), (223, 27650), (235, 27665), (241, 27677), (250, 27692), (286, 27788), (334, 27902), (341, 27920), (357, 27959), (365, 27983), (374, 28019), (388, 28046), (407, 28085), (428, 28133), (445, 28193), (468, 28241), (474, 28253), (496, 28298), (501, 28310), (515, 28340),

Gene: Marley1013\_47 Start: 42315, Stop: 43379, Start Num: 84

Candidate Starts for Marley1013\_47:

(Start: 84 @42315 has 45 MA's), (115, 42378), (157, 42459), (189, 42525), (197, 42540), (203, 42552), (215, 42579), (245, 42636), (250, 42645), (308, 42792), (315, 42807), (333, 42861), (347, 42894), (362, 42933), (366, 42945), (401, 43026), (411, 43044), (412, 43047), (428, 43092), (468, 43203), (521, 43314), (527, 43335), (541, 43368),

Gene: Maroc7\_9 Start: 5759, Stop: 6727, Start Num: 111

Candidate Starts for Maroc7\_9:

(Start: 111 @5759 has 315 MA's), (Start: 126 @5792 has 6 MA's), (Start: 135 @5810 has 1 MA's), (Start: 138 @5813 has 2 MA's), (266, 6080), (286, 6131), (289, 6143), (327, 6218), (349, 6281), (355, 6293), (361, 6314), (365, 6326), (369, 6344), (374, 6362), (386, 6386), (407, 6425), (437, 6506), (445, 6530), (446, 6533), (448, 6536), (454, 6545), (515, 6677), (531, 6719),

Gene: Marsha\_10 Start: 6203, Stop: 7171, Start Num: 111

Candidate Starts for Marsha\_10:

(Start: 111 @6203 has 315 MA's), (Start: 126 @6236 has 6 MA's), (Start: 135 @6254 has 1 MA's), (Start: 138 @6257 has 2 MA's), (266, 6524), (273, 6542), (286, 6575), (289, 6587), (327, 6662), (349, 6725), (361, 6758), (369, 6788), (374, 6806), (407, 6869), (437, 6950), (445, 6974), (446, 6977), (448, 6980), (454, 6989), (495, 7076), (531, 7163),

Gene: Marshawn\_32 Start: 26272, Stop: 27012, Start Num: 153

Candidate Starts for Marshawn\_32:

(129, 26224), (140, 26245), (Start: 153 @26272 has 137 MA's), (Start: 161 @26284 has 1 MA's), (173, 26311), (175, 26317), (192, 26353), (218, 26410), (222, 26422), (238, 26446), (254, 26488), (274, 26536), (296, 26596), (349, 26731), (363, 26758), (377, 26803), (445, 26827), (466, 26869), (475, 26890), (477, 26893), (523, 26992), (529, 27001),

Gene: Marshmallow\_35 Start: 31856, Stop: 32713, Start Num: 136

Candidate Starts for Marshmallow\_35:

(Start: 136 @31856 has 124 MA's), (Start: 156 @31895 has 3 MA's), (166, 31925), (175, 31946), (191, 31982), (205, 32012), (236, 32087), (259, 32135), (262, 32138), (272, 32162), (274, 32165), (280, 32180), (346, 32351), (393, 32465), (398, 32480), (420, 32486), (444, 32528), (445, 32531), (470, 32585), (511, 32663), (522, 32696),

Gene: Martik\_31 Start: 27699, Stop: 28700, Start Num: 95

Candidate Starts for Martik\_31:

(Start: 95 @27699 has 260 MA's), (Start: 105 @27720 has 4 MA's), (Start: 112 @27732 has 111 MA's), (130, 27774), (168, 27837), (177, 27858), (189, 27888), (Start: 214 @27942 has 1 MA's), (223, 27966), (235, 27981), (241, 27993), (286, 28104), (334, 28218), (341, 28236), (357, 28275), (365, 28299), (374, 28335), (388, 28362), (407, 28401), (428, 28449), (445, 28509), (474, 28569), (501, 28626), (515, 28656),

Gene: MaryBeth\_10 Start: 6181, Stop: 7149, Start Num: 111

Candidate Starts for MaryBeth\_10:

(Start: 111 @6181 has 315 MA's), (Start: 126 @6214 has 6 MA's), (Start: 135 @6232 has 1 MA's), (Start: 138 @6235 has 2 MA's), (266, 6502), (286, 6553), (289, 6565), (327, 6640), (349, 6703), (355, 6715), (361, 6736), (365, 6748), (369, 6766), (374, 6784), (386, 6808), (407, 6847), (437, 6928), (445, 6952), (446, 6955), (448, 6958), (454, 6967), (495, 7054), (531, 7141),

Gene: MaryV\_52 Start: 38366, Stop: 39331, Start Num: 95

Candidate Starts for MaryV\_52:

(Start: 95 @38366 has 260 MA's), (Start: 126 @38429 has 6 MA's), (169, 38489), (175, 38504), (177, 38507), (183, 38519), (185, 38525), (203, 38561), (204, 38564), (241, 38636), (250, 38651), (252, 38657), (273, 38720), (286, 38750), (301, 38783), (333, 38846), (334, 38849), (349, 38888), (361, 38921), (369, 38948), (372, 38957), (386, 38990), (442, 39125), (446, 39140), (468, 39185), (490, 39227), (501, 39254), (521, 39296),

Gene: Matsumoto\_250 Start: 144235, Stop: 145263, Start Num: 87

Candidate Starts for Matsumoto\_250:

(Start: 87 @144235 has 167 MA's), (Start: 105 @144265 has 4 MA's), (Start: 112 @144277 has 111 MA's), (130, 144319), (168, 144382), (177, 144403), (Start: 214 @144487 has 1 MA's), (235, 144529), (241, 144541), (250, 144556), (273, 144625), (286, 144652), (309, 144706), (324, 144751), (326, 144754), (354, 144832), (361, 144853), (407, 144964), (440, 145054), (445, 145072), (480, 145144), (496, 145177),

Gene: Mattes\_31 Start: 27708, Stop: 28709, Start Num: 95

Candidate Starts for Mattes\_31:

(Start: 95 @27708 has 260 MA's), (130, 27783), (168, 27846), (177, 27867), (Start: 214 @27951 has 1 MA's), (223, 27975), (235, 27990), (241, 28002), (286, 28113), (334, 28227), (341, 28245), (357, 28284), (365, 28308), (374, 28344), (407, 28410), (445, 28518), (468, 28566), (474, 28578), (496, 28623), (501, 28635), (515, 28665),

Gene: Maverick\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Maverick\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Maxo\_10 Start: 5882, Stop: 6862, Start Num: 112

Candidate Starts for Maxo\_10:

(Start: 112 @5882 has 111 MA's), (Start: 114 @5885 has 13 MA's), (125, 5909), (Start: 135 @5930 has 1 MA's), (Start: 138 @5933 has 2 MA's), (263, 6182), (286, 6239), (328, 6323), (333, 6344), (345, 6371), (362, 6401), (369, 6428), (428, 6578), (466, 6689), (470, 6701), (477, 6713), (511, 6779),

Gene: Maxxinista\_36 Start: 31325, Stop: 32182, Start Num: 136

Candidate Starts for Maxxinista\_36:

(Start: 136 @31325 has 124 MA's), (Start: 156 @31364 has 3 MA's), (166, 31394), (175, 31415), (191, 31451), (205, 31481), (236, 31556), (259, 31604), (262, 31607), (272, 31631), (274, 31634), (280, 31649), (346, 31820), (393, 31934), (398, 31949), (420, 31955), (444, 31997), (445, 32000), (470, 32054), (511, 32132), (522, 32165),

Gene: Mazhar510\_10 Start: 5882, Stop: 6862, Start Num: 112

Candidate Starts for Mazhar510\_10:

(Start: 112 @5882 has 111 MA's), (Start: 114 @5885 has 13 MA's), (125, 5909), (Start: 135 @5930 has 1 MA's), (Start: 138 @5933 has 2 MA's), (263, 6182), (286, 6239), (328, 6323), (333, 6344), (345, 6371), (362, 6401), (369, 6428), (428, 6578), (466, 6689), (470, 6701), (477, 6713), (511, 6779),

Gene: McGee\_254 Start: 144581, Stop: 145609, Start Num: 87

Candidate Starts for McGee\_254:

(Start: 87 @144581 has 167 MA's), (Start: 105 @144611 has 4 MA's), (Start: 112 @144623 has 111 MA's), (130, 144665), (168, 144728), (177, 144749), (Start: 214 @144833 has 1 MA's), (235, 144875), (241, 144887), (250, 144902), (273, 144971), (286, 144998), (309, 145052), (324, 145097), (326, 145100), (354, 145178), (361, 145199), (407, 145310), (440, 145400), (445, 145418), (480, 145490), (496, 145523),

Gene: McGuire\_10 Start: 5728, Stop: 6696, Start Num: 111

Candidate Starts for McGuire\_10:

(Start: 111 @5728 has 315 MA's), (Start: 126 @5761 has 6 MA's), (Start: 135 @5779 has 1 MA's), (Start: 138 @5782 has 2 MA's), (266, 6049), (286, 6100), (289, 6112), (327, 6187), (349, 6250), (361, 6283), (365, 6295), (369, 6313), (374, 6331), (386, 6355), (407, 6394), (437, 6475), (445, 6499), (446, 6502), (448, 6505), (454, 6514), (495, 6601), (531, 6688),

Gene: McMater\_31 Start: 25850, Stop: 26611, Start Num: 153

Candidate Starts for McMater\_31:

(140, 25820), (Start: 153 @25850 has 137 MA's), (175, 25895), (192, 25931), (216, 25991), (218, 25997), (234, 26027), (238, 26033), (242, 26042), (254, 26075), (271, 26117), (290, 26168), (296, 26183), (349, 26318), (363, 26345), (369, 26366), (371, 26372), (377, 26390), (445, 26423), (448, 26429), (470, 26477), (505, 26549), (523, 26591), (529, 26600),

Gene: McWolfish\_249 Start: 144242, Stop: 145270, Start Num: 87

Candidate Starts for McWolfish\_249:

(Start: 87 @144242 has 167 MA's), (Start: 105 @144272 has 4 MA's), (Start: 112 @144284 has 111 MA's), (130, 144326), (168, 144389), (177, 144410), (Start: 214 @144494 has 1 MA's), (235, 144536), (241, 144548), (250, 144563), (273, 144632), (286, 144659), (309, 144713), (324, 144758), (326, 144761), (354, 144839), (361, 144860), (407, 144971), (440, 145061), (445, 145079), (480, 145151), (496, 145184),

Gene: Mdavu\_27 Start: 25966, Stop: 26724, Start Num: 152

Candidate Starts for Mdavu\_27:

(100, 25864), (129, 25918), (140, 25939), (Start: 152 @25966 has 16 MA's), (175, 26011), (192, 26047), (216, 26107), (218, 26113), (234, 26143), (254, 26191), (271, 26233), (296, 26299), (308, 26335), (349, 26434), (363, 26461), (369, 26482), (371, 26488), (442, 26527), (445, 26539), (448, 26545), (462, 26569), (470, 26593), (523, 26704), (529, 26713),

Gene: MeaningOfLife\_31 Start: 26430, Stop: 27302, Start Num: 153

Candidate Starts for MeaningOfLife\_31:

(140, 26403), (Start: 153 @26430 has 137 MA's), (Start: 161 @26442 has 1 MA's), (192, 26511), (205, 26538), (Start: 214 @26568 has 1 MA's), (218, 26577), (238, 26613), (242, 26622), (254, 26655), (259, 26673), (274, 26703), (296, 26763), (349, 26898), (363, 26925), (369, 26946), (377, 26970), (405, 27021), (448, 27123), (466, 27159), (477, 27183), (523, 27282), (529, 27291),

Gene: Medusa\_10 Start: 5884, Stop: 6861, Start Num: 114

Candidate Starts for Medusa\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: MeeZee\_10 Start: 5884, Stop: 6861, Start Num: 114

Candidate Starts for MeeZee\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Megamind\_249 Start: 144567, Stop: 145595, Start Num: 87

Candidate Starts for Megamind\_249:

(Start: 87 @144567 has 167 MA's), (Start: 105 @144597 has 4 MA's), (Start: 112 @144609 has 111 MA's), (130, 144651), (168, 144714), (177, 144735), (Start: 214 @144819 has 1 MA's), (235, 144861), (241, 144873), (250, 144888), (273, 144957), (286, 144984), (309, 145038), (324, 145083), (326, 145086), (354, 145164), (361, 145185), (407, 145296), (440, 145386), (445, 145404), (480, 145476), (496, 145509),

Gene: Megsy\_31 Start: 26430, Stop: 27302, Start Num: 153

Candidate Starts for Megsy\_31:

(140, 26403), (Start: 153 @26430 has 137 MA's), (Start: 161 @26442 has 1 MA's), (192, 26511), (205, 26538), (Start: 214 @26568 has 1 MA's), (218, 26577), (238, 26613), (242, 26622), (254, 26655), (259, 26673), (296, 26763), (349, 26898), (363, 26925), (369, 26946), (377, 26970), (405, 27021), (448, 27123), (466, 27159), (477, 27183), (523, 27282), (529, 27291),

Gene: Melissauren88\_31 Start: 27668, Stop: 28666, Start Num: 95

Candidate Starts for Melissauren88\_31:

(Start: 95 @27668 has 260 MA's), (130, 27743), (168, 27803), (177, 27824), (Start: 214 @27908 has 1 MA's), (241, 27959), (250, 27974), (286, 28070), (327, 28157), (333, 28181), (341, 28202), (357, 28241), (361, 28253), (374, 28301), (388, 28328), (400, 28352), (407, 28367), (445, 28475), (468, 28523), (501, 28592), (515, 28622),

Gene: Melpomini\_247 Start: 143327, Stop: 144355, Start Num: 87

Candidate Starts for Melpomini\_247:

(Start: 87 @143327 has 167 MA's), (Start: 105 @143357 has 4 MA's), (Start: 112 @143369 has 111 MA's), (130, 143411), (168, 143474), (177, 143495), (Start: 214 @143579 has 1 MA's), (235, 143621), (241, 143633), (250, 143648), (273, 143717), (286, 143744), (309, 143798), (324, 143843), (326, 143846), (354, 143924), (361, 143945), (407, 144056), (440, 144146), (445, 144164), (480, 144236), (496, 144269),

Gene: Melvin\_10 Start: 5884, Stop: 6861, Start Num: 114

Candidate Starts for Melvin\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (320, 6301), (328, 6322), (333, 6343), (345, 6370), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: MetalQZJ\_10 Start: 6181, Stop: 7149, Start Num: 111

Candidate Starts for MetalQZJ\_10:

(Start: 111 @6181 has 315 MA's), (Start: 126 @6214 has 6 MA's), (Start: 135 @6232 has 1 MA's), (Start: 138 @6235 has 2 MA's), (266, 6502), (286, 6553), (289, 6565), (327, 6640), (349, 6703), (355, 6715), (361, 6736), (365, 6748), (369, 6766), (374, 6784), (386, 6808), (407, 6847), (437, 6928), (445, 6952), (446, 6955), (448, 6958), (454, 6967), (495, 7054), (531, 7141),

Gene: Methuselah\_12 Start: 6045, Stop: 7010, Start Num: 101

Candidate Starts for Methuselah\_12:

(Start: 101 @6045 has 93 MA's), (Start: 126 @6090 has 6 MA's), (Start: 138 @6111 has 2 MA's), (201, 6231), (263, 6369), (286, 6426), (291, 6441), (333, 6522), (337, 6537), (347, 6555), (365, 6606), (369, 6624), (388, 6669), (428, 6765), (447, 6828), (465, 6867), (490, 6918),

Gene: MiaZeal\_48 Start: 38897, Stop: 39901, Start Num: 49

Candidate Starts for MiaZeal\_48:

(Start: 49 @38897 has 10 MA's), (64, 38951), (Start: 88 @39002 has 3 MA's), (Start: 126 @39074 has 6 MA's), (166, 39149), (218, 39263), (222, 39275), (242, 39308), (272, 39377), (277, 39389), (282, 39401), (284, 39404), (299, 39449), (306, 39467), (363, 39629), (367, 39644), (370, 39653), (521, 39854),

Gene: Michley\_10 Start: 5929, Stop: 6897, Start Num: 111

Candidate Starts for Michley\_10:

(Start: 111 @5929 has 315 MA's), (Start: 126 @5962 has 6 MA's), (Start: 135 @5980 has 1 MA's), (Start: 138 @5983 has 2 MA's), (266, 6250), (286, 6301), (289, 6313), (327, 6388), (349, 6451), (355, 6463), (361, 6484), (365, 6496), (369, 6514), (374, 6532), (386, 6556), (407, 6595), (437, 6676), (445, 6700), (446, 6703), (448, 6706), (454, 6715), (495, 6802), (515, 6847), (531, 6889),

Gene: Microwolf\_12 Start: 5963, Stop: 6928, Start Num: 101

Candidate Starts for Microwolf\_12:

(Start: 101 @5963 has 93 MA's), (Start: 126 @6008 has 6 MA's), (Start: 138 @6029 has 2 MA's), (201, 6149), (263, 6287), (286, 6344), (291, 6359), (333, 6440), (337, 6455), (347, 6473), (365, 6524), (369, 6542), (388, 6587), (428, 6683), (447, 6746), (465, 6785), (490, 6836),

Gene: MiculUcigas\_11 Start: 6484, Stop: 7461, Start Num: 111

Candidate Starts for MiculUcigas\_11:

(Start: 111 @6484 has 315 MA's), (Start: 138 @6538 has 2 MA's), (180, 6595), (247, 6727), (263, 6775), (286, 6832), (302, 6868), (327, 6916), (337, 6955), (366, 7027), (369, 7042), (388, 7087), (397, 7105), (416, 7147), (428, 7195), (434, 7222), (440, 7237), (445, 7255), (447, 7258), (490, 7348),

Gene: MikeLiesIn\_253 Start: 145703, Stop: 146731, Start Num: 87

Candidate Starts for MikeLiesIn\_253:

(Start: 87 @145703 has 167 MA's), (Start: 105 @145733 has 4 MA's), (Start: 112 @145745 has 111 MA's), (130, 145787), (168, 145850), (177, 145871), (Start: 214 @145955 has 1 MA's), (235, 145997), (241, 146009), (250, 146024), (273, 146093), (286, 146120), (309, 146174), (324, 146219), (326, 146222), (354, 146300), (361, 146321), (407, 146432), (440, 146522), (445, 146540), (480, 146612), (496, 146645),

Gene: Miko\_14 Start: 8100, Stop: 9086, Start Num: 111

Candidate Starts for Miko\_14:

(Start: 111 @8100 has 315 MA's), (125, 8130), (Start: 135 @8151 has 1 MA's), (Start: 138 @8154 has 2 MA's), (155, 8187), (263, 8403), (286, 8460), (289, 8472), (301, 8493), (345, 8583), (369, 8649), (428, 8799), (432, 8820), (477, 8934), (511, 9006),

Gene: Mikro\_246 Start: 146146, Stop: 147174, Start Num: 87

Candidate Starts for Mikro\_246:

(Start: 87 @146146 has 167 MA's), (Start: 105 @146176 has 4 MA's), (Start: 112 @146188 has 111 MA's), (130, 146230), (168, 146293), (177, 146314), (Start: 214 @146398 has 1 MA's), (235, 146440), (241, 146452), (250, 146467), (273, 146536), (286, 146563), (309, 146617), (324, 146662), (326, 146665), (354, 146743), (361, 146764), (407, 146875), (440, 146965), (445, 146983), (480, 147055), (496, 147088),

Gene: MilanaBonita\_25 Start: 23599, Stop: 24597, Start Num: 95



Candidate Starts for MilanaBonita\_25:

(Start: 95 @23599 has 260 MA's), (130, 23674), (168, 23734), (177, 23755), (Start: 214 @23839 has 1 MA's), (241, 23890), (250, 23905), (286, 24001), (327, 24088), (333, 24112), (341, 24133), (357, 24172), (361, 24184), (374, 24232), (388, 24259), (400, 24283), (407, 24298), (445, 24406), (468, 24454), (501, 24523), (515, 24553),

Gene: Miley16\_28 Start: 26303, Stop: 27274, Start Num: 51

Candidate Starts for Miley16\_28:

(Start: 51 @26303 has 22 MA's), (67, 26357), (141, 26507), (144, 26516), (147, 26522), (Start: 161 @26555 has 1 MA's), (162, 26558), (166, 26567), (175, 26588), (205, 26651), (218, 26678), (232, 26702), (272, 26783), (277, 26795), (300, 26858), (306, 26873), (325, 26933), (330, 26948), (363, 27029), (368, 27047), (369, 27050), (371, 27053), (449, 27104), (470, 27149), (494, 27191), (514, 27233),

Gene: MilleniumForce\_32 Start: 28460, Stop: 29458, Start Num: 95

Candidate Starts for MilleniumForce\_32:

(Start: 95 @28460 has 260 MA's), (130, 28535), (168, 28595), (177, 28616), (Start: 214 @28700 has 1 MA's), (241, 28751), (250, 28766), (286, 28862), (333, 28973), (341, 28994), (357, 29033), (361, 29045), (374, 29093), (388, 29120), (400, 29144), (407, 29159), (445, 29267), (468, 29315), (501, 29384), (515, 29414),

Gene: Millski\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Millski\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (320, 6301), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Milly\_29 Start: 24780, Stop: 25982, Start Num: 48

Candidate Starts for Milly\_29:

(42, 24738), (Start: 48 @24780 has 10 MA's), (57, 24807), (61, 24828), (76, 24864), (86, 24885), (99, 24912), (128, 24972), (146, 25008), (Start: 161 @25041 has 1 MA's), (162, 25044), (175, 25074), (205, 25140), (218, 25179), (257, 25257), (278, 25302), (299, 25359), (306, 25377), (363, 25542), (369, 25563), (375, 25584), (415, 25662), (423, 25689), (426, 25704), (444, 25773), (470, 25830), (509, 25911),

Gene: Mindy\_35 Start: 31636, Stop: 32493, Start Num: 136

Candidate Starts for Mindy\_35:

(Start: 136 @31636 has 124 MA's), (Start: 156 @31675 has 3 MA's), (166, 31705), (175, 31726), (191, 31762), (205, 31792), (236, 31867), (259, 31915), (262, 31918), (272, 31942), (274, 31945), (280, 31960), (346, 32131), (393, 32245), (398, 32260), (420, 32266), (444, 32308), (445, 32311), (470, 32365), (511, 32443), (522, 32476),

Gene: Minerva\_55 Start: 43973, Stop: 44845, Start Num: 91

Candidate Starts for Minerva\_55:

(Start: 91 @43973 has 31 MA's), (Start: 104 @44000 has 1 MA's), (158, 44108), (168, 44129), (190, 44174), (202, 44195), (Start: 214 @44216 has 1 MA's), (243, 44270), (266, 44321), (288, 44372), (344, 44522), (379, 44630), (380, 44633), (439, 44657), (452, 44693), (462, 44708), (466, 44720), (475, 44741),

Gene: MiniLon\_28 Start: 26618, Stop: 27661, Start Num: 46

Candidate Starts for MiniLon\_28:

(Start: 46 @26618 has 17 MA's), (47, 26624), (55, 26651), (60, 26672), (83, 26723), (99, 26753), (124, 26804), (178, 26909), (216, 26990), (218, 26996), (240, 27038), (268, 27092), (275, 27110), (277, 27116), (280, 27122), (306, 27194), (329, 27251), (352, 27311), (378, 27386), (389, 27407), (441, 27431), (445, 27446), (448, 27452), (477, 27515), (523, 27617), (532, 27638), (537, 27644),

Gene: MiniMac\_28 Start: 26619, Stop: 27662, Start Num: 46

Candidate Starts for MiniMac\_28:

(Start: 46 @26619 has 17 MA's), (47, 26625), (55, 26652), (60, 26673), (83, 26724), (99, 26754), (124, 26805), (178, 26910), (216, 26991), (218, 26997), (240, 27039), (268, 27093), (275, 27111), (277, 27117), (280, 27123), (306, 27195), (329, 27252), (352, 27312), (378, 27387), (389, 27408), (441, 27432), (445, 27447), (448, 27453), (450, 27459), (477, 27516), (523, 27618), (532, 27639), (537, 27645), (540, 27654),

Gene: MinionDave\_34 Start: 28679, Stop: 29695, Start Num: 95

Candidate Starts for MinionDave\_34:

(29, 28448), (31, 28451), (37, 28499), (74, 28634), (78, 28643), (Start: 95 @28679 has 260 MA's), (160, 28811), (168, 28832), (177, 28853), (189, 28883), (196, 28895), (Start: 214 @28937 has 1 MA's), (241, 28988), (250, 29003), (286, 29099), (333, 29210), (341, 29231), (357, 29270), (361, 29282), (374, 29330), (388, 29357), (400, 29381), (407, 29396), (445, 29504), (468, 29552), (501, 29621), (515, 29651),

Gene: Miniwave\_35 Start: 32055, Stop: 32912, Start Num: 136

Candidate Starts for Miniwave\_35:

(Start: 136 @32055 has 124 MA's), (Start: 156 @32094 has 3 MA's), (166, 32124), (175, 32145), (191, 32181), (205, 32211), (236, 32286), (259, 32334), (262, 32337), (272, 32361), (274, 32364), (280, 32379), (346, 32550), (393, 32664), (398, 32679), (420, 32685), (444, 32727), (445, 32730), (470, 32784), (511, 32862), (522, 32895),

Gene: Minnie\_33 Start: 28503, Stop: 29504, Start Num: 95

Candidate Starts for Minnie\_33:

(Start: 95 @28503 has 260 MA's), (130, 28578), (149, 28611), (168, 28641), (177, 28662), (189, 28692), (196, 28704), (Start: 214 @28746 has 1 MA's), (223, 28770), (235, 28785), (241, 28797), (286, 28908), (334, 29022), (341, 29040), (357, 29079), (365, 29103), (374, 29139), (388, 29166), (407, 29205), (445, 29313), (468, 29361), (474, 29373), (496, 29418), (501, 29430), (515, 29460),

Gene: Miramae\_10 Start: 5845, Stop: 6825, Start Num: 112

Candidate Starts for Miramae\_10:

(Start: 112 @5845 has 111 MA's), (125, 5872), (Start: 135 @5893 has 1 MA's), (Start: 138 @5896 has 2 MA's), (263, 6145), (286, 6202), (289, 6214), (320, 6265), (328, 6286), (345, 6334), (369, 6391), (428, 6541), (477, 6676), (481, 6685), (511, 6742), (540, 6817),

Gene: Miryou\_30 Start: 27031, Stop: 27903, Start Num: 153

Candidate Starts for Miryou\_30:

(100, 26929), (129, 26983), (Start: 153 @27031 has 137 MA's), (Start: 161 @27043 has 1 MA's), (162, 27046), (164, 27049), (175, 27076), (188, 27106), (192, 27112), (Start: 214 @27166 has 1 MA's), (218, 27175), (222, 27187), (242, 27220), (254, 27253), (274, 27301), (363, 27523), (368, 27541), (369, 27544), (394, 27604), (421, 27649), (448, 27721), (466, 27757), (467, 27760), (477, 27781), (503, 27838), (521, 27874), (523, 27883), (529, 27892),

Gene: Misfit\_35 Start: 31945, Stop: 32802, Start Num: 136

Candidate Starts for Misfit\_35:

(Start: 136 @31945 has 124 MA's), (Start: 156 @31984 has 3 MA's), (166, 32014), (175, 32035), (191, 32071), (205, 32101), (236, 32176), (259, 32224), (262, 32227), (272, 32251), (274, 32254), (280,

32269), (346, 32440), (393, 32554), (398, 32569), (420, 32575), (444, 32617), (445, 32620), (470, 32674), (511, 32752), (522, 32785),

Gene: Misha28\_32 Start: 27407, Stop: 28408, Start Num: 95

Candidate Starts for Misha28\_32:

(26, 27146), (Start: 56 @27308 has 7 MA's), (Start: 95 @27407 has 260 MA's), (130, 27482), (168, 27545), (177, 27566), (Start: 214 @27650 has 1 MA's), (223, 27674), (235, 27689), (241, 27701), (286, 27812), (334, 27926), (341, 27944), (357, 27983), (365, 28007), (374, 28043), (388, 28070), (407, 28109), (445, 28217), (468, 28265), (474, 28277), (501, 28334), (515, 28364),

Gene: Misomonster\_14 Start: 6045, Stop: 7010, Start Num: 101

Candidate Starts for Misomonster\_14:

(Start: 101 @6045 has 93 MA's), (Start: 126 @6090 has 6 MA's), (Start: 138 @6111 has 2 MA's), (201, 6231), (263, 6369), (286, 6426), (291, 6441), (333, 6522), (337, 6537), (347, 6555), (365, 6606), (369, 6624), (388, 6669), (428, 6765), (447, 6828), (490, 6918),

Gene: MissDaisy\_32 Start: 27396, Stop: 28187, Start Num: 143

Candidate Starts for MissDaisy\_32:

(92, 27291), (100, 27309), (113, 27336), (123, 27357), (Start: 143 @27396 has 20 MA's), (Start: 161 @27429 has 1 MA's), (175, 27462), (200, 27516), (Start: 214 @27555 has 1 MA's), (218, 27564), (238, 27600), (242, 27609), (314, 27792), (349, 27888), (363, 27915), (369, 27936), (373, 27951), (377, 27960), (445, 27984), (470, 28038), (477, 28050), (511, 28122), (521, 28143),

Gene: MisterCuddles\_33 Start: 28455, Stop: 29525, Start Num: 95

Candidate Starts for MisterCuddles\_33:

(70, 28404), (Start: 95 @28455 has 260 MA's), (Start: 105 @28476 has 4 MA's), (Start: 109 @28482 has 1 MA's), (121, 28509), (Start: 126 @28518 has 6 MA's), (157, 28578), (173, 28605), (203, 28671), (Start: 231 @28725 has 2 MA's), (250, 28767), (266, 28818), (298, 28902), (308, 28932), (318, 28965), (339, 29040), (348, 29061), (401, 29190), (428, 29262), (464, 29358), (468, 29370), (501, 29439), (525, 29496), (529, 29505),

Gene: Mitti\_32 Start: 27554, Stop: 28345, Start Num: 143

Candidate Starts for Mitti\_32:

(Start: 143 @27554 has 20 MA's), (Start: 161 @27587 has 1 MA's), (175, 27620), (185, 27644), (196, 27665), (200, 27674), (211, 27704), (Start: 214 @27713 has 1 MA's), (218, 27722), (238, 27758), (276, 27839), (349, 28046), (363, 28073), (369, 28094), (373, 28109), (377, 28118), (445, 28142), (470, 28196), (477, 28208), (511, 28280),

Gene: MkaliMitinis3\_28 Start: 26303, Stop: 27274, Start Num: 51

Candidate Starts for MkaliMitinis3\_28:

(Start: 51 @26303 has 22 MA's), (67, 26357), (125, 26477), (141, 26507), (147, 26522), (Start: 161 @26555 has 1 MA's), (162, 26558), (166, 26567), (175, 26588), (205, 26651), (218, 26678), (232, 26702), (245, 26732), (272, 26783), (277, 26795), (300, 26858), (306, 26873), (325, 26933), (330, 26948), (363, 27029), (368, 27047), (369, 27050), (371, 27053), (449, 27104), (470, 27149), (494, 27191), (514, 27233),

Gene: Mkhuseli\_9 Start: 5588, Stop: 6556, Start Num: 111

Candidate Starts for Mkhuseli\_9:

(Start: 111 @5588 has 315 MA's), (Start: 126 @5621 has 6 MA's), (Start: 135 @5639 has 1 MA's), (Start: 138 @5642 has 2 MA's), (266, 5909), (286, 5960), (289, 5972), (327, 6047), (349, 6110), (361, 6143), (365, 6155), (369, 6173), (374, 6191), (386, 6215), (407, 6254), (437, 6335), (445, 6359), (446, 6362), (448, 6365), (454, 6374), (495, 6461), (515, 6506), (531, 6548),

Gene: MmasiCarm\_47 Start: 41519, Stop: 42583, Start Num: 84

Candidate Starts for MmasiCarm\_47:

(Start: 84 @41519 has 45 MA's), (115, 41582), (157, 41663), (189, 41729), (197, 41744), (203, 41756), (215, 41783), (245, 41840), (250, 41849), (308, 41996), (315, 42011), (333, 42065), (347, 42098), (362, 42137), (366, 42149), (401, 42230), (411, 42248), (412, 42251), (428, 42296), (468, 42407), (521, 42518), (527, 42539), (541, 42572),

Gene: MoMoMixon\_248 Start: 144662, Stop: 145690, Start Num: 87

Candidate Starts for MoMoMixon\_248:

(Start: 87 @144662 has 167 MA's), (Start: 105 @144692 has 4 MA's), (Start: 112 @144704 has 111 MA's), (130, 144746), (168, 144809), (177, 144830), (Start: 214 @144914 has 1 MA's), (235, 144956), (241, 144968), (250, 144983), (273, 145052), (286, 145079), (309, 145133), (324, 145178), (326, 145181), (354, 145259), (361, 145280), (407, 145391), (440, 145481), (445, 145499), (480, 145571), (496, 145604),

Gene: Modragons\_31 Start: 27572, Stop: 28573, Start Num: 95

Candidate Starts for Modragons\_31:

(4, 26951), (6, 27029), (8, 27092), (14, 27131), (18, 27263), (22, 27284), (26, 27320), (Start: 56 @27473 has 7 MA's), (Start: 95 @27572 has 260 MA's), (Start: 105 @27593 has 4 MA's), (Start: 112 @27605 has 111 MA's), (130, 27647), (149, 27680), (168, 27710), (177, 27731), (Start: 214 @27815 has 1 MA's), (223, 27839), (235, 27854), (241, 27866), (286, 27977), (334, 28091), (341, 28109), (357, 28148), (365, 28172), (374, 28208), (388, 28235), (407, 28274), (445, 28382), (468, 28430), (474, 28442), (495, 28484), (496, 28487), (501, 28499), (515, 28529),

Gene: Moldemort\_36 Start: 31600, Stop: 32457, Start Num: 136

Candidate Starts for Moldemort\_36:

(Start: 136 @31600 has 124 MA's), (Start: 156 @31639 has 3 MA's), (166, 31669), (175, 31690), (191, 31726), (205, 31756), (236, 31831), (259, 31879), (262, 31882), (272, 31906), (274, 31909), (280, 31924), (346, 32095), (393, 32209), (398, 32224), (420, 32230), (444, 32272), (445, 32275), (470, 32329), (511, 32407), (522, 32440),

Gene: Molly\_11 Start: 5789, Stop: 6757, Start Num: 111

Candidate Starts for Molly\_11:

(Start: 111 @5789 has 315 MA's), (Start: 126 @5822 has 6 MA's), (Start: 135 @5840 has 1 MA's), (Start: 138 @5843 has 2 MA's), (266, 6110), (286, 6161), (289, 6173), (327, 6248), (349, 6311), (355, 6323), (361, 6344), (369, 6374), (374, 6392), (386, 6416), (407, 6455), (437, 6536), (445, 6560), (446, 6563), (448, 6566), (454, 6575), (495, 6662), (515, 6707), (531, 6749),

Gene: Momo\_254 Start: 143793, Stop: 144821, Start Num: 87

Candidate Starts for Momo\_254:

(Start: 87 @143793 has 167 MA's), (Start: 105 @143823 has 4 MA's), (Start: 112 @143835 has 111 MA's), (130, 143877), (168, 143940), (177, 143961), (Start: 214 @144045 has 1 MA's), (235, 144087), (241, 144099), (250, 144114), (273, 144183), (286, 144210), (309, 144264), (324, 144309), (326, 144312), (354, 144390), (361, 144411), (407, 144522), (440, 144612), (445, 144630), (480, 144702), (496, 144735),

Gene: Monet\_11 Start: 6484, Stop: 7452, Start Num: 111

Candidate Starts for Monet\_11:

(Start: 111 @6484 has 315 MA's), (Start: 126 @6517 has 6 MA's), (Start: 135 @6535 has 1 MA's), (266, 6805), (286, 6856), (289, 6868), (327, 6943), (349, 7006), (355, 7018), (361, 7039), (365, 7051), (369, 7069), (374, 7087), (386, 7111), (407, 7150), (437, 7231), (445, 7255), (446, 7258), (448, 7261), (454, 7270), (495, 7357), (506, 7381), (515, 7402), (531, 7444),

Gene: MoneyMay\_12 Start: 5960, Stop: 6925, Start Num: 101

Candidate Starts for MoneyMay\_12:

(Start: 101 @5960 has 93 MA's), (Start: 126 @6005 has 6 MA's), (Start: 138 @6026 has 2 MA's), (201, 6146), (286, 6341), (291, 6356), (333, 6437), (337, 6452), (347, 6470), (365, 6521), (369, 6539), (388, 6584), (428, 6680), (447, 6743), (465, 6782), (490, 6833),

Gene: MontyDev\_39 Start: 34993, Stop: 36042, Start Num: 90

Candidate Starts for MontyDev\_39:

(Start: 90 @34993 has 9 MA's), (130, 35077), (Start: 138 @35086 has 2 MA's), (150, 35110), (168, 35140), (177, 35161), (193, 35197), (203, 35218), (208, 35227), (Start: 214 @35245 has 1 MA's), (250, 35314), (310, 35467), (340, 35566), (374, 35665), (407, 35719), (465, 35872), (476, 35896), (480, 35905), (498, 35947), (501, 35950), (504, 35956), (510, 35965), (524, 36001), (527, 36010), (534, 36019),

Gene: MooMoo\_29 Start: 26730, Stop: 27749, Start Num: 95

Candidate Starts for MooMoo\_29:

(Start: 95 @26730 has 260 MA's), (Start: 105 @26751 has 4 MA's), (Start: 109 @26757 has 1 MA's), (130, 26805), (168, 26868), (177, 26889), (Start: 214 @26973 has 1 MA's), (235, 27015), (237, 27018), (241, 27027), (263, 27084), (266, 27093), (286, 27138), (327, 27225), (337, 27264), (361, 27321), (369, 27351), (392, 27402), (407, 27432), (454, 27555), (471, 27597), (472, 27600), (481, 27624), (483, 27630), (486, 27636), (487, 27639), (496, 27660),

Gene: Moonbeam\_32 Start: 28207, Stop: 29208, Start Num: 95

Candidate Starts for Moonbeam\_32:

(Start: 95 @28207 has 260 MA's), (130, 28282), (149, 28315), (168, 28345), (171, 28354), (177, 28366), (Start: 214 @28450 has 1 MA's), (223, 28474), (235, 28489), (241, 28501), (286, 28612), (334, 28726), (341, 28744), (357, 28783), (365, 28807), (374, 28843), (388, 28870), (407, 28909), (445, 29017), (468, 29065), (474, 29077), (496, 29122), (501, 29134), (515, 29164),

Gene: Moose\_9 Start: 6022, Stop: 6990, Start Num: 111

Candidate Starts for Moose\_9:

(Start: 111 @6022 has 315 MA's), (Start: 126 @6055 has 6 MA's), (Start: 135 @6073 has 1 MA's), (Start: 138 @6076 has 2 MA's), (266, 6343), (286, 6394), (289, 6406), (327, 6481), (349, 6544), (361, 6577), (365, 6589), (369, 6607), (374, 6625), (386, 6649), (407, 6688), (437, 6769), (445, 6793), (446, 6796), (448, 6799), (454, 6808), (495, 6895), (515, 6940), (531, 6982),

Gene: Moostard\_28 Start: 26853, Stop: 27896, Start Num: 46

Candidate Starts for Moostard\_28:

(Start: 46 @26853 has 17 MA's), (47, 26859), (55, 26886), (60, 26907), (83, 26958), (124, 27039), (178, 27144), (216, 27225), (218, 27231), (268, 27327), (275, 27345), (277, 27351), (280, 27357), (306, 27429), (329, 27486), (352, 27546), (378, 27621), (389, 27642), (441, 27666), (445, 27681), (450, 27693), (477, 27750), (523, 27852), (532, 27873),

Gene: Mori\_67 Start: 43460, Stop: 44500, Start Num: 95

Candidate Starts for Mori\_67:

(Start: 95 @43460 has 260 MA's), (130, 43535), (168, 43616), (170, 43622), (177, 43637), (213, 43718), (Start: 214 @43721 has 1 MA's), (241, 43775), (250, 43790), (286, 43886), (304, 43925), (312, 43955), (324, 43985), (326, 43988), (336, 44021), (361, 44087), (372, 44126), (374, 44135), (388, 44162), (407, 44201), (478, 44375), (501, 44426),

Gene: Morizzled23\_250 Start: 143609, Stop: 144637, Start Num: 87

Candidate Starts for Morizzled23\_250:

(Start: 87 @143609 has 167 MA's), (Start: 105 @143639 has 4 MA's), (Start: 112 @143651 has 111 MA's), (130, 143693), (168, 143756), (177, 143777), (Start: 214 @143861 has 1 MA's), (235, 143903), (241, 143915), (250, 143930), (273, 143999), (286, 144026), (309, 144080), (324, 144125), (326, 144128), (327, 144131), (354, 144206), (361, 144227), (407, 144338), (440, 144428), (445, 144446), (480, 144518), (496, 144551),

Gene: Morpher26\_10 Start: 5887, Stop: 6870, Start Num: 111

Candidate Starts for Morpher26\_10:

(Start: 111 @5887 has 315 MA's), (125, 5917), (Start: 135 @5938 has 1 MA's), (Start: 138 @5941 has 2 MA's), (263, 6190), (286, 6247), (289, 6259), (305, 6289), (320, 6310), (328, 6331), (345, 6379), (369, 6436), (428, 6586), (470, 6709), (477, 6721), (481, 6730), (511, 6787), (540, 6862),

Gene: Morrow\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Morrow\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (Start: 138 @5932 has 2 MA's), (209, 6067), (218, 6091), (263, 6181), (286, 6238), (320, 6301), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (470, 6700), (477, 6712), (526, 6823),

Gene: Mortcellus\_46 Start: 42171, Stop: 43235, Start Num: 84

Candidate Starts for Mortcellus\_46:

(Start: 84 @42171 has 45 MA's), (115, 42234), (157, 42315), (189, 42381), (197, 42396), (203, 42408), (215, 42435), (245, 42492), (250, 42501), (308, 42648), (315, 42663), (333, 42717), (347, 42750), (362, 42789), (366, 42801), (401, 42882), (411, 42900), (412, 42903), (428, 42948), (468, 43059), (521, 43170), (527, 43191), (541, 43224),

Gene: Morty007\_47 Start: 42315, Stop: 43379, Start Num: 84

Candidate Starts for Morty007\_47:

(Start: 84 @42315 has 45 MA's), (115, 42378), (157, 42459), (189, 42525), (197, 42540), (203, 42552), (215, 42579), (245, 42636), (250, 42645), (308, 42792), (315, 42807), (333, 42861), (347, 42894), (362, 42933), (366, 42945), (401, 43026), (411, 43044), (412, 43047), (428, 43092), (468, 43203), (521, 43314), (527, 43335), (541, 43368),

Gene: Mosby\_34 Start: 31362, Stop: 32219, Start Num: 136

Candidate Starts for Mosby\_34:

(Start: 136 @31362 has 124 MA's), (Start: 156 @31401 has 3 MA's), (166, 31431), (175, 31452), (191, 31488), (205, 31518), (236, 31593), (259, 31641), (262, 31644), (272, 31668), (274, 31671), (280, 31686), (346, 31857), (393, 31971), (398, 31986), (420, 31992), (444, 32034), (445, 32037), (470, 32091), (511, 32169), (522, 32202),

Gene: Mova\_32 Start: 27350, Stop: 28348, Start Num: 95

Candidate Starts for Mova\_32:

(Start: 95 @27350 has 260 MA's), (130, 27425), (168, 27485), (177, 27506), (Start: 214 @27590 has 1 MA's), (241, 27641), (250, 27656), (286, 27752), (333, 27863), (341, 27884), (357, 27923), (361, 27935), (374, 27983), (388, 28010), (400, 28034), (407, 28049), (445, 28157), (468, 28205), (501, 28274), (515, 28304),

Gene: Mozy\_33 Start: 28396, Stop: 29397, Start Num: 95

Candidate Starts for Mozy\_33:

(68, 28342), (72, 28351), (Start: 95 @28396 has 260 MA's), (Start: 105 @28417 has 4 MA's), (130, 28471), (149, 28504), (168, 28534), (177, 28555), (Start: 214 @28639 has 1 MA's), (223, 28663), (235, 28678), (241, 28690), (286, 28801), (334, 28915), (341, 28933), (357, 28972), (365, 28996), (374, 29032), (388, 29059), (407, 29098), (428, 29146), (445, 29206), (468, 29254), (474, 29266), (496, 29311), (501, 29323), (515, 29353),

Gene: MrGordo\_10 Start: 5741, Stop: 6709, Start Num: 111

Candidate Starts for MrGordo\_10:

(Start: 111 @5741 has 315 MA's), (Start: 126 @5774 has 6 MA's), (Start: 135 @5792 has 1 MA's), (Start: 138 @5795 has 2 MA's), (235, 5984), (266, 6062), (273, 6080), (286, 6113), (289, 6125), (327, 6200), (349, 6263), (361, 6296), (369, 6326), (374, 6344), (386, 6368), (407, 6407), (437, 6488), (445, 6512), (446, 6515), (448, 6518), (454, 6527), (495, 6614), (515, 6659), (531, 6701),

Gene: MrMagoo\_43 Start: 32893, Stop: 33870, Start Num: 56

Candidate Starts for MrMagoo\_43:

(Start: 56 @32893 has 7 MA's), (63, 32920), (120, 33043), (134, 33073), (162, 33130), (166, 33139), (185, 33184), (191, 33196), (207, 33226), (218, 33250), (228, 33268), (242, 33295), (257, 33334), (276, 33373), (277, 33376), (310, 33463), (317, 33478), (371, 33631), (372, 33634), (374, 33643), (379, 33655), (384, 33664), (394, 33685), (444, 33706), (479, 33781),

Gene: Mryolo\_9 Start: 5771, Stop: 6739, Start Num: 111

Candidate Starts for Mryolo\_9:

(Start: 111 @5771 has 315 MA's), (Start: 126 @5804 has 6 MA's), (Start: 135 @5822 has 1 MA's), (Start: 138 @5825 has 2 MA's), (266, 6092), (286, 6143), (289, 6155), (327, 6230), (349, 6293), (361, 6326), (365, 6338), (369, 6356), (374, 6374), (386, 6398), (407, 6437), (437, 6518), (445, 6542), (446, 6545), (448, 6548), (454, 6557), (495, 6644), (531, 6731),

Gene: Ms6\_25 Start: 23131, Stop: 24129, Start Num: 95

Candidate Starts for Ms6\_25:

(Start: 95 @23131 has 260 MA's), (130, 23206), (168, 23266), (177, 23287), (Start: 214 @23371 has 1 MA's), (241, 23422), (250, 23437), (286, 23533), (333, 23644), (341, 23665), (357, 23704), (361, 23716), (374, 23764), (388, 23791), (400, 23815), (407, 23830), (445, 23938), (468, 23986), (501, 24055), (515, 24085),

Gene: MsGreen\_28 Start: 26850, Stop: 27893, Start Num: 46

Candidate Starts for MsGreen\_28:

(Start: 46 @26850 has 17 MA's), (47, 26856), (55, 26883), (60, 26904), (83, 26955), (124, 27036), (178, 27141), (216, 27222), (218, 27228), (268, 27324), (275, 27342), (277, 27348), (280, 27354), (306, 27426), (329, 27483), (352, 27543), (378, 27618), (389, 27639), (441, 27663), (445, 27678), (450, 27690), (477, 27747), (523, 27849), (532, 27870),

Gene: MuchMore\_14 Start: 5954, Stop: 6919, Start Num: 101

Candidate Starts for MuchMore\_14:

(Start: 101 @5954 has 93 MA's), (Start: 126 @5999 has 6 MA's), (Start: 138 @6020 has 2 MA's), (201, 6140), (263, 6278), (286, 6335), (291, 6350), (333, 6431), (337, 6446), (347, 6464), (365, 6515), (369, 6533), (388, 6578), (428, 6674), (447, 6737), (465, 6776), (490, 6827),

Gene: Mufasa\_30 Start: 24878, Stop: 26089, Start Num: 48

Candidate Starts for Mufasa\_30:

(1, 24167), (2, 24230), (3, 24254), (27, 24755), (30, 24776), (42, 24839), (Start: 48 @24878 has 10 MA's), (57, 24905), (61, 24926), (76, 24962), (99, 25007), (146, 25103), (Start: 161 @25136 has 1 MA's), (162, 25139), (175, 25169), (205, 25235), (218, 25274), (257, 25352), (278, 25397), (299, 25454), (306, 25472), (329, 25544), (363, 25637), (369, 25658), (375, 25679), (377, 25682), (423, 25796), (426, 25811), (444, 25880), (470, 25937), (509, 26018),

Gene: MulchExplorer\_34 Start: 28644, Stop: 29645, Start Num: 95

Candidate Starts for MulchExplorer\_34:

(Start: 95 @28644 has 260 MA's), (130, 28719), (149, 28752), (168, 28782), (177, 28803), (189, 28833), (196, 28845), (Start: 214 @28887 has 1 MA's), (223, 28911), (235, 28926), (241, 28938), (286, 29049), (334, 29163), (341, 29181), (357, 29220), (365, 29244), (374, 29280), (388, 29307), (407, 29346), (445, 29454), (468, 29502), (474, 29514), (496, 29559), (501, 29571), (515, 29601),

Gene: MulchSalad\_30 Start: 24409, Stop: 25410, Start Num: 95

Candidate Starts for MulchSalad\_30:

(71, 24364), (75, 24373), (Start: 95 @24409 has 260 MA's), (121, 24463), (130, 24484), (149, 24517), (168, 24547), (177, 24568), (Start: 214 @24652 has 1 MA's), (223, 24676), (235, 24691), (241, 24703), (286, 24814), (341, 24946), (357, 24985), (365, 25009), (374, 25045), (388, 25072), (400, 25096), (407, 25111), (445, 25219), (468, 25267), (501, 25336), (515, 25366),

Gene: Mule\_10 Start: 6057, Stop: 7025, Start Num: 111

Candidate Starts for Mule\_10:

(Start: 111 @6057 has 315 MA's), (Start: 126 @6090 has 6 MA's), (Start: 135 @6108 has 1 MA's), (Start: 138 @6111 has 2 MA's), (266, 6378), (286, 6429), (289, 6441), (327, 6516), (349, 6579), (355, 6591), (361, 6612), (365, 6624), (369, 6642), (374, 6660), (386, 6684), (407, 6723), (437, 6804), (445, 6828), (446, 6831), (448, 6834), (454, 6843), (495, 6930), (531, 7017),

Gene: Mundrea\_10 Start: 5843, Stop: 6823, Start Num: 112

Candidate Starts for Mundrea\_10:

(Start: 112 @5843 has 111 MA's), (125, 5870), (Start: 135 @5891 has 1 MA's), (Start: 138 @5894 has 2 MA's), (239, 6074), (263, 6143), (273, 6170), (286, 6200), (289, 6212), (305, 6242), (328, 6284), (333, 6305), (345, 6332), (362, 6362), (369, 6389), (371, 6395), (428, 6539), (477, 6674), (481, 6683), (511, 6740), (540, 6815),

Gene: Murai\_68 Start: 43641, Stop: 44681, Start Num: 95

Candidate Starts for Murai\_68:

(Start: 95 @43641 has 260 MA's), (130, 43716), (168, 43797), (170, 43803), (177, 43818), (213, 43899), (Start: 214 @43902 has 1 MA's), (241, 43956), (250, 43971), (286, 44067), (304, 44106), (312, 44136), (324, 44166), (326, 44169), (336, 44202), (361, 44268), (372, 44307), (374, 44316), (388, 44343), (407, 44382), (478, 44556), (501, 44607),

Gene: Murica\_34 Start: 31842, Stop: 32699, Start Num: 136

Candidate Starts for Murica\_34:

(Start: 136 @31842 has 124 MA's), (Start: 156 @31881 has 3 MA's), (166, 31911), (175, 31932), (191, 31968), (205, 31998), (236, 32073), (259, 32121), (262, 32124), (272, 32148), (274, 32151), (280, 32166), (346, 32337), (384, 32436), (393, 32451), (398, 32466), (420, 32472), (444, 32514), (445, 32517), (470, 32571), (511, 32649), (522, 32682),

Gene: Murphy\_36 Start: 31837, Stop: 32694, Start Num: 136

Candidate Starts for Murphy\_36:

(Start: 136 @31837 has 124 MA's), (Start: 156 @31876 has 3 MA's), (166, 31906), (175, 31927), (191, 31963), (205, 31993), (236, 32068), (259, 32116), (262, 32119), (272, 32143), (274, 32146), (280, 32161), (346, 32332), (393, 32446), (398, 32461), (420, 32467), (444, 32509), (445, 32512), (470, 32566), (511, 32644), (522, 32677),

Gene: Murucutumbu\_31 Start: 26406, Stop: 27278, Start Num: 153

Candidate Starts for Murucutumbu\_31:

(100, 26304), (140, 26379), (Start: 153 @26406 has 137 MA's), (Start: 161 @26418 has 1 MA's), (192, 26487), (205, 26514), (Start: 214 @26544 has 1 MA's), (218, 26553), (238, 26589), (242, 26598), (254, 26631), (259, 26649), (296, 26739), (349, 26874), (363, 26901), (369, 26922), (377, 26946), (405, 26997), (448, 27099), (466, 27135), (477, 27159), (523, 27258), (529, 27267),



Gene: Museum\_11 Start: 5573, Stop: 6541, Start Num: 111

Candidate Starts for Museum\_11:

(Start: 111 @5573 has 315 MA's), (Start: 126 @5606 has 6 MA's), (Start: 135 @5624 has 1 MA's), (Start: 138 @5627 has 2 MA's), (266, 5894), (286, 5945), (289, 5957), (327, 6032), (349, 6095), (355, 6107), (361, 6128), (365, 6140), (369, 6158), (374, 6176), (386, 6200), (407, 6239), (437, 6320), (445, 6344), (446, 6347), (448, 6350), (454, 6359), (495, 6446), (531, 6533),

Gene: Mutaforma13\_31 Start: 27781, Stop: 28782, Start Num: 95

Candidate Starts for Mutaforma13\_31:

(Start: 95 @27781 has 260 MA's), (130, 27856), (149, 27889), (168, 27919), (177, 27940), (189, 27970), (196, 27982), (Start: 214 @28024 has 1 MA's), (223, 28048), (235, 28063), (241, 28075), (250, 28090), (286, 28186), (333, 28297), (341, 28318), (357, 28357), (361, 28369), (374, 28417), (388, 28444), (400, 28468), (407, 28483), (445, 28591), (468, 28639), (501, 28708), (515, 28738),

Gene: Mynx\_31 Start: 26477, Stop: 27349, Start Num: 153

Candidate Starts for Mynx\_31:

(140, 26450), (Start: 153 @26477 has 137 MA's), (Start: 161 @26489 has 1 MA's), (192, 26558), (205, 26585), (Start: 214 @26615 has 1 MA's), (218, 26624), (238, 26660), (242, 26669), (254, 26702), (259, 26720), (274, 26750), (296, 26810), (349, 26945), (363, 26972), (369, 26993), (377, 27017), (405, 27068), (448, 27170), (466, 27206), (477, 27230), (523, 27329), (529, 27338),

Gene: Myrale\_35 Start: 31721, Stop: 32578, Start Num: 136

Candidate Starts for Myrale\_35:

(Start: 136 @31721 has 124 MA's), (Start: 156 @31760 has 3 MA's), (166, 31790), (175, 31811), (191, 31847), (205, 31877), (236, 31952), (259, 32000), (262, 32003), (272, 32027), (274, 32030), (280, 32045), (346, 32216), (393, 32330), (398, 32345), (420, 32351), (444, 32393), (445, 32396), (470, 32450), (511, 32528), (522, 32561),

Gene: NEHalo\_10 Start: 5583, Stop: 6551, Start Num: 111

Candidate Starts for NEHalo\_10:

(Start: 111 @5583 has 315 MA's), (Start: 126 @5616 has 6 MA's), (Start: 135 @5634 has 1 MA's), (Start: 138 @5637 has 2 MA's), (266, 5904), (286, 5955), (289, 5967), (327, 6042), (349, 6105), (355, 6117), (361, 6138), (369, 6168), (374, 6186), (386, 6210), (407, 6249), (437, 6330), (445, 6354), (446, 6357), (448, 6360), (454, 6369), (495, 6456), (531, 6543),

Gene: NaSiaTalie\_11 Start: 6481, Stop: 7458, Start Num: 111

Candidate Starts for NaSiaTalie\_11:

(Start: 111 @6481 has 315 MA's), (Start: 138 @6535 has 2 MA's), (180, 6592), (247, 6724), (263, 6772), (286, 6829), (302, 6865), (327, 6913), (337, 6952), (366, 7024), (369, 7039), (388, 7084), (397, 7102), (416, 7144), (428, 7192), (434, 7219), (440, 7234), (445, 7252), (447, 7255), (490, 7345),

Gene: Naija\_253 Start: 144496, Stop: 145524, Start Num: 87

Candidate Starts for Naija\_253:

(Start: 87 @144496 has 167 MA's), (Start: 105 @144526 has 4 MA's), (Start: 112 @144538 has 111 MA's), (130, 144580), (168, 144643), (177, 144664), (Start: 214 @144748 has 1 MA's), (235, 144790), (241, 144802), (250, 144817), (273, 144886), (286, 144913), (309, 144967), (324, 145012), (326, 145015), (354, 145093), (361, 145114), (407, 145225), (440, 145315), (445, 145333), (480, 145405), (496, 145438),

Gene: Naira\_10 Start: 5962, Stop: 6930, Start Num: 111

Candidate Starts for Naira\_10:

(Start: 111 @5962 has 315 MA's), (Start: 126 @5995 has 6 MA's), (Start: 135 @6013 has 1 MA's), (Start: 138 @6016 has 2 MA's), (266, 6283), (286, 6334), (289, 6346), (327, 6421), (349, 6484), (361, 6517), (369, 6547), (407, 6628), (437, 6709), (445, 6733), (446, 6736), (448, 6739), (454, 6748), (495, 6835), (531, 6922),

Gene: Naji\_14 Start: 6597, Stop: 7361, Start Num: 229

Candidate Starts for Naji\_14:

(Start: 229 @6597 has 16 MA's), (286, 6741), (327, 6828), (334, 6855), (337, 6867), (369, 6954), (428, 7095), (445, 7155), (447, 7158), (464, 7194), (490, 7248), (512, 7296),

Gene: Nala\_35 Start: 31876, Stop: 32733, Start Num: 136

Candidate Starts for Nala\_35:

(Start: 136 @31876 has 124 MA's), (Start: 156 @31915 has 3 MA's), (166, 31945), (175, 31966), (191, 32002), (205, 32032), (236, 32107), (259, 32155), (262, 32158), (272, 32182), (274, 32185), (280, 32200), (346, 32371), (393, 32485), (398, 32500), (420, 32506), (444, 32548), (445, 32551), (470, 32605), (511, 32683), (522, 32716),

Gene: Nanosmite\_43 Start: 32726, Stop: 33703, Start Num: 56

Candidate Starts for Nanosmite\_43:

(Start: 56 @32726 has 7 MA's), (63, 32753), (69, 32768), (185, 33017), (191, 33029), (218, 33083), (246, 33140), (257, 33167), (276, 33206), (277, 33209), (310, 33296), (317, 33311), (324, 33329), (371, 33464), (372, 33467), (379, 33488), (470, 33596), (494, 33638),

Gene: Napoleon13\_249 Start: 143525, Stop: 144553, Start Num: 87

Candidate Starts for Napoleon13\_249:

(Start: 87 @143525 has 167 MA's), (Start: 105 @143555 has 4 MA's), (Start: 112 @143567 has 111 MA's), (130, 143609), (168, 143672), (177, 143693), (Start: 214 @143777 has 1 MA's), (235, 143819), (241, 143831), (250, 143846), (273, 143915), (286, 143942), (309, 143996), (324, 144041), (326, 144044), (354, 144122), (361, 144143), (407, 144254), (440, 144344), (445, 144362), (480, 144434), (496, 144467),

Gene: Nappy\_251 Start: 145602, Stop: 146630, Start Num: 87

Candidate Starts for Nappy\_251:

(Start: 87 @145602 has 167 MA's), (Start: 105 @145632 has 4 MA's), (Start: 112 @145644 has 111 MA's), (130, 145686), (168, 145749), (177, 145770), (Start: 214 @145854 has 1 MA's), (235, 145896), (241, 145908), (250, 145923), (273, 145992), (286, 146019), (309, 146073), (324, 146118), (326, 146121), (354, 146199), (361, 146220), (407, 146331), (440, 146421), (445, 146439), (480, 146511), (496, 146544),

Gene: Naval22\_257 Start: 146276, Stop: 147304, Start Num: 87

Candidate Starts for Naval22\_257:

(Start: 87 @146276 has 167 MA's), (Start: 105 @146306 has 4 MA's), (Start: 112 @146318 has 111 MA's), (130, 146360), (168, 146423), (177, 146444), (Start: 214 @146528 has 1 MA's), (235, 146570), (241, 146582), (250, 146597), (273, 146666), (286, 146693), (309, 146747), (324, 146792), (326, 146795), (354, 146873), (361, 146894), (407, 147005), (440, 147095), (445, 147113), (480, 147185), (496, 147218),

Gene: Nebkiss\_35 Start: 30289, Stop: 31287, Start Num: 95

Candidate Starts for Nebkiss\_35:

(Start: 95 @30289 has 260 MA's), (130, 30364), (168, 30427), (177, 30448), (213, 30529), (Start: 214 @30532 has 1 MA's), (222, 30553), (223, 30556), (239, 30577), (250, 30598), (253, 30610), (257, 30628), (286, 30694), (355, 30856), (359, 30868), (361, 30877), (362, 30880), (365, 30889), (369, 30907), (386, 30949), (404, 30982), (407, 30985), (409, 30988), (428, 31033), (437, 31066), (444,

31087), (445, 31090), (446, 31093), (454, 31105), (468, 31138), (469, 31141), (474, 31150), (486, 31171), (495, 31192), (496, 31195), (501, 31207), (527, 31270), (532, 31279),

Gene: Nebs\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Nebs\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (Start: 138 @5932 has 2 MA's), (209, 6067), (218, 6091), (263, 6181), (286, 6238), (320, 6301), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (470, 6700), (477, 6712), (526, 6823),

Gene: NedWong\_251 Start: 144954, Stop: 145982, Start Num: 87

Candidate Starts for NedWong\_251:

(Start: 87 @144954 has 167 MA's), (Start: 105 @144984 has 4 MA's), (Start: 112 @144996 has 111 MA's), (130, 145038), (168, 145101), (177, 145122), (Start: 214 @145206 has 1 MA's), (235, 145248), (241, 145260), (250, 145275), (273, 145344), (286, 145371), (309, 145425), (324, 145470), (326, 145473), (354, 145551), (361, 145572), (407, 145683), (440, 145773), (445, 145791), (480, 145863), (496, 145896),

Gene: NelitzaMV\_35 Start: 31926, Stop: 32783, Start Num: 136

Candidate Starts for NelitzaMV\_35:

(Start: 136 @31926 has 124 MA's), (Start: 156 @31965 has 3 MA's), (166, 31995), (175, 32016), (191, 32052), (205, 32082), (236, 32157), (259, 32205), (262, 32208), (272, 32232), (274, 32235), (280, 32250), (346, 32421), (393, 32535), (398, 32550), (420, 32556), (444, 32598), (445, 32601), (470, 32655), (511, 32733), (522, 32766),

Gene: Nemo27\_10 Start: 5931, Stop: 6860, Start Num: 138

Candidate Starts for Nemo27\_10:

(Start: 112 @5880 has 111 MA's), (Start: 114 @5883 has 13 MA's), (125, 5907), (Start: 135 @5928 has 1 MA's), (Start: 138 @5931 has 2 MA's), (263, 6180), (286, 6237), (328, 6321), (333, 6342), (345, 6369), (362, 6399), (369, 6426), (428, 6576), (466, 6687), (470, 6699), (477, 6711), (511, 6777),

Gene: Neos5\_47 Start: 42330, Stop: 43394, Start Num: 84

Candidate Starts for Neos5\_47:

(Start: 84 @42330 has 45 MA's), (115, 42393), (157, 42474), (189, 42540), (197, 42555), (203, 42567), (215, 42594), (245, 42651), (250, 42660), (308, 42807), (315, 42822), (333, 42876), (347, 42909), (362, 42948), (366, 42960), (401, 43041), (411, 43059), (412, 43062), (428, 43107), (468, 43218), (521, 43329), (527, 43350), (541, 43383),

Gene: Nergal\_27 Start: 24122, Stop: 24985, Start Num: 156

Candidate Starts for Nergal\_27:

(Start: 110 @24038 has 4 MA's), (129, 24071), (Start: 156 @24122 has 3 MA's), (Start: 161 @24134 has 1 MA's), (164, 24140), (175, 24167), (192, 24203), (196, 24212), (Start: 214 @24251 has 1 MA's), (218, 24260), (238, 24296), (242, 24305), (259, 24356), (296, 24446), (349, 24581), (360, 24596), (363, 24608), (369, 24629), (377, 24653), (385, 24671), (402, 24701), (448, 24806), (467, 24845), (475, 24863), (523, 24965), (529, 24974),

Gene: Nerujay\_11 Start: 6472, Stop: 7386, Start Num: 138

Candidate Starts for Nerujay\_11:

(Start: 111 @6418 has 315 MA's), (Start: 126 @6451 has 6 MA's), (Start: 135 @6469 has 1 MA's), (Start: 138 @6472 has 2 MA's), (266, 6739), (286, 6790), (289, 6802), (327, 6877), (349, 6940), (361, 6973), (365, 6985), (369, 7003), (374, 7021), (386, 7045), (407, 7084), (437, 7165), (445, 7189), (446, 7192), (448, 7195), (454, 7204), (515, 7336), (531, 7378),

Gene: Netyap\_28 Start: 26303, Stop: 27274, Start Num: 51

Candidate Starts for Netyap\_28:

(Start: 51 @26303 has 22 MA's), (67, 26357), (141, 26507), (144, 26516), (147, 26522), (Start: 161 @26555 has 1 MA's), (162, 26558), (166, 26567), (175, 26588), (205, 26651), (218, 26678), (232, 26702), (272, 26783), (277, 26795), (300, 26858), (306, 26873), (325, 26933), (330, 26948), (363, 27029), (368, 27047), (369, 27050), (371, 27053), (449, 27104), (470, 27149), (494, 27191), (514, 27233),

Gene: Ngannou\_247 Start: 143478, Stop: 144506, Start Num: 87

Candidate Starts for Ngannou\_247:

(Start: 87 @143478 has 167 MA's), (Start: 105 @143508 has 4 MA's), (Start: 112 @143520 has 111 MA's), (130, 143562), (168, 143625), (177, 143646), (Start: 214 @143730 has 1 MA's), (235, 143772), (241, 143784), (250, 143799), (273, 143868), (286, 143895), (309, 143949), (324, 143994), (326, 143997), (354, 144075), (361, 144096), (407, 144207), (440, 144297), (445, 144315), (480, 144387), (496, 144420),

Gene: Nhonho\_10 Start: 5867, Stop: 6835, Start Num: 111

Candidate Starts for Nhonho\_10:

(Start: 111 @5867 has 315 MA's), (Start: 126 @5900 has 6 MA's), (Start: 135 @5918 has 1 MA's), (Start: 138 @5921 has 2 MA's), (266, 6188), (286, 6239), (289, 6251), (327, 6326), (349, 6389), (361, 6422), (369, 6452), (374, 6470), (386, 6494), (407, 6533), (437, 6614), (445, 6638), (446, 6641), (448, 6644), (454, 6653), (495, 6740), (531, 6827),

Gene: Nibb\_30 Start: 25727, Stop: 26467, Start Num: 153

Candidate Starts for Nibb\_30:

(100, 25625), (Start: 110 @25646 has 4 MA's), (129, 25679), (140, 25700), (Start: 153 @25727 has 137 MA's), (175, 25772), (192, 25808), (218, 25865), (238, 25901), (254, 25943), (296, 26051), (363, 26213), (371, 26240), (377, 26258), (442, 26270), (445, 26282), (466, 26324), (475, 26345), (477, 26348), (523, 26447), (529, 26456),

Gene: Nicholas\_28 Start: 26850, Stop: 27893, Start Num: 46

Candidate Starts for Nicholas\_28:

(Start: 46 @26850 has 17 MA's), (47, 26856), (55, 26883), (60, 26904), (83, 26955), (124, 27036), (178, 27141), (216, 27222), (218, 27228), (268, 27324), (275, 27342), (277, 27348), (280, 27354), (306, 27426), (329, 27483), (352, 27543), (378, 27618), (389, 27639), (441, 27663), (445, 27678), (450, 27690), (477, 27747), (523, 27849), (532, 27870),

Gene: Nicholasp3\_28 Start: 26305, Stop: 27276, Start Num: 51

Candidate Starts for Nicholasp3\_28:

(Start: 51 @26305 has 22 MA's), (67, 26359), (125, 26479), (141, 26509), (147, 26524), (Start: 161 @26557 has 1 MA's), (162, 26560), (166, 26569), (175, 26590), (205, 26653), (218, 26680), (232, 26704), (245, 26734), (272, 26785), (277, 26797), (300, 26860), (306, 26875), (325, 26935), (330, 26950), (363, 27031), (368, 27049), (369, 27052), (371, 27055), (449, 27106), (470, 27151), (494, 27193), (514, 27235),

Gene: NicoleTera\_15 Start: 8178, Stop: 9164, Start Num: 111

Candidate Starts for NicoleTera\_15:

(Start: 111 @8178 has 315 MA's), (124, 8205), (125, 8208), (Start: 126 @8211 has 6 MA's), (Start: 138 @8232 has 2 MA's), (257, 8469), (263, 8481), (286, 8538), (289, 8550), (297, 8562), (326, 8616), (365, 8709), (369, 8727), (428, 8877), (452, 8952), (461, 8970), (477, 9012), (511, 9084),

Gene: Nidhogg\_253 Start: 145322, Stop: 146350, Start Num: 87

Candidate Starts for Nidhogg\_253:

(Start: 87 @145322 has 167 MA's), (Start: 105 @145352 has 4 MA's), (Start: 112 @145364 has 111 MA's), (130, 145406), (168, 145469), (177, 145490), (Start: 214 @145574 has 1 MA's), (235, 145616), (241, 145628), (250, 145643), (273, 145712), (286, 145739), (309, 145793), (324, 145838), (326, 145841), (354, 145919), (361, 145940), (407, 146051), (440, 146141), (445, 146159), (480, 146231), (496, 146264),

Gene: NiebruSaylor\_66 Start: 42848, Stop: 43888, Start Num: 95

Candidate Starts for NiebruSaylor\_66:

(Start: 95 @42848 has 260 MA's), (130, 42923), (168, 43004), (170, 43010), (177, 43025), (213, 43106), (Start: 214 @43109 has 1 MA's), (241, 43163), (250, 43178), (286, 43274), (304, 43313), (312, 43343), (324, 43373), (326, 43376), (336, 43409), (361, 43475), (372, 43514), (374, 43523), (388, 43550), (407, 43589), (478, 43763), (501, 43814),

Gene: NihilNomen\_48 Start: 42652, Stop: 43518, Start Num: 91

Candidate Starts for NihilNomen\_48:

(Start: 91 @42652 has 31 MA's), (Start: 104 @42679 has 1 MA's), (116, 42700), (158, 42787), (168, 42808), (190, 42853), (202, 42874), (Start: 214 @42895 has 1 MA's), (243, 42949), (266, 43000), (288, 43051), (344, 43201), (360, 43243), (373, 43294), (380, 43312), (460, 43378), (463, 43390), (466, 43399), (479, 43429), (516, 43492),

Gene: Nikao\_27 Start: 25978, Stop: 26736, Start Num: 152

Candidate Starts for Nikao\_27:

(100, 25876), (129, 25930), (140, 25951), (Start: 152 @25978 has 16 MA's), (175, 26023), (192, 26059), (216, 26119), (218, 26125), (234, 26155), (254, 26203), (271, 26245), (296, 26311), (308, 26347), (349, 26446), (363, 26473), (369, 26494), (371, 26500), (442, 26539), (445, 26551), (448, 26557), (462, 26581), (470, 26605), (523, 26716), (529, 26725),

Gene: Niklas\_31 Start: 25853, Stop: 26614, Start Num: 153

Candidate Starts for Niklas\_31:

(140, 25823), (Start: 153 @25853 has 137 MA's), (175, 25898), (192, 25934), (216, 25994), (218, 26000), (234, 26030), (238, 26036), (242, 26045), (254, 26078), (271, 26120), (290, 26171), (296, 26186), (349, 26321), (363, 26348), (369, 26369), (371, 26375), (377, 26393), (445, 26426), (448, 26432), (470, 26480), (505, 26552), (523, 26594), (529, 26603),

Gene: Nilo\_40 Start: 35349, Stop: 36398, Start Num: 90

Candidate Starts for Nilo\_40:

(Start: 90 @35349 has 9 MA's), (130, 35433), (Start: 138 @35442 has 2 MA's), (150, 35466), (168, 35496), (177, 35517), (193, 35553), (203, 35574), (208, 35583), (Start: 214 @35601 has 1 MA's), (250, 35670), (285, 35760), (303, 35802), (310, 35823), (340, 35922), (352, 35949), (374, 36021), (407, 36075), (464, 36225), (476, 36252), (480, 36261), (498, 36303), (501, 36306), (504, 36312), (510, 36321), (524, 36357), (527, 36366), (534, 36375),

Gene: Nimbo\_31 Start: 27524, Stop: 28525, Start Num: 95

Candidate Starts for Nimbo\_31:

(Start: 56 @27425 has 7 MA's), (Start: 95 @27524 has 260 MA's), (Start: 105 @27545 has 4 MA's), (Start: 112 @27557 has 111 MA's), (130, 27599), (168, 27662), (177, 27683), (Start: 214 @27767 has 1 MA's), (223, 27791), (235, 27806), (241, 27818), (286, 27929), (334, 28043), (341, 28061), (357, 28100), (365, 28124), (374, 28160), (388, 28187), (407, 28226), (428, 28274), (445, 28334), (468, 28382), (474, 28394), (496, 28439), (501, 28451),

Gene: Nimrod\_35 Start: 32100, Stop: 32957, Start Num: 136

Candidate Starts for Nimrod\_35:

(Start: 136 @32100 has 124 MA's), (Start: 156 @32139 has 3 MA's), (166, 32169), (175, 32190), (191, 32226), (205, 32256), (236, 32331), (259, 32379), (262, 32382), (272, 32406), (274, 32409), (280, 32424), (346, 32595), (393, 32709), (398, 32724), (420, 32730), (444, 32772), (445, 32775), (470, 32829), (511, 32907), (522, 32940),

Gene: Nitzel\_32 Start: 28239, Stop: 29240, Start Num: 95

Candidate Starts for Nitzel\_32:

(Start: 56 @28140 has 7 MA's), (Start: 95 @28239 has 260 MA's), (Start: 105 @28260 has 4 MA's), (Start: 112 @28272 has 111 MA's), (130, 28314), (149, 28347), (168, 28377), (177, 28398), (Start: 214 @28482 has 1 MA's), (223, 28506), (235, 28521), (241, 28533), (286, 28644), (334, 28758), (341, 28776), (357, 28815), (365, 28839), (374, 28875), (388, 28902), (407, 28941), (445, 29049), (468, 29097), (474, 29109), (495, 29151), (496, 29154), (501, 29166), (515, 29196),

Gene: Nivrat\_31 Start: 27671, Stop: 28672, Start Num: 95

Candidate Starts for Nivrat\_31:

(Start: 95 @27671 has 260 MA's), (Start: 105 @27692 has 4 MA's), (Start: 112 @27704 has 111 MA's), (130, 27746), (168, 27809), (177, 27830), (189, 27860), (Start: 214 @27914 has 1 MA's), (223, 27938), (235, 27953), (241, 27965), (286, 28076), (334, 28190), (341, 28208), (357, 28247), (365, 28271), (374, 28307), (388, 28334), (407, 28373), (428, 28421), (445, 28481), (474, 28541), (501, 28598), (515, 28628),

Gene: Niza\_11 Start: 6593, Stop: 7561, Start Num: 111

Candidate Starts for Niza\_11:

(Start: 111 @6593 has 315 MA's), (Start: 126 @6626 has 6 MA's), (Start: 135 @6644 has 1 MA's), (Start: 138 @6647 has 2 MA's), (266, 6914), (286, 6965), (289, 6977), (327, 7052), (349, 7115), (355, 7127), (361, 7148), (365, 7160), (369, 7178), (374, 7196), (386, 7220), (407, 7259), (437, 7340), (445, 7364), (446, 7367), (448, 7370), (454, 7379), (495, 7466), (531, 7553),

Gene: NoShow\_27 Start: 24413, Stop: 25492, Start Num: 62

Candidate Starts for NoShow\_27:

(35, 24296), (Start: 62 @24413 has 3 MA's), (66, 24425), (70, 24428), (133, 24560), (154, 24599), (201, 24701), (205, 24707), (Start: 231 @24755 has 2 MA's), (250, 24797), (260, 24833), (267, 24851), (270, 24857), (315, 24944), (319, 24950), (335, 25004), (347, 25031), (352, 25046), (374, 25118), (383, 25136), (424, 25211), (465, 25316), (471, 25334), (480, 25349), (487, 25361), (510, 25409), (539, 25478),

Gene: NoSleep\_36 Start: 31597, Stop: 32454, Start Num: 136

Candidate Starts for NoSleep\_36:

(Start: 136 @31597 has 124 MA's), (Start: 156 @31636 has 3 MA's), (166, 31666), (175, 31687), (191, 31723), (205, 31753), (236, 31828), (259, 31876), (262, 31879), (272, 31903), (274, 31906), (280, 31921), (346, 32092), (393, 32206), (398, 32221), (420, 32227), (444, 32269), (445, 32272), (470, 32326), (511, 32404), (522, 32437),

Gene: Noella\_11 Start: 6052, Stop: 7017, Start Num: 101

Candidate Starts for Noella\_11:

(Start: 101 @6052 has 93 MA's), (Start: 126 @6097 has 6 MA's), (Start: 138 @6118 has 2 MA's), (201, 6238), (209, 6253), (Start: 231 @6292 has 2 MA's), (263, 6376), (286, 6433), (291, 6448), (333, 6529), (337, 6544), (347, 6562), (365, 6613), (369, 6631), (388, 6676), (428, 6772), (447, 6835), (465, 6874), (490, 6925),

Gene: Noelle\_10 Start: 5947, Stop: 6927, Start Num: 112

Candidate Starts for Noelle\_10:

(Start: 112 @5947 has 111 MA's), (Start: 114 @5950 has 13 MA's), (125, 5974), (Start: 135 @5995 has 1 MA's), (Start: 138 @5998 has 2 MA's), (263, 6247), (266, 6256), (286, 6304), (328, 6388), (338, 6424), (345, 6436), (361, 6463), (362, 6466), (369, 6493), (428, 6643), (470, 6766), (477, 6778), (481, 6787), (511, 6844), (540, 6919),

Gene: NoodleTree\_248 Start: 140073, Stop: 141101, Start Num: 87

Candidate Starts for NoodleTree\_248:

(Start: 87 @140073 has 167 MA's), (Start: 105 @140103 has 4 MA's), (Start: 112 @140115 has 111 MA's), (130, 140157), (168, 140220), (177, 140241), (Start: 214 @140325 has 1 MA's), (235, 140367), (241, 140379), (250, 140394), (273, 140463), (286, 140490), (309, 140544), (324, 140589), (326, 140592), (354, 140670), (361, 140691), (407, 140802), (440, 140892), (445, 140910), (480, 140982), (496, 141015),

Gene: Norbert\_10 Start: 6052, Stop: 7017, Start Num: 101

Candidate Starts for Norbert\_10:

(Start: 101 @6052 has 93 MA's), (Start: 126 @6097 has 6 MA's), (Start: 138 @6118 has 2 MA's), (201, 6238), (209, 6253), (Start: 231 @6292 has 2 MA's), (263, 6376), (286, 6433), (291, 6448), (333, 6529), (337, 6544), (347, 6562), (365, 6613), (369, 6631), (388, 6676), (428, 6772), (447, 6835), (465, 6874), (490, 6925),

Gene: Norm\_252 Start: 145223, Stop: 146251, Start Num: 87

Candidate Starts for Norm\_252:

(Start: 87 @145223 has 167 MA's), (Start: 105 @145253 has 4 MA's), (Start: 112 @145265 has 111 MA's), (130, 145307), (168, 145370), (177, 145391), (Start: 214 @145475 has 1 MA's), (235, 145517), (241, 145529), (250, 145544), (273, 145613), (286, 145640), (309, 145694), (324, 145739), (326, 145742), (354, 145820), (361, 145841), (407, 145952), (440, 146042), (445, 146060), (480, 146132), (496, 146165),

Gene: NormanBulbieJr\_31 Start: 27686, Stop: 28687, Start Num: 95

Candidate Starts for NormanBulbieJr\_31:

(Start: 95 @27686 has 260 MA's), (Start: 105 @27707 has 4 MA's), (Start: 112 @27719 has 111 MA's), (130, 27761), (168, 27824), (177, 27845), (189, 27875), (Start: 214 @27929 has 1 MA's), (223, 27953), (235, 27968), (241, 27980), (286, 28091), (334, 28205), (341, 28223), (357, 28262), (365, 28286), (374, 28322), (388, 28349), (407, 28388), (428, 28436), (445, 28496), (474, 28556), (501, 28613), (515, 28643),

Gene: NorthStar\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for NorthStar\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Norz\_12 Start: 6730, Stop: 7698, Start Num: 111

Candidate Starts for Norz\_12:

(Start: 111 @6730 has 315 MA's), (Start: 126 @6763 has 6 MA's), (Start: 135 @6781 has 1 MA's), (Start: 138 @6784 has 2 MA's), (266, 7051), (286, 7102), (289, 7114), (327, 7189), (349, 7252), (361, 7285), (369, 7315), (374, 7333), (386, 7357), (407, 7396), (437, 7477), (445, 7501), (446, 7504), (448, 7507), (454, 7516), (459, 7519), (495, 7603), (515, 7648), (531, 7690),

Gene: NotAPhaseMom\_10 Start: 5885, Stop: 6865, Start Num: 112

Candidate Starts for NotAPhaseMom\_10:

(Start: 112 @5885 has 111 MA's), (Start: 114 @5888 has 13 MA's), (125, 5912), (Start: 135 @5933 has 1 MA's), (Start: 138 @5936 has 2 MA's), (263, 6185), (286, 6242), (328, 6326), (333, 6347), (345,

6374), (362, 6404), (369, 6431), (428, 6581), (466, 6692), (470, 6704), (477, 6716), (511, 6782),

Gene: NothingSpecial\_13 Start: 8456, Stop: 9436, Start Num: 111

Candidate Starts for NothingSpecial\_13:

(Start: 111 @8456 has 315 MA's), (Start: 138 @8510 has 2 MA's), (222, 8678), (286, 8831), (291, 8846), (327, 8915), (333, 8939), (337, 8954), (365, 9023), (369, 9041), (428, 9185), (447, 9248), (464, 9284), (465, 9287), (486, 9329),

Gene: Nozo\_47 Start: 42295, Stop: 43359, Start Num: 84

Candidate Starts for Nozo\_47:

(Start: 84 @42295 has 45 MA's), (115, 42358), (157, 42439), (189, 42505), (197, 42520), (203, 42532), (215, 42559), (245, 42616), (250, 42625), (308, 42772), (315, 42787), (333, 42841), (347, 42874), (362, 42913), (366, 42925), (401, 43006), (411, 43024), (412, 43027), (428, 43072), (468, 43183), (521, 43294), (527, 43315), (541, 43348),

Gene: NuevoMundo\_254 Start: 145709, Stop: 146737, Start Num: 87

Candidate Starts for NuevoMundo\_254:

(Start: 87 @145709 has 167 MA's), (Start: 105 @145739 has 4 MA's), (130, 145793), (168, 145856), (177, 145877), (Start: 214 @145961 has 1 MA's), (235, 146003), (241, 146015), (250, 146030), (273, 146099), (286, 146126), (309, 146180), (324, 146225), (326, 146228), (354, 146306), (361, 146327), (407, 146438), (440, 146528), (445, 146546), (480, 146618), (496, 146651),

Gene: Nutello\_27 Start: 25978, Stop: 26736, Start Num: 152

Candidate Starts for Nutello\_27:

(100, 25876), (129, 25930), (140, 25951), (Start: 152 @25978 has 16 MA's), (175, 26023), (192, 26059), (216, 26119), (218, 26125), (234, 26155), (254, 26203), (271, 26245), (296, 26311), (308, 26347), (349, 26446), (363, 26473), (369, 26494), (371, 26500), (442, 26539), (445, 26551), (448, 26557), (462, 26581), (470, 26605), (523, 26716), (529, 26725),

Gene: Nyxis\_10 Start: 5824, Stop: 6807, Start Num: 111

Candidate Starts for Nyxis\_10:

(Start: 111 @5824 has 315 MA's), (Start: 135 @5875 has 1 MA's), (Start: 138 @5878 has 2 MA's), (209, 6013), (218, 6037), (263, 6127), (286, 6184), (320, 6247), (328, 6268), (333, 6289), (345, 6316), (369, 6373), (428, 6523), (470, 6646), (477, 6658), (526, 6769),

Gene: OKCentral2016\_10 Start: 5411, Stop: 6385, Start Num: 111

Candidate Starts for OKCentral2016\_10:

(89, 5372), (Start: 111 @5411 has 315 MA's), (Start: 138 @5465 has 2 MA's), (216, 5618), (286, 5780), (291, 5795), (302, 5816), (327, 5864), (333, 5888), (336, 5894), (337, 5903), (365, 5972), (369, 5990), (388, 6035), (397, 6053), (428, 6131), (434, 6158), (440, 6173), (447, 6194), (490, 6284), (508, 6326), (534, 6377),

Gene: OKaNui\_10 Start: 5646, Stop: 6626, Start Num: 112

Candidate Starts for OKaNui\_10:

(Start: 112 @5646 has 111 MA's), (Start: 114 @5649 has 13 MA's), (125, 5673), (Start: 135 @5694 has 1 MA's), (Start: 138 @5697 has 2 MA's), (263, 5946), (286, 6003), (328, 6087), (333, 6108), (345, 6135), (362, 6165), (369, 6192), (428, 6342), (466, 6453), (470, 6465), (477, 6477), (511, 6543),

Gene: Obama12\_10 Start: 5860, Stop: 6840, Start Num: 112

Candidate Starts for Obama12\_10:

(Start: 112 @5860 has 111 MA's), (125, 5887), (Start: 135 @5908 has 1 MA's), (Start: 138 @5911 has 2 MA's), (263, 6160), (286, 6217), (289, 6229), (320, 6280), (328, 6301), (345, 6349), (369, 6406), (428, 6556), (470, 6679), (477, 6691), (511, 6757),



Gene: Obutu\_47 Start: 41519, Stop: 42583, Start Num: 84

Candidate Starts for Obutu\_47:

(Start: 84 @41519 has 45 MA's), (115, 41582), (157, 41663), (189, 41729), (197, 41744), (203, 41756), (215, 41783), (245, 41840), (250, 41849), (308, 41996), (315, 42011), (333, 42065), (347, 42098), (362, 42137), (366, 42149), (401, 42230), (411, 42248), (412, 42251), (468, 42407), (521, 42518), (527, 42539), (541, 42572),

Gene: Ochi17\_29 Start: 27179, Stop: 28180, Start Num: 95

Candidate Starts for Ochi17\_29:

(4, 26558), (6, 26636), (8, 26699), (14, 26738), (18, 26870), (22, 26891), (26, 26927), (Start: 56 @27080 has 7 MA's), (Start: 95 @27179 has 260 MA's), (Start: 105 @27200 has 4 MA's), (Start: 112 @27212 has 111 MA's), (130, 27254), (149, 27287), (168, 27317), (177, 27338), (Start: 214 @27422 has 1 MA's), (223, 27446), (235, 27461), (241, 27473), (286, 27584), (334, 27698), (341, 27716), (357, 27755), (365, 27779), (374, 27815), (388, 27842), (407, 27881), (445, 27989), (468, 28037), (474, 28049), (495, 28091), (496, 28094), (501, 28106), (515, 28136),

Gene: Odette\_49 Start: 41912, Stop: 42757, Start Num: 104

Candidate Starts for Odette\_49:

(Start: 91 @41885 has 31 MA's), (Start: 104 @41912 has 1 MA's), (132, 41972), (158, 42020), (190, 42086), (202, 42107), (Start: 214 @42128 has 1 MA's), (243, 42182), (279, 42263), (379, 42542), (380, 42545), (439, 42569), (452, 42605), (462, 42620), (466, 42632), (475, 42653),

Gene: OfUltron\_31 Start: 27728, Stop: 28729, Start Num: 95

Candidate Starts for OfUltron\_31:

(4, 27107), (6, 27185), (8, 27248), (14, 27287), (18, 27419), (22, 27440), (26, 27476), (Start: 56 @27629 has 7 MA's), (Start: 95 @27728 has 260 MA's), (Start: 105 @27749 has 4 MA's), (Start: 112 @27761 has 111 MA's), (130, 27803), (149, 27836), (168, 27866), (177, 27887), (Start: 214 @27971 has 1 MA's), (223, 27995), (235, 28010), (241, 28022), (286, 28133), (334, 28247), (341, 28265), (357, 28304), (365, 28328), (374, 28364), (388, 28391), (407, 28430), (445, 28538), (468, 28586), (474, 28598), (495, 28640), (496, 28643), (501, 28655), (515, 28685),

Gene: Ogopogo\_31 Start: 26878, Stop: 27879, Start Num: 95

Candidate Starts for Ogopogo\_31:

(Start: 95 @26878 has 260 MA's), (130, 26953), (149, 26986), (168, 27016), (177, 27037), (189, 27067), (Start: 214 @27121 has 1 MA's), (223, 27145), (235, 27160), (241, 27172), (286, 27283), (334, 27397), (341, 27415), (357, 27454), (365, 27478), (374, 27514), (388, 27541), (400, 27565), (407, 27580), (445, 27688), (468, 27736), (501, 27805), (515, 27835),

Gene: OhShagHennessy\_26 Start: 25512, Stop: 26543, Start Num: 96

Candidate Starts for OhShagHennessy\_26:

(Start: 96 @25512 has 29 MA's), (182, 25668), (194, 25692), (198, 25704), (206, 25722), (211, 25740), (218, 25758), (219, 25764), (223, 25773), (228, 25788), (237, 25803), (255, 25851), (263, 25875), (286, 25932), (304, 25971), (336, 26049), (337, 26058), (339, 26061), (347, 26076), (364, 26130), (369, 26151), (373, 26166), (414, 26250), (425, 26280), (446, 26349), (454, 26361), (465, 26385), (471, 26403), (473, 26406), (480, 26418), (482, 26421), (496, 26451), (501, 26463),

Gene: Ohfah\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Ohfah\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (Start: 138 @5932 has 2 MA's), (209, 6067), (218, 6091), (263, 6181), (286, 6238), (320, 6301), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (470, 6700), (477, 6712), (526, 6823),

Gene: Ohno789\_9 Start: 5411, Stop: 6379, Start Num: 111

Candidate Starts for Ohno789\_9:

(Start: 111 @5411 has 315 MA's), (Start: 126 @5444 has 6 MA's), (Start: 135 @5462 has 1 MA's), (Start: 138 @5465 has 2 MA's), (266, 5732), (286, 5783), (289, 5795), (327, 5870), (349, 5933), (355, 5945), (361, 5966), (369, 5996), (374, 6014), (407, 6077), (437, 6158), (445, 6182), (446, 6185), (448, 6188), (454, 6197), (495, 6284), (531, 6371),

Gene: OkiRoe\_30 Start: 27047, Stop: 27919, Start Num: 153

Candidate Starts for OkiRoe\_30:

(100, 26945), (129, 26999), (Start: 153 @27047 has 137 MA's), (Start: 161 @27059 has 1 MA's), (164, 27065), (175, 27092), (188, 27122), (192, 27128), (Start: 214 @27182 has 1 MA's), (218, 27191), (222, 27203), (242, 27236), (254, 27269), (274, 27317), (363, 27539), (368, 27557), (369, 27560), (394, 27620), (405, 27638), (421, 27665), (448, 27737), (460, 27752), (466, 27773), (467, 27776), (477, 27797), (521, 27890), (523, 27899), (529, 27908),

Gene: Oksu\_32 Start: 27572, Stop: 28573, Start Num: 95

Candidate Starts for Oksu\_32:

(4, 26951), (6, 27029), (8, 27092), (14, 27131), (18, 27263), (22, 27284), (26, 27320), (Start: 56 @27473 has 7 MA's), (Start: 95 @27572 has 260 MA's), (Start: 105 @27593 has 4 MA's), (Start: 112 @27605 has 111 MA's), (130, 27647), (149, 27680), (168, 27710), (177, 27731), (Start: 214 @27815 has 1 MA's), (223, 27839), (235, 27854), (241, 27866), (286, 27977), (334, 28091), (341, 28109), (357, 28148), (365, 28172), (374, 28208), (388, 28235), (407, 28274), (445, 28382), (468, 28430), (474, 28442), (495, 28484), (496, 28487), (501, 28499), (515, 28529),

Gene: OlanP\_12 Start: 6213, Stop: 7178, Start Num: 101

Candidate Starts for OlanP\_12:

(Start: 101 @6213 has 93 MA's), (Start: 138 @6279 has 2 MA's), (173, 6333), (208, 6411), (263, 6534), (286, 6591), (327, 6663), (337, 6702), (347, 6720), (369, 6789), (419, 6906), (428, 6933), (447, 6996), (490, 7086), (493, 7092),

Gene: OldBen\_31 Start: 27554, Stop: 28555, Start Num: 95

Candidate Starts for OldBen\_31:

(Start: 95 @27554 has 260 MA's), (130, 27629), (149, 27662), (168, 27692), (177, 27713), (Start: 214 @27797 has 1 MA's), (223, 27821), (235, 27836), (241, 27848), (286, 27959), (334, 28073), (341, 28091), (357, 28130), (365, 28154), (374, 28190), (388, 28217), (407, 28256), (445, 28364), (474, 28424), (501, 28481), (515, 28511),

Gene: Ollie\_12 Start: 5833, Stop: 6798, Start Num: 101

Candidate Starts for Ollie\_12:

(Start: 101 @5833 has 93 MA's), (Start: 126 @5878 has 6 MA's), (Start: 138 @5899 has 2 MA's), (201, 6019), (263, 6157), (286, 6214), (291, 6229), (333, 6310), (337, 6325), (347, 6343), (364, 6391), (366, 6397), (369, 6412), (428, 6553), (447, 6616), (465, 6655), (490, 6706),

Gene: OlympiaSaint\_31 Start: 27970, Stop: 28971, Start Num: 95

Candidate Starts for OlympiaSaint\_31:

(Start: 95 @27970 has 260 MA's), (130, 28045), (149, 28078), (168, 28108), (177, 28129), (189, 28159), (196, 28171), (Start: 214 @28213 has 1 MA's), (223, 28237), (235, 28252), (241, 28264), (286, 28375), (334, 28489), (341, 28507), (357, 28546), (365, 28570), (374, 28606), (407, 28672), (445, 28780), (468, 28828), (474, 28840), (496, 28885), (501, 28897), (515, 28927),

Gene: Omega\_53 Start: 43678, Stop: 44550, Start Num: 91

Candidate Starts for Omega\_53:

(38, 43507), (Start: 91 @43678 has 31 MA's), (Start: 104 @43705 has 1 MA's), (132, 43765), (168, 43834), (187, 43873), (190, 43879), (Start: 214 @43921 has 1 MA's), (243, 43975), (279, 44056), (323, 44179), (334, 44206), (379, 44335), (380, 44338), (452, 44398), (462, 44413), (466, 44425), (475, 44446), (481, 44458), (516, 44518),

Gene: OmniCritical\_32 Start: 27538, Stop: 28329, Start Num: 143

Candidate Starts for OmniCritical\_32:

(Start: 143 @27538 has 20 MA's), (Start: 161 @27571 has 1 MA's), (175, 27604), (185, 27628), (196, 27649), (200, 27658), (211, 27688), (Start: 214 @27697 has 1 MA's), (218, 27706), (238, 27742), (276, 27823), (349, 28030), (363, 28057), (369, 28078), (373, 28093), (377, 28102), (445, 28126), (470, 28180), (477, 28192), (511, 28264),

Gene: Omnicron\_31 Start: 25950, Stop: 26807, Start Num: 153

Candidate Starts for Omnicron\_31:

(Start: 153 @25950 has 137 MA's), (Start: 161 @25962 has 1 MA's), (164, 25968), (173, 25989), (175, 25995), (188, 26025), (Start: 214 @26085 has 1 MA's), (218, 26094), (222, 26106), (242, 26139), (254, 26172), (274, 26220), (363, 26442), (369, 26463), (377, 26487), (391, 26514), (394, 26523), (396, 26526), (405, 26538), (425, 26565), (448, 26625), (449, 26628), (466, 26661), (477, 26685), (503, 26742), (523, 26787),

Gene: Onyinye\_47 Start: 36542, Stop: 37423, Start Num: 98

Candidate Starts for Onyinye\_47:

(Start: 98 @36542 has 3 MA's), (148, 36638), (151, 36644), (190, 36728), (195, 36740), (244, 36842), (279, 36920), (288, 36941), (329, 37064), (342, 37103), (360, 37148), (380, 37217), (448, 37268), (452, 37277), (461, 37286), (492, 37346), (507, 37382),

Gene: Oogway\_9 Start: 6003, Stop: 6971, Start Num: 111

Candidate Starts for Oogway\_9:

(Start: 111 @6003 has 315 MA's), (Start: 126 @6036 has 6 MA's), (Start: 135 @6054 has 1 MA's), (Start: 138 @6057 has 2 MA's), (266, 6324), (286, 6375), (289, 6387), (327, 6462), (349, 6525), (355, 6537), (361, 6558), (365, 6570), (369, 6588), (374, 6606), (386, 6630), (407, 6669), (437, 6750), (445, 6774), (446, 6777), (448, 6780), (454, 6789), (495, 6876), (531, 6963),

Gene: Optimus\_54 Start: 43558, Stop: 44430, Start Num: 91

Candidate Starts for Optimus\_54:

(Start: 91 @43558 has 31 MA's), (Start: 104 @43585 has 1 MA's), (132, 43645), (158, 43693), (190, 43759), (202, 43780), (Start: 214 @43801 has 1 MA's), (243, 43855), (279, 43936), (379, 44215), (380, 44218), (439, 44242), (452, 44278), (462, 44293), (466, 44305), (475, 44326),

Gene: OrangeOswald\_47 Start: 41536, Stop: 42600, Start Num: 84

Candidate Starts for OrangeOswald\_47:

(Start: 84 @41536 has 45 MA's), (115, 41599), (157, 41680), (189, 41746), (197, 41761), (203, 41773), (215, 41800), (245, 41857), (250, 41866), (308, 42013), (315, 42028), (333, 42082), (347, 42115), (362, 42154), (366, 42166), (401, 42247), (411, 42265), (412, 42268), (428, 42313), (468, 42424), (521, 42535), (527, 42556), (541, 42589),

Gene: OrionPax\_36 Start: 31603, Stop: 32460, Start Num: 136

Candidate Starts for OrionPax\_36:

(Start: 136 @31603 has 124 MA's), (Start: 156 @31642 has 3 MA's), (166, 31672), (175, 31693), (191, 31729), (205, 31759), (236, 31834), (259, 31882), (262, 31885), (272, 31909), (274, 31912), (280, 31927), (346, 32098), (393, 32212), (398, 32227), (420, 32233), (444, 32275), (445, 32278), (470, 32332), (511, 32410), (522, 32443),

Gene: Oscar\_30 Start: 25695, Stop: 26435, Start Num: 153

Candidate Starts for Oscar\_30:

(100, 25593), (Start: 110 @25614 has 4 MA's), (129, 25647), (140, 25668), (Start: 153 @25695 has 137 MA's), (175, 25740), (192, 25776), (218, 25833), (238, 25869), (254, 25911), (274, 25959), (296, 26019), (349, 26154), (363, 26181), (371, 26208), (377, 26226), (445, 26250), (466, 26292), (475, 26313), (477, 26316), (523, 26415),

Gene: Ovechkin\_32 Start: 28427, Stop: 29497, Start Num: 95

Candidate Starts for Ovechkin\_32:

(70, 28376), (Start: 95 @28427 has 260 MA's), (Start: 109 @28454 has 1 MA's), (121, 28481), (Start: 126 @28490 has 6 MA's), (157, 28550), (173, 28577), (203, 28643), (Start: 231 @28697 has 2 MA's), (250, 28739), (266, 28790), (308, 28904), (318, 28937), (339, 29012), (348, 29033), (401, 29162), (428, 29234), (464, 29330), (468, 29342), (501, 29411), (525, 29468), (529, 29477),

Gene: OwlsT2W\_32 Start: 27949, Stop: 28950, Start Num: 95

Candidate Starts for OwlsT2W\_32:

(Start: 95 @27949 has 260 MA's), (130, 28024), (149, 28057), (168, 28087), (177, 28108), (Start: 214 @28192 has 1 MA's), (241, 28243), (250, 28258), (286, 28354), (333, 28465), (341, 28486), (357, 28525), (361, 28537), (374, 28585), (388, 28612), (400, 28636), (407, 28651), (445, 28759), (468, 28807), (501, 28876), (515, 28906),

Gene: P28Green\_12 Start: 5961, Stop: 6926, Start Num: 101

Candidate Starts for P28Green\_12:

(Start: 101 @5961 has 93 MA's), (Start: 126 @6006 has 6 MA's), (Start: 138 @6027 has 2 MA's), (201, 6147), (286, 6342), (291, 6357), (333, 6438), (337, 6453), (347, 6471), (365, 6522), (369, 6540), (388, 6585), (428, 6681), (447, 6744), (465, 6783), (490, 6834),

Gene: PGHhamlin\_14 Start: 5954, Stop: 6919, Start Num: 101

Candidate Starts for PGHhamlin\_14:

(Start: 101 @5954 has 93 MA's), (Start: 126 @5999 has 6 MA's), (Start: 138 @6020 has 2 MA's), (201, 6140), (263, 6278), (286, 6335), (291, 6350), (333, 6431), (337, 6446), (347, 6464), (365, 6515), (369, 6533), (388, 6578), (428, 6674), (447, 6737), (465, 6776), (490, 6827),

Gene: PHappiness\_31 Start: 27497, Stop: 28498, Start Num: 95

Candidate Starts for PHappiness\_31:

(Start: 56 @27398 has 7 MA's), (Start: 95 @27497 has 260 MA's), (Start: 105 @27518 has 4 MA's), (Start: 112 @27530 has 111 MA's), (130, 27572), (168, 27635), (177, 27656), (Start: 214 @27740 has 1 MA's), (223, 27764), (235, 27779), (241, 27791), (286, 27902), (334, 28016), (341, 28034), (357, 28073), (365, 28097), (374, 28133), (388, 28160), (407, 28199), (428, 28247), (445, 28307), (468, 28355), (474, 28367), (496, 28412), (501, 28424),

Gene: PMC\_31 Start: 27499, Stop: 28500, Start Num: 95

Candidate Starts for PMC\_31:

(26, 27247), (Start: 56 @27400 has 7 MA's), (Start: 95 @27499 has 260 MA's), (Start: 105 @27520 has 4 MA's), (Start: 112 @27532 has 111 MA's), (130, 27574), (168, 27637), (177, 27658), (189, 27688), (Start: 214 @27742 has 1 MA's), (223, 27766), (241, 27793), (286, 27904), (334, 28018), (341, 28036), (357, 28075), (365, 28099), (374, 28135), (388, 28162), (407, 28201), (428, 28249), (445, 28309), (474, 28369), (501, 28426), (515, 28456),

Gene: PP\_20 Start: 11682, Stop: 12425, Start Num: 231

Candidate Starts for PP\_20:

(Start: 231 @11682 has 2 MA's), (247, 11718), (263, 11766), (286, 11823), (291, 11838), (334, 11922), (336, 11925), (347, 11952), (369, 12021), (397, 12084), (419, 12135), (428, 12162), (434,

12189), (440, 12204), (445, 12222), (447, 12225), (451, 12234), (456, 12243), (469, 12279), (490, 12318),

Gene: PSullivan\_12 Start: 6491, Stop: 7459, Start Num: 111

Candidate Starts for PSullivan\_12:

(Start: 111 @6491 has 315 MA's), (Start: 126 @6524 has 6 MA's), (Start: 135 @6542 has 1 MA's), (Start: 138 @6545 has 2 MA's), (266, 6812), (286, 6863), (289, 6875), (327, 6950), (349, 7013), (355, 7025), (361, 7046), (369, 7076), (374, 7094), (386, 7118), (407, 7157), (437, 7238), (445, 7262), (446, 7265), (448, 7268), (454, 7277), (495, 7364), (515, 7409), (531, 7451),

Gene: PYPDinur\_26 Start: 25346, Stop: 26368, Start Num: 96

Candidate Starts for PYPDinur\_26:

(Start: 96 @25346 has 29 MA's), (Start: 152 @25457 has 16 MA's), (176, 25490), (179, 25496), (182, 25502), (222, 25604), (223, 25607), (241, 25646), (250, 25667), (263, 25709), (286, 25766), (334, 25880), (369, 25985), (404, 26066), (406, 26069), (413, 26081), (425, 26114), (446, 26177), (454, 26189), (486, 26255), (490, 26264), (501, 26291),

Gene: Pacc40\_31 Start: 27689, Stop: 28690, Start Num: 95

Candidate Starts for Pacc40\_31:

(Start: 95 @27689 has 260 MA's), (Start: 105 @27710 has 4 MA's), (Start: 112 @27722 has 111 MA's), (130, 27764), (168, 27827), (177, 27848), (189, 27878), (Start: 214 @27932 has 1 MA's), (223, 27956), (241, 27983), (286, 28094), (334, 28208), (341, 28226), (357, 28265), (365, 28289), (374, 28325), (388, 28352), (407, 28391), (445, 28499), (468, 28547), (474, 28559), (495, 28601), (496, 28604), (501, 28616), (515, 28646),

Gene: PacerPaul\_10 Start: 6259, Stop: 7227, Start Num: 111

Candidate Starts for PacerPaul\_10:

(Start: 111 @6259 has 315 MA's), (Start: 126 @6292 has 6 MA's), (Start: 135 @6310 has 1 MA's), (Start: 138 @6313 has 2 MA's), (266, 6580), (286, 6631), (289, 6643), (327, 6718), (349, 6781), (361, 6814), (365, 6826), (369, 6844), (374, 6862), (407, 6925), (437, 7006), (445, 7030), (446, 7033), (448, 7036), (454, 7045), (495, 7132), (515, 7177), (531, 7219),

Gene: Padfoot\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for Padfoot\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242, 26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: Padpat\_31 Start: 26454, Stop: 27326, Start Num: 153

Candidate Starts for Padpat\_31:

(140, 26427), (Start: 153 @26454 has 137 MA's), (Start: 161 @26466 has 1 MA's), (192, 26535), (205, 26562), (Start: 214 @26592 has 1 MA's), (218, 26601), (238, 26637), (242, 26646), (254, 26679), (259, 26697), (274, 26727), (295, 26784), (296, 26787), (349, 26922), (363, 26949), (369, 26970), (377, 26994), (405, 27045), (448, 27147), (466, 27183), (497, 27255), (523, 27306), (529, 27315),

Gene: Palestino\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Palestino\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Palpatine\_35 Start: 31872, Stop: 32729, Start Num: 136

Candidate Starts for Palpatine\_35:

(Start: 136 @31872 has 124 MA's), (Start: 156 @31911 has 3 MA's), (166, 31941), (175, 31962), (191, 31998), (205, 32028), (236, 32103), (259, 32151), (262, 32154), (272, 32178), (274, 32181), (280, 32196), (346, 32367), (384, 32466), (393, 32481), (398, 32496), (420, 32502), (444, 32544), (445, 32547), (470, 32601), (511, 32679), (522, 32712),

Gene: Panamaxus\_11 Start: 6052, Stop: 7017, Start Num: 101

Candidate Starts for Panamaxus\_11:

(Start: 101 @6052 has 93 MA's), (Start: 126 @6097 has 6 MA's), (Start: 138 @6118 has 2 MA's), (201, 6238), (209, 6253), (Start: 231 @6292 has 2 MA's), (263, 6376), (286, 6433), (291, 6448), (333, 6529), (337, 6544), (347, 6562), (369, 6631), (388, 6676), (428, 6772), (447, 6835), (465, 6874), (490, 6925),

Gene: Paola\_30 Start: 27046, Stop: 27918, Start Num: 153

Candidate Starts for Paola\_30:

(Start: 153 @27046 has 137 MA's), (Start: 161 @27058 has 1 MA's), (164, 27064), (175, 27091), (188, 27121), (192, 27127), (Start: 214 @27181 has 1 MA's), (218, 27190), (222, 27202), (242, 27235), (254, 27268), (274, 27316), (299, 27385), (363, 27538), (368, 27556), (369, 27559), (394, 27619), (405, 27637), (421, 27664), (448, 27736), (466, 27772), (467, 27775), (477, 27796), (503, 27853), (521, 27889), (523, 27898), (529, 27907),

Gene: Paperbeatsrock\_37 Start: 32838, Stop: 33695, Start Num: 136

Candidate Starts for Paperbeatsrock\_37:

(Start: 136 @32838 has 124 MA's), (Start: 156 @32877 has 3 MA's), (166, 32907), (175, 32928), (191, 32964), (205, 32994), (236, 33069), (259, 33117), (262, 33120), (272, 33144), (274, 33147), (280, 33162), (346, 33333), (393, 33447), (398, 33462), (420, 33468), (444, 33510), (445, 33513), (470, 33567), (511, 33645), (522, 33678),

Gene: Papez\_12 Start: 7454, Stop: 8422, Start Num: 111

Candidate Starts for Papez\_12:

(Start: 111 @7454 has 315 MA's), (Start: 126 @7487 has 6 MA's), (Start: 135 @7505 has 1 MA's), (Start: 138 @7508 has 2 MA's), (266, 7775), (286, 7826), (289, 7838), (327, 7913), (349, 7976), (355, 7988), (361, 8009), (365, 8021), (369, 8039), (374, 8057), (407, 8120), (437, 8201), (445, 8225), (446, 8228), (448, 8231), (454, 8240), (495, 8327), (515, 8372), (531, 8414),

Gene: Paphu\_9 Start: 5448, Stop: 6416, Start Num: 111

Candidate Starts for Paphu\_9:

(Start: 111 @5448 has 315 MA's), (Start: 126 @5481 has 6 MA's), (Start: 135 @5499 has 1 MA's), (Start: 138 @5502 has 2 MA's), (266, 5769), (286, 5820), (289, 5832), (327, 5907), (349, 5970), (355, 5982), (361, 6003), (365, 6015), (369, 6033), (374, 6051), (386, 6075), (407, 6114), (437, 6195), (445, 6219), (446, 6222), (448, 6225), (454, 6234), (495, 6321), (515, 6366), (531, 6408),

Gene: Papyrus\_39 Start: 35008, Stop: 36057, Start Num: 90

Candidate Starts for Papyrus\_39:

(Start: 90 @35008 has 9 MA's), (130, 35092), (Start: 138 @35101 has 2 MA's), (150, 35125), (168, 35155), (177, 35176), (193, 35212), (203, 35233), (208, 35242), (Start: 214 @35260 has 1 MA's), (250, 35329), (310, 35482), (340, 35581), (352, 35608), (374, 35680), (407, 35734), (465, 35887), (476, 35911), (480, 35920), (498, 35962), (501, 35965), (504, 35971), (510, 35980), (524, 36016), (527, 36025), (534, 36034),

Gene: Paraselene\_9 Start: 5760, Stop: 6728, Start Num: 111

Candidate Starts for Paraselene\_9:

(Start: 111 @5760 has 315 MA's), (Start: 126 @5793 has 6 MA's), (Start: 135 @5811 has 1 MA's), (Start: 138 @5814 has 2 MA's), (266, 6081), (286, 6132), (289, 6144), (327, 6219), (349, 6282), (355, 6294), (361, 6315), (369, 6345), (374, 6363), (386, 6387), (407, 6426), (437, 6507), (445, 6531), (446, 6534), (448, 6537), (454, 6546), (495, 6633), (515, 6678), (531, 6720),

Gene: Pari\_11 Start: 6227, Stop: 7195, Start Num: 111

Candidate Starts for Pari\_11:

(Start: 111 @6227 has 315 MA's), (Start: 126 @6260 has 6 MA's), (Start: 135 @6278 has 1 MA's), (Start: 138 @6281 has 2 MA's), (266, 6548), (286, 6599), (289, 6611), (327, 6686), (349, 6749), (355, 6761), (361, 6782), (365, 6794), (369, 6812), (374, 6830), (386, 6854), (407, 6893), (437, 6974), (445, 6998), (446, 7001), (448, 7004), (454, 7013), (495, 7100), (531, 7187),

Gene: ParkTD\_251 Start: 144793, Stop: 145821, Start Num: 87

Candidate Starts for ParkTD\_251:

(Start: 87 @144793 has 167 MA's), (Start: 105 @144823 has 4 MA's), (Start: 112 @144835 has 111 MA's), (130, 144877), (168, 144940), (177, 144961), (Start: 214 @145045 has 1 MA's), (235, 145087), (241, 145099), (250, 145114), (273, 145183), (286, 145210), (309, 145264), (324, 145309), (326, 145312), (354, 145390), (361, 145411), (407, 145522), (440, 145612), (445, 145630), (480, 145702), (496, 145735),

Gene: Parliament\_9 Start: 5830, Stop: 6798, Start Num: 111

Candidate Starts for Parliament\_9:

(Start: 111 @5830 has 315 MA's), (Start: 126 @5863 has 6 MA's), (Start: 135 @5881 has 1 MA's), (Start: 138 @5884 has 2 MA's), (266, 6151), (286, 6202), (289, 6214), (327, 6289), (349, 6352), (355, 6364), (361, 6385), (365, 6397), (369, 6415), (374, 6433), (386, 6457), (407, 6496), (437, 6577), (445, 6601), (446, 6604), (448, 6607), (454, 6616), (495, 6703), (531, 6790),

Gene: PascalRango\_9 Start: 5626, Stop: 6594, Start Num: 111

Candidate Starts for PascalRango\_9:

(Start: 111 @5626 has 315 MA's), (Start: 126 @5659 has 6 MA's), (Start: 135 @5677 has 1 MA's), (Start: 138 @5680 has 2 MA's), (266, 5947), (286, 5998), (289, 6010), (327, 6085), (349, 6148), (361, 6181), (365, 6193), (369, 6211), (374, 6229), (386, 6253), (407, 6292), (437, 6373), (445, 6397), (446, 6400), (448, 6403), (454, 6412), (495, 6499), (531, 6586),

Gene: Pat3\_34 Start: 30584, Stop: 31441, Start Num: 136

Candidate Starts for Pat3\_34:

(Start: 136 @30584 has 124 MA's), (Start: 156 @30623 has 3 MA's), (166, 30653), (175, 30674), (191, 30710), (205, 30740), (236, 30815), (259, 30863), (262, 30866), (272, 30890), (274, 30893), (280, 30908), (346, 31079), (393, 31193), (398, 31208), (420, 31214), (444, 31256), (445, 31259), (470, 31313), (511, 31391), (522, 31424),

Gene: Patience\_42 Start: 35792, Stop: 36817, Start Num: 88

Candidate Starts for Patience\_42:

(Start: 88 @35792 has 3 MA's), (168, 35927), (203, 36002), (245, 36086), (250, 36095), (256, 36119), (259, 36128), (300, 36221), (333, 36320), (347, 36353), (353, 36368), (361, 36389), (364, 36398), (401, 36485), (411, 36503), (424, 36533), (428, 36551), (436, 36587), (468, 36662), (474, 36674), (476, 36677), (495, 36716), (521, 36773),

Gene: Patt\_32 Start: 27372, Stop: 28163, Start Num: 143

Candidate Starts for Patt\_32:

(92, 27267), (100, 27285), (113, 27312), (123, 27333), (Start: 143 @27372 has 20 MA's), (Start: 161 @27405 has 1 MA's), (175, 27438), (200, 27492), (Start: 214 @27531 has 1 MA's), (218, 27540), (238, 27576), (242, 27585), (314, 27768), (349, 27864), (363, 27891), (369, 27912), (373, 27927),

(377, 27936), (445, 27960), (470, 28014), (477, 28026), (511, 28098), (521, 28119),

Gene: Patter\_254 Start: 144453, Stop: 145481, Start Num: 87

Candidate Starts for Patter\_254:

(Start: 87 @144453 has 167 MA's), (Start: 105 @144483 has 4 MA's), (Start: 112 @144495 has 111 MA's), (130, 144537), (168, 144600), (177, 144621), (Start: 214 @144705 has 1 MA's), (235, 144747), (241, 144759), (250, 144774), (273, 144843), (286, 144870), (309, 144924), (324, 144969), (326, 144972), (354, 145050), (361, 145071), (407, 145182), (440, 145272), (445, 145290), (480, 145362), (496, 145395),

Gene: PattyP\_11 Start: 5782, Stop: 6750, Start Num: 111

Candidate Starts for PattyP\_11:

(Start: 111 @5782 has 315 MA's), (Start: 126 @5815 has 6 MA's), (Start: 135 @5833 has 1 MA's), (Start: 138 @5836 has 2 MA's), (266, 6103), (286, 6154), (289, 6166), (327, 6241), (349, 6304), (355, 6316), (361, 6337), (365, 6349), (369, 6367), (374, 6385), (386, 6409), (407, 6448), (437, 6529), (445, 6553), (446, 6556), (448, 6559), (454, 6568), (495, 6655), (531, 6742),

Gene: Pawn\_13 Start: 6033, Stop: 6998, Start Num: 101

Candidate Starts for Pawn\_13:

(Start: 101 @6033 has 93 MA's), (Start: 138 @6099 has 2 MA's), (173, 6153), (208, 6231), (263, 6354), (286, 6411), (327, 6483), (337, 6522), (347, 6540), (369, 6609), (419, 6726), (428, 6753), (447, 6816), (490, 6906), (493, 6912),

Gene: Payneful\_10 Start: 5573, Stop: 6541, Start Num: 111

Candidate Starts for Payneful\_10:

(Start: 111 @5573 has 315 MA's), (Start: 126 @5606 has 6 MA's), (Start: 135 @5624 has 1 MA's), (Start: 138 @5627 has 2 MA's), (266, 5894), (286, 5945), (289, 5957), (327, 6032), (349, 6095), (361, 6128), (365, 6140), (369, 6158), (374, 6176), (407, 6239), (437, 6320), (445, 6344), (446, 6347), (448, 6350), (454, 6359), (495, 6446), (515, 6491), (531, 6533),

Gene: PeaceMeal1\_9 Start: 3782, Stop: 4756, Start Num: 111

Candidate Starts for PeaceMeal1\_9:

(65, 3743), (Start: 111 @3782 has 315 MA's), (Start: 126 @3815 has 6 MA's), (Start: 138 @3836 has 2 MA's), (222, 4004), (241, 4046), (247, 4061), (286, 4166), (327, 4238), (334, 4265), (336, 4268), (337, 4277), (369, 4364), (428, 4511), (447, 4574), (465, 4613), (486, 4655),

Gene: Peaches\_10 Start: 5884, Stop: 6861, Start Num: 114

Candidate Starts for Peaches\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Peanam\_31 Start: 25850, Stop: 26611, Start Num: 153

Candidate Starts for Peanam\_31:

(140, 25820), (Start: 153 @25850 has 137 MA's), (175, 25895), (192, 25931), (216, 25991), (218, 25997), (234, 26027), (238, 26033), (242, 26042), (254, 26075), (271, 26117), (290, 26168), (296, 26183), (349, 26318), (363, 26345), (369, 26366), (371, 26372), (377, 26390), (445, 26423), (448, 26429), (470, 26477), (505, 26549), (523, 26591), (529, 26600),

Gene: Peel\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for Peel\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242,



26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: PegLeg\_38 Start: 31793, Stop: 32764, Start Num: 58

Candidate Starts for PegLeg\_38:

(Start: 58 @31793 has 13 MA's), (63, 31817), (69, 31832), (134, 31970), (150, 31997), (158, 32015), (162, 32027), (166, 32036), (185, 32081), (191, 32093), (206, 32120), (218, 32147), (222, 32159), (246, 32204), (257, 32231), (272, 32261), (276, 32270), (277, 32273), (310, 32360), (317, 32375), (371, 32528), (372, 32531), (441, 32591), (444, 32603), (448, 32612), (466, 32648), (471, 32663), (494, 32702), (509, 32735),

Gene: Pelly\_11 Start: 6459, Stop: 7427, Start Num: 111

Candidate Starts for Pelly\_11:

(Start: 111 @6459 has 315 MA's), (Start: 126 @6492 has 6 MA's), (Start: 135 @6510 has 1 MA's), (Start: 138 @6513 has 2 MA's), (266, 6780), (286, 6831), (289, 6843), (327, 6918), (349, 6981), (361, 7014), (365, 7026), (369, 7044), (374, 7062), (386, 7086), (407, 7125), (437, 7206), (445, 7230), (446, 7233), (448, 7236), (454, 7245), (495, 7332), (531, 7419),

Gene: Pembroke\_12 Start: 5963, Stop: 6928, Start Num: 101

Candidate Starts for Pembroke\_12:

(Start: 101 @5963 has 93 MA's), (Start: 126 @6008 has 6 MA's), (Start: 138 @6029 has 2 MA's), (201, 6149), (263, 6287), (286, 6344), (291, 6359), (333, 6440), (337, 6455), (347, 6473), (365, 6524), (369, 6542), (388, 6587), (428, 6683), (447, 6746), (465, 6785), (490, 6836),

Gene: Penny1\_12 Start: 5962, Stop: 6927, Start Num: 101

Candidate Starts for Penny1\_12:

(Start: 101 @5962 has 93 MA's), (Start: 126 @6007 has 6 MA's), (Start: 138 @6028 has 2 MA's), (201, 6148), (263, 6286), (286, 6343), (291, 6358), (333, 6439), (337, 6454), (347, 6472), (365, 6523), (369, 6541), (388, 6586), (428, 6682), (447, 6745), (465, 6784), (490, 6835),

Gene: Pepe\_11 Start: 6482, Stop: 7450, Start Num: 111

Candidate Starts for Pepe\_11:

(Start: 111 @6482 has 315 MA's), (Start: 126 @6515 has 6 MA's), (Start: 135 @6533 has 1 MA's), (Start: 138 @6536 has 2 MA's), (266, 6803), (286, 6854), (289, 6866), (327, 6941), (349, 7004), (361, 7037), (365, 7049), (369, 7067), (374, 7085), (386, 7109), (407, 7148), (437, 7229), (445, 7253), (446, 7256), (448, 7259), (454, 7268), (459, 7271), (495, 7355), (515, 7400), (531, 7442),

Gene: Perplexer\_10 Start: 5881, Stop: 6864, Start Num: 111

Candidate Starts for Perplexer\_10:

(Start: 111 @5881 has 315 MA's), (125, 5911), (Start: 135 @5932 has 1 MA's), (Start: 138 @5935 has 2 MA's), (263, 6184), (286, 6241), (289, 6253), (305, 6283), (320, 6304), (328, 6325), (345, 6373), (369, 6430), (428, 6580), (470, 6703), (477, 6715), (481, 6724), (511, 6781), (540, 6856),

Gene: Perseus\_11 Start: 6143, Stop: 7111, Start Num: 111

Candidate Starts for Perseus\_11:

(Start: 111 @6143 has 315 MA's), (Start: 126 @6176 has 6 MA's), (Start: 135 @6194 has 1 MA's), (Start: 138 @6197 has 2 MA's), (266, 6464), (286, 6515), (289, 6527), (327, 6602), (349, 6665), (361, 6698), (365, 6710), (369, 6728), (374, 6746), (386, 6770), (407, 6809), (437, 6890), (445, 6914), (446, 6917), (448, 6920), (454, 6929), (495, 7016), (515, 7061), (531, 7103),

Gene: PeterPeter\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for PeterPeter\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Peterson\_13 Start: 7442, Stop: 8410, Start Num: 111

Candidate Starts for Peterson\_13:

(Start: 111 @7442 has 315 MA's), (Start: 126 @7475 has 6 MA's), (Start: 135 @7493 has 1 MA's), (Start: 138 @7496 has 2 MA's), (266, 7763), (286, 7814), (289, 7826), (327, 7901), (361, 7997), (365, 8009), (369, 8027), (374, 8045), (386, 8069), (407, 8108), (437, 8189), (445, 8213), (446, 8216), (448, 8219), (454, 8228), (495, 8315), (515, 8360), (531, 8402),

Gene: PetiteSangsue\_10 Start: 5887, Stop: 6870, Start Num: 111

Candidate Starts for PetiteSangsue\_10:

(Start: 111 @5887 has 315 MA's), (125, 5917), (Start: 135 @5938 has 1 MA's), (Start: 138 @5941 has 2 MA's), (263, 6190), (286, 6247), (289, 6259), (305, 6289), (320, 6310), (328, 6331), (345, 6379), (369, 6436), (428, 6586), (470, 6709), (477, 6721), (481, 6730), (511, 6787), (540, 6862),

Gene: Petp2012\_12 Start: 5935, Stop: 6903, Start Num: 111

Candidate Starts for Petp2012\_12:

(Start: 111 @5935 has 315 MA's), (Start: 126 @5968 has 6 MA's), (Start: 135 @5986 has 1 MA's), (Start: 138 @5989 has 2 MA's), (266, 6256), (286, 6307), (289, 6319), (327, 6394), (349, 6457), (361, 6490), (365, 6502), (369, 6520), (374, 6538), (386, 6562), (407, 6601), (437, 6682), (445, 6706), (446, 6709), (448, 6712), (454, 6721), (495, 6808), (515, 6853), (531, 6895),

Gene: Petra64142\_37 Start: 32318, Stop: 33175, Start Num: 136

Candidate Starts for Petra64142\_37:

(Start: 136 @32318 has 124 MA's), (Start: 156 @32357 has 3 MA's), (166, 32387), (175, 32408), (191, 32444), (205, 32474), (236, 32549), (259, 32597), (262, 32600), (272, 32624), (274, 32627), (280, 32642), (346, 32813), (384, 32912), (393, 32927), (398, 32942), (420, 32948), (444, 32990), (445, 32993), (470, 33047), (511, 33125), (522, 33158),

Gene: Petruccio\_10 Start: 5701, Stop: 6669, Start Num: 111

Candidate Starts for Petruccio\_10:

(Start: 111 @5701 has 315 MA's), (Start: 126 @5734 has 6 MA's), (Start: 135 @5752 has 1 MA's), (Start: 138 @5755 has 2 MA's), (266, 6022), (286, 6073), (289, 6085), (327, 6160), (349, 6223), (355, 6235), (361, 6256), (365, 6268), (369, 6286), (374, 6304), (386, 6328), (407, 6367), (437, 6448), (445, 6472), (446, 6475), (448, 6478), (454, 6487), (495, 6574), (515, 6619), (531, 6661),

Gene: Phacado\_10 Start: 5880, Stop: 6860, Start Num: 112

Candidate Starts for Phacado\_10:

(Start: 112 @5880 has 111 MA's), (Start: 114 @5883 has 13 MA's), (125, 5907), (Start: 135 @5928 has 1 MA's), (Start: 138 @5931 has 2 MA's), (263, 6180), (286, 6237), (328, 6321), (333, 6342), (345, 6369), (362, 6399), (369, 6426), (428, 6576), (466, 6687), (470, 6699), (477, 6711), (511, 6777),

Gene: Phaded\_14 Start: 8540, Stop: 9526, Start Num: 111

Candidate Starts for Phaded\_14:

(Start: 111 @8540 has 315 MA's), (125, 8570), (Start: 138 @8594 has 2 MA's), (209, 8729), (286, 8900), (325, 8975), (328, 8984), (369, 9095), (396, 9155), (413, 9191), (428, 9245), (433, 9269), (435, 9275), (452, 9320), (477, 9380), (481, 9389),

Gene: Phaedrus\_45 Start: 41456, Stop: 42520, Start Num: 84

Candidate Starts for Phaedrus\_45:

(Start: 84 @41456 has 45 MA's), (115, 41519), (157, 41600), (189, 41666), (197, 41681), (203, 41693), (215, 41720), (245, 41777), (250, 41786), (308, 41933), (315, 41948), (333, 42002), (347, 42035), (362, 42074), (366, 42086), (401, 42167), (411, 42185), (412, 42188), (428, 42233), (468, 42344), (521, 42455), (527, 42476), (541, 42509),

Gene: Phaja\_35 Start: 32034, Stop: 32891, Start Num: 136

Candidate Starts for Phaja\_35:

(Start: 136 @32034 has 124 MA's), (Start: 156 @32073 has 3 MA's), (166, 32103), (175, 32124), (191, 32160), (205, 32190), (236, 32265), (259, 32313), (262, 32316), (272, 32340), (274, 32343), (280, 32358), (346, 32529), (393, 32643), (398, 32658), (420, 32664), (444, 32706), (445, 32709), (470, 32763), (511, 32841), (522, 32874),

Gene: Phalconet\_31 Start: 27631, Stop: 28632, Start Num: 95

Candidate Starts for Phalconet\_31:

(Start: 95 @27631 has 260 MA's), (Start: 105 @27652 has 4 MA's), (Start: 112 @27664 has 111 MA's), (130, 27706), (168, 27769), (177, 27790), (189, 27820), (Start: 214 @27874 has 1 MA's), (223, 27898), (241, 27925), (286, 28036), (334, 28150), (341, 28168), (357, 28207), (365, 28231), (374, 28267), (388, 28294), (407, 28333), (428, 28381), (445, 28441), (474, 28501), (501, 28558), (515, 28588),

Gene: Phanphagia\_28 Start: 26657, Stop: 27655, Start Num: 95

Candidate Starts for Phanphagia\_28:

(Start: 95 @26657 has 260 MA's), (130, 26732), (168, 26792), (177, 26813), (Start: 214 @26897 has 1 MA's), (241, 26948), (250, 26963), (286, 27059), (327, 27146), (333, 27170), (341, 27191), (357, 27230), (361, 27242), (374, 27290), (388, 27317), (400, 27341), (407, 27356), (445, 27464), (468, 27512), (501, 27581), (515, 27611),

Gene: Phantastic\_10 Start: 5701, Stop: 6441, Start Num: 221

Candidate Starts for Phantastic\_10:

(Start: 152 @5608 has 16 MA's), (Start: 221 @5701 has 1 MA's), (237, 5716), (263, 5788), (286, 5845), (289, 5857), (291, 5860), (304, 5884), (313, 5899), (333, 5947), (347, 5980), (369, 6049), (401, 6121), (428, 6190), (434, 6217), (447, 6253), (465, 6292), (533, 6433),

Gene: Pharb\_30 Start: 26706, Stop: 27494, Start Num: 153

Candidate Starts for Pharb\_30:

(129, 26661), (Start: 153 @26706 has 137 MA's), (175, 26751), (192, 26787), (Start: 214 @26844 has 1 MA's), (218, 26853), (238, 26889), (259, 26943), (271, 26967), (326, 27108), (349, 27171), (363, 27213), (369, 27234), (371, 27240), (377, 27258), (444, 27288), (477, 27357), (511, 27429), (523, 27459),

Gene: Pharsalus\_36 Start: 32638, Stop: 33495, Start Num: 136

Candidate Starts for Pharsalus\_36:

(Start: 136 @32638 has 124 MA's), (Start: 156 @32677 has 3 MA's), (166, 32707), (175, 32728), (191, 32764), (205, 32794), (236, 32869), (259, 32917), (262, 32920), (272, 32944), (274, 32947), (280, 32962), (346, 33133), (393, 33247), (398, 33262), (420, 33268), (444, 33310), (445, 33313), (470, 33367), (511, 33445), (522, 33478),

Gene: Phasih\_32 Start: 28074, Stop: 29075, Start Num: 95

Candidate Starts for Phasih\_32:

(5, 27453), (7, 27531), (9, 27594), (15, 27633), (22, 27786), (26, 27822), (Start: 95 @28074 has 260 MA's), (Start: 105 @28095 has 4 MA's), (Start: 112 @28107 has 111 MA's), (130, 28149), (168, 28212), (177, 28233), (189, 28263), (Start: 214 @28317 has 1 MA's), (223, 28341), (241, 28368), (286, 28479), (334, 28593), (341, 28611), (357, 28650), (365, 28674), (374, 28710), (388, 28737),

(407, 28776), (428, 28824), (445, 28884), (474, 28944), (501, 29001), (515, 29031),

Gene: PhatBacter\_35 Start: 31886, Stop: 32743, Start Num: 136

Candidate Starts for PhatBacter\_35:

(Start: 136 @31886 has 124 MA's), (Start: 156 @31925 has 3 MA's), (166, 31955), (175, 31976), (191, 32012), (205, 32042), (236, 32117), (259, 32165), (262, 32168), (272, 32192), (274, 32195), (280, 32210), (346, 32381), (384, 32480), (393, 32495), (398, 32510), (420, 32516), (444, 32558), (445, 32561), (470, 32615), (511, 32693), (522, 32726),

Gene: Phatniss\_32 Start: 28016, Stop: 29017, Start Num: 95

Candidate Starts for Phatniss\_32:

(26, 27764), (Start: 56 @27917 has 7 MA's), (Start: 95 @28016 has 260 MA's), (Start: 105 @28037 has 4 MA's), (Start: 112 @28049 has 111 MA's), (130, 28091), (168, 28154), (177, 28175), (189, 28205), (Start: 214 @28259 has 1 MA's), (223, 28283), (241, 28310), (286, 28421), (334, 28535), (341, 28553), (357, 28592), (365, 28616), (374, 28652), (388, 28679), (407, 28718), (428, 28766), (445, 28826), (474, 28886), (501, 28943), (515, 28973),

Gene: Phaux\_34 Start: 31884, Stop: 32741, Start Num: 136

Candidate Starts for Phaux\_34:

(Start: 136 @31884 has 124 MA's), (Start: 156 @31923 has 3 MA's), (166, 31953), (175, 31974), (191, 32010), (205, 32040), (236, 32115), (259, 32163), (262, 32166), (272, 32190), (274, 32193), (280, 32208), (346, 32379), (384, 32478), (393, 32493), (398, 32508), (420, 32514), (444, 32556), (445, 32559), (470, 32613), (511, 32691), (522, 32724),

Gene: Phayeta\_48 Start: 41401, Stop: 42465, Start Num: 84

Candidate Starts for Phayeta\_48:

(Start: 84 @41401 has 45 MA's), (115, 41464), (157, 41545), (189, 41611), (197, 41626), (203, 41638), (215, 41665), (245, 41722), (250, 41731), (308, 41878), (315, 41893), (333, 41947), (347, 41980), (362, 42019), (366, 42031), (401, 42112), (411, 42130), (412, 42133), (428, 42178), (468, 42289), (521, 42400), (527, 42421), (541, 42454),

Gene: Phelipe\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Phelipe\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: PhelpsODU\_31 Start: 25890, Stop: 26633, Start Num: 153

Candidate Starts for PhelpsODU\_31:

(140, 25863), (Start: 153 @25890 has 137 MA's), (173, 25932), (175, 25938), (192, 25974), (Start: 214 @26022 has 1 MA's), (218, 26031), (238, 26067), (254, 26109), (296, 26217), (349, 26352), (360, 26367), (363, 26379), (369, 26400), (387, 26418), (421, 26424), (470, 26502), (509, 26583), (521, 26604), (523, 26613),

Gene: PherrisBueller\_11 Start: 5911, Stop: 6879, Start Num: 111

Candidate Starts for PherrisBueller\_11:

(Start: 111 @5911 has 315 MA's), (Start: 126 @5944 has 6 MA's), (Start: 135 @5962 has 1 MA's), (Start: 138 @5965 has 2 MA's), (235, 6154), (266, 6232), (286, 6283), (289, 6295), (327, 6370), (349, 6433), (361, 6466), (365, 6478), (369, 6496), (374, 6514), (386, 6538), (407, 6577), (437, 6658), (445, 6682), (446, 6685), (448, 6688), (454, 6697), (495, 6784), (531, 6871),

Gene: PhesterPhotato\_31 Start: 27551, Stop: 28552, Start Num: 95

Candidate Starts for PhesterPhotato\_31:

(Start: 95 @27551 has 260 MA's), (Start: 105 @27572 has 4 MA's), (Start: 112 @27584 has 111 MA's), (130, 27626), (168, 27689), (177, 27710), (189, 27740), (Start: 214 @27794 has 1 MA's), (223, 27818), (241, 27845), (286, 27956), (334, 28070), (341, 28088), (357, 28127), (365, 28151), (374, 28187), (388, 28214), (407, 28253), (428, 28301), (445, 28361), (468, 28409), (501, 28478), (515, 28508),

Gene: Phighter1804\_10 Start: 5857, Stop: 6837, Start Num: 112

Candidate Starts for Phighter1804\_10:

(Start: 112 @5857 has 111 MA's), (125, 5884), (Start: 135 @5905 has 1 MA's), (Start: 138 @5908 has 2 MA's), (263, 6157), (286, 6214), (289, 6226), (320, 6277), (328, 6298), (333, 6319), (345, 6346), (361, 6373), (369, 6403), (428, 6553), (470, 6676), (477, 6688), (511, 6754),

Gene: Philly\_46 Start: 41387, Stop: 42451, Start Num: 84

Candidate Starts for Philly\_46:

(Start: 84 @41387 has 45 MA's), (115, 41450), (157, 41531), (189, 41597), (197, 41612), (203, 41624), (215, 41651), (245, 41708), (250, 41717), (308, 41864), (315, 41879), (333, 41933), (347, 41966), (362, 42005), (366, 42017), (401, 42098), (411, 42116), (412, 42119), (428, 42164), (468, 42275), (521, 42386), (527, 42407), (541, 42440),

Gene: Philus\_31 Start: 27593, Stop: 28594, Start Num: 95

Candidate Starts for Philus\_31:

(Start: 95 @27593 has 260 MA's), (130, 27668), (149, 27701), (168, 27731), (177, 27752), (189, 27782), (196, 27794), (Start: 214 @27836 has 1 MA's), (223, 27860), (235, 27875), (241, 27887), (286, 27998), (334, 28112), (341, 28130), (357, 28169), (365, 28193), (374, 28229), (407, 28295), (445, 28403), (468, 28451), (474, 28463), (496, 28508), (501, 28520), (515, 28550),

Gene: PhishRPhriends\_11 Start: 5224, Stop: 6189, Start Num: 101

Candidate Starts for PhishRPhriends\_11:

(Start: 101 @5224 has 93 MA's), (Start: 138 @5290 has 2 MA's), (173, 5344), (208, 5422), (263, 5545), (286, 5602), (327, 5674), (337, 5713), (347, 5731), (369, 5800), (419, 5917), (428, 5944), (447, 6007), (490, 6097), (493, 6103),

Gene: Phlegm\_257 Start: 145199, Stop: 146227, Start Num: 87

Candidate Starts for Phlegm\_257:

(Start: 87 @145199 has 167 MA's), (Start: 105 @145229 has 4 MA's), (Start: 112 @145241 has 111 MA's), (130, 145283), (168, 145346), (177, 145367), (Start: 214 @145451 has 1 MA's), (235, 145493), (241, 145505), (250, 145520), (273, 145589), (286, 145616), (309, 145670), (324, 145715), (326, 145718), (354, 145796), (361, 145817), (407, 145928), (440, 146018), (445, 146036), (480, 146108), (496, 146141),

Gene: Phlyer\_47 Start: 42275, Stop: 43339, Start Num: 84

Candidate Starts for Phlyer\_47:

(Start: 84 @42275 has 45 MA's), (115, 42338), (157, 42419), (189, 42485), (197, 42500), (203, 42512), (215, 42539), (245, 42596), (250, 42605), (308, 42752), (315, 42767), (333, 42821), (347, 42854), (362, 42893), (366, 42905), (401, 42986), (411, 43004), (412, 43007), (468, 43163), (521, 43274), (527, 43295), (541, 43328),

Gene: Phoebe\_12 Start: 5960, Stop: 6925, Start Num: 101

Candidate Starts for Phoebe\_12:

(Start: 101 @5960 has 93 MA's), (Start: 126 @6005 has 6 MA's), (Start: 138 @6026 has 2 MA's), (201, 6146), (286, 6341), (291, 6356), (333, 6437), (337, 6452), (347, 6470), (365, 6521), (369, 6539), (388, 6584), (428, 6680), (447, 6743), (465, 6782), (490, 6833),

Gene: Phoebus\_48 Start: 42862, Stop: 43734, Start Num: 91

Candidate Starts for Phoebus\_48:

(Start: 91 @42862 has 31 MA's), (Start: 104 @42889 has 1 MA's), (132, 42949), (158, 42997), (190, 43063), (202, 43084), (Start: 214 @43105 has 1 MA's), (243, 43159), (279, 43240), (379, 43519), (380, 43522), (439, 43546), (452, 43582), (462, 43597), (466, 43609), (475, 43630),

Gene: Phontbonne\_10 Start: 5822, Stop: 6805, Start Num: 111

Candidate Starts for Phontbonne\_10:

(Start: 111 @5822 has 315 MA's), (Start: 135 @5873 has 1 MA's), (Start: 138 @5876 has 2 MA's), (209, 6011), (218, 6035), (263, 6125), (286, 6182), (320, 6245), (328, 6266), (333, 6287), (345, 6314), (369, 6371), (428, 6521), (470, 6644), (477, 6656), (526, 6767),

Gene: Phox\_253 Start: 144448, Stop: 145476, Start Num: 87

Candidate Starts for Phox\_253:

(Start: 87 @144448 has 167 MA's), (Start: 105 @144478 has 4 MA's), (Start: 112 @144490 has 111 MA's), (130, 144532), (168, 144595), (177, 144616), (Start: 214 @144700 has 1 MA's), (235, 144742), (241, 144754), (250, 144769), (273, 144838), (286, 144865), (309, 144919), (324, 144964), (326, 144967), (354, 145045), (361, 145066), (407, 145177), (440, 145267), (445, 145285), (480, 145357), (496, 145390),

Gene: Phoxy\_12 Start: 6046, Stop: 7011, Start Num: 101

Candidate Starts for Phoxy\_12:

(Start: 101 @6046 has 93 MA's), (Start: 126 @6091 has 6 MA's), (Start: 138 @6112 has 2 MA's), (201, 6232), (263, 6370), (286, 6427), (291, 6442), (333, 6523), (337, 6538), (347, 6556), (365, 6607), (369, 6625), (388, 6670), (428, 6766), (447, 6829), (465, 6868), (490, 6919),

Gene: Phrank\_31 Start: 25840, Stop: 26583, Start Num: 153

Candidate Starts for Phrank\_31:

(140, 25813), (Start: 153 @25840 has 137 MA's), (162, 25858), (173, 25882), (175, 25888), (192, 25924), (Start: 214 @25972 has 1 MA's), (218, 25981), (238, 26017), (254, 26059), (296, 26167), (349, 26302), (360, 26317), (363, 26329), (369, 26350), (385, 26365), (387, 26368), (421, 26374), (470, 26452), (509, 26533), (521, 26554), (523, 26563),

Gene: Phranny\_13 Start: 6031, Stop: 6996, Start Num: 101

Candidate Starts for Phranny\_13:

(Start: 101 @6031 has 93 MA's), (Start: 138 @6097 has 2 MA's), (173, 6151), (208, 6229), (263, 6352), (286, 6409), (327, 6481), (337, 6520), (347, 6538), (369, 6607), (419, 6724), (428, 6751), (447, 6814), (490, 6904), (493, 6910),

Gene: PhrostyMug\_10 Start: 6057, Stop: 7025, Start Num: 111

Candidate Starts for PhrostyMug\_10:

(Start: 111 @6057 has 315 MA's), (Start: 126 @6090 has 6 MA's), (Start: 135 @6108 has 1 MA's), (Start: 138 @6111 has 2 MA's), (266, 6378), (286, 6429), (289, 6441), (327, 6516), (349, 6579), (355, 6591), (361, 6612), (365, 6624), (369, 6642), (374, 6660), (386, 6684), (407, 6723), (437, 6804), (445, 6828), (446, 6831), (448, 6834), (454, 6843), (495, 6930), (531, 7017),

Gene: Phrux\_35 Start: 31599, Stop: 32456, Start Num: 136

Candidate Starts for Phrux\_35:

(Start: 136 @31599 has 124 MA's), (Start: 156 @31638 has 3 MA's), (166, 31668), (175, 31689), (191, 31725), (205, 31755), (236, 31830), (259, 31878), (262, 31881), (272, 31905), (274, 31908), (280, 31923), (346, 32094), (384, 32193), (393, 32208), (398, 32223), (420, 32229), (444, 32271), (445, 32274), (470, 32328), (511, 32406), (522, 32439),

Gene: Phusco\_251 Start: 144031, Stop: 145059, Start Num: 87

Candidate Starts for Phusco\_251:

(Start: 87 @144031 has 167 MA's), (Start: 105 @144061 has 4 MA's), (Start: 112 @144073 has 111 MA's), (130, 144115), (168, 144178), (177, 144199), (Start: 214 @144283 has 1 MA's), (235, 144325), (241, 144337), (250, 144352), (273, 144421), (286, 144448), (309, 144502), (324, 144547), (326, 144550), (354, 144628), (361, 144649), (407, 144760), (440, 144850), (445, 144868), (480, 144940), (496, 144973),

Gene: Piatt\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for Piatt\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242, 26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: Pier\_251 Start: 145324, Stop: 146352, Start Num: 87

Candidate Starts for Pier\_251:

(Start: 87 @145324 has 167 MA's), (Start: 105 @145354 has 4 MA's), (Start: 112 @145366 has 111 MA's), (130, 145408), (168, 145471), (177, 145492), (Start: 214 @145576 has 1 MA's), (235, 145618), (241, 145630), (250, 145645), (273, 145714), (286, 145741), (309, 145795), (324, 145840), (326, 145843), (354, 145921), (361, 145942), (407, 146053), (440, 146143), (445, 146161), (480, 146233), (496, 146266),

Gene: PinkPlastic\_8 Start: 5490, Stop: 6458, Start Num: 111

Candidate Starts for PinkPlastic\_8:

(Start: 111 @5490 has 315 MA's), (Start: 126 @5523 has 6 MA's), (Start: 135 @5541 has 1 MA's), (Start: 138 @5544 has 2 MA's), (266, 5811), (286, 5862), (289, 5874), (327, 5949), (349, 6012), (355, 6024), (361, 6045), (365, 6057), (369, 6075), (374, 6093), (386, 6117), (407, 6156), (437, 6237), (445, 6261), (446, 6264), (448, 6267), (454, 6276), (495, 6363), (531, 6450),

Gene: Pinkcreek\_232 Start: 141680, Stop: 142678, Start Num: 105

Candidate Starts for Pinkcreek\_232:

(Start: 87 @141650 has 167 MA's), (Start: 105 @141680 has 4 MA's), (130, 141734), (168, 141797), (177, 141818), (Start: 214 @141902 has 1 MA's), (235, 141944), (241, 141956), (250, 141971), (273, 142040), (286, 142067), (309, 142121), (324, 142166), (326, 142169), (354, 142247), (361, 142268), (407, 142379), (440, 142469), (445, 142487), (480, 142559), (496, 142592),

Gene: Pinto\_12 Start: 6133, Stop: 7101, Start Num: 111

Candidate Starts for Pinto\_12:

(Start: 111 @6133 has 315 MA's), (Start: 126 @6166 has 6 MA's), (Start: 135 @6184 has 1 MA's), (Start: 138 @6187 has 2 MA's), (266, 6454), (286, 6505), (289, 6517), (327, 6592), (349, 6655), (361, 6688), (365, 6700), (369, 6718), (374, 6736), (386, 6760), (407, 6799), (437, 6880), (445, 6904), (446, 6907), (448, 6910), (454, 6919), (495, 7006), (531, 7093),

Gene: Pio\_259 Start: 146527, Stop: 147555, Start Num: 87

Candidate Starts for Pio\_259:

(Start: 87 @146527 has 167 MA's), (Start: 105 @146557 has 4 MA's), (Start: 112 @146569 has 111 MA's), (130, 146611), (168, 146674), (177, 146695), (Start: 214 @146779 has 1 MA's), (235, 146821), (241, 146833), (250, 146848), (273, 146917), (286, 146944), (309, 146998), (324, 147043), (326, 147046), (354, 147124), (361, 147145), (407, 147256), (440, 147346), (445, 147364), (480, 147436), (496, 147469),

Gene: Pipcraft\_10 Start: 5884, Stop: 6861, Start Num: 114

Candidate Starts for Pipcraft\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Pipefish\_49 Start: 42928, Stop: 43992, Start Num: 84

Candidate Starts for Pipefish\_49:

(Start: 84 @42928 has 45 MA's), (115, 42991), (157, 43072), (189, 43138), (197, 43153), (203, 43165), (215, 43192), (245, 43249), (250, 43258), (308, 43405), (315, 43420), (333, 43474), (347, 43507), (362, 43546), (366, 43558), (401, 43639), (411, 43657), (412, 43660), (468, 43816), (521, 43927), (527, 43948), (541, 43981),

Gene: Piper2020\_33 Start: 28123, Stop: 29124, Start Num: 95

Candidate Starts for Piper2020\_33:

(Start: 95 @28123 has 260 MA's), (130, 28198), (149, 28231), (168, 28261), (177, 28282), (Start: 214 @28366 has 1 MA's), (223, 28390), (235, 28405), (241, 28417), (286, 28528), (334, 28642), (341, 28660), (357, 28699), (365, 28723), (374, 28759), (388, 28786), (407, 28825), (445, 28933), (468, 28981), (501, 29050), (515, 29080),

Gene: Pippin\_11 Start: 5832, Stop: 6800, Start Num: 111

Candidate Starts for Pippin\_11:

(Start: 111 @5832 has 315 MA's), (Start: 126 @5865 has 6 MA's), (Start: 135 @5883 has 1 MA's), (Start: 138 @5886 has 2 MA's), (266, 6153), (286, 6204), (289, 6216), (327, 6291), (349, 6354), (355, 6366), (361, 6387), (365, 6399), (369, 6417), (374, 6435), (386, 6459), (407, 6498), (437, 6579), (445, 6603), (446, 6606), (448, 6609), (454, 6618), (495, 6705), (531, 6792),

Gene: Pippy\_25 Start: 23661, Stop: 24662, Start Num: 95

Candidate Starts for Pippy\_25:

(Start: 95 @23661 has 260 MA's), (130, 23736), (168, 23799), (177, 23820), (Start: 214 @23904 has 1 MA's), (223, 23928), (235, 23943), (241, 23955), (286, 24066), (341, 24198), (357, 24237), (365, 24261), (388, 24324), (407, 24363), (501, 24588), (515, 24618),

Gene: Piro94\_12 Start: 6941, Stop: 7918, Start Num: 111

Candidate Starts for Piro94\_12:

(Start: 111 @6941 has 315 MA's), (Start: 138 @6995 has 2 MA's), (180, 7052), (247, 7184), (263, 7232), (286, 7289), (302, 7325), (327, 7373), (337, 7412), (366, 7484), (369, 7499), (388, 7544), (397, 7562), (416, 7604), (428, 7652), (434, 7679), (440, 7694), (445, 7712), (447, 7715), (490, 7805),

Gene: Pistachio\_11 Start: 5286, Stop: 6026, Start Num: 224

Candidate Starts for Pistachio\_11:

(Start: 152 @5169 has 16 MA's), (Start: 224 @5286 has 17 MA's), (263, 5373), (286, 5430), (289, 5442), (291, 5445), (304, 5469), (313, 5484), (321, 5502), (333, 5532), (336, 5538), (337, 5547), (347, 5565), (365, 5616), (369, 5634), (401, 5706), (419, 5748), (428, 5775), (434, 5802), (445, 5835), (447, 5838), (465, 5877), (533, 6018),

Gene: Pita2\_12 Start: 6491, Stop: 7459, Start Num: 111

Candidate Starts for Pita2\_12:

(Start: 111 @6491 has 315 MA's), (Start: 126 @6524 has 6 MA's), (Start: 135 @6542 has 1 MA's), (Start: 138 @6545 has 2 MA's), (266, 6812), (286, 6863), (289, 6875), (327, 6950), (349, 7013), (355, 7025), (361, 7046), (369, 7076), (374, 7094), (386, 7118), (407, 7157), (437, 7238), (445, 7262), (446, 7265), (448, 7268), (454, 7277), (495, 7364), (515, 7409), (531, 7451),



Gene: Pivoine\_253 Start: 144496, Stop: 145524, Start Num: 87

Candidate Starts for Pivoine\_253:

(Start: 87 @144496 has 167 MA's), (Start: 105 @144526 has 4 MA's), (Start: 112 @144538 has 111 MA's), (130, 144580), (168, 144643), (177, 144664), (Start: 214 @144748 has 1 MA's), (235, 144790), (241, 144802), (250, 144817), (273, 144886), (286, 144913), (309, 144967), (324, 145012), (326, 145015), (354, 145093), (361, 145114), (407, 145225), (440, 145315), (445, 145333), (480, 145405), (496, 145438),

Gene: Pixie\_31 Start: 26938, Stop: 27726, Start Num: 153

Candidate Starts for Pixie\_31:

(140, 26914), (Start: 153 @26938 has 137 MA's), (175, 26983), (192, 27019), (Start: 214 @27076 has 1 MA's), (218, 27085), (238, 27121), (259, 27175), (271, 27199), (326, 27340), (363, 27445), (369, 27466), (371, 27472), (377, 27490), (444, 27520), (477, 27589), (511, 27661), (523, 27691),

Gene: Pleione\_256 Start: 145259, Stop: 146287, Start Num: 87

Candidate Starts for Pleione\_256:

(Start: 87 @145259 has 167 MA's), (Start: 105 @145289 has 4 MA's), (Start: 112 @145301 has 111 MA's), (130, 145343), (168, 145406), (177, 145427), (Start: 214 @145511 has 1 MA's), (235, 145553), (241, 145565), (250, 145580), (273, 145649), (286, 145676), (309, 145730), (324, 145775), (326, 145778), (354, 145856), (361, 145877), (407, 145988), (440, 146078), (445, 146096), (480, 146168), (496, 146201),

Gene: Plumbus\_33 Start: 27594, Stop: 28595, Start Num: 95

Candidate Starts for Plumbus\_33:

(4, 26973), (6, 27051), (8, 27114), (14, 27153), (22, 27306), (26, 27342), (Start: 95 @27594 has 260 MA's), (130, 27669), (149, 27702), (168, 27732), (177, 27753), (189, 27783), (196, 27795), (Start: 214 @27837 has 1 MA's), (223, 27861), (235, 27876), (241, 27888), (286, 27999), (334, 28113), (341, 28131), (357, 28170), (365, 28194), (374, 28230), (388, 28257), (407, 28296), (445, 28404), (474, 28464), (501, 28521), (515, 28551),

Gene: Pocahontas\_11 Start: 6049, Stop: 7014, Start Num: 101

Candidate Starts for Pocahontas\_11:

(Start: 101 @6049 has 93 MA's), (Start: 126 @6094 has 6 MA's), (Start: 138 @6115 has 2 MA's), (201, 6235), (209, 6250), (Start: 231 @6289 has 2 MA's), (263, 6373), (286, 6430), (291, 6445), (333, 6526), (337, 6541), (347, 6559), (365, 6610), (369, 6628), (388, 6673), (428, 6769), (447, 6832), (465, 6871), (490, 6922),

Gene: Poenanya\_31 Start: 27641, Stop: 28642, Start Num: 95

Candidate Starts for Poenanya\_31:

(43, 27479), (Start: 95 @27641 has 260 MA's), (130, 27716), (149, 27749), (168, 27779), (177, 27800), (189, 27830), (196, 27842), (Start: 214 @27884 has 1 MA's), (223, 27908), (235, 27923), (241, 27935), (286, 28046), (334, 28160), (341, 28178), (357, 28217), (365, 28241), (374, 28277), (388, 28304), (407, 28343), (428, 28391), (445, 28451), (468, 28499), (474, 28511), (496, 28556), (501, 28568), (515, 28598),

Gene: Pokerus\_30 Start: 26411, Stop: 27283, Start Num: 153

Candidate Starts for Pokerus\_30:

(140, 26384), (Start: 153 @26411 has 137 MA's), (Start: 161 @26423 has 1 MA's), (192, 26492), (205, 26519), (Start: 214 @26549 has 1 MA's), (218, 26558), (238, 26594), (242, 26603), (254, 26636), (259, 26654), (274, 26684), (296, 26744), (349, 26879), (363, 26906), (369, 26927), (377, 26951), (405, 27002), (448, 27104), (466, 27140), (477, 27164), (523, 27263), (529, 27272),

Gene: Policronamos\_36 Start: 31884, Stop: 32741, Start Num: 136

Candidate Starts for Policronamos\_36:

(Start: 136 @31884 has 124 MA's), (Start: 156 @31923 has 3 MA's), (166, 31953), (175, 31974), (191, 32010), (205, 32040), (236, 32115), (259, 32163), (262, 32166), (272, 32190), (274, 32193), (280, 32208), (346, 32379), (384, 32478), (393, 32493), (398, 32508), (420, 32514), (444, 32556), (445, 32559), (470, 32613), (511, 32691), (522, 32724),

Gene: Polka14\_32 Start: 28140, Stop: 29141, Start Num: 95

Candidate Starts for Polka14\_32:

(43, 27978), (Start: 95 @28140 has 260 MA's), (130, 28215), (149, 28248), (168, 28278), (177, 28299), (189, 28329), (196, 28341), (Start: 214 @28383 has 1 MA's), (223, 28407), (235, 28422), (241, 28434), (286, 28545), (334, 28659), (341, 28677), (357, 28716), (365, 28740), (374, 28776), (388, 28803), (407, 28842), (428, 28890), (445, 28950), (468, 28998), (474, 29010), (496, 29055), (501, 29067), (515, 29097),

Gene: Pollywog\_31 Start: 27849, Stop: 28850, Start Num: 95

Candidate Starts for Pollywog\_31:

(Start: 95 @27849 has 260 MA's), (130, 27924), (149, 27957), (168, 27987), (177, 28008), (189, 28038), (196, 28050), (Start: 214 @28092 has 1 MA's), (241, 28143), (250, 28158), (286, 28254), (333, 28365), (341, 28386), (357, 28425), (361, 28437), (374, 28485), (388, 28512), (400, 28536), (407, 28551), (445, 28659), (468, 28707), (501, 28776), (515, 28806),

Gene: Polymorphads\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Polymorphads\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (Start: 138 @5932 has 2 MA's), (209, 6067), (218, 6091), (263, 6181), (286, 6238), (320, 6301), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (470, 6700), (477, 6712), (526, 6823),

Gene: Pomar16\_14 Start: 6638, Stop: 7402, Start Num: 229

Candidate Starts for Pomar16\_14:

(Start: 229 @6638 has 16 MA's), (286, 6782), (327, 6869), (334, 6896), (337, 6908), (369, 6995), (428, 7136), (445, 7196), (447, 7199), (464, 7235), (490, 7289), (512, 7337),

Gene: Poompha\_9 Start: 3780, Stop: 4754, Start Num: 111

Candidate Starts for Poompha\_9:

(65, 3741), (Start: 111 @3780 has 315 MA's), (Start: 126 @3813 has 6 MA's), (Start: 138 @3834 has 2 MA's), (222, 4002), (241, 4044), (247, 4059), (286, 4164), (327, 4236), (334, 4263), (336, 4266), (337, 4275), (369, 4362), (428, 4509), (447, 4572), (465, 4611), (486, 4653),

Gene: PopTart\_31 Start: 27830, Stop: 28831, Start Num: 95

Candidate Starts for PopTart\_31:

(Start: 95 @27830 has 260 MA's), (130, 27905), (149, 27938), (168, 27968), (177, 27989), (Start: 214 @28073 has 1 MA's), (223, 28097), (235, 28112), (241, 28124), (286, 28235), (341, 28367), (357, 28406), (365, 28430), (374, 28466), (388, 28493), (407, 28532), (445, 28640), (474, 28700), (496, 28745), (501, 28757), (515, 28787),

Gene: Popcicle\_11 Start: 6049, Stop: 7014, Start Num: 101

Candidate Starts for Popcicle\_11:

(Start: 101 @6049 has 93 MA's), (Start: 126 @6094 has 6 MA's), (Start: 138 @6115 has 2 MA's), (201, 6235), (209, 6250), (Start: 231 @6289 has 2 MA's), (263, 6373), (286, 6430), (291, 6445), (333, 6526), (337, 6541), (347, 6559), (365, 6610), (369, 6628), (388, 6673), (428, 6769), (447, 6832), (465, 6871), (490, 6922),

Gene: Porcelain\_47 Start: 38897, Stop: 39901, Start Num: 49

Candidate Starts for Porcelain\_47:

(Start: 49 @38897 has 10 MA's), (64, 38951), (Start: 88 @39002 has 3 MA's), (Start: 126 @39074 has 6 MA's), (166, 39149), (218, 39263), (222, 39275), (242, 39308), (272, 39377), (277, 39389), (282, 39401), (284, 39404), (299, 39449), (306, 39467), (363, 39629), (367, 39644), (370, 39653), (521, 39854),

Gene: Porky\_35 Start: 31695, Stop: 32552, Start Num: 136

Candidate Starts for Porky\_35:

(Start: 136 @31695 has 124 MA's), (Start: 156 @31734 has 3 MA's), (166, 31764), (175, 31785), (191, 31821), (205, 31851), (236, 31926), (259, 31974), (262, 31977), (272, 32001), (274, 32004), (280, 32019), (346, 32190), (393, 32304), (398, 32319), (420, 32325), (444, 32367), (445, 32370), (470, 32424), (511, 32502), (522, 32535),

Gene: PotatoSplit\_13 Start: 5962, Stop: 6927, Start Num: 101

Candidate Starts for PotatoSplit\_13:

(Start: 101 @5962 has 93 MA's), (Start: 126 @6007 has 6 MA's), (Start: 138 @6028 has 2 MA's), (201, 6148), (263, 6286), (286, 6343), (291, 6358), (333, 6439), (337, 6454), (347, 6472), (365, 6523), (369, 6541), (388, 6586), (428, 6682), (447, 6745), (465, 6784), (490, 6835),

Gene: Pound\_51 Start: 44412, Stop: 45278, Start Num: 91

Candidate Starts for Pound\_51:

(Start: 91 @44412 has 31 MA's), (Start: 104 @44439 has 1 MA's), (158, 44547), (168, 44568), (190, 44613), (202, 44634), (Start: 214 @44655 has 1 MA's), (243, 44709), (266, 44760), (288, 44811), (344, 44961), (360, 45003), (373, 45054), (380, 45072), (460, 45138), (463, 45150), (466, 45159), (479, 45189), (516, 45252),

Gene: Power\_11 Start: 6372, Stop: 7364, Start Num: 111

Candidate Starts for Power\_11:

(Start: 111 @6372 has 315 MA's), (Start: 135 @6423 has 1 MA's), (Start: 138 @6426 has 2 MA's), (155, 6459), (170, 6474), (233, 6594), (235, 6600), (268, 6687), (286, 6732), (341, 6864), (361, 6903), (376, 6951), (417, 7032), (427, 7074), (457, 7158), (458, 7161), (477, 7209), (507, 7275), (538, 7350),

Gene: Priscilla\_31 Start: 27784, Stop: 28785, Start Num: 95

Candidate Starts for Priscilla\_31:

(Start: 95 @27784 has 260 MA's), (130, 27859), (149, 27892), (168, 27922), (177, 27943), (189, 27973), (196, 27985), (Start: 214 @28027 has 1 MA's), (223, 28051), (235, 28066), (241, 28078), (286, 28189), (334, 28303), (341, 28321), (357, 28360), (365, 28384), (374, 28420), (407, 28486), (445, 28594), (468, 28642), (474, 28654), (496, 28699), (501, 28711), (515, 28741),

Gene: Prithvi\_31 Start: 26427, Stop: 27299, Start Num: 153

Candidate Starts for Prithvi\_31:

(140, 26400), (Start: 153 @26427 has 137 MA's), (Start: 161 @26439 has 1 MA's), (192, 26508), (205, 26535), (Start: 214 @26565 has 1 MA's), (218, 26574), (238, 26610), (242, 26619), (254, 26652), (259, 26670), (296, 26760), (349, 26895), (363, 26922), (369, 26943), (377, 26967), (405, 27018), (448, 27120), (466, 27156), (477, 27180), (523, 27279), (529, 27288),

Gene: ProMouse\_9 Start: 6454, Stop: 7422, Start Num: 111

Candidate Starts for ProMouse\_9:

(Start: 111 @6454 has 315 MA's), (Start: 126 @6487 has 6 MA's), (Start: 135 @6505 has 1 MA's), (Start: 138 @6508 has 2 MA's), (266, 6775), (286, 6826), (289, 6838), (327, 6913), (349, 6976), (361, 7009), (369, 7039), (374, 7057), (407, 7120), (437, 7201), (445, 7225), (446, 7228), (448, 7231), (454, 7240), (495, 7327), (515, 7372), (531, 7414),

Gene: Psycho\_31 Start: 27156, Stop: 27917, Start Num: 152

Candidate Starts for Psycho\_31:

(129, 27108), (Start: 152 @27156 has 16 MA's), (Start: 161 @27168 has 1 MA's), (164, 27174), (175, 27201), (192, 27237), (216, 27297), (218, 27303), (234, 27333), (238, 27339), (242, 27348), (254, 27381), (271, 27423), (272, 27426), (277, 27438), (290, 27474), (296, 27489), (308, 27525), (349, 27624), (363, 27651), (369, 27672), (448, 27735), (462, 27759), (470, 27783), (503, 27852), (523, 27897), (529, 27906),

Gene: Pukovnik\_13 Start: 8101, Stop: 9087, Start Num: 111

Candidate Starts for Pukovnik\_13:

(Start: 111 @8101 has 315 MA's), (125, 8131), (Start: 138 @8155 has 2 MA's), (285, 8455), (286, 8461), (325, 8536), (328, 8545), (369, 8656), (413, 8752), (428, 8806), (433, 8830), (435, 8836), (452, 8881), (455, 8887), (477, 8941), (481, 8950),

Gene: Pumbaa\_10 Start: 5856, Stop: 6836, Start Num: 112

Candidate Starts for Pumbaa\_10:

(Start: 112 @5856 has 111 MA's), (125, 5883), (Start: 138 @5907 has 2 MA's), (219, 6072), (263, 6156), (286, 6213), (289, 6225), (320, 6276), (328, 6297), (333, 6318), (345, 6345), (361, 6372), (369, 6402), (428, 6552), (470, 6675), (477, 6687), (511, 6753),

Gene: Pumpkin\_37 Start: 31935, Stop: 32792, Start Num: 136

Candidate Starts for Pumpkin\_37:

(Start: 136 @31935 has 124 MA's), (Start: 156 @31974 has 3 MA's), (166, 32004), (175, 32025), (191, 32061), (205, 32091), (236, 32166), (259, 32214), (262, 32217), (272, 32241), (274, 32244), (280, 32259), (346, 32430), (393, 32544), (398, 32559), (420, 32565), (444, 32607), (445, 32610), (470, 32664), (511, 32742), (522, 32775),

Gene: Puppy\_11 Start: 5358, Stop: 6098, Start Num: 224

Candidate Starts for Puppy\_11:

(Start: 152 @5241 has 16 MA's), (Start: 224 @5358 has 17 MA's), (263, 5445), (286, 5502), (289, 5514), (291, 5517), (304, 5541), (313, 5556), (321, 5574), (333, 5604), (336, 5610), (337, 5619), (347, 5637), (365, 5688), (369, 5706), (401, 5778), (419, 5820), (428, 5847), (434, 5874), (445, 5907), (447, 5910), (465, 5949), (533, 6090),

Gene: PurduePete\_253 Start: 145973, Stop: 147001, Start Num: 87

Candidate Starts for PurduePete\_253:

(Start: 87 @145973 has 167 MA's), (Start: 105 @146003 has 4 MA's), (Start: 112 @146015 has 111 MA's), (130, 146057), (168, 146120), (177, 146141), (Start: 214 @146225 has 1 MA's), (235, 146267), (241, 146279), (250, 146294), (273, 146363), (286, 146390), (309, 146444), (324, 146489), (326, 146492), (354, 146570), (361, 146591), (407, 146702), (440, 146792), (445, 146810), (480, 146882), (496, 146915),

Gene: PurpleHaze\_12 Start: 6032, Stop: 6997, Start Num: 101

Candidate Starts for PurpleHaze\_12:

(Start: 101 @6032 has 93 MA's), (Start: 138 @6098 has 2 MA's), (173, 6152), (208, 6230), (263, 6353), (286, 6410), (327, 6482), (337, 6521), (347, 6539), (369, 6608), (419, 6725), (428, 6752), (447, 6815), (490, 6905), (493, 6911),

Gene: QBert\_244 Start: 142846, Stop: 143874, Start Num: 87

Candidate Starts for QBert\_244:

(Start: 87 @142846 has 167 MA's), (Start: 105 @142876 has 4 MA's), (Start: 112 @142888 has 111 MA's), (130, 142930), (168, 142993), (177, 143014), (Start: 214 @143098 has 1 MA's), (235, 143140), (241, 143152), (250, 143167), (273, 143236), (286, 143263), (309, 143317), (324, 143362), (326,

143365), (354, 143443), (361, 143464), (407, 143575), (440, 143665), (445, 143683), (480, 143755), (496, 143788),

Gene: QTRlifeCrisis\_10 Start: 6459, Stop: 7427, Start Num: 111

Candidate Starts for QTRlifeCrisis\_10:

(Start: 111 @6459 has 315 MA's), (Start: 126 @6492 has 6 MA's), (Start: 135 @6510 has 1 MA's), (Start: 138 @6513 has 2 MA's), (235, 6702), (266, 6780), (273, 6798), (286, 6831), (289, 6843), (327, 6918), (349, 6981), (355, 6993), (361, 7014), (365, 7026), (369, 7044), (374, 7062), (386, 7086), (407, 7125), (437, 7206), (445, 7230), (446, 7233), (448, 7236), (454, 7245), (495, 7332), (515, 7377), (531, 7419),

Gene: Quallification\_36 Start: 32064, Stop: 32921, Start Num: 136

Candidate Starts for Quallification\_36:

(Start: 136 @32064 has 124 MA's), (Start: 156 @32103 has 3 MA's), (166, 32133), (175, 32154), (191, 32190), (205, 32220), (236, 32295), (259, 32343), (262, 32346), (272, 32370), (274, 32373), (280, 32388), (346, 32559), (393, 32673), (398, 32688), (420, 32694), (444, 32736), (445, 32739), (470, 32793), (511, 32871), (522, 32904),

Gene: Quasimodo\_255 Start: 144832, Stop: 145860, Start Num: 87

Candidate Starts for Quasimodo\_255:

(Start: 87 @144832 has 167 MA's), (Start: 105 @144862 has 4 MA's), (Start: 112 @144874 has 111 MA's), (130, 144916), (168, 144979), (177, 145000), (Start: 214 @145084 has 1 MA's), (235, 145126), (241, 145138), (250, 145153), (273, 145222), (286, 145249), (309, 145303), (324, 145348), (326, 145351), (354, 145429), (361, 145450), (407, 145561), (440, 145651), (445, 145669), (480, 145741), (496, 145774),

Gene: Quby\_26 Start: 25264, Stop: 26286, Start Num: 96

Candidate Starts for Quby\_26:

(Start: 96 @25264 has 29 MA's), (Start: 152 @25375 has 16 MA's), (176, 25408), (179, 25414), (182, 25420), (222, 25522), (223, 25525), (241, 25564), (250, 25585), (263, 25627), (286, 25684), (334, 25798), (369, 25903), (404, 25984), (406, 25987), (425, 26032), (446, 26095), (454, 26107), (490, 26182), (501, 26209),

Gene: QueenB2\_11 Start: 6448, Stop: 7431, Start Num: 111

Candidate Starts for QueenB2\_11:

(82, 6406), (Start: 111 @6448 has 315 MA's), (125, 6478), (Start: 126 @6481 has 6 MA's), (Start: 135 @6499 has 1 MA's), (Start: 138 @6502 has 2 MA's), (257, 6739), (263, 6751), (286, 6808), (289, 6820), (326, 6886), (369, 6997), (428, 7144), (461, 7237), (477, 7279), (511, 7351), (530, 7405),

Gene: QueenBeesly\_11 Start: 6372, Stop: 7364, Start Num: 111

Candidate Starts for QueenBeesly\_11:

(Start: 111 @6372 has 315 MA's), (Start: 135 @6423 has 1 MA's), (Start: 138 @6426 has 2 MA's), (155, 6459), (170, 6474), (233, 6594), (235, 6600), (268, 6687), (286, 6732), (341, 6864), (361, 6903), (376, 6951), (417, 7032), (427, 7074), (458, 7161), (477, 7209), (507, 7275), (538, 7350),

Gene: QuickMath\_32 Start: 28868, Stop: 29869, Start Num: 95

Candidate Starts for QuickMath\_32:

(Start: 95 @28868 has 260 MA's), (130, 28943), (149, 28976), (168, 29006), (177, 29027), (189, 29057), (196, 29069), (Start: 214 @29111 has 1 MA's), (223, 29135), (235, 29150), (241, 29162), (286, 29273), (334, 29387), (341, 29405), (357, 29444), (365, 29468), (374, 29504), (388, 29531), (407, 29570), (445, 29678), (468, 29726), (474, 29738), (496, 29783), (501, 29795), (515, 29825),

Gene: Quico\_32 Start: 27328, Stop: 28329, Start Num: 95

Candidate Starts for Quico\_32:

(Start: 95 @27328 has 260 MA's), (130, 27403), (149, 27436), (168, 27466), (177, 27487), (Start: 214 @27571 has 1 MA's), (223, 27595), (235, 27610), (241, 27622), (286, 27733), (334, 27847), (341, 27865), (357, 27904), (365, 27928), (374, 27964), (388, 27991), (407, 28030), (428, 28078), (445, 28138), (468, 28186), (474, 28198), (496, 28243), (501, 28255), (515, 28285),

Gene: QuincyRose\_30 Start: 26474, Stop: 27346, Start Num: 153

Candidate Starts for QuincyRose\_30:

(140, 26447), (Start: 153 @26474 has 137 MA's), (Start: 161 @26486 has 1 MA's), (192, 26555), (205, 26582), (Start: 214 @26612 has 1 MA's), (218, 26621), (238, 26657), (242, 26666), (254, 26699), (259, 26717), (274, 26747), (296, 26807), (349, 26942), (363, 26969), (369, 26990), (377, 27014), (405, 27065), (448, 27167), (466, 27203), (477, 27227), (523, 27326), (529, 27335),

Gene: QuinnKiro\_10 Start: 6052, Stop: 7017, Start Num: 101

Candidate Starts for QuinnKiro\_10:

(Start: 101 @6052 has 93 MA's), (Start: 126 @6097 has 6 MA's), (Start: 138 @6118 has 2 MA's), (201, 6238), (209, 6253), (Start: 231 @6292 has 2 MA's), (263, 6376), (286, 6433), (291, 6448), (333, 6529), (337, 6544), (347, 6562), (365, 6613), (369, 6631), (388, 6676), (428, 6772), (447, 6835), (465, 6874), (490, 6925),

Gene: Quokka\_9 Start: 5599, Stop: 6363, Start Num: 229

Candidate Starts for Quokka\_9:

(Start: 229 @5599 has 16 MA's), (286, 5743), (334, 5857), (336, 5860), (337, 5869), (365, 5938), (369, 5956), (397, 6019), (428, 6097), (434, 6124), (440, 6139), (445, 6157), (447, 6160), (490, 6250), (518, 6319),

Gene: Rabinovish\_245 Start: 143336, Stop: 144364, Start Num: 87

Candidate Starts for Rabinovish\_245:

(Start: 87 @143336 has 167 MA's), (Start: 105 @143366 has 4 MA's), (Start: 112 @143378 has 111 MA's), (130, 143420), (168, 143483), (177, 143504), (Start: 214 @143588 has 1 MA's), (235, 143630), (241, 143642), (250, 143657), (273, 143726), (286, 143753), (309, 143807), (324, 143852), (326, 143855), (354, 143933), (361, 143954), (407, 144065), (440, 144155), (445, 144173), (480, 144245), (496, 144278),

Gene: Rachaly\_14 Start: 8129, Stop: 9115, Start Num: 111

Candidate Starts for Rachaly\_14:

(Start: 111 @8129 has 315 MA's), (125, 8159), (Start: 135 @8180 has 1 MA's), (Start: 138 @8183 has 2 MA's), (155, 8216), (263, 8432), (285, 8483), (286, 8489), (289, 8501), (301, 8522), (345, 8612), (369, 8678), (428, 8828), (432, 8849), (477, 8963), (511, 9035),

Gene: Radiance\_31 Start: 27692, Stop: 28693, Start Num: 95

Candidate Starts for Radiance\_31:

(Start: 95 @27692 has 260 MA's), (130, 27767), (149, 27800), (168, 27830), (177, 27851), (189, 27881), (196, 27893), (Start: 214 @27935 has 1 MA's), (223, 27959), (235, 27974), (241, 27986), (286, 28097), (334, 28211), (341, 28229), (357, 28268), (365, 28292), (374, 28328), (407, 28394), (445, 28502), (468, 28550), (474, 28562), (496, 28607), (501, 28619), (515, 28649),

Gene: RagingRooster\_47 Start: 41537, Stop: 42601, Start Num: 84

Candidate Starts for RagingRooster\_47:

(Start: 84 @41537 has 45 MA's), (115, 41600), (157, 41681), (189, 41747), (197, 41762), (203, 41774), (215, 41801), (245, 41858), (250, 41867), (308, 42014), (315, 42029), (333, 42083), (347, 42116), (362, 42155), (366, 42167), (401, 42248), (411, 42266), (412, 42269), (428, 42314), (468, 42425), (521, 42536), (527, 42557), (541, 42590),

Gene: Rahel\_254 Start: 144934, Stop: 145962, Start Num: 87

Candidate Starts for Rahel\_254:

(Start: 87 @144934 has 167 MA's), (Start: 105 @144964 has 4 MA's), (Start: 112 @144976 has 111 MA's), (130, 145018), (168, 145081), (177, 145102), (Start: 214 @145186 has 1 MA's), (235, 145228), (241, 145240), (250, 145255), (273, 145324), (286, 145351), (309, 145405), (324, 145450), (326, 145453), (354, 145531), (361, 145552), (407, 145663), (440, 145753), (445, 145771), (480, 145843), (496, 145876),

Gene: Rajelicia\_9 Start: 5630, Stop: 6598, Start Num: 111

Candidate Starts for Rajelicia\_9:

(Start: 111 @5630 has 315 MA's), (Start: 126 @5663 has 6 MA's), (Start: 135 @5681 has 1 MA's), (Start: 138 @5684 has 2 MA's), (266, 5951), (286, 6002), (289, 6014), (327, 6089), (349, 6152), (355, 6164), (361, 6185), (365, 6197), (369, 6215), (374, 6233), (386, 6257), (407, 6296), (437, 6377), (445, 6401), (446, 6404), (448, 6407), (454, 6416), (495, 6503), (531, 6590),

Gene: Rakim\_36 Start: 31964, Stop: 32821, Start Num: 136

Candidate Starts for Rakim\_36:

(Start: 136 @31964 has 124 MA's), (Start: 156 @32003 has 3 MA's), (166, 32033), (175, 32054), (191, 32090), (205, 32120), (236, 32195), (259, 32243), (262, 32246), (272, 32270), (274, 32273), (280, 32288), (346, 32459), (393, 32573), (398, 32588), (420, 32594), (444, 32636), (445, 32639), (470, 32693), (511, 32771), (522, 32804),

Gene: Ramen\_31 Start: 26460, Stop: 27332, Start Num: 153

Candidate Starts for Ramen\_31:

(140, 26433), (Start: 153 @26460 has 137 MA's), (Start: 161 @26472 has 1 MA's), (192, 26541), (205, 26568), (Start: 214 @26598 has 1 MA's), (218, 26607), (238, 26643), (242, 26652), (254, 26685), (259, 26703), (274, 26733), (296, 26793), (349, 26928), (363, 26955), (369, 26976), (377, 27000), (448, 27153), (466, 27189), (523, 27312), (529, 27321),

Gene: Ramsey\_34 Start: 28342, Stop: 29358, Start Num: 95

Candidate Starts for Ramsey\_34:

(29, 28111), (31, 28114), (37, 28162), (74, 28297), (78, 28306), (Start: 95 @28342 has 260 MA's), (160, 28474), (168, 28495), (177, 28516), (189, 28546), (196, 28558), (Start: 214 @28600 has 1 MA's), (223, 28624), (235, 28639), (241, 28651), (250, 28666), (286, 28762), (334, 28876), (341, 28894), (357, 28933), (365, 28957), (374, 28993), (388, 29020), (400, 29044), (407, 29059), (445, 29167), (468, 29215), (501, 29284), (515, 29314),

Gene: Rando14\_31 Start: 25909, Stop: 26766, Start Num: 153

Candidate Starts for Rando14\_31:

(Start: 153 @25909 has 137 MA's), (Start: 161 @25921 has 1 MA's), (164, 25927), (173, 25948), (175, 25954), (188, 25984), (Start: 214 @26044 has 1 MA's), (218, 26053), (222, 26065), (242, 26098), (254, 26131), (274, 26179), (290, 26224), (326, 26311), (363, 26401), (369, 26422), (377, 26446), (391, 26473), (394, 26482), (405, 26497), (425, 26524), (448, 26584), (449, 26587), (466, 26620), (477, 26644), (503, 26701), (521, 26737), (523, 26746),

Gene: Rapunzel97\_31 Start: 26461, Stop: 27333, Start Num: 153

Candidate Starts for Rapunzel97\_31:

(140, 26434), (Start: 153 @26461 has 137 MA's), (Start: 161 @26473 has 1 MA's), (192, 26542), (205, 26569), (Start: 214 @26599 has 1 MA's), (218, 26608), (238, 26644), (242, 26653), (254, 26686), (259, 26704), (274, 26734), (295, 26791), (296, 26794), (349, 26929), (363, 26956), (369, 26977), (377, 27001), (405, 27052), (448, 27154), (466, 27190), (477, 27214), (523, 27313), (529, 27322),

Gene: Reba\_13 Start: 5704, Stop: 6669, Start Num: 101

Candidate Starts for Reba\_13:

(Start: 101 @5704 has 93 MA's), (Start: 138 @5770 has 2 MA's), (173, 5824), (208, 5902), (263, 6025), (286, 6082), (327, 6154), (337, 6193), (347, 6211), (369, 6280), (419, 6397), (428, 6424), (447, 6487), (490, 6577), (493, 6583),

Gene: Rebeuca\_11 Start: 5885, Stop: 6859, Start Num: 111

Candidate Starts for Rebeuca\_11:

(Start: 111 @5885 has 315 MA's), (Start: 138 @5939 has 2 MA's), (216, 6092), (286, 6254), (291, 6269), (302, 6290), (333, 6362), (336, 6368), (337, 6377), (365, 6446), (369, 6464), (388, 6509), (397, 6527), (428, 6605), (434, 6632), (440, 6647), (447, 6668), (465, 6707), (490, 6758), (508, 6800), (534, 6851),

Gene: RedBird\_31 Start: 27495, Stop: 28496, Start Num: 95

Candidate Starts for RedBird\_31:

(Start: 95 @27495 has 260 MA's), (Start: 105 @27516 has 4 MA's), (130, 27570), (149, 27603), (168, 27633), (177, 27654), (189, 27684), (196, 27696), (Start: 214 @27738 has 1 MA's), (223, 27762), (235, 27777), (241, 27789), (286, 27900), (334, 28014), (341, 28032), (357, 28071), (365, 28095), (374, 28131), (388, 28158), (407, 28197), (428, 28245), (445, 28305), (468, 28353), (474, 28365), (496, 28410), (501, 28422), (515, 28452),

Gene: RedRock\_14 Start: 8396, Stop: 9373, Start Num: 111

Candidate Starts for RedRock\_14:

(85, 8351), (Start: 111 @8396 has 315 MA's), (Start: 138 @8450 has 2 MA's), (247, 8639), (257, 8675), (263, 8687), (286, 8744), (302, 8780), (327, 8828), (337, 8867), (365, 8936), (369, 8954), (388, 8999), (397, 9017), (416, 9059), (428, 9107), (434, 9134), (440, 9149), (447, 9170), (464, 9206), (465, 9209), (486, 9251), (490, 9260),

Gene: Redno2\_47 Start: 39617, Stop: 40489, Start Num: 91

Candidate Starts for Redno2\_47:

(Start: 91 @39617 has 31 MA's), (Start: 104 @39644 has 1 MA's), (168, 39773), (190, 39818), (202, 39839), (Start: 214 @39860 has 1 MA's), (243, 39914), (279, 39995), (379, 40274), (380, 40277), (439, 40301), (452, 40337), (462, 40352), (466, 40364), (475, 40385),

Gene: Refuge\_14 Start: 8748, Stop: 9725, Start Num: 111

Candidate Starts for Refuge\_14:

(Start: 111 @8748 has 315 MA's), (Start: 138 @8802 has 2 MA's), (177, 8862), (203, 8922), (261, 9060), (264, 9069), (286, 9123), (291, 9138), (333, 9231), (336, 9237), (337, 9246), (369, 9333), (428, 9474), (447, 9537), (475, 9600), (486, 9618), (508, 9669),

Gene: Reindeer\_38 Start: 32261, Stop: 33232, Start Num: 58

Candidate Starts for Reindeer\_38:

(Start: 51 @32246 has 22 MA's), (Start: 58 @32261 has 13 MA's), (63, 32285), (69, 32300), (71, 32303), (93, 32351), (Start: 114 @32393 has 13 MA's), (134, 32438), (137, 32441), (150, 32465), (158, 32483), (162, 32495), (166, 32504), (191, 32561), (194, 32564), (206, 32588), (218, 32615), (236, 32648), (257, 32699), (272, 32729), (276, 32738), (277, 32741), (310, 32828), (317, 32843), (324, 32861), (371, 32996), (372, 32999), (444, 33071), (448, 33080), (462, 33104), (466, 33116), (494, 33170), (509, 33203),

Gene: Relief\_10 Start: 5882, Stop: 6862, Start Num: 112

Candidate Starts for Relief\_10:

(Start: 112 @5882 has 111 MA's), (Start: 114 @5885 has 13 MA's), (125, 5909), (Start: 135 @5930 has 1 MA's), (Start: 138 @5933 has 2 MA's), (263, 6182), (286, 6239), (328, 6323), (333, 6344), (345,



6371), (369, 6428), (428, 6578), (466, 6689), (470, 6701), (477, 6713), (511, 6779),

Gene: Renaud18\_31 Start: 27722, Stop: 28723, Start Num: 95

Candidate Starts for Renaud18\_31:

(Start: 95 @27722 has 260 MA's), (Start: 105 @27743 has 4 MA's), (Start: 112 @27755 has 111 MA's), (130, 27797), (168, 27860), (177, 27881), (189, 27911), (Start: 214 @27965 has 1 MA's), (223, 27989), (241, 28016), (250, 28031), (286, 28127), (333, 28238), (341, 28259), (357, 28298), (361, 28310), (374, 28358), (388, 28385), (400, 28409), (407, 28424), (445, 28532), (468, 28580), (501, 28649), (515, 28679),

Gene: Reptar3000\_32 Start: 27365, Stop: 28156, Start Num: 143

Candidate Starts for Reptar3000\_32:

(92, 27263), (100, 27281), (113, 27308), (Start: 143 @27365 has 20 MA's), (175, 27431), (185, 27455), (196, 27476), (200, 27485), (Start: 214 @27524 has 1 MA's), (218, 27533), (238, 27569), (242, 27578), (276, 27650), (349, 27857), (363, 27884), (369, 27905), (377, 27929), (470, 28007), (477, 28019), (511, 28091),

Gene: ResDef\_11 Start: 6052, Stop: 7017, Start Num: 101

Candidate Starts for ResDef\_11:

(Start: 101 @6052 has 93 MA's), (Start: 126 @6097 has 6 MA's), (Start: 138 @6118 has 2 MA's), (201, 6238), (209, 6253), (Start: 231 @6292 has 2 MA's), (263, 6376), (286, 6433), (291, 6448), (333, 6529), (337, 6544), (347, 6562), (365, 6613), (369, 6631), (388, 6676), (428, 6772), (447, 6835), (465, 6874), (490, 6925),

Gene: Retro23\_11 Start: 6523, Stop: 7515, Start Num: 111

Candidate Starts for Retro23\_11:

(Start: 111 @6523 has 315 MA's), (Start: 126 @6556 has 6 MA's), (Start: 135 @6574 has 1 MA's), (Start: 138 @6577 has 2 MA's), (155, 6610), (170, 6625), (233, 6745), (235, 6751), (247, 6778), (268, 6838), (286, 6883), (341, 7015), (361, 7054), (376, 7102), (417, 7183), (427, 7225), (458, 7312), (470, 7348), (485, 7372), (502, 7414), (507, 7426), (538, 7501),

Gene: Rey\_43 Start: 33168, Stop: 34145, Start Num: 56

Candidate Starts for Rey\_43:

(Start: 56 @33168 has 7 MA's), (63, 33195), (Start: 95 @33267 has 260 MA's), (Start: 114 @33303 has 13 MA's), (134, 33348), (166, 33414), (206, 33498), (218, 33525), (259, 33612), (276, 33648), (277, 33651), (310, 33738), (317, 33753), (339, 33819), (371, 33906), (372, 33909), (374, 33918), (379, 33930), (384, 33939), (394, 33960), (479, 34056),

Gene: RhynO\_11 Start: 5848, Stop: 6822, Start Num: 111

Candidate Starts for RhynO\_11:

(Start: 111 @5848 has 315 MA's), (Start: 138 @5902 has 2 MA's), (170, 5950), (216, 6055), (286, 6217), (291, 6232), (302, 6253), (333, 6325), (337, 6340), (365, 6409), (369, 6427), (388, 6472), (397, 6490), (428, 6568), (434, 6595), (440, 6610), (447, 6631), (465, 6670), (490, 6721), (508, 6763), (534, 6814),

Gene: Rhynn\_10 Start: 6060, Stop: 7028, Start Num: 111

Candidate Starts for Rhynn\_10:

(Start: 111 @6060 has 315 MA's), (Start: 126 @6093 has 6 MA's), (Start: 135 @6111 has 1 MA's), (Start: 138 @6114 has 2 MA's), (266, 6381), (286, 6432), (289, 6444), (327, 6519), (349, 6582), (355, 6594), (361, 6615), (369, 6645), (374, 6663), (386, 6687), (407, 6726), (437, 6807), (445, 6831), (446, 6834), (448, 6837), (454, 6846), (459, 6849), (495, 6933), (515, 6978), (531, 7020),

Gene: Rialto\_35 Start: 29850, Stop: 30851, Start Num: 95

Candidate Starts for Rialto\_35:

(Start: 95 @29850 has 260 MA's), (130, 29925), (149, 29958), (168, 29988), (177, 30009), (Start: 214 @30093 has 1 MA's), (223, 30117), (235, 30132), (241, 30144), (286, 30255), (334, 30369), (341, 30387), (357, 30426), (365, 30450), (374, 30486), (388, 30513), (407, 30552), (428, 30600), (445, 30660), (474, 30720), (495, 30762), (496, 30765), (501, 30777), (515, 30807),

Gene: Richo\_31 Start: 25850, Stop: 26611, Start Num: 153

Candidate Starts for Richo\_31:

(140, 25820), (Start: 153 @25850 has 137 MA's), (175, 25895), (192, 25931), (216, 25991), (218, 25997), (234, 26027), (238, 26033), (242, 26042), (254, 26075), (271, 26117), (290, 26168), (296, 26183), (349, 26318), (363, 26345), (369, 26366), (371, 26372), (377, 26390), (445, 26423), (448, 26429), (470, 26477), (505, 26549), (523, 26591), (529, 26600),

Gene: RidgeCB\_10 Start: 5587, Stop: 6555, Start Num: 111

Candidate Starts for RidgeCB\_10:

(Start: 111 @5587 has 315 MA's), (Start: 126 @5620 has 6 MA's), (Start: 135 @5638 has 1 MA's), (Start: 138 @5641 has 2 MA's), (266, 5908), (273, 5926), (286, 5959), (289, 5971), (327, 6046), (349, 6109), (355, 6121), (361, 6142), (365, 6154), (369, 6172), (373, 6187), (374, 6190), (407, 6253), (437, 6334), (445, 6358), (446, 6361), (448, 6364), (454, 6373), (495, 6460), (531, 6547),

Gene: Rimmer\_34 Start: 31424, Stop: 32281, Start Num: 136

Candidate Starts for Rimmer\_34:

(Start: 136 @31424 has 124 MA's), (Start: 156 @31463 has 3 MA's), (166, 31493), (175, 31514), (191, 31550), (205, 31580), (236, 31655), (259, 31703), (262, 31706), (272, 31730), (274, 31733), (280, 31748), (346, 31919), (384, 32018), (393, 32033), (398, 32048), (420, 32054), (444, 32096), (445, 32099), (470, 32153), (511, 32231), (522, 32264),

Gene: Ringer\_10 Start: 6258, Stop: 7226, Start Num: 111

Candidate Starts for Ringer\_10:

(Start: 111 @6258 has 315 MA's), (Start: 126 @6291 has 6 MA's), (Start: 135 @6309 has 1 MA's), (Start: 138 @6312 has 2 MA's), (266, 6579), (286, 6630), (289, 6642), (327, 6717), (349, 6780), (361, 6813), (365, 6825), (369, 6843), (374, 6861), (407, 6924), (437, 7005), (445, 7029), (446, 7032), (448, 7035), (454, 7044), (495, 7131), (515, 7176), (531, 7218),

Gene: Rinke\_49 Start: 43767, Stop: 44765, Start Num: 110

Candidate Starts for Rinke\_49:

(Start: 110 @43767 has 4 MA's), (125, 43797), (Start: 135 @43818 has 1 MA's), (Start: 138 @43821 has 2 MA's), (186, 43908), (209, 43956), (219, 43986), (237, 43998), (273, 44097), (285, 44121), (286, 44127), (302, 44163), (305, 44169), (320, 44190), (326, 44205), (328, 44211), (345, 44259), (369, 44322), (413, 44418), (432, 44493), (433, 44496), (477, 44607), (479, 44613), (494, 44637),

Gene: Riparian\_39 Start: 34810, Stop: 35859, Start Num: 90

Candidate Starts for Riparian\_39:

(Start: 90 @34810 has 9 MA's), (130, 34894), (Start: 138 @34903 has 2 MA's), (150, 34927), (168, 34957), (177, 34978), (193, 35014), (203, 35035), (208, 35044), (Start: 214 @35062 has 1 MA's), (250, 35131), (310, 35284), (340, 35383), (352, 35410), (374, 35482), (407, 35536), (465, 35689), (476, 35713), (480, 35722), (498, 35764), (501, 35767), (504, 35773), (510, 35782), (524, 35818), (527, 35827), (534, 35836),

Gene: Rita\_32 Start: 27771, Stop: 28772, Start Num: 95

Candidate Starts for Rita\_32:

(Start: 95 @27771 has 260 MA's), (130, 27846), (149, 27879), (168, 27909), (177, 27930), (Start: 214 @28014 has 1 MA's), (241, 28065), (286, 28176), (333, 28287), (341, 28308), (357, 28347), (365,

28371), (374, 28407), (388, 28434), (400, 28458), (407, 28473), (445, 28581), (468, 28629), (501, 28698), (515, 28728),

Gene: Rita1961\_47 Start: 41520, Stop: 42584, Start Num: 84

Candidate Starts for Rita1961\_47:

(Start: 84 @41520 has 45 MA's), (115, 41583), (157, 41664), (189, 41730), (197, 41745), (203, 41757), (215, 41784), (245, 41841), (250, 41850), (308, 41997), (315, 42012), (333, 42066), (347, 42099), (362, 42138), (366, 42150), (401, 42231), (411, 42249), (412, 42252), (468, 42408), (521, 42519), (527, 42540), (541, 42573),

Gene: RitaG\_32 Start: 27960, Stop: 28961, Start Num: 95

Candidate Starts for RitaG\_32:

(Start: 95 @27960 has 260 MA's), (130, 28035), (149, 28068), (168, 28098), (177, 28119), (Start: 214 @28203 has 1 MA's), (223, 28227), (235, 28242), (241, 28254), (286, 28365), (334, 28479), (341, 28497), (357, 28536), (365, 28560), (374, 28596), (388, 28623), (407, 28662), (445, 28770), (474, 28830), (501, 28887), (515, 28917),

Gene: RiverMonster\_35 Start: 31613, Stop: 32470, Start Num: 136

Candidate Starts for RiverMonster\_35:

(Start: 136 @31613 has 124 MA's), (Start: 156 @31652 has 3 MA's), (166, 31682), (175, 31703), (191, 31739), (205, 31769), (236, 31844), (259, 31892), (262, 31895), (272, 31919), (274, 31922), (280, 31937), (346, 32108), (393, 32222), (398, 32237), (420, 32243), (444, 32285), (445, 32288), (470, 32342), (511, 32420), (522, 32453),

Gene: Rizal\_241 Start: 142749, Stop: 143777, Start Num: 87

Candidate Starts for Rizal\_241:

(Start: 87 @142749 has 167 MA's), (Start: 105 @142779 has 4 MA's), (Start: 112 @142791 has 111 MA's), (130, 142833), (168, 142896), (177, 142917), (Start: 214 @143001 has 1 MA's), (235, 143043), (241, 143055), (250, 143070), (273, 143139), (286, 143166), (309, 143220), (324, 143265), (326, 143268), (354, 143346), (361, 143367), (407, 143478), (440, 143568), (445, 143586), (480, 143658), (496, 143691),

Gene: RoMag\_247 Start: 144530, Stop: 145558, Start Num: 87

Candidate Starts for RoMag\_247:

(Start: 87 @144530 has 167 MA's), (Start: 105 @144560 has 4 MA's), (Start: 112 @144572 has 111 MA's), (130, 144614), (168, 144677), (177, 144698), (Start: 214 @144782 has 1 MA's), (235, 144824), (241, 144836), (250, 144851), (273, 144920), (286, 144947), (309, 145001), (324, 145046), (326, 145049), (354, 145127), (361, 145148), (407, 145259), (440, 145349), (445, 145367), (480, 145439), (496, 145472),

Gene: Rockne\_31 Start: 27499, Stop: 28500, Start Num: 95

Candidate Starts for Rockne\_31:

(26, 27247), (Start: 56 @27400 has 7 MA's), (Start: 95 @27499 has 260 MA's), (Start: 105 @27520 has 4 MA's), (Start: 112 @27532 has 111 MA's), (130, 27574), (168, 27637), (177, 27658), (189, 27688), (Start: 214 @27742 has 1 MA's), (223, 27766), (241, 27793), (286, 27904), (334, 28018), (341, 28036), (357, 28075), (365, 28099), (374, 28135), (388, 28162), (407, 28201), (428, 28249), (445, 28309), (474, 28369), (501, 28426), (515, 28456),

Gene: Rockstar\_10 Start: 5610, Stop: 6350, Start Num: 224

Candidate Starts for Rockstar\_10:

(Start: 224 @5610 has 17 MA's), (263, 5697), (286, 5754), (289, 5766), (291, 5769), (304, 5793), (313, 5808), (333, 5856), (336, 5862), (347, 5889), (369, 5958), (401, 6030), (404, 6042), (419, 6072), (428, 6099), (434, 6126), (445, 6159), (447, 6162), (465, 6201), (491, 6255), (533, 6342),

Gene: RockyHorror\_32 Start: 27441, Stop: 28442, Start Num: 95

Candidate Starts for RockyHorror\_32:

(8, 26961), (14, 27000), (22, 27153), (26, 27189), (Start: 95 @27441 has 260 MA's), (130, 27516), (149, 27549), (168, 27579), (177, 27600), (Start: 214 @27684 has 1 MA's), (223, 27708), (235, 27723), (241, 27735), (286, 27846), (334, 27960), (341, 27978), (357, 28017), (365, 28041), (374, 28077), (388, 28104), (407, 28143), (445, 28251), (474, 28311), (496, 28356), (501, 28368), (515, 28398),

Gene: Rohr\_11 Start: 6266, Stop: 7234, Start Num: 111

Candidate Starts for Rohr\_11:

(Start: 111 @6266 has 315 MA's), (Start: 126 @6299 has 6 MA's), (Start: 135 @6317 has 1 MA's), (Start: 138 @6320 has 2 MA's), (266, 6587), (286, 6638), (289, 6650), (327, 6725), (349, 6788), (361, 6821), (365, 6833), (369, 6851), (373, 6866), (374, 6869), (386, 6893), (407, 6932), (437, 7013), (445, 7037), (446, 7040), (448, 7043), (454, 7052), (495, 7139), (515, 7184), (531, 7226),

Gene: RomaT\_47 Start: 42310, Stop: 43374, Start Num: 84

Candidate Starts for RomaT\_47:

(Start: 84 @42310 has 45 MA's), (115, 42373), (157, 42454), (189, 42520), (197, 42535), (203, 42547), (215, 42574), (245, 42631), (250, 42640), (308, 42787), (315, 42802), (333, 42856), (347, 42889), (362, 42928), (366, 42940), (401, 43021), (411, 43039), (412, 43042), (428, 43087), (468, 43198), (521, 43309), (527, 43330), (541, 43363),

Gene: Romney\_10 Start: 5880, Stop: 6860, Start Num: 112

Candidate Starts for Romney\_10:

(Start: 112 @5880 has 111 MA's), (Start: 114 @5883 has 13 MA's), (125, 5907), (Start: 135 @5928 has 1 MA's), (Start: 138 @5931 has 2 MA's), (263, 6180), (286, 6237), (328, 6321), (333, 6342), (345, 6369), (369, 6426), (428, 6576), (466, 6687), (470, 6699), (477, 6711), (511, 6777),

Gene: Ronan\_248 Start: 142911, Stop: 143939, Start Num: 87

Candidate Starts for Ronan\_248:

(Start: 87 @142911 has 167 MA's), (Start: 105 @142941 has 4 MA's), (130, 142995), (168, 143058), (177, 143079), (Start: 214 @143163 has 1 MA's), (235, 143205), (241, 143217), (250, 143232), (273, 143301), (286, 143328), (309, 143382), (324, 143427), (326, 143430), (354, 143508), (361, 143529), (407, 143640), (440, 143730), (445, 143748), (480, 143820), (496, 143853),

Gene: Roosevelt\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Roosevelt\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Roots515\_255 Start: 146075, Stop: 147103, Start Num: 87

Candidate Starts for Roots515\_255:

(Start: 87 @146075 has 167 MA's), (Start: 105 @146105 has 4 MA's), (Start: 112 @146117 has 111 MA's), (130, 146159), (168, 146222), (177, 146243), (Start: 214 @146327 has 1 MA's), (235, 146369), (241, 146381), (250, 146396), (273, 146465), (286, 146492), (309, 146546), (324, 146591), (326, 146594), (354, 146672), (361, 146693), (407, 146804), (440, 146894), (445, 146912), (480, 146984), (496, 147017),

Gene: Rope\_39 Start: 34990, Stop: 36039, Start Num: 90

Candidate Starts for Rope\_39:

(Start: 90 @34990 has 9 MA's), (130, 35074), (Start: 138 @35083 has 2 MA's), (150, 35107), (168, 35137), (177, 35158), (193, 35194), (203, 35215), (208, 35224), (Start: 214 @35242 has 1 MA's), (250, 35311), (310, 35464), (340, 35563), (352, 35590), (374, 35662), (407, 35716), (465, 35869), (476, 35893), (480, 35902), (498, 35944), (501, 35947), (504, 35953), (510, 35962), (524, 35998), (527, 36007), (534, 36016),

Gene: Rosa24\_9 Start: 5856, Stop: 6836, Start Num: 112

Candidate Starts for Rosa24\_9:

(Start: 112 @5856 has 111 MA's), (125, 5883), (Start: 135 @5904 has 1 MA's), (Start: 138 @5907 has 2 MA's), (263, 6156), (286, 6213), (289, 6225), (320, 6276), (328, 6297), (345, 6345), (369, 6402), (428, 6552), (470, 6675), (477, 6687), (511, 6753),

Gene: Rose5\_26 Start: 25547, Stop: 26578, Start Num: 96

Candidate Starts for Rose5\_26:

(Start: 96 @25547 has 29 MA's), (181, 25700), (182, 25703), (194, 25727), (198, 25739), (206, 25757), (211, 25775), (218, 25793), (219, 25799), (223, 25808), (228, 25823), (237, 25838), (263, 25910), (286, 25967), (304, 26006), (336, 26084), (337, 26093), (339, 26096), (347, 26111), (364, 26165), (369, 26186), (373, 26201), (414, 26285), (425, 26315), (446, 26384), (454, 26396), (465, 26420), (471, 26438), (473, 26441), (480, 26453), (482, 26456), (496, 26486), (501, 26498),

Gene: Rosmarinus\_31 Start: 26482, Stop: 27354, Start Num: 153

Candidate Starts for Rosmarinus\_31:

(32, 26152), (100, 26380), (140, 26455), (Start: 153 @26482 has 137 MA's), (Start: 161 @26494 has 1 MA's), (192, 26563), (205, 26590), (Start: 214 @26620 has 1 MA's), (218, 26629), (238, 26665), (242, 26674), (254, 26707), (259, 26725), (274, 26755), (296, 26815), (349, 26950), (363, 26977), (369, 26998), (377, 27022), (405, 27073), (448, 27175), (466, 27211), (477, 27235), (523, 27334), (529, 27343),

Gene: Rowdy\_13 Start: 5759, Stop: 6733, Start Num: 111

Candidate Starts for Rowdy\_13:

(Start: 111 @5759 has 315 MA's), (Start: 138 @5813 has 2 MA's), (170, 5861), (216, 5966), (286, 6128), (291, 6143), (302, 6164), (333, 6236), (337, 6251), (365, 6320), (369, 6338), (388, 6383), (397, 6401), (428, 6479), (434, 6506), (440, 6521), (447, 6542), (465, 6581), (490, 6632), (508, 6674), (534, 6725),

Gene: Royals2015\_31 Start: 27614, Stop: 28615, Start Num: 95

Candidate Starts for Royals2015\_31:

(Start: 95 @27614 has 260 MA's), (130, 27689), (168, 27752), (177, 27773), (Start: 214 @27857 has 1 MA's), (223, 27881), (235, 27896), (241, 27908), (286, 28019), (334, 28133), (341, 28151), (357, 28190), (365, 28214), (374, 28250), (388, 28277), (407, 28316), (428, 28364), (445, 28424), (474, 28484), (496, 28529), (501, 28541), (515, 28571),

Gene: Rubeus\_10 Start: 5590, Stop: 6558, Start Num: 111

Candidate Starts for Rubeus\_10:

(Start: 111 @5590 has 315 MA's), (Start: 126 @5623 has 6 MA's), (Start: 135 @5641 has 1 MA's), (Start: 138 @5644 has 2 MA's), (266, 5911), (286, 5962), (289, 5974), (327, 6049), (349, 6112), (355, 6124), (361, 6145), (365, 6157), (369, 6175), (374, 6193), (386, 6217), (407, 6256), (437, 6337), (445, 6361), (446, 6364), (448, 6367), (454, 6376), (495, 6463), (531, 6550),

Gene: Ruby\_33 Start: 28455, Stop: 29525, Start Num: 95

Candidate Starts for Ruby\_33:

(70, 28404), (Start: 95 @28455 has 260 MA's), (Start: 105 @28476 has 4 MA's), (Start: 109 @28482 has 1 MA's), (121, 28509), (Start: 126 @28518 has 6 MA's), (157, 28578), (173, 28605), (203, 28671),

(Start: 231 @28725 has 2 MA's), (250, 28767), (266, 28818), (298, 28902), (308, 28932), (318, 28965), (339, 29040), (348, 29061), (401, 29190), (428, 29262), (464, 29358), (468, 29370), (501, 29439), (525, 29496), (529, 29505),

Gene: Rufus\_10 Start: 5647, Stop: 6615, Start Num: 111

Candidate Starts for Rufus\_10:

(Start: 111 @5647 has 315 MA's), (Start: 126 @5680 has 6 MA's), (Start: 135 @5698 has 1 MA's), (Start: 138 @5701 has 2 MA's), (266, 5968), (286, 6019), (289, 6031), (327, 6106), (349, 6169), (361, 6202), (369, 6232), (374, 6250), (386, 6274), (407, 6313), (437, 6394), (445, 6418), (446, 6421), (448, 6424), (454, 6433), (495, 6520), (531, 6607),

Gene: Ruin\_10 Start: 5880, Stop: 6860, Start Num: 112

Candidate Starts for Ruin\_10:

(Start: 112 @5880 has 111 MA's), (Start: 114 @5883 has 13 MA's), (125, 5907), (Start: 135 @5928 has 1 MA's), (Start: 138 @5931 has 2 MA's), (263, 6180), (286, 6237), (328, 6321), (333, 6342), (345, 6369), (369, 6426), (428, 6576), (466, 6687), (470, 6699), (477, 6711), (511, 6777),

Gene: Rummer\_12 Start: 6046, Stop: 7011, Start Num: 101

Candidate Starts for Rummer\_12:

(Start: 101 @6046 has 93 MA's), (Start: 126 @6091 has 6 MA's), (Start: 138 @6112 has 2 MA's), (201, 6232), (263, 6370), (286, 6427), (291, 6442), (333, 6523), (337, 6538), (347, 6556), (365, 6607), (369, 6625), (388, 6670), (428, 6766), (447, 6829), (465, 6868), (490, 6919),

Gene: Rumpelstiltskin\_28 Start: 26523, Stop: 27551, Start Num: 96

Candidate Starts for Rumpelstiltskin\_28:

(Start: 96 @26523 has 29 MA's), (179, 26673), (230, 26802), (234, 26811), (286, 26943), (336, 27060), (337, 27069), (339, 27072), (347, 27087), (369, 27162), (373, 27177), (425, 27291), (432, 27318), (442, 27345), (446, 27360), (454, 27372), (486, 27438),

Gene: Ruotula\_9 Start: 6208, Stop: 7176, Start Num: 111

Candidate Starts for Ruotula\_9:

(Start: 111 @6208 has 315 MA's), (Start: 126 @6241 has 6 MA's), (Start: 135 @6259 has 1 MA's), (Start: 138 @6262 has 2 MA's), (266, 6529), (286, 6580), (289, 6592), (327, 6667), (349, 6730), (355, 6742), (361, 6763), (365, 6775), (369, 6793), (374, 6811), (386, 6835), (407, 6874), (437, 6955), (445, 6979), (446, 6982), (448, 6985), (454, 6994), (495, 7081), (531, 7168),

Gene: Rutherferd\_11 Start: 6108, Stop: 7076, Start Num: 111

Candidate Starts for Rutherferd\_11:

(Start: 111 @6108 has 315 MA's), (Start: 126 @6141 has 6 MA's), (Start: 135 @6159 has 1 MA's), (Start: 138 @6162 has 2 MA's), (235, 6351), (266, 6429), (286, 6480), (289, 6492), (327, 6567), (349, 6630), (361, 6663), (365, 6675), (369, 6693), (374, 6711), (386, 6735), (407, 6774), (437, 6855), (445, 6879), (446, 6882), (448, 6885), (454, 6894), (495, 6981), (531, 7068),

Gene: Ruthiejr\_33 Start: 27519, Stop: 28310, Start Num: 143

Candidate Starts for Ruthiejr\_33:

(Start: 143 @27519 has 20 MA's), (Start: 161 @27552 has 1 MA's), (175, 27585), (185, 27609), (196, 27630), (200, 27639), (211, 27669), (Start: 214 @27678 has 1 MA's), (218, 27687), (238, 27723), (276, 27804), (349, 28011), (363, 28038), (369, 28059), (373, 28074), (377, 28083), (445, 28107), (470, 28161), (477, 28173), (511, 28245),

Gene: Ryadel\_71 Start: 44253, Stop: 45293, Start Num: 95

Candidate Starts for Ryadel\_71:

(Start: 95 @44253 has 260 MA's), (130, 44328), (168, 44409), (170, 44415), (177, 44430), (213, 44511), (Start: 214 @44514 has 1 MA's), (241, 44568), (250, 44583), (286, 44679), (304, 44718), (312, 44748), (324, 44778), (326, 44781), (336, 44814), (361, 44880), (372, 44919), (374, 44928), (388, 44955), (407, 44994), (478, 45168), (501, 45219),

Gene: SG4\_32 Start: 28164, Stop: 29234, Start Num: 95

Candidate Starts for SG4\_32:

(70, 28110), (Start: 95 @28164 has 260 MA's), (203, 28380), (204, 28383), (Start: 231 @28434 has 2 MA's), (250, 28476), (266, 28527), (308, 28641), (318, 28674), (339, 28749), (348, 28770), (401, 28899), (428, 28971), (464, 29067), (468, 29079), (501, 29148), (525, 29205), (529, 29214),

Gene: STLscum\_11 Start: 6179, Stop: 7147, Start Num: 111

Candidate Starts for STLscum\_11:

(Start: 111 @6179 has 315 MA's), (Start: 126 @6212 has 6 MA's), (Start: 135 @6230 has 1 MA's), (Start: 138 @6233 has 2 MA's), (235, 6422), (266, 6500), (286, 6551), (289, 6563), (327, 6638), (349, 6701), (361, 6734), (365, 6746), (369, 6764), (374, 6782), (407, 6845), (437, 6926), (445, 6950), (446, 6953), (448, 6956), (454, 6965), (495, 7052), (515, 7097), (531, 7139),

Gene: Saal\_31 Start: 27571, Stop: 28572, Start Num: 95

Candidate Starts for Saal\_31:

(Start: 95 @27571 has 260 MA's), (130, 27646), (149, 27679), (168, 27709), (177, 27730), (189, 27760), (196, 27772), (Start: 214 @27814 has 1 MA's), (223, 27838), (235, 27853), (241, 27865), (286, 27976), (334, 28090), (341, 28108), (357, 28147), (365, 28171), (374, 28207), (407, 28273), (445, 28381), (468, 28429), (474, 28441), (496, 28486), (501, 28498), (515, 28528),

Gene: Sabbb\_32 Start: 27916, Stop: 28917, Start Num: 95

Candidate Starts for Sabbb\_32:

(Start: 95 @27916 has 260 MA's), (130, 27991), (149, 28024), (168, 28054), (177, 28075), (189, 28105), (Start: 214 @28159 has 1 MA's), (223, 28183), (235, 28198), (241, 28210), (286, 28321), (334, 28435), (341, 28453), (357, 28492), (365, 28516), (374, 28552), (388, 28579), (407, 28618), (445, 28726), (468, 28774), (474, 28786), (496, 28831), (501, 28843), (515, 28873),

Gene: Sabertooth\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Sabertooth\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Sabia\_12 Start: 5955, Stop: 6920, Start Num: 101

Candidate Starts for Sabia\_12:

(Start: 101 @5955 has 93 MA's), (Start: 126 @6000 has 6 MA's), (Start: 138 @6021 has 2 MA's), (201, 6141), (263, 6279), (286, 6336), (291, 6351), (333, 6432), (337, 6447), (347, 6465), (365, 6516), (369, 6534), (388, 6579), (428, 6675), (447, 6738), (465, 6777), (490, 6828),

Gene: Sabinator\_12 Start: 5960, Stop: 6925, Start Num: 101

Candidate Starts for Sabinator\_12:

(Start: 101 @5960 has 93 MA's), (Start: 126 @6005 has 6 MA's), (Start: 138 @6026 has 2 MA's), (201, 6146), (286, 6341), (291, 6356), (333, 6437), (337, 6452), (347, 6470), (365, 6521), (369, 6539), (388, 6584), (428, 6680), (447, 6743), (465, 6782), (490, 6833),

Gene: Sagefire\_11 Start: 6861, Stop: 7829, Start Num: 111

Candidate Starts for Sagefire\_11:

(Start: 111 @6861 has 315 MA's), (Start: 126 @6894 has 6 MA's), (Start: 135 @6912 has 1 MA's), (Start: 138 @6915 has 2 MA's), (266, 7182), (286, 7233), (289, 7245), (327, 7320), (349, 7383), (355, 7395), (361, 7416), (365, 7428), (369, 7446), (374, 7464), (386, 7488), (407, 7527), (437, 7608), (445, 7632), (446, 7635), (448, 7638), (454, 7647), (495, 7734), (531, 7821),

Gene: Saints25\_36 Start: 31516, Stop: 32373, Start Num: 136

Candidate Starts for Saints25\_36:

(Start: 136 @31516 has 124 MA's), (Start: 156 @31555 has 3 MA's), (166, 31585), (175, 31606), (191, 31642), (205, 31672), (236, 31747), (259, 31795), (262, 31798), (272, 31822), (274, 31825), (280, 31840), (346, 32011), (393, 32125), (398, 32140), (420, 32146), (444, 32188), (445, 32191), (470, 32245), (511, 32323), (522, 32356),

Gene: Salacia\_254 Start: 146399, Stop: 147427, Start Num: 87

Candidate Starts for Salacia\_254:

(Start: 87 @146399 has 167 MA's), (Start: 105 @146429 has 4 MA's), (Start: 112 @146441 has 111 MA's), (130, 146483), (168, 146546), (177, 146567), (Start: 214 @146651 has 1 MA's), (235, 146693), (241, 146705), (250, 146720), (273, 146789), (286, 146816), (309, 146870), (324, 146915), (326, 146918), (354, 146996), (361, 147017), (407, 147128), (440, 147218), (445, 147236), (480, 147308), (496, 147341),

Gene: SamScheppers\_32 Start: 28032, Stop: 28823, Start Num: 143

Candidate Starts for SamScheppers\_32:

(Start: 143 @28032 has 20 MA's), (Start: 161 @28065 has 1 MA's), (175, 28098), (185, 28122), (196, 28143), (200, 28152), (211, 28182), (Start: 214 @28191 has 1 MA's), (218, 28200), (238, 28236), (276, 28317), (349, 28524), (363, 28551), (369, 28572), (373, 28587), (377, 28596), (445, 28620), (470, 28674), (477, 28686), (511, 28758),

Gene: Samty\_28 Start: 26853, Stop: 27896, Start Num: 46

Candidate Starts for Samty\_28:

(Start: 46 @26853 has 17 MA's), (47, 26859), (55, 26886), (60, 26907), (83, 26958), (124, 27039), (178, 27144), (216, 27225), (218, 27231), (268, 27327), (275, 27345), (277, 27351), (280, 27357), (306, 27429), (329, 27486), (331, 27489), (352, 27546), (378, 27621), (389, 27642), (441, 27666), (445, 27681), (450, 27693), (477, 27750), (523, 27852), (532, 27873),

Gene: SamuelLPlaqson\_31 Start: 26382, Stop: 27254, Start Num: 153

Candidate Starts for SamuelLPlaqson\_31:

(100, 26280), (140, 26355), (Start: 153 @26382 has 137 MA's), (Start: 161 @26394 has 1 MA's), (192, 26463), (205, 26490), (Start: 214 @26520 has 1 MA's), (218, 26529), (238, 26565), (242, 26574), (254, 26607), (259, 26625), (296, 26715), (349, 26850), (363, 26877), (369, 26898), (377, 26922), (405, 26973), (448, 27075), (466, 27111), (477, 27135), (523, 27234), (529, 27243),

Gene: Sandaddy\_9 Start: 6038, Stop: 6952, Start Num: 138

Candidate Starts for Sandaddy\_9:

(Start: 111 @5984 has 315 MA's), (Start: 126 @6017 has 6 MA's), (Start: 135 @6035 has 1 MA's), (Start: 138 @6038 has 2 MA's), (266, 6305), (286, 6356), (289, 6368), (327, 6443), (349, 6506), (361, 6539), (365, 6551), (369, 6569), (374, 6587), (407, 6650), (437, 6731), (445, 6755), (446, 6758), (448, 6761), (454, 6770), (495, 6857), (515, 6902), (531, 6944),

Gene: Sandalphon\_32 Start: 28302, Stop: 29303, Start Num: 95

Candidate Starts for Sandalphon\_32:

(Start: 95 @28302 has 260 MA's), (130, 28377), (149, 28410), (168, 28440), (177, 28461), (Start: 214 @28545 has 1 MA's), (223, 28569), (235, 28584), (241, 28596), (286, 28707), (334, 28821), (341, 28839), (357, 28878), (365, 28902), (374, 28938), (388, 28965), (407, 29004), (445, 29112), (474,



29172), (501, 29229), (515, 29259),

Gene: Sanya\_9 Start: 6646, Stop: 7614, Start Num: 111

Candidate Starts for Sanya\_9:

(Start: 111 @6646 has 315 MA's), (Start: 126 @6679 has 6 MA's), (Start: 135 @6697 has 1 MA's), (Start: 138 @6700 has 2 MA's), (266, 6967), (286, 7018), (289, 7030), (327, 7105), (349, 7168), (355, 7180), (361, 7201), (365, 7213), (369, 7231), (374, 7249), (386, 7273), (407, 7312), (437, 7393), (445, 7417), (446, 7420), (448, 7423), (454, 7432), (495, 7519), (531, 7606),

Gene: SarFire\_10 Start: 5845, Stop: 6813, Start Num: 111

Candidate Starts for SarFire\_10:

(Start: 111 @5845 has 315 MA's), (Start: 126 @5878 has 6 MA's), (Start: 135 @5896 has 1 MA's), (Start: 138 @5899 has 2 MA's), (266, 6166), (281, 6202), (286, 6217), (289, 6229), (327, 6304), (349, 6367), (361, 6400), (365, 6412), (369, 6430), (374, 6448), (386, 6472), (407, 6511), (437, 6592), (445, 6616), (446, 6619), (448, 6622), (454, 6631), (495, 6718), (531, 6805),

Gene: Sarma624\_27 Start: 23733, Stop: 24731, Start Num: 95

Candidate Starts for Sarma624\_27:

(Start: 95 @23733 has 260 MA's), (130, 23808), (168, 23868), (177, 23889), (Start: 214 @23973 has 1 MA's), (241, 24024), (250, 24039), (286, 24135), (327, 24222), (333, 24246), (341, 24267), (357, 24306), (361, 24318), (374, 24366), (388, 24393), (400, 24417), (407, 24432), (445, 24540), (468, 24588), (501, 24657), (515, 24687),

Gene: Sarshaun\_28 Start: 26336, Stop: 27307, Start Num: 51

Candidate Starts for Sarshaun\_28:

(Start: 51 @26336 has 22 MA's), (67, 26390), (125, 26510), (141, 26540), (147, 26555), (Start: 161 @26588 has 1 MA's), (162, 26591), (166, 26600), (175, 26621), (205, 26684), (218, 26711), (232, 26735), (245, 26765), (272, 26816), (277, 26828), (300, 26891), (306, 26906), (325, 26966), (330, 26981), (363, 27062), (368, 27080), (369, 27083), (371, 27086), (449, 27137), (470, 27182), (494, 27224), (514, 27266),

Gene: Sassafra\_32 Start: 28184, Stop: 29200, Start Num: 95

Candidate Starts for Sassafra\_32:

(29, 27953), (31, 27956), (37, 28004), (74, 28139), (78, 28148), (Start: 95 @28184 has 260 MA's), (160, 28316), (168, 28337), (177, 28358), (189, 28388), (196, 28400), (Start: 214 @28442 has 1 MA's), (241, 28493), (286, 28604), (334, 28718), (341, 28736), (357, 28775), (365, 28799), (374, 28835), (388, 28862), (407, 28901), (428, 28949), (445, 29009), (468, 29057), (474, 29069), (496, 29114), (501, 29126), (515, 29156),

Gene: Sassay\_34 Start: 31362, Stop: 32219, Start Num: 136

Candidate Starts for Sassay\_34:

(Start: 136 @31362 has 124 MA's), (Start: 156 @31401 has 3 MA's), (166, 31431), (175, 31452), (191, 31488), (205, 31518), (236, 31593), (259, 31641), (262, 31644), (272, 31668), (274, 31671), (280, 31686), (346, 31857), (393, 31971), (398, 31986), (420, 31992), (444, 32034), (445, 32037), (470, 32091), (511, 32169), (522, 32202),

Gene: SassyB\_31 Start: 27830, Stop: 28831, Start Num: 95

Candidate Starts for SassyB\_31:

(Start: 95 @27830 has 260 MA's), (130, 27905), (149, 27938), (168, 27968), (177, 27989), (Start: 214 @28073 has 1 MA's), (223, 28097), (235, 28112), (241, 28124), (286, 28235), (341, 28367), (357, 28406), (365, 28430), (374, 28466), (388, 28493), (407, 28532), (445, 28640), (474, 28700), (496, 28745), (501, 28757), (515, 28787),

Gene: SaturnRing\_10 Start: 5739, Stop: 6479, Start Num: 224

Candidate Starts for SaturnRing\_10:

(Start: 152 @5622 has 16 MA's), (Start: 224 @5739 has 17 MA's), (263, 5826), (286, 5883), (289, 5895), (291, 5898), (304, 5922), (313, 5937), (321, 5955), (333, 5985), (336, 5991), (337, 6000), (347, 6018), (365, 6069), (369, 6087), (401, 6159), (419, 6201), (428, 6228), (434, 6255), (445, 6288), (447, 6291), (465, 6330), (533, 6471),

Gene: Sauce\_249 Start: 144258, Stop: 145286, Start Num: 87

Candidate Starts for Sauce\_249:

(Start: 87 @144258 has 167 MA's), (Start: 105 @144288 has 4 MA's), (Start: 112 @144300 has 111 MA's), (130, 144342), (168, 144405), (177, 144426), (Start: 214 @144510 has 1 MA's), (235, 144552), (241, 144564), (250, 144579), (273, 144648), (286, 144675), (309, 144729), (324, 144774), (326, 144777), (354, 144855), (361, 144876), (407, 144987), (440, 145077), (445, 145095), (480, 145167), (496, 145200),

Gene: Scamp\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Scamp\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Scarlett\_30 Start: 25696, Stop: 26436, Start Num: 153

Candidate Starts for Scarlett\_30:

(140, 25669), (Start: 153 @25696 has 137 MA's), (175, 25741), (192, 25777), (218, 25834), (238, 25870), (254, 25912), (274, 25960), (296, 26020), (349, 26155), (363, 26182), (371, 26209), (377, 26227), (445, 26251), (466, 26293), (475, 26314), (477, 26317), (523, 26416),

Gene: Schatzie\_46 Start: 41633, Stop: 42505, Start Num: 91

Candidate Starts for Schatzie\_46:

(Start: 91 @41633 has 31 MA's), (Start: 104 @41660 has 1 MA's), (132, 41720), (158, 41768), (190, 41834), (202, 41855), (Start: 214 @41876 has 1 MA's), (243, 41930), (279, 42011), (379, 42290), (380, 42293), (439, 42317), (452, 42353), (462, 42368), (466, 42380), (475, 42401),

Gene: SchoolBus\_67 Start: 43413, Stop: 44453, Start Num: 95

Candidate Starts for SchoolBus\_67:

(Start: 95 @43413 has 260 MA's), (130, 43488), (168, 43569), (170, 43575), (177, 43590), (213, 43671), (Start: 214 @43674 has 1 MA's), (241, 43728), (250, 43743), (286, 43839), (304, 43878), (312, 43908), (324, 43938), (326, 43941), (336, 43974), (361, 44040), (374, 44088), (388, 44115), (407, 44154), (478, 44328), (501, 44379),

Gene: Schuy\_68 Start: 43204, Stop: 44244, Start Num: 95

Candidate Starts for Schuy\_68:

(Start: 95 @43204 has 260 MA's), (130, 43279), (168, 43360), (170, 43366), (177, 43381), (213, 43462), (Start: 214 @43465 has 1 MA's), (241, 43519), (250, 43534), (286, 43630), (304, 43669), (312, 43699), (324, 43729), (326, 43732), (336, 43765), (361, 43831), (372, 43870), (374, 43879), (388, 43906), (407, 43945), (478, 44119), (501, 44170),

Gene: ScottMcG\_244 Start: 143459, Stop: 144487, Start Num: 87

Candidate Starts for ScottMcG\_244:

(Start: 87 @143459 has 167 MA's), (Start: 105 @143489 has 4 MA's), (Start: 112 @143501 has 111 MA's), (130, 143543), (168, 143606), (177, 143627), (Start: 214 @143711 has 1 MA's), (235, 143753), (241, 143765), (250, 143780), (273, 143849), (286, 143876), (309, 143930), (324, 143975), (326, 143978), (354, 144056), (361, 144077), (407, 144188), (440, 144278), (445, 144296), (480, 144368),

(496, 144401),

Gene: Scottish\_32 Start: 28820, Stop: 29821, Start Num: 95

Candidate Starts for Scottish\_32:

(43, 28658), (Start: 95 @28820 has 260 MA's), (130, 28895), (149, 28928), (168, 28958), (177, 28979), (189, 29009), (196, 29021), (Start: 214 @29063 has 1 MA's), (223, 29087), (235, 29102), (241, 29114), (286, 29225), (334, 29339), (341, 29357), (357, 29396), (365, 29420), (374, 29456), (388, 29483), (407, 29522), (428, 29570), (445, 29630), (468, 29678), (474, 29690), (496, 29735), (501, 29747), (515, 29777),

Gene: Scout\_10 Start: 5032, Stop: 5772, Start Num: 224

Candidate Starts for Scout\_10:

(Start: 224 @5032 has 17 MA's), (263, 5119), (286, 5176), (289, 5188), (291, 5191), (304, 5215), (313, 5230), (321, 5248), (333, 5278), (336, 5284), (347, 5311), (369, 5380), (401, 5452), (419, 5494), (428, 5521), (434, 5548), (445, 5581), (447, 5584), (465, 5623), (533, 5764),

Gene: Scowl\_11 Start: 6537, Stop: 7505, Start Num: 111

Candidate Starts for Scowl\_11:

(Start: 111 @6537 has 315 MA's), (Start: 126 @6570 has 6 MA's), (Start: 135 @6588 has 1 MA's), (Start: 138 @6591 has 2 MA's), (266, 6858), (286, 6909), (289, 6921), (327, 6996), (349, 7059), (355, 7071), (361, 7092), (365, 7104), (369, 7122), (374, 7140), (386, 7164), (407, 7203), (437, 7284), (445, 7308), (446, 7311), (448, 7314), (454, 7323), (495, 7410), (531, 7497),

Gene: Seabastian\_31 Start: 27728, Stop: 28729, Start Num: 95

Candidate Starts for Seabastian\_31:

(4, 27107), (6, 27185), (8, 27248), (14, 27287), (18, 27419), (22, 27440), (26, 27476), (Start: 56 @27629 has 7 MA's), (Start: 95 @27728 has 260 MA's), (Start: 105 @27749 has 4 MA's), (Start: 112 @27761 has 111 MA's), (130, 27803), (149, 27836), (168, 27866), (177, 27887), (Start: 214 @27971 has 1 MA's), (223, 27995), (235, 28010), (241, 28022), (286, 28133), (334, 28247), (341, 28265), (357, 28304), (365, 28328), (374, 28364), (388, 28391), (407, 28430), (445, 28538), (468, 28586), (474, 28598), (495, 28640), (496, 28643), (501, 28655), (515, 28685),

Gene: Seabiscuit\_11 Start: 5728, Stop: 6696, Start Num: 111

Candidate Starts for Seabiscuit\_11:

(Start: 111 @5728 has 315 MA's), (Start: 126 @5761 has 6 MA's), (Start: 135 @5779 has 1 MA's), (Start: 138 @5782 has 2 MA's), (266, 6049), (286, 6100), (289, 6112), (327, 6187), (349, 6250), (361, 6283), (365, 6295), (369, 6313), (374, 6331), (386, 6355), (407, 6394), (437, 6475), (445, 6499), (446, 6502), (448, 6505), (454, 6514), (495, 6601), (531, 6688),

Gene: Seagreen\_32 Start: 27637, Stop: 28638, Start Num: 95

Candidate Starts for Seagreen\_32:

(Start: 95 @27637 has 260 MA's), (130, 27712), (149, 27745), (168, 27775), (177, 27796), (Start: 214 @27880 has 1 MA's), (223, 27904), (235, 27919), (241, 27931), (286, 28042), (334, 28156), (341, 28174), (357, 28213), (365, 28237), (374, 28273), (388, 28300), (407, 28339), (445, 28447), (468, 28495), (474, 28507), (496, 28552), (501, 28564), (515, 28594),

Gene: Seanderson\_11 Start: 6516, Stop: 7478, Start Num: 111

Candidate Starts for Seanderson\_11:

(Start: 111 @6516 has 315 MA's), (Start: 126 @6549 has 6 MA's), (Start: 135 @6567 has 1 MA's), (Start: 138 @6570 has 2 MA's), (241, 6771), (266, 6837), (286, 6882), (328, 6972), (357, 7053), (361, 7065), (365, 7077), (369, 7095), (374, 7113), (386, 7137), (407, 7176), (437, 7257), (445, 7281), (446, 7284), (448, 7287), (454, 7296), (486, 7362), (495, 7383), (531, 7470),

Gene: Sebata\_252 Start: 145118, Stop: 146146, Start Num: 87

Candidate Starts for Sebata\_252:

(Start: 87 @145118 has 167 MA's), (Start: 105 @145148 has 4 MA's), (130, 145202), (168, 145265), (177, 145286), (Start: 214 @145370 has 1 MA's), (235, 145412), (241, 145424), (250, 145439), (273, 145508), (286, 145535), (309, 145589), (324, 145634), (326, 145637), (354, 145715), (361, 145736), (407, 145847), (440, 145937), (445, 145955), (480, 146027), (496, 146060),

Gene: SemperFi\_13 Start: 6800, Stop: 7792, Start Num: 111

Candidate Starts for SemperFi\_13:

(Start: 111 @6800 has 315 MA's), (Start: 135 @6851 has 1 MA's), (Start: 138 @6854 has 2 MA's), (155, 6887), (170, 6902), (233, 7022), (235, 7028), (268, 7115), (286, 7160), (341, 7292), (361, 7331), (376, 7379), (417, 7460), (427, 7502), (458, 7589), (477, 7637), (507, 7703), (538, 7778),

Gene: Send513\_39 Start: 35346, Stop: 36395, Start Num: 90

Candidate Starts for Send513\_39:

(Start: 90 @35346 has 9 MA's), (130, 35430), (Start: 138 @35439 has 2 MA's), (150, 35463), (168, 35493), (177, 35514), (184, 35532), (193, 35550), (203, 35571), (208, 35580), (Start: 214 @35598 has 1 MA's), (Start: 231 @35625 has 2 MA's), (250, 35667), (285, 35757), (303, 35799), (310, 35820), (340, 35919), (352, 35946), (374, 36018), (407, 36072), (464, 36222), (476, 36249), (480, 36258), (498, 36300), (501, 36303), (504, 36309), (510, 36318), (524, 36354), (527, 36363), (534, 36372),

Gene: Serenity\_10 Start: 5599, Stop: 6363, Start Num: 229

Candidate Starts for Serenity\_10:

(Start: 229 @5599 has 16 MA's), (286, 5743), (334, 5857), (337, 5869), (365, 5938), (369, 5956), (397, 6019), (428, 6097), (434, 6124), (440, 6139), (445, 6157), (447, 6160), (490, 6250), (518, 6319),

Gene: Severus\_9 Start: 3780, Stop: 4754, Start Num: 111

Candidate Starts for Severus\_9:

(65, 3741), (Start: 111 @3780 has 315 MA's), (Start: 126 @3813 has 6 MA's), (Start: 138 @3834 has 2 MA's), (222, 4002), (241, 4044), (247, 4059), (286, 4164), (327, 4236), (334, 4263), (336, 4266), (337, 4275), (369, 4362), (428, 4509), (447, 4572), (465, 4611), (486, 4653),

Gene: SgtBeansprout\_27 Start: 25978, Stop: 26736, Start Num: 152

Candidate Starts for SgtBeansprout\_27:

(100, 25876), (129, 25930), (140, 25951), (Start: 152 @25978 has 16 MA's), (175, 26023), (192, 26059), (216, 26119), (218, 26125), (234, 26155), (254, 26203), (271, 26245), (296, 26311), (308, 26347), (349, 26446), (363, 26473), (369, 26494), (371, 26500), (442, 26539), (445, 26551), (448, 26557), (462, 26581), (470, 26605), (523, 26716), (529, 26725),

Gene: Shadow1\_30 Start: 25713, Stop: 26456, Start Num: 153

Candidate Starts for Shadow1\_30:

(100, 25611), (Start: 110 @25632 has 4 MA's), (129, 25665), (140, 25686), (Start: 153 @25713 has 137 MA's), (173, 25755), (175, 25761), (192, 25797), (Start: 214 @25845 has 1 MA's), (218, 25854), (238, 25890), (254, 25932), (296, 26040), (349, 26175), (360, 26190), (363, 26202), (369, 26223), (385, 26238), (421, 26247), (442, 26259), (470, 26325), (509, 26406), (521, 26427), (523, 26436),

Gene: Shaka\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Shaka\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: ShamWow\_35 Start: 31858, Stop: 32715, Start Num: 136

Candidate Starts for ShamWow\_35:

(Start: 136 @31858 has 124 MA's), (Start: 156 @31897 has 3 MA's), (166, 31927), (175, 31948), (191, 31984), (205, 32014), (236, 32089), (259, 32137), (262, 32140), (272, 32164), (274, 32167), (280, 32182), (346, 32353), (384, 32452), (393, 32467), (398, 32482), (420, 32488), (444, 32530), (445, 32533), (470, 32587), (511, 32665), (522, 32698),

Gene: Shaobing\_31 Start: 25850, Stop: 26611, Start Num: 153

Candidate Starts for Shaobing\_31:

(140, 25820), (Start: 153 @25850 has 137 MA's), (175, 25895), (192, 25931), (216, 25991), (218, 25997), (234, 26027), (238, 26033), (242, 26042), (254, 26075), (271, 26117), (290, 26168), (296, 26183), (349, 26318), (363, 26345), (369, 26366), (371, 26372), (377, 26390), (445, 26423), (448, 26429), (470, 26477), (505, 26549), (523, 26591), (529, 26600),

Gene: Shapes\_13 Start: 5759, Stop: 6733, Start Num: 111

Candidate Starts for Shapes\_13:

(Start: 111 @5759 has 315 MA's), (Start: 138 @5813 has 2 MA's), (170, 5861), (216, 5966), (286, 6128), (291, 6143), (302, 6164), (333, 6236), (337, 6251), (365, 6320), (369, 6338), (388, 6383), (397, 6401), (428, 6479), (434, 6506), (440, 6521), (447, 6542), (465, 6581), (490, 6632), (508, 6674), (534, 6725),

Gene: Shaqnato\_243 Start: 143667, Stop: 144695, Start Num: 87

Candidate Starts for Shaqnato\_243:

(Start: 87 @143667 has 167 MA's), (Start: 105 @143697 has 4 MA's), (130, 143751), (168, 143814), (177, 143835), (Start: 214 @143919 has 1 MA's), (235, 143961), (241, 143973), (250, 143988), (273, 144057), (286, 144084), (309, 144138), (324, 144183), (326, 144186), (354, 144264), (361, 144285), (407, 144396), (440, 144486), (445, 144504), (480, 144576), (496, 144609),

Gene: Shauna1\_28 Start: 26660, Stop: 27658, Start Num: 95

Candidate Starts for Shauna1\_28:

(Start: 95 @26660 has 260 MA's), (130, 26735), (168, 26795), (177, 26816), (Start: 214 @26900 has 1 MA's), (241, 26951), (250, 26966), (286, 27062), (327, 27149), (333, 27173), (341, 27194), (357, 27233), (361, 27245), (374, 27293), (388, 27320), (400, 27344), (407, 27359), (445, 27467), (468, 27515), (501, 27584), (515, 27614),

Gene: ShedlockHolmes\_32 Start: 27460, Stop: 28248, Start Num: 153

Candidate Starts for ShedlockHolmes\_32:

(140, 27436), (Start: 153 @27460 has 137 MA's), (175, 27505), (192, 27541), (Start: 214 @27598 has 1 MA's), (218, 27607), (238, 27643), (259, 27697), (271, 27721), (326, 27862), (349, 27925), (363, 27967), (369, 27988), (371, 27994), (377, 28012), (444, 28042), (477, 28111), (511, 28183), (523, 28213),

Gene: Sheen\_12 Start: 7592, Stop: 8332, Start Num: 226

Candidate Starts for Sheen\_12:

(203, 7544), (Start: 226 @7592 has 1 MA's), (247, 7628), (286, 7733), (327, 7805), (334, 7832), (337, 7844), (347, 7862), (369, 7931), (397, 7994), (419, 8045), (428, 8072), (434, 8099), (447, 8135), (468, 8183), (490, 8225),

Gene: SheldonCooper\_10 Start: 5859, Stop: 6839, Start Num: 112

Candidate Starts for SheldonCooper\_10:

(Start: 112 @5859 has 111 MA's), (125, 5886), (Start: 135 @5907 has 1 MA's), (Start: 138 @5910 has 2 MA's), (263, 6159), (286, 6216), (289, 6228), (320, 6279), (328, 6300), (345, 6348), (369, 6405), (428, 6555), (470, 6678), (477, 6690), (511, 6756),

Gene: Shelob\_253 Start: 146393, Stop: 147421, Start Num: 87

Candidate Starts for Shelob\_253:

(Start: 87 @146393 has 167 MA's), (Start: 105 @146423 has 4 MA's), (Start: 112 @146435 has 111 MA's), (130, 146477), (168, 146540), (177, 146561), (Start: 214 @146645 has 1 MA's), (235, 146687), (241, 146699), (250, 146714), (273, 146783), (286, 146810), (309, 146864), (324, 146909), (326, 146912), (354, 146990), (361, 147011), (407, 147122), (440, 147212), (445, 147230), (480, 147302), (496, 147335),

Gene: Sheng711\_26 Start: 25346, Stop: 26368, Start Num: 96

Candidate Starts for Sheng711\_26:

(Start: 96 @25346 has 29 MA's), (Start: 152 @25457 has 16 MA's), (176, 25490), (179, 25496), (182, 25502), (222, 25604), (223, 25607), (241, 25646), (250, 25667), (263, 25709), (286, 25766), (334, 25880), (369, 25985), (404, 26066), (406, 26069), (425, 26114), (446, 26177), (454, 26189), (486, 26255), (490, 26264), (501, 26291),

Gene: ShereKhan\_37 Start: 32841, Stop: 33698, Start Num: 136

Candidate Starts for ShereKhan\_37:

(Start: 136 @32841 has 124 MA's), (Start: 156 @32880 has 3 MA's), (166, 32910), (175, 32931), (191, 32967), (205, 32997), (236, 33072), (259, 33120), (262, 33123), (272, 33147), (274, 33150), (280, 33165), (346, 33336), (393, 33450), (398, 33465), (420, 33471), (444, 33513), (445, 33516), (470, 33570), (511, 33648), (522, 33681),

Gene: ShiLan\_31 Start: 27740, Stop: 28741, Start Num: 95

Candidate Starts for ShiLan\_31:

(Start: 95 @27740 has 260 MA's), (Start: 105 @27761 has 4 MA's), (Start: 112 @27773 has 111 MA's), (130, 27815), (168, 27878), (177, 27899), (189, 27929), (Start: 214 @27983 has 1 MA's), (223, 28007), (235, 28022), (241, 28034), (286, 28145), (334, 28259), (341, 28277), (357, 28316), (365, 28340), (374, 28376), (388, 28403), (407, 28442), (428, 28490), (445, 28550), (474, 28610), (501, 28667), (515, 28697),

Gene: ShiaLabeouf\_250 Start: 144252, Stop: 145280, Start Num: 87

Candidate Starts for ShiaLabeouf\_250:

(Start: 87 @144252 has 167 MA's), (Start: 105 @144282 has 4 MA's), (Start: 112 @144294 has 111 MA's), (130, 144336), (168, 144399), (177, 144420), (Start: 214 @144504 has 1 MA's), (235, 144546), (241, 144558), (250, 144573), (273, 144642), (286, 144669), (309, 144723), (324, 144768), (326, 144771), (354, 144849), (361, 144870), (407, 144981), (440, 145071), (445, 145089), (480, 145161), (496, 145194),

Gene: ShiaSurprise\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for ShiaSurprise\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242, 26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: Shida\_67 Start: 43111, Stop: 44151, Start Num: 95

Candidate Starts for Shida\_67:

(Start: 95 @43111 has 260 MA's), (130, 43186), (168, 43267), (170, 43273), (177, 43288), (213, 43369), (Start: 214 @43372 has 1 MA's), (241, 43426), (250, 43441), (286, 43537), (304, 43576), (312, 43606), (324, 43636), (326, 43639), (336, 43672), (361, 43738), (372, 43777), (374, 43786), (388, 43813), (407, 43852), (478, 44026), (501, 44077),

Gene: Shifa\_228 Start: 143726, Stop: 144754, Start Num: 87

Candidate Starts for Shifa\_228:

(Start: 87 @143726 has 167 MA's), (Start: 105 @143756 has 4 MA's), (130, 143810), (168, 143873), (177, 143894), (Start: 214 @143978 has 1 MA's), (235, 144020), (241, 144032), (250, 144047), (273, 144116), (286, 144143), (309, 144197), (324, 144242), (326, 144245), (354, 144323), (361, 144344), (407, 144455), (440, 144545), (445, 144563), (480, 144635), (496, 144668),

Gene: Shnickers\_251 Start: 144316, Stop: 145344, Start Num: 87

Candidate Starts for Shnickers\_251:

(Start: 87 @144316 has 167 MA's), (Start: 105 @144346 has 4 MA's), (Start: 112 @144358 has 111 MA's), (130, 144400), (168, 144463), (177, 144484), (Start: 214 @144568 has 1 MA's), (235, 144610), (241, 144622), (250, 144637), (273, 144706), (286, 144733), (309, 144787), (324, 144832), (326, 144835), (354, 144913), (361, 144934), (407, 145045), (440, 145135), (445, 145153), (480, 145225), (496, 145258),

Gene: ShortQueendom\_9 Start: 5652, Stop: 6620, Start Num: 111

Candidate Starts for ShortQueendom\_9:

(Start: 111 @5652 has 315 MA's), (Start: 126 @5685 has 6 MA's), (Start: 135 @5703 has 1 MA's), (Start: 138 @5706 has 2 MA's), (266, 5973), (286, 6024), (289, 6036), (327, 6111), (349, 6174), (355, 6186), (361, 6207), (365, 6219), (369, 6237), (374, 6255), (386, 6279), (407, 6318), (437, 6399), (445, 6423), (446, 6426), (448, 6429), (454, 6438), (469, 6474), (495, 6525), (531, 6612),

Gene: ShowerHandel\_31 Start: 27699, Stop: 28700, Start Num: 95

Candidate Starts for ShowerHandel\_31:

(Start: 95 @27699 has 260 MA's), (Start: 105 @27720 has 4 MA's), (Start: 112 @27732 has 111 MA's), (130, 27774), (168, 27837), (177, 27858), (189, 27888), (Start: 214 @27942 has 1 MA's), (223, 27966), (235, 27981), (241, 27993), (286, 28104), (334, 28218), (341, 28236), (357, 28275), (365, 28299), (374, 28335), (388, 28362), (407, 28401), (428, 28449), (445, 28509), (474, 28569), (501, 28626), (515, 28656),

Gene: Shrimp\_255 Start: 146010, Stop: 147038, Start Num: 87

Candidate Starts for Shrimp\_255:

(Start: 87 @146010 has 167 MA's), (Start: 105 @146040 has 4 MA's), (Start: 112 @146052 has 111 MA's), (130, 146094), (168, 146157), (177, 146178), (Start: 214 @146262 has 1 MA's), (235, 146304), (241, 146316), (250, 146331), (273, 146400), (286, 146427), (309, 146481), (324, 146526), (326, 146529), (354, 146607), (361, 146628), (407, 146739), (440, 146829), (445, 146847), (480, 146919), (496, 146952),

Gene: ShroomBoi\_28 Start: 26597, Stop: 27598, Start Num: 95

Candidate Starts for ShroomBoi\_28:

(10, 26156), (16, 26195), (20, 26327), (Start: 23 @26348 has 1 MA's), (27, 26384), (Start: 95 @26597 has 260 MA's), (130, 26672), (149, 26705), (168, 26735), (177, 26756), (189, 26786), (196, 26798), (Start: 214 @26840 has 1 MA's), (241, 26891), (250, 26906), (286, 27002), (333, 27113), (341, 27134), (357, 27173), (361, 27185), (374, 27233), (388, 27260), (400, 27284), (407, 27299), (445, 27407), (468, 27455), (501, 27524), (515, 27554),

Gene: Shygu2\_10 Start: 5881, Stop: 6864, Start Num: 111

Candidate Starts for Shygu2\_10:

(Start: 111 @5881 has 315 MA's), (125, 5911), (Start: 135 @5932 has 1 MA's), (Start: 138 @5935 has 2 MA's), (239, 6115), (263, 6184), (286, 6241), (289, 6253), (305, 6283), (320, 6304), (328, 6325), (345, 6373), (369, 6430), (428, 6580), (470, 6703), (477, 6715), (481, 6724), (511, 6781), (540, 6856),

Gene: SiSi\_31 Start: 27498, Stop: 28499, Start Num: 95

Candidate Starts for SiSi\_31:

(Start: 95 @27498 has 260 MA's), (Start: 105 @27519 has 4 MA's), (130, 27573), (149, 27606), (168, 27636), (177, 27657), (Start: 214 @27741 has 1 MA's), (223, 27765), (235, 27780), (241, 27792), (286, 27903), (334, 28017), (341, 28035), (357, 28074), (365, 28098), (374, 28134), (388, 28161), (407, 28200), (428, 28248), (445, 28308), (474, 28368), (501, 28425), (515, 28455),

Gene: Sibs6\_11 Start: 5783, Stop: 6751, Start Num: 111

Candidate Starts for Sibs6\_11:

(Start: 111 @5783 has 315 MA's), (Start: 126 @5816 has 6 MA's), (Start: 135 @5834 has 1 MA's), (Start: 138 @5837 has 2 MA's), (266, 6104), (286, 6155), (289, 6167), (327, 6242), (349, 6305), (355, 6317), (361, 6338), (365, 6350), (369, 6368), (374, 6386), (386, 6410), (407, 6449), (437, 6530), (445, 6554), (446, 6557), (448, 6560), (454, 6569), (495, 6656), (531, 6743),

Gene: SilverDipper\_257 Start: 145052, Stop: 146080, Start Num: 87

Candidate Starts for SilverDipper\_257:

(Start: 87 @145052 has 167 MA's), (Start: 105 @145082 has 4 MA's), (Start: 112 @145094 has 111 MA's), (130, 145136), (168, 145199), (177, 145220), (Start: 214 @145304 has 1 MA's), (235, 145346), (241, 145358), (250, 145373), (273, 145442), (286, 145469), (309, 145523), (324, 145568), (326, 145571), (354, 145649), (361, 145670), (407, 145781), (440, 145871), (445, 145889), (480, 145961), (496, 145994),

Gene: Silverleaf\_26 Start: 25547, Stop: 26578, Start Num: 96

Candidate Starts for Silverleaf\_26:

(Start: 96 @25547 has 29 MA's), (181, 25700), (182, 25703), (194, 25727), (198, 25739), (206, 25757), (211, 25775), (218, 25793), (219, 25799), (223, 25808), (237, 25838), (263, 25910), (286, 25967), (304, 26006), (336, 26084), (337, 26093), (339, 26096), (347, 26111), (364, 26165), (369, 26186), (373, 26201), (414, 26285), (425, 26315), (446, 26384), (454, 26396), (465, 26420), (471, 26438), (473, 26441), (480, 26453), (482, 26456), (496, 26486), (501, 26498),

Gene: Simpliphy\_36 Start: 31603, Stop: 32460, Start Num: 136

Candidate Starts for Simpliphy\_36:

(Start: 136 @31603 has 124 MA's), (Start: 156 @31642 has 3 MA's), (166, 31672), (175, 31693), (191, 31729), (205, 31759), (236, 31834), (259, 31882), (262, 31885), (272, 31909), (274, 31912), (280, 31927), (346, 32098), (393, 32212), (398, 32227), (420, 32233), (444, 32275), (445, 32278), (470, 32332), (511, 32410), (522, 32443),

Gene: SimranZ1\_34 Start: 27818, Stop: 28819, Start Num: 95

Candidate Starts for SimranZ1\_34:

(12, 27359), (14, 27374), (26, 27566), (Start: 56 @27719 has 7 MA's), (Start: 95 @27818 has 260 MA's), (Start: 112 @27851 has 111 MA's), (130, 27893), (149, 27926), (168, 27956), (177, 27977), (Start: 214 @28061 has 1 MA's), (223, 28085), (235, 28100), (241, 28112), (286, 28223), (334, 28337), (341, 28355), (357, 28394), (365, 28418), (374, 28454), (388, 28481), (407, 28520), (445, 28628), (474, 28688), (496, 28733), (501, 28745), (515, 28775),

Gene: SirDuracell\_34 Start: 30523, Stop: 31380, Start Num: 136

Candidate Starts for SirDuracell\_34:

(Start: 136 @30523 has 124 MA's), (Start: 156 @30562 has 3 MA's), (166, 30592), (175, 30613), (191, 30649), (205, 30679), (236, 30754), (259, 30802), (262, 30805), (272, 30829), (274, 30832), (280, 30847), (346, 31018), (393, 31132), (398, 31147), (420, 31153), (444, 31195), (445, 31198), (470, 31252), (511, 31330), (522, 31363),

Gene: SirPhilip\_30 Start: 25363, Stop: 26103, Start Num: 156

Candidate Starts for SirPhilip\_30:



(Start: 156 @25363 has 3 MA's), (175, 25408), (192, 25444), (Start: 214 @25492 has 1 MA's), (218, 25501), (242, 25546), (254, 25579), (277, 25636), (295, 25684), (296, 25687), (326, 25759), (349, 25822), (360, 25837), (363, 25849), (387, 25888), (421, 25894), (466, 25960), (523, 26083), (529, 26092),

Gene: SkiPole\_12 Start: 6159, Stop: 7127, Start Num: 111

Candidate Starts for SkiPole\_12:

(Start: 111 @6159 has 315 MA's), (Start: 126 @6192 has 6 MA's), (Start: 135 @6210 has 1 MA's), (Start: 138 @6213 has 2 MA's), (266, 6480), (286, 6531), (289, 6543), (327, 6618), (349, 6681), (355, 6693), (361, 6714), (365, 6726), (369, 6744), (374, 6762), (386, 6786), (407, 6825), (437, 6906), (445, 6930), (446, 6933), (448, 6936), (454, 6945), (495, 7032), (515, 7077), (531, 7119),

Gene: Skinny\_39 Start: 32223, Stop: 33194, Start Num: 58

Candidate Starts for Skinny\_39:

(Start: 58 @32223 has 13 MA's), (63, 32247), (69, 32262), (134, 32400), (150, 32427), (158, 32445), (162, 32457), (166, 32466), (185, 32511), (191, 32523), (206, 32550), (218, 32577), (222, 32589), (246, 32634), (257, 32661), (272, 32691), (276, 32700), (277, 32703), (310, 32790), (317, 32805), (371, 32958), (372, 32961), (441, 33021), (444, 33033), (448, 33042), (466, 33078), (471, 33093), (494, 33132), (509, 33165),

Gene: Skipitt\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Skipitt\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (320, 6301), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Slagathor\_10 Start: 5601, Stop: 6569, Start Num: 111

Candidate Starts for Slagathor\_10:

(Start: 111 @5601 has 315 MA's), (Start: 126 @5634 has 6 MA's), (Start: 135 @5652 has 1 MA's), (Start: 138 @5655 has 2 MA's), (266, 5922), (286, 5973), (289, 5985), (327, 6060), (349, 6123), (355, 6135), (361, 6156), (365, 6168), (369, 6186), (374, 6204), (386, 6228), (407, 6267), (437, 6348), (445, 6372), (446, 6375), (448, 6378), (454, 6387), (495, 6474), (531, 6561),

Gene: Slarp\_32 Start: 27640, Stop: 28431, Start Num: 143

Candidate Starts for Slarp\_32:

(Start: 143 @27640 has 20 MA's), (Start: 161 @27673 has 1 MA's), (175, 27706), (185, 27730), (196, 27751), (200, 27760), (211, 27790), (Start: 214 @27799 has 1 MA's), (218, 27808), (238, 27844), (276, 27925), (349, 28132), (363, 28159), (369, 28180), (377, 28204), (445, 28228), (470, 28282), (477, 28294), (511, 28366),

Gene: SlimJimmy\_37 Start: 31777, Stop: 32748, Start Num: 58

Candidate Starts for SlimJimmy\_37:

(Start: 58 @31777 has 13 MA's), (63, 31801), (69, 31816), (134, 31954), (150, 31981), (158, 31999), (162, 32011), (166, 32020), (185, 32065), (191, 32077), (206, 32104), (218, 32131), (222, 32143), (246, 32188), (257, 32215), (272, 32245), (276, 32254), (277, 32257), (317, 32359), (371, 32512), (372, 32515), (441, 32575), (444, 32587), (448, 32596), (466, 32632), (471, 32647), (494, 32686), (509, 32719),

Gene: Slimphazie\_31 Start: 26461, Stop: 27333, Start Num: 153

Candidate Starts for Slimphazie\_31:

(140, 26434), (Start: 153 @26461 has 137 MA's), (Start: 161 @26473 has 1 MA's), (192, 26542), (205, 26569), (Start: 214 @26599 has 1 MA's), (218, 26608), (238, 26644), (242, 26653), (254, 26686),

(259, 26704), (274, 26734), (295, 26791), (296, 26794), (349, 26929), (363, 26956), (369, 26977), (377, 27001), (405, 27052), (448, 27154), (466, 27190), (477, 27214), (523, 27313), (529, 27322),

Gene: SlippinJimmy\_47 Start: 42302, Stop: 43366, Start Num: 84

Candidate Starts for SlippinJimmy\_47:

(Start: 84 @42302 has 45 MA's), (115, 42365), (157, 42446), (189, 42512), (197, 42527), (203, 42539), (215, 42566), (245, 42623), (250, 42632), (308, 42779), (315, 42794), (333, 42848), (347, 42881), (362, 42920), (366, 42932), (401, 43013), (411, 43031), (412, 43034), (428, 43079), (468, 43190), (521, 43301), (527, 43322), (541, 43355),

Gene: Smairt\_11 Start: 6456, Stop: 7424, Start Num: 111

Candidate Starts for Smairt\_11:

(Start: 111 @6456 has 315 MA's), (Start: 126 @6489 has 6 MA's), (Start: 135 @6507 has 1 MA's), (Start: 138 @6510 has 2 MA's), (266, 6777), (286, 6828), (289, 6840), (327, 6915), (349, 6978), (355, 6990), (361, 7011), (365, 7023), (369, 7041), (374, 7059), (386, 7083), (407, 7122), (437, 7203), (445, 7227), (446, 7230), (448, 7233), (454, 7242), (495, 7329), (531, 7416),

Gene: SmallFry\_253 Start: 144410, Stop: 145438, Start Num: 87

Candidate Starts for SmallFry\_253:

(Start: 87 @144410 has 167 MA's), (Start: 105 @144440 has 4 MA's), (Start: 112 @144452 has 111 MA's), (130, 144494), (168, 144557), (177, 144578), (Start: 214 @144662 has 1 MA's), (235, 144704), (241, 144716), (250, 144731), (273, 144800), (286, 144827), (309, 144881), (324, 144926), (326, 144929), (354, 145007), (361, 145028), (407, 145139), (440, 145229), (445, 145247), (480, 145319), (496, 145352),

Gene: Smeagan\_13 Start: 6868, Stop: 7860, Start Num: 111

Candidate Starts for Smeagan\_13:

(Start: 111 @6868 has 315 MA's), (Start: 138 @6922 has 2 MA's), (233, 7090), (235, 7096), (247, 7123), (268, 7183), (286, 7228), (327, 7315), (341, 7360), (361, 7399), (376, 7447), (417, 7528), (427, 7570), (458, 7657), (477, 7705), (507, 7771),

Gene: Smeagol\_11 Start: 6874, Stop: 7845, Start Num: 111

Candidate Starts for Smeagol\_11:

(Start: 111 @6874 has 315 MA's), (Start: 126 @6907 has 6 MA's), (Start: 135 @6925 has 1 MA's), (Start: 138 @6928 has 2 MA's), (266, 7195), (286, 7246), (289, 7258), (307, 7294), (327, 7336), (349, 7399), (355, 7411), (361, 7432), (365, 7444), (369, 7462), (374, 7480), (386, 7504), (407, 7543), (437, 7624), (445, 7648), (446, 7651), (448, 7654), (454, 7663), (495, 7750), (515, 7795), (531, 7837),

Gene: Smooch\_70 Start: 45157, Stop: 46197, Start Num: 95

Candidate Starts for Smooch\_70:

(Start: 95 @45157 has 260 MA's), (130, 45232), (168, 45313), (170, 45319), (177, 45334), (213, 45415), (Start: 214 @45418 has 1 MA's), (241, 45472), (250, 45487), (286, 45583), (304, 45622), (312, 45652), (324, 45682), (326, 45685), (336, 45718), (361, 45784), (372, 45823), (374, 45832), (388, 45859), (407, 45898), (478, 46072), (501, 46123),

Gene: SnapTap\_11 Start: 6372, Stop: 7364, Start Num: 111

Candidate Starts for SnapTap\_11:

(Start: 111 @6372 has 315 MA's), (Start: 135 @6423 has 1 MA's), (Start: 138 @6426 has 2 MA's), (155, 6459), (170, 6474), (233, 6594), (235, 6600), (268, 6687), (286, 6732), (341, 6864), (361, 6903), (376, 6951), (417, 7032), (427, 7074), (458, 7161), (477, 7209), (507, 7275), (538, 7350),

Gene: Snazzy\_8 Start: 5466, Stop: 6434, Start Num: 111

Candidate Starts for Snazzy\_8:

(Start: 111 @5466 has 315 MA's), (Start: 126 @5499 has 6 MA's), (Start: 135 @5517 has 1 MA's), (Start: 138 @5520 has 2 MA's), (266, 5787), (286, 5838), (289, 5850), (327, 5925), (349, 5988), (355, 6000), (361, 6021), (365, 6033), (369, 6051), (374, 6069), (386, 6093), (407, 6132), (437, 6213), (445, 6237), (446, 6240), (448, 6243), (454, 6252), (495, 6339), (515, 6384), (531, 6426),

Gene: Snenia\_28 Start: 26851, Stop: 27894, Start Num: 46

Candidate Starts for Snenia\_28:

(Start: 46 @26851 has 17 MA's), (47, 26857), (55, 26884), (60, 26905), (83, 26956), (124, 27037), (178, 27142), (216, 27223), (218, 27229), (268, 27325), (275, 27343), (277, 27349), (280, 27355), (306, 27427), (329, 27484), (352, 27544), (378, 27619), (389, 27640), (441, 27664), (445, 27679), (450, 27691), (477, 27748), (523, 27850), (532, 27871),

Gene: Snickers\_12 Start: 5936, Stop: 6901, Start Num: 101

Candidate Starts for Snickers\_12:

(Start: 101 @5936 has 93 MA's), (Start: 126 @5981 has 6 MA's), (Start: 138 @6002 has 2 MA's), (201, 6122), (263, 6260), (286, 6317), (291, 6332), (333, 6413), (337, 6428), (347, 6446), (365, 6497), (369, 6515), (388, 6560), (428, 6656), (447, 6719), (465, 6758), (490, 6809),

Gene: SoSeph\_30 Start: 27195, Stop: 28064, Start Num: 153

Candidate Starts for SoSeph\_30:

(100, 27093), (129, 27147), (Start: 153 @27195 has 137 MA's), (Start: 161 @27207 has 1 MA's), (164, 27213), (175, 27240), (188, 27270), (192, 27276), (Start: 214 @27330 has 1 MA's), (218, 27339), (222, 27351), (242, 27384), (254, 27417), (274, 27465), (292, 27513), (326, 27597), (363, 27687), (368, 27705), (369, 27708), (396, 27771), (405, 27786), (421, 27810), (448, 27882), (466, 27918), (467, 27921), (477, 27942), (503, 27999), (521, 28035), (523, 28044), (529, 28053),

Gene: SoYo\_12 Start: 5873, Stop: 6838, Start Num: 101

Candidate Starts for SoYo\_12:

(Start: 101 @5873 has 93 MA's), (Start: 126 @5918 has 6 MA's), (Start: 138 @5939 has 2 MA's), (201, 6059), (263, 6197), (286, 6254), (291, 6269), (333, 6350), (337, 6365), (347, 6383), (365, 6434), (369, 6452), (388, 6497), (428, 6593), (447, 6656), (465, 6695), (490, 6746),

Gene: Soap141\_28 Start: 26336, Stop: 27307, Start Num: 51

Candidate Starts for Soap141\_28:

(Start: 51 @26336 has 22 MA's), (67, 26390), (125, 26510), (141, 26540), (147, 26555), (Start: 161 @26588 has 1 MA's), (162, 26591), (166, 26600), (175, 26621), (205, 26684), (218, 26711), (232, 26735), (245, 26765), (272, 26816), (277, 26828), (300, 26891), (306, 26906), (325, 26966), (330, 26981), (363, 27062), (368, 27080), (369, 27083), (371, 27086), (449, 27137), (470, 27182), (494, 27224), (514, 27266),

Gene: SoilDragon\_12 Start: 5647, Stop: 6612, Start Num: 101

Candidate Starts for SoilDragon\_12:

(Start: 101 @5647 has 93 MA's), (Start: 126 @5692 has 6 MA's), (Start: 138 @5713 has 2 MA's), (201, 5833), (263, 5971), (286, 6028), (291, 6043), (333, 6124), (337, 6139), (347, 6157), (365, 6208), (369, 6226), (388, 6271), (428, 6367), (447, 6430), (465, 6469), (490, 6520),

Gene: Solon\_10 Start: 6618, Stop: 7586, Start Num: 111

Candidate Starts for Solon\_10:

(Start: 111 @6618 has 315 MA's), (Start: 126 @6651 has 6 MA's), (Start: 135 @6669 has 1 MA's), (Start: 138 @6672 has 2 MA's), (266, 6939), (286, 6990), (289, 7002), (327, 7077), (349, 7140), (355, 7152), (361, 7173), (365, 7185), (369, 7203), (374, 7221), (386, 7245), (407, 7284), (437, 7365), (445, 7389), (446, 7392), (448, 7395), (454, 7404), (495, 7491), (515, 7536), (531, 7578),

Gene: SophKB\_35 Start: 31857, Stop: 32714, Start Num: 136

Candidate Starts for SophKB\_35:

(Start: 136 @31857 has 124 MA's), (Start: 156 @31896 has 3 MA's), (166, 31926), (175, 31947), (191, 31983), (205, 32013), (236, 32088), (259, 32136), (262, 32139), (272, 32163), (274, 32166), (280, 32181), (346, 32352), (393, 32466), (398, 32481), (420, 32487), (444, 32529), (445, 32532), (470, 32586), (511, 32664), (522, 32697),

Gene: Sorpresa\_10 Start: 5984, Stop: 6952, Start Num: 111

Candidate Starts for Sorpresa\_10:

(Start: 111 @5984 has 315 MA's), (Start: 126 @6017 has 6 MA's), (Start: 135 @6035 has 1 MA's), (Start: 138 @6038 has 2 MA's), (266, 6305), (286, 6356), (289, 6368), (327, 6443), (349, 6506), (361, 6539), (365, 6551), (369, 6569), (374, 6587), (407, 6650), (437, 6731), (445, 6755), (446, 6758), (448, 6761), (454, 6770), (495, 6857), (515, 6902), (531, 6944),

Gene: Soshari\_14 Start: 6045, Stop: 7010, Start Num: 101

Candidate Starts for Soshari\_14:

(Start: 101 @6045 has 93 MA's), (Start: 126 @6090 has 6 MA's), (Start: 138 @6111 has 2 MA's), (201, 6231), (263, 6369), (286, 6426), (291, 6441), (333, 6522), (337, 6537), (347, 6555), (365, 6606), (369, 6624), (388, 6669), (428, 6765), (447, 6828), (465, 6867), (490, 6918),

Gene: Sotrice96\_35 Start: 31812, Stop: 32669, Start Num: 136

Candidate Starts for Sotrice96\_35:

(Start: 136 @31812 has 124 MA's), (Start: 156 @31851 has 3 MA's), (166, 31881), (175, 31902), (191, 31938), (205, 31968), (236, 32043), (259, 32091), (262, 32094), (272, 32118), (274, 32121), (280, 32136), (346, 32307), (393, 32421), (398, 32436), (420, 32442), (444, 32484), (445, 32487), (470, 32541), (511, 32619), (522, 32652),

Gene: Soul22\_36 Start: 27795, Stop: 28865, Start Num: 95

Candidate Starts for Soul22\_36:

(70, 27744), (Start: 95 @27795 has 260 MA's), (Start: 109 @27822 has 1 MA's), (121, 27849), (Start: 126 @27858 has 6 MA's), (157, 27918), (173, 27945), (203, 28011), (Start: 231 @28065 has 2 MA's), (250, 28107), (266, 28158), (308, 28272), (318, 28305), (339, 28380), (348, 28401), (401, 28530), (428, 28602), (464, 28698), (468, 28710), (501, 28779), (525, 28836), (529, 28845),

Gene: Sparkdehlily\_31 Start: 27617, Stop: 28618, Start Num: 95

Candidate Starts for Sparkdehlily\_31:

(Start: 95 @27617 has 260 MA's), (130, 27692), (149, 27725), (168, 27755), (177, 27776), (189, 27806), (196, 27818), (Start: 214 @27860 has 1 MA's), (223, 27884), (235, 27899), (241, 27911), (286, 28022), (334, 28136), (341, 28154), (357, 28193), (365, 28217), (374, 28253), (407, 28319), (445, 28427), (468, 28475), (474, 28487), (496, 28532), (501, 28544), (515, 28574),

Gene: Spartacus\_33 Start: 28027, Stop: 29028, Start Num: 95

Candidate Starts for Spartacus\_33:

(Start: 95 @28027 has 260 MA's), (130, 28102), (149, 28135), (168, 28165), (177, 28186), (Start: 214 @28270 has 1 MA's), (241, 28321), (250, 28336), (286, 28432), (333, 28543), (341, 28564), (357, 28603), (361, 28615), (374, 28663), (388, 28690), (400, 28714), (407, 28729), (445, 28837), (468, 28885), (501, 28954), (515, 28984),

Gene: Sparxx\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Sparxx\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Spec\_246 Start: 144422, Stop: 145450, Start Num: 87

Candidate Starts for Spec\_246:

(Start: 87 @144422 has 167 MA's), (Start: 105 @144452 has 4 MA's), (Start: 112 @144464 has 111 MA's), (130, 144506), (168, 144569), (177, 144590), (Start: 214 @144674 has 1 MA's), (235, 144716), (241, 144728), (250, 144743), (273, 144812), (286, 144839), (309, 144893), (324, 144938), (326, 144941), (354, 145019), (361, 145040), (407, 145151), (440, 145241), (445, 145259), (480, 145331), (496, 145364),

Gene: Specks\_257 Start: 145350, Stop: 146378, Start Num: 87

Candidate Starts for Specks\_257:

(Start: 87 @145350 has 167 MA's), (Start: 105 @145380 has 4 MA's), (Start: 112 @145392 has 111 MA's), (130, 145434), (168, 145497), (177, 145518), (Start: 214 @145602 has 1 MA's), (235, 145644), (241, 145656), (250, 145671), (273, 145740), (286, 145767), (309, 145821), (324, 145866), (326, 145869), (354, 145947), (361, 145968), (407, 146079), (440, 146169), (445, 146187), (480, 146259), (496, 146292),

Gene: Spike509\_12 Start: 6046, Stop: 7011, Start Num: 101

Candidate Starts for Spike509\_12:

(Start: 101 @6046 has 93 MA's), (Start: 126 @6091 has 6 MA's), (Start: 138 @6112 has 2 MA's), (201, 6232), (263, 6370), (286, 6427), (291, 6442), (333, 6523), (337, 6538), (347, 6556), (365, 6607), (369, 6625), (388, 6670), (428, 6766), (447, 6829), (465, 6868), (490, 6919),

Gene: SpikeBT\_11 Start: 6419, Stop: 7387, Start Num: 111

Candidate Starts for SpikeBT\_11:

(Start: 111 @6419 has 315 MA's), (Start: 126 @6452 has 6 MA's), (Start: 135 @6470 has 1 MA's), (Start: 138 @6473 has 2 MA's), (266, 6740), (286, 6791), (289, 6803), (327, 6878), (349, 6941), (355, 6953), (361, 6974), (365, 6986), (369, 7004), (374, 7022), (386, 7046), (407, 7085), (437, 7166), (445, 7190), (446, 7193), (448, 7196), (454, 7205), (495, 7292), (515, 7337), (531, 7379),

Gene: Spikelee\_33 Start: 27770, Stop: 28771, Start Num: 95

Candidate Starts for Spikelee\_33:

(Start: 95 @27770 has 260 MA's), (130, 27845), (149, 27878), (168, 27908), (177, 27929), (189, 27959), (196, 27971), (Start: 214 @28013 has 1 MA's), (223, 28037), (235, 28052), (241, 28064), (286, 28175), (334, 28289), (341, 28307), (357, 28346), (365, 28370), (374, 28406), (388, 28433), (407, 28472), (445, 28580), (468, 28628), (501, 28697), (515, 28727),

Gene: Spino\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Spino\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Spock\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for Spock\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242, 26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: Spoonbill\_31 Start: 27781, Stop: 28782, Start Num: 95

Candidate Starts for Spoonbill\_31:

(Start: 95 @27781 has 260 MA's), (130, 27856), (149, 27889), (168, 27919), (177, 27940), (189, 27970), (196, 27982), (Start: 214 @28024 has 1 MA's), (223, 28048), (235, 28063), (241, 28075), (286, 28186), (334, 28300), (341, 28318), (357, 28357), (365, 28381), (374, 28417), (407, 28483), (445, 28591), (468, 28639), (474, 28651), (496, 28696), (501, 28708), (515, 28738),

Gene: Sprinklers\_250 Start: 144118, Stop: 145146, Start Num: 87

Candidate Starts for Sprinklers\_250:

(Start: 87 @144118 has 167 MA's), (Start: 105 @144148 has 4 MA's), (Start: 112 @144160 has 111 MA's), (130, 144202), (168, 144265), (177, 144286), (Start: 214 @144370 has 1 MA's), (235, 144412), (241, 144424), (250, 144439), (273, 144508), (286, 144535), (309, 144589), (324, 144634), (326, 144637), (354, 144715), (361, 144736), (407, 144847), (440, 144937), (445, 144955), (480, 145027), (496, 145060),

Gene: Spud\_244 Start: 143867, Stop: 144895, Start Num: 87

Candidate Starts for Spud\_244:

(Start: 87 @143867 has 167 MA's), (Start: 105 @143897 has 4 MA's), (Start: 112 @143909 has 111 MA's), (130, 143951), (168, 144014), (177, 144035), (Start: 214 @144119 has 1 MA's), (235, 144161), (241, 144173), (250, 144188), (273, 144257), (286, 144284), (309, 144338), (324, 144383), (326, 144386), (354, 144464), (361, 144485), (407, 144596), (440, 144686), (445, 144704), (480, 144776), (496, 144809),

Gene: Squee\_10 Start: 6125, Stop: 7093, Start Num: 111

Candidate Starts for Squee\_10:

(Start: 111 @6125 has 315 MA's), (Start: 126 @6158 has 6 MA's), (Start: 135 @6176 has 1 MA's), (Start: 138 @6179 has 2 MA's), (266, 6446), (286, 6497), (289, 6509), (327, 6584), (349, 6647), (361, 6680), (369, 6710), (407, 6791), (437, 6872), (445, 6896), (446, 6899), (448, 6902), (454, 6911), (495, 6998), (531, 7085),

Gene: Squint\_47 Start: 39016, Stop: 40020, Start Num: 49

Candidate Starts for Squint\_47:

(Start: 49 @39016 has 10 MA's), (64, 39070), (Start: 88 @39121 has 3 MA's), (Start: 126 @39193 has 6 MA's), (166, 39268), (218, 39382), (222, 39394), (242, 39427), (272, 39496), (277, 39508), (282, 39520), (284, 39523), (299, 39568), (306, 39586), (363, 39748), (367, 39763), (370, 39772), (521, 39973),

Gene: SrishMeg2525\_250 Start: 145505, Stop: 146533, Start Num: 87

Candidate Starts for SrishMeg2525\_250:

(Start: 87 @145505 has 167 MA's), (Start: 105 @145535 has 4 MA's), (Start: 112 @145547 has 111 MA's), (130, 145589), (168, 145652), (177, 145673), (Start: 214 @145757 has 1 MA's), (235, 145799), (241, 145811), (250, 145826), (273, 145895), (286, 145922), (309, 145976), (324, 146021), (326, 146024), (354, 146102), (361, 146123), (407, 146234), (440, 146324), (445, 146342), (480, 146414), (496, 146447),

Gene: StAnnes\_30 Start: 27994, Stop: 29064, Start Num: 95

Candidate Starts for StAnnes\_30:

(70, 27943), (Start: 95 @27994 has 260 MA's), (Start: 109 @28021 has 1 MA's), (121, 28048), (Start: 126 @28057 has 6 MA's), (157, 28117), (173, 28144), (203, 28210), (Start: 231 @28264 has 2 MA's), (250, 28306), (266, 28357), (308, 28471), (318, 28504), (339, 28579), (348, 28600), (401, 28729), (428, 28801), (464, 28897), (468, 28909), (501, 28978), (525, 29035), (529, 29044),

Gene: Stagni\_12 Start: 5964, Stop: 6929, Start Num: 101

Candidate Starts for Stagni\_12:

(Start: 101 @5964 has 93 MA's), (Start: 126 @6009 has 6 MA's), (Start: 138 @6030 has 2 MA's), (201, 6150), (263, 6288), (286, 6345), (291, 6360), (333, 6441), (337, 6456), (347, 6474), (365, 6525), (369, 6543), (388, 6588), (428, 6684), (447, 6747), (465, 6786), (490, 6837),

Gene: Stank\_38 Start: 32364, Stop: 33221, Start Num: 136

Candidate Starts for Stank\_38:

(Start: 136 @32364 has 124 MA's), (Start: 156 @32403 has 3 MA's), (166, 32433), (175, 32454), (191, 32490), (205, 32520), (236, 32595), (259, 32643), (262, 32646), (272, 32670), (274, 32673), (280, 32688), (346, 32859), (393, 32973), (398, 32988), (420, 32994), (444, 33036), (445, 33039), (470, 33093), (511, 33171), (522, 33204),

Gene: Stap\_32 Start: 27675, Stop: 28676, Start Num: 95

Candidate Starts for Stap\_32:

(Start: 56 @27576 has 7 MA's), (Start: 95 @27675 has 260 MA's), (130, 27750), (168, 27813), (170, 27819), (177, 27834), (199, 27882), (Start: 214 @27918 has 1 MA's), (235, 27957), (237, 27960), (241, 27969), (250, 27984), (269, 28041), (286, 28080), (333, 28191), (357, 28251), (361, 28263), (374, 28311), (388, 28338), (407, 28377), (445, 28485), (468, 28533), (501, 28602), (515, 28632),

Gene: StarStuff\_14 Start: 6597, Stop: 7361, Start Num: 229

Candidate Starts for StarStuff\_14:

(Start: 229 @6597 has 16 MA's), (286, 6741), (327, 6828), (334, 6855), (337, 6867), (369, 6954), (428, 7095), (445, 7155), (447, 7158), (464, 7194), (490, 7248), (512, 7296),

Gene: Starcevich\_35 Start: 28400, Stop: 29401, Start Num: 95

Candidate Starts for Starcevich\_35:

(Start: 95 @28400 has 260 MA's), (Start: 105 @28421 has 4 MA's), (Start: 112 @28433 has 111 MA's), (130, 28475), (168, 28538), (177, 28559), (189, 28589), (Start: 214 @28643 has 1 MA's), (223, 28667), (235, 28682), (241, 28694), (286, 28805), (334, 28919), (341, 28937), (357, 28976), (365, 29000), (374, 29036), (388, 29063), (407, 29102), (445, 29210), (468, 29258), (474, 29270), (496, 29315), (501, 29327), (515, 29357),

Gene: Stark\_36 Start: 31616, Stop: 32473, Start Num: 136

Candidate Starts for Stark\_36:

(Start: 136 @31616 has 124 MA's), (Start: 156 @31655 has 3 MA's), (166, 31685), (175, 31706), (191, 31742), (205, 31772), (236, 31847), (259, 31895), (262, 31898), (272, 31922), (274, 31925), (280, 31940), (346, 32111), (393, 32225), (398, 32240), (420, 32246), (444, 32288), (445, 32291), (470, 32345), (511, 32423), (522, 32456),

Gene: Stasia\_11 Start: 6326, Stop: 7306, Start Num: 112

Candidate Starts for Stasia\_11:

(Start: 112 @6326 has 111 MA's), (Start: 114 @6329 has 13 MA's), (125, 6353), (Start: 135 @6374 has 1 MA's), (Start: 138 @6377 has 2 MA's), (263, 6626), (286, 6683), (289, 6695), (328, 6767), (345, 6815), (369, 6872), (428, 7022), (466, 7133), (477, 7157), (511, 7223), (517, 7244), (530, 7277),

Gene: StellaBean\_35 Start: 31857, Stop: 32714, Start Num: 136

Candidate Starts for StellaBean\_35:

(Start: 136 @31857 has 124 MA's), (Start: 156 @31896 has 3 MA's), (166, 31926), (175, 31947), (191, 31983), (205, 32013), (236, 32088), (259, 32136), (262, 32139), (272, 32163), (274, 32166), (280, 32181), (346, 32352), (393, 32466), (398, 32481), (420, 32487), (444, 32529), (445, 32532), (470, 32586), (511, 32664), (522, 32697),

Gene: StepMih\_12 Start: 5955, Stop: 6920, Start Num: 101

Candidate Starts for StepMih\_12:

(Start: 101 @5955 has 93 MA's), (Start: 126 @6000 has 6 MA's), (Start: 138 @6021 has 2 MA's), (201, 6141), (263, 6279), (286, 6336), (291, 6351), (333, 6432), (337, 6447), (347, 6465), (365, 6516), (369, 6534), (388, 6579), (428, 6675), (447, 6738), (465, 6777), (490, 6828),

Gene: StephanieG\_246 Start: 145053, Stop: 146081, Start Num: 87

Candidate Starts for StephanieG\_246:

(Start: 87 @145053 has 167 MA's), (Start: 105 @145083 has 4 MA's), (Start: 112 @145095 has 111 MA's), (130, 145137), (168, 145200), (177, 145221), (Start: 214 @145305 has 1 MA's), (235, 145347), (241, 145359), (250, 145374), (273, 145443), (286, 145470), (309, 145524), (324, 145569), (326, 145572), (354, 145650), (361, 145671), (407, 145782), (440, 145872), (445, 145890), (480, 145962), (496, 145995),

Gene: StewieG\_9 Start: 5834, Stop: 6802, Start Num: 111

Candidate Starts for StewieG\_9:

(Start: 111 @5834 has 315 MA's), (Start: 126 @5867 has 6 MA's), (Start: 135 @5885 has 1 MA's), (Start: 138 @5888 has 2 MA's), (266, 6155), (286, 6206), (289, 6218), (327, 6293), (349, 6356), (355, 6368), (361, 6389), (365, 6401), (369, 6419), (374, 6437), (386, 6461), (407, 6500), (437, 6581), (445, 6605), (446, 6608), (448, 6611), (454, 6620), (495, 6707), (531, 6794),

Gene: Stink\_10 Start: 5846, Stop: 6826, Start Num: 112

Candidate Starts for Stink\_10:

(Start: 112 @5846 has 111 MA's), (125, 5873), (Start: 135 @5894 has 1 MA's), (Start: 138 @5897 has 2 MA's), (263, 6146), (286, 6203), (289, 6215), (320, 6266), (328, 6287), (345, 6335), (369, 6392), (428, 6542), (470, 6665), (477, 6677), (511, 6743), (540, 6818),

Gene: Stinson\_32 Start: 26696, Stop: 27568, Start Num: 153

Candidate Starts for Stinson\_32:

(140, 26669), (Start: 153 @26696 has 137 MA's), (Start: 161 @26708 has 1 MA's), (192, 26777), (205, 26804), (Start: 214 @26834 has 1 MA's), (218, 26843), (238, 26879), (242, 26888), (254, 26921), (259, 26939), (296, 27029), (349, 27164), (363, 27191), (369, 27212), (377, 27236), (405, 27287), (448, 27389), (466, 27425), (477, 27449), (523, 27548), (529, 27557),

Gene: StolenFromERC\_37 Start: 31848, Stop: 32705, Start Num: 136

Candidate Starts for StolenFromERC\_37:

(Start: 136 @31848 has 124 MA's), (Start: 156 @31887 has 3 MA's), (166, 31917), (175, 31938), (191, 31974), (205, 32004), (236, 32079), (259, 32127), (262, 32130), (272, 32154), (274, 32157), (280, 32172), (346, 32343), (393, 32457), (398, 32472), (420, 32478), (444, 32520), (445, 32523), (470, 32577), (511, 32655), (522, 32688),

Gene: Strobilo\_29 Start: 24780, Stop: 25982, Start Num: 48

Candidate Starts for Strobilo\_29:

(42, 24738), (Start: 48 @24780 has 10 MA's), (57, 24807), (61, 24828), (76, 24864), (86, 24885), (99, 24912), (128, 24972), (146, 25008), (Start: 161 @25041 has 1 MA's), (162, 25044), (175, 25074), (205, 25140), (218, 25179), (257, 25257), (278, 25302), (299, 25359), (306, 25377), (363, 25542), (369, 25563), (375, 25584), (423, 25689), (426, 25704), (444, 25773), (470, 25830), (509, 25911),

Gene: Strokeseat\_32 Start: 28331, Stop: 29347, Start Num: 95

Candidate Starts for Strokeseat\_32:

(18, 28013), (19, 28019), (21, 28031), (Start: 23 @28043 has 1 MA's), (24, 28055), (Start: 95 @28331 has 260 MA's), (160, 28463), (168, 28484), (177, 28505), (189, 28535), (196, 28547), (Start: 214 @28589 has 1 MA's), (223, 28613), (235, 28628), (241, 28640), (250, 28655), (286, 28751), (333, 28862), (341, 28883), (357, 28922), (361, 28934), (374, 28982), (388, 29009), (400, 29033), (407, 29048), (445, 29156), (468, 29204), (501, 29273), (515, 29303),



Gene: StrongArm\_9 Start: 5686, Stop: 6654, Start Num: 111

Candidate Starts for StrongArm\_9:

(Start: 111 @5686 has 315 MA's), (Start: 126 @5719 has 6 MA's), (Start: 135 @5737 has 1 MA's), (Start: 138 @5740 has 2 MA's), (266, 6007), (286, 6058), (289, 6070), (327, 6145), (349, 6208), (361, 6241), (365, 6253), (369, 6271), (374, 6289), (407, 6352), (437, 6433), (445, 6457), (446, 6460), (448, 6463), (454, 6472), (495, 6559), (531, 6646),

Gene: Stubby\_235 Start: 141838, Stop: 142866, Start Num: 87

Candidate Starts for Stubby\_235:

(Start: 87 @141838 has 167 MA's), (Start: 105 @141868 has 4 MA's), (130, 141922), (168, 141985), (177, 142006), (Start: 214 @142090 has 1 MA's), (235, 142132), (241, 142144), (250, 142159), (273, 142228), (286, 142255), (309, 142309), (324, 142354), (326, 142357), (354, 142435), (361, 142456), (407, 142567), (440, 142657), (445, 142675), (480, 142747), (496, 142780),

Gene: StubbySaigey\_259 Start: 145035, Stop: 146063, Start Num: 87

Candidate Starts for StubbySaigey\_259:

(Start: 87 @145035 has 167 MA's), (Start: 105 @145065 has 4 MA's), (Start: 112 @145077 has 111 MA's), (130, 145119), (168, 145182), (177, 145203), (Start: 214 @145287 has 1 MA's), (235, 145329), (241, 145341), (250, 145356), (273, 145425), (286, 145452), (309, 145506), (324, 145551), (326, 145554), (354, 145632), (361, 145653), (407, 145764), (440, 145854), (445, 145872), (480, 145944), (496, 145977),

Gene: Sulley\_31 Start: 26427, Stop: 27299, Start Num: 153

Candidate Starts for Sulley\_31:

(32, 26097), (100, 26325), (140, 26400), (Start: 153 @26427 has 137 MA's), (Start: 161 @26439 has 1 MA's), (192, 26508), (205, 26535), (Start: 214 @26565 has 1 MA's), (218, 26574), (238, 26610), (242, 26619), (254, 26652), (259, 26670), (274, 26700), (296, 26760), (349, 26895), (363, 26922), (369, 26943), (377, 26967), (405, 27018), (448, 27120), (466, 27156), (477, 27180), (523, 27279), (529, 27288),

Gene: Sumter\_9 Start: 5577, Stop: 6545, Start Num: 111

Candidate Starts for Sumter\_9:

(Start: 111 @5577 has 315 MA's), (Start: 126 @5610 has 6 MA's), (Start: 135 @5628 has 1 MA's), (Start: 138 @5631 has 2 MA's), (266, 5898), (286, 5949), (289, 5961), (327, 6036), (349, 6099), (355, 6111), (361, 6132), (365, 6144), (369, 6162), (374, 6180), (386, 6204), (407, 6243), (437, 6324), (445, 6348), (446, 6351), (448, 6354), (454, 6363), (495, 6450), (515, 6495), (531, 6537),

Gene: Sunflower1121\_30 Start: 25725, Stop: 26468, Start Num: 153

Candidate Starts for Sunflower1121\_30:

(100, 25623), (Start: 110 @25644 has 4 MA's), (129, 25677), (140, 25698), (Start: 153 @25725 has 137 MA's), (173, 25767), (175, 25773), (192, 25809), (Start: 214 @25857 has 1 MA's), (218, 25866), (238, 25902), (254, 25944), (296, 26052), (349, 26187), (360, 26202), (363, 26214), (369, 26235), (385, 26250), (421, 26259), (442, 26271), (470, 26337), (509, 26418), (521, 26439), (523, 26448),

Gene: Sunshine924\_9 Start: 5560, Stop: 6528, Start Num: 111

Candidate Starts for Sunshine924\_9:

(Start: 111 @5560 has 315 MA's), (Start: 126 @5593 has 6 MA's), (Start: 135 @5611 has 1 MA's), (Start: 138 @5614 has 2 MA's), (266, 5881), (286, 5932), (289, 5944), (327, 6019), (349, 6082), (361, 6115), (365, 6127), (369, 6145), (374, 6163), (386, 6187), (407, 6226), (437, 6307), (445, 6331), (446, 6334), (448, 6337), (454, 6346), (495, 6433), (531, 6520),

Gene: SuperGrey\_32 Start: 28493, Stop: 29494, Start Num: 95

Candidate Starts for SuperGrey\_32:

(Start: 95 @28493 has 260 MA's), (130, 28568), (149, 28601), (168, 28631), (177, 28652), (Start: 214 @28736 has 1 MA's), (241, 28787), (250, 28802), (286, 28898), (333, 29009), (341, 29030), (357, 29069), (361, 29081), (374, 29129), (388, 29156), (400, 29180), (407, 29195), (445, 29303), (468, 29351), (501, 29420), (515, 29450),

Gene: Superphikiman\_48 Start: 39088, Stop: 40092, Start Num: 49

Candidate Starts for Superphikiman\_48:

(Start: 49 @39088 has 10 MA's), (64, 39142), (Start: 88 @39193 has 3 MA's), (Start: 126 @39265 has 6 MA's), (166, 39340), (218, 39454), (222, 39466), (242, 39499), (272, 39568), (277, 39580), (282, 39592), (284, 39595), (299, 39640), (306, 39658), (363, 39820), (367, 39835), (370, 39844), (521, 40045),

Gene: SwagPigglett\_31 Start: 27510, Stop: 28511, Start Num: 95

Candidate Starts for SwagPigglett\_31:

(Start: 95 @27510 has 260 MA's), (Start: 105 @27531 has 4 MA's), (Start: 112 @27543 has 111 MA's), (130, 27585), (168, 27648), (177, 27669), (189, 27699), (Start: 214 @27753 has 1 MA's), (223, 27777), (235, 27792), (241, 27804), (286, 27915), (334, 28029), (341, 28047), (357, 28086), (365, 28110), (374, 28146), (388, 28173), (407, 28212), (428, 28260), (445, 28320), (474, 28380), (501, 28437), (515, 28467),

Gene: SweetiePie\_11 Start: 6372, Stop: 7364, Start Num: 111

Candidate Starts for SweetiePie\_11:

(Start: 111 @6372 has 315 MA's), (Start: 135 @6423 has 1 MA's), (Start: 138 @6426 has 2 MA's), (155, 6459), (170, 6474), (233, 6594), (235, 6600), (268, 6687), (286, 6732), (341, 6864), (361, 6903), (376, 6951), (417, 7032), (427, 7074), (458, 7161), (477, 7209), (507, 7275), (538, 7350),

Gene: SwissCheese\_10 Start: 6022, Stop: 6990, Start Num: 111

Candidate Starts for SwissCheese\_10:

(Start: 111 @6022 has 315 MA's), (Start: 126 @6055 has 6 MA's), (Start: 135 @6073 has 1 MA's), (Start: 138 @6076 has 2 MA's), (266, 6343), (286, 6394), (289, 6406), (327, 6481), (349, 6544), (361, 6577), (365, 6589), (369, 6607), (374, 6625), (386, 6649), (407, 6688), (437, 6769), (445, 6793), (446, 6796), (448, 6799), (454, 6808), (495, 6895), (515, 6940), (531, 6982),

Gene: Switzer\_10 Start: 5607, Stop: 6575, Start Num: 111

Candidate Starts for Switzer\_10:

(Start: 111 @5607 has 315 MA's), (Start: 126 @5640 has 6 MA's), (Start: 135 @5658 has 1 MA's), (Start: 138 @5661 has 2 MA's), (266, 5928), (286, 5979), (289, 5991), (327, 6066), (349, 6129), (355, 6141), (361, 6162), (365, 6174), (369, 6192), (374, 6210), (386, 6234), (407, 6273), (437, 6354), (445, 6378), (446, 6381), (448, 6384), (454, 6393), (486, 6459), (495, 6480), (531, 6567),

Gene: Swole\_12 Start: 6545, Stop: 7459, Start Num: 138

Candidate Starts for Swole\_12:

(Start: 111 @6491 has 315 MA's), (Start: 126 @6524 has 6 MA's), (Start: 135 @6542 has 1 MA's), (Start: 138 @6545 has 2 MA's), (266, 6812), (286, 6863), (289, 6875), (327, 6950), (349, 7013), (355, 7025), (361, 7046), (369, 7076), (374, 7094), (386, 7118), (407, 7157), (437, 7238), (445, 7262), (446, 7265), (448, 7268), (454, 7277), (495, 7364), (515, 7409), (531, 7451),

Gene: SynergyX\_47 Start: 41537, Stop: 42601, Start Num: 84

Candidate Starts for SynergyX\_47:

(Start: 84 @41537 has 45 MA's), (115, 41600), (157, 41681), (189, 41747), (197, 41762), (203, 41774), (215, 41801), (245, 41858), (250, 41867), (308, 42014), (315, 42029), (333, 42083), (347, 42116), (362, 42155), (366, 42167), (401, 42248), (411, 42266), (412, 42269), (428, 42314), (468,

42425), (521, 42536), (527, 42557), (541, 42590),

Gene: Syra333\_31 Start: 25735, Stop: 26478, Start Num: 153

Candidate Starts for Syra333\_31:

(140, 25708), (Start: 153 @25735 has 137 MA's), (173, 25777), (175, 25783), (192, 25819), (Start: 214 @25867 has 1 MA's), (218, 25876), (238, 25912), (254, 25954), (296, 26062), (349, 26197), (360, 26212), (363, 26224), (369, 26245), (385, 26260), (421, 26269), (442, 26281), (509, 26428), (521, 26449), (523, 26458),

Gene: TBond007\_31 Start: 26937, Stop: 27725, Start Num: 153

Candidate Starts for TBond007\_31:

(140, 26913), (Start: 153 @26937 has 137 MA's), (175, 26982), (192, 27018), (Start: 214 @27075 has 1 MA's), (218, 27084), (238, 27120), (259, 27174), (271, 27198), (326, 27339), (349, 27402), (363, 27444), (369, 27465), (371, 27471), (377, 27489), (444, 27519), (477, 27588), (511, 27660), (523, 27690),

Gene: TBrady12\_37 Start: 31848, Stop: 32705, Start Num: 136

Candidate Starts for TBrady12\_37:

(Start: 136 @31848 has 124 MA's), (Start: 156 @31887 has 3 MA's), (166, 31917), (175, 31938), (191, 31974), (205, 32004), (236, 32079), (259, 32127), (262, 32130), (272, 32154), (274, 32157), (280, 32172), (346, 32343), (393, 32457), (398, 32472), (420, 32478), (444, 32520), (445, 32523), (470, 32577), (511, 32655), (522, 32688),

Gene: TChen\_31 Start: 28122, Stop: 29198, Start Num: 95

Candidate Starts for TChen\_31:

(Start: 95 @28122 has 260 MA's), (Start: 109 @28149 has 1 MA's), (124, 28179), (Start: 126 @28185 has 6 MA's), (168, 28260), (173, 28272), (180, 28290), (208, 28347), (245, 28425), (250, 28434), (266, 28485), (285, 28527), (291, 28551), (294, 28560), (308, 28602), (318, 28635), (333, 28692), (334, 28695), (339, 28710), (346, 28722), (353, 28743), (357, 28755), (366, 28779), (401, 28860), (409, 28884), (428, 28935), (459, 29013), (468, 29043), (469, 29046), (493, 29091), (501, 29112), (529, 29178),

Gene: TClif\_32 Start: 26185, Stop: 27048, Start Num: 156

Candidate Starts for TClif\_32:

(100, 26083), (Start: 110 @26104 has 4 MA's), (129, 26137), (140, 26158), (Start: 156 @26185 has 3 MA's), (Start: 161 @26197 has 1 MA's), (175, 26230), (192, 26266), (Start: 214 @26314 has 1 MA's), (218, 26323), (242, 26368), (254, 26401), (290, 26494), (296, 26509), (349, 26644), (363, 26671), (369, 26692), (377, 26716), (387, 26737), (445, 26863), (448, 26869), (467, 26908), (523, 27028), (529, 27037),

Gene: TDanisky\_31 Start: 27617, Stop: 28618, Start Num: 95

Candidate Starts for TDanisky\_31:

(Start: 95 @27617 has 260 MA's), (130, 27692), (149, 27725), (168, 27755), (177, 27776), (189, 27806), (196, 27818), (Start: 214 @27860 has 1 MA's), (223, 27884), (235, 27899), (241, 27911), (286, 28022), (334, 28136), (341, 28154), (357, 28193), (365, 28217), (374, 28253), (407, 28319), (445, 28427), (468, 28475), (474, 28487), (496, 28532), (501, 28544), (515, 28574),

Gene: TM4\_30 Start: 24984, Stop: 26186, Start Num: 48

Candidate Starts for TM4\_30:

(27, 24861), (30, 24882), (42, 24945), (Start: 48 @24984 has 10 MA's), (57, 25011), (61, 25032), (76, 25068), (99, 25113), (146, 25209), (Start: 161 @25242 has 1 MA's), (162, 25245), (175, 25275), (205, 25341), (218, 25380), (257, 25458), (278, 25503), (306, 25578), (329, 25650), (363, 25743), (369, 25764), (375, 25785), (377, 25788), (423, 25902), (426, 25917), (444, 25977), (470, 26034), (509,

26115),

Gene: TNguyen7\_10 Start: 5709, Stop: 6449, Start Num: 224

Candidate Starts for TNguyen7\_10:

(Start: 152 @5592 has 16 MA's), (Start: 224 @5709 has 17 MA's), (263, 5796), (286, 5853), (289, 5865), (291, 5868), (304, 5892), (313, 5907), (321, 5925), (333, 5955), (336, 5961), (337, 5970), (347, 5988), (365, 6039), (369, 6057), (401, 6129), (419, 6171), (428, 6198), (434, 6225), (445, 6258), (447, 6261), (465, 6300), (533, 6441),

Gene: Tachez\_31 Start: 26423, Stop: 27295, Start Num: 153

Candidate Starts for Tachez\_31:

(140, 26396), (Start: 153 @26423 has 137 MA's), (Start: 161 @26435 has 1 MA's), (192, 26504), (205, 26531), (Start: 214 @26561 has 1 MA's), (218, 26570), (238, 26606), (242, 26615), (254, 26648), (259, 26666), (274, 26696), (295, 26753), (296, 26756), (349, 26891), (363, 26918), (369, 26939), (377, 26963), (405, 27014), (448, 27116), (466, 27152), (477, 27176), (523, 27275), (529, 27284),

Gene: Tainan\_252 Start: 143973, Stop: 145001, Start Num: 87

Candidate Starts for Tainan\_252:

(Start: 87 @143973 has 167 MA's), (Start: 105 @144003 has 4 MA's), (Start: 112 @144015 has 111 MA's), (130, 144057), (168, 144120), (177, 144141), (Start: 214 @144225 has 1 MA's), (235, 144267), (241, 144279), (250, 144294), (273, 144363), (286, 144390), (309, 144444), (324, 144489), (326, 144492), (354, 144570), (361, 144591), (407, 144702), (440, 144792), (445, 144810), (480, 144882), (496, 144915),

Gene: TaiwanKao\_32 Start: 26427, Stop: 27299, Start Num: 153

Candidate Starts for TaiwanKao\_32:

(140, 26400), (Start: 153 @26427 has 137 MA's), (Start: 161 @26439 has 1 MA's), (192, 26508), (205, 26535), (Start: 214 @26565 has 1 MA's), (218, 26574), (238, 26610), (242, 26619), (254, 26652), (259, 26670), (296, 26760), (349, 26895), (363, 26922), (369, 26943), (377, 26967), (405, 27018), (429, 27069), (448, 27120), (466, 27156), (477, 27180), (523, 27279), (529, 27288),

Gene: Taj\_31 Start: 27685, Stop: 28683, Start Num: 95

Candidate Starts for Taj\_31:

(Start: 95 @27685 has 260 MA's), (130, 27760), (168, 27820), (177, 27841), (Start: 214 @27925 has 1 MA's), (241, 27976), (250, 27991), (286, 28087), (333, 28198), (341, 28219), (357, 28258), (361, 28270), (374, 28318), (388, 28345), (400, 28369), (407, 28384), (445, 28492), (468, 28540), (501, 28609), (515, 28639),

Gene: Taquarus\_10 Start: 5884, Stop: 6864, Start Num: 112

Candidate Starts for Taquarus\_10:

(Start: 112 @5884 has 111 MA's), (Start: 114 @5887 has 13 MA's), (125, 5911), (Start: 135 @5932 has 1 MA's), (Start: 138 @5935 has 2 MA's), (263, 6184), (286, 6241), (320, 6304), (328, 6325), (333, 6346), (345, 6373), (362, 6403), (369, 6430), (428, 6580), (466, 6691), (470, 6703), (477, 6715), (511, 6781),

Gene: Taquito\_32 Start: 28079, Stop: 28870, Start Num: 143

Candidate Starts for Taquito\_32:

(Start: 143 @28079 has 20 MA's), (Start: 161 @28112 has 1 MA's), (175, 28145), (185, 28169), (196, 28190), (200, 28199), (211, 28229), (Start: 214 @28238 has 1 MA's), (218, 28247), (238, 28283), (276, 28364), (349, 28571), (363, 28598), (369, 28619), (373, 28634), (377, 28643), (445, 28667), (470, 28721), (477, 28733), (511, 28805),

Gene: Target\_11 Start: 6279, Stop: 7247, Start Num: 111

Candidate Starts for Target\_11:

(Start: 111 @6279 has 315 MA's), (Start: 126 @6312 has 6 MA's), (Start: 135 @6330 has 1 MA's), (Start: 138 @6333 has 2 MA's), (266, 6600), (286, 6651), (289, 6663), (327, 6738), (349, 6801), (359, 6825), (369, 6864), (374, 6882), (407, 6945), (437, 7026), (445, 7050), (446, 7053), (448, 7056), (454, 7065), (495, 7152),

Gene: Tarkin\_37 Start: 32847, Stop: 33704, Start Num: 136

Candidate Starts for Tarkin\_37:

(Start: 136 @32847 has 124 MA's), (Start: 156 @32886 has 3 MA's), (166, 32916), (175, 32937), (191, 32973), (205, 33003), (236, 33078), (259, 33126), (262, 33129), (272, 33153), (274, 33156), (280, 33171), (346, 33342), (393, 33456), (398, 33471), (420, 33477), (444, 33519), (445, 33522), (470, 33576), (511, 33654), (522, 33687),

Gene: TarsusIV\_11 Start: 6440, Stop: 7432, Start Num: 111

Candidate Starts for TarsusIV\_11:

(Start: 111 @6440 has 315 MA's), (Start: 138 @6494 has 2 MA's), (209, 6629), (233, 6662), (235, 6668), (247, 6695), (268, 6755), (286, 6800), (297, 6824), (341, 6932), (361, 6971), (376, 7019), (417, 7100), (418, 7103), (427, 7142), (458, 7229), (507, 7343), (538, 7418),

Gene: Tasp14\_11 Start: 6262, Stop: 7230, Start Num: 111

Candidate Starts for Tasp14\_11:

(Start: 111 @6262 has 315 MA's), (Start: 126 @6295 has 6 MA's), (Start: 135 @6313 has 1 MA's), (Start: 138 @6316 has 2 MA's), (266, 6583), (286, 6634), (289, 6646), (327, 6721), (349, 6784), (361, 6817), (365, 6829), (369, 6847), (374, 6865), (386, 6889), (407, 6928), (437, 7009), (445, 7033), (446, 7036), (448, 7039), (454, 7048), (495, 7135), (515, 7180), (531, 7222),

Gene: Taurus\_12 Start: 5960, Stop: 6925, Start Num: 101

Candidate Starts for Taurus\_12:

(Start: 101 @5960 has 93 MA's), (Start: 126 @6005 has 6 MA's), (Start: 138 @6026 has 2 MA's), (201, 6146), (286, 6341), (291, 6356), (333, 6437), (337, 6452), (347, 6470), (365, 6521), (369, 6539), (388, 6584), (428, 6680), (447, 6743), (465, 6782), (490, 6833),

Gene: Teardrop\_251 Start: 144362, Stop: 145390, Start Num: 87

Candidate Starts for Teardrop\_251:

(Start: 87 @144362 has 167 MA's), (Start: 105 @144392 has 4 MA's), (Start: 112 @144404 has 111 MA's), (130, 144446), (168, 144509), (177, 144530), (Start: 214 @144614 has 1 MA's), (235, 144656), (241, 144668), (250, 144683), (273, 144752), (286, 144779), (309, 144833), (324, 144878), (326, 144881), (354, 144959), (361, 144980), (407, 145091), (440, 145181), (445, 145199), (480, 145271), (496, 145304),

Gene: TeardropMSU\_34 Start: 31758, Stop: 32615, Start Num: 136

Candidate Starts for TeardropMSU\_34:

(Start: 136 @31758 has 124 MA's), (Start: 156 @31797 has 3 MA's), (166, 31827), (175, 31848), (191, 31884), (205, 31914), (236, 31989), (259, 32037), (262, 32040), (272, 32064), (274, 32067), (280, 32082), (346, 32253), (393, 32367), (398, 32382), (420, 32388), (444, 32430), (445, 32433), (470, 32487), (511, 32565), (522, 32598),

Gene: Teaspoon\_36 Start: 31811, Stop: 32668, Start Num: 136

Candidate Starts for Teaspoon\_36:

(Start: 136 @31811 has 124 MA's), (Start: 156 @31850 has 3 MA's), (166, 31880), (175, 31901), (191, 31937), (205, 31967), (236, 32042), (259, 32090), (262, 32093), (272, 32117), (274, 32120), (280, 32135), (346, 32306), (393, 32420), (398, 32435), (420, 32441), (444, 32483), (445, 32486), (470, 32540), (511, 32618), (522, 32651),

Gene: TelAviv\_64 Start: 43386, Stop: 44426, Start Num: 95

Candidate Starts for TelAviv\_64:

(Start: 95 @43386 has 260 MA's), (130, 43461), (168, 43542), (170, 43548), (177, 43563), (213, 43644), (Start: 214 @43647 has 1 MA's), (241, 43701), (250, 43716), (286, 43812), (304, 43851), (312, 43881), (324, 43911), (326, 43914), (336, 43947), (361, 44013), (374, 44061), (388, 44088), (407, 44127), (478, 44301), (501, 44352),

Gene: Teodoridan\_8 Start: 5393, Stop: 6361, Start Num: 111

Candidate Starts for Teodoridan\_8:

(Start: 111 @5393 has 315 MA's), (Start: 126 @5426 has 6 MA's), (Start: 135 @5444 has 1 MA's), (Start: 138 @5447 has 2 MA's), (266, 5714), (286, 5765), (289, 5777), (327, 5852), (349, 5915), (359, 5939), (369, 5978), (374, 5996), (407, 6059), (437, 6140), (445, 6164), (446, 6167), (448, 6170), (454, 6179), (495, 6266), (531, 6353),

Gene: Terminus\_35 Start: 31945, Stop: 32802, Start Num: 136

Candidate Starts for Terminus\_35:

(Start: 136 @31945 has 124 MA's), (Start: 156 @31984 has 3 MA's), (166, 32014), (175, 32035), (191, 32071), (205, 32101), (236, 32176), (259, 32224), (262, 32227), (272, 32251), (274, 32254), (280, 32269), (346, 32440), (393, 32554), (398, 32569), (420, 32575), (444, 32617), (445, 32620), (470, 32674), (511, 32752), (522, 32785),

Gene: Texage\_10 Start: 6052, Stop: 7017, Start Num: 101

Candidate Starts for Texage\_10:

(Start: 101 @6052 has 93 MA's), (Start: 126 @6097 has 6 MA's), (Start: 138 @6118 has 2 MA's), (201, 6238), (209, 6253), (Start: 231 @6292 has 2 MA's), (263, 6376), (286, 6433), (291, 6448), (333, 6529), (337, 6544), (347, 6562), (365, 6613), (369, 6631), (388, 6676), (428, 6772), (447, 6835), (465, 6874), (490, 6925),

Gene: Thanksgivukkah\_10 Start: 5886, Stop: 6866, Start Num: 112

Candidate Starts for Thanksgivukkah\_10:

(Start: 112 @5886 has 111 MA's), (Start: 114 @5889 has 13 MA's), (125, 5913), (Start: 135 @5934 has 1 MA's), (Start: 138 @5937 has 2 MA's), (263, 6186), (286, 6243), (320, 6306), (328, 6327), (333, 6348), (345, 6375), (362, 6405), (369, 6432), (428, 6582), (466, 6693), (470, 6705), (477, 6717), (511, 6783),

Gene: TheloniousMonk\_11 Start: 6506, Stop: 7474, Start Num: 111

Candidate Starts for TheloniousMonk\_11:

(Start: 111 @6506 has 315 MA's), (Start: 126 @6539 has 6 MA's), (Start: 135 @6557 has 1 MA's), (Start: 138 @6560 has 2 MA's), (266, 6827), (286, 6878), (289, 6890), (327, 6965), (349, 7028), (355, 7040), (361, 7061), (365, 7073), (369, 7091), (374, 7109), (386, 7133), (407, 7172), (437, 7253), (445, 7277), (446, 7280), (448, 7283), (454, 7292), (495, 7379),

Gene: ThetaBob\_30 Start: 27001, Stop: 28077, Start Num: 95

Candidate Starts for ThetaBob\_30:

(11, 26533), (13, 26548), (25, 26740), (52, 26902), (Start: 95 @27001 has 260 MA's), (Start: 109 @27028 has 1 MA's), (124, 27058), (173, 27151), (177, 27160), (180, 27169), (208, 27226), (217, 27250), (218, 27253), (Start: 231 @27271 has 2 MA's), (245, 27304), (250, 27313), (261, 27349), (266, 27364), (285, 27406), (291, 27430), (294, 27439), (298, 27451), (308, 27481), (317, 27511), (318, 27514), (333, 27571), (334, 27574), (339, 27589), (346, 27601), (348, 27610), (357, 27634), (366, 27658), (401, 27739), (428, 27814), (487, 27958), (491, 27967), (493, 27970), (495, 27976), (501, 27991), (529, 28057),

Gene: Thibault\_42 Start: 39661, Stop: 40665, Start Num: 49

Candidate Starts for Thibault\_42:

(Start: 49 @39661 has 10 MA's), (64, 39715), (Start: 88 @39766 has 3 MA's), (125, 39835), (Start: 126 @39838 has 6 MA's), (Start: 214 @40018 has 1 MA's), (218, 40027), (242, 40072), (272, 40141), (282, 40165), (284, 40168), (299, 40213), (306, 40231), (363, 40393), (370, 40417), (444, 40459), (521, 40618),

Gene: Thor\_10 Start: 5845, Stop: 6813, Start Num: 111

Candidate Starts for Thor\_10:

(Start: 111 @5845 has 315 MA's), (Start: 126 @5878 has 6 MA's), (Start: 135 @5896 has 1 MA's), (Start: 138 @5899 has 2 MA's), (266, 6166), (286, 6217), (289, 6229), (327, 6304), (349, 6367), (361, 6400), (365, 6412), (369, 6430), (374, 6448), (386, 6472), (407, 6511), (437, 6592), (445, 6616), (446, 6619), (448, 6622), (454, 6631), (495, 6718), (531, 6805),

Gene: ThreeRngTarjay\_47 Start: 42712, Stop: 43584, Start Num: 91

Candidate Starts for ThreeRngTarjay\_47:

(Start: 91 @42712 has 31 MA's), (Start: 104 @42739 has 1 MA's), (132, 42799), (158, 42847), (190, 42913), (202, 42934), (Start: 214 @42955 has 1 MA's), (243, 43009), (279, 43090), (379, 43369), (380, 43372), (439, 43396), (452, 43432), (462, 43447), (466, 43459), (475, 43480),

Gene: Thresher\_36 Start: 32612, Stop: 33469, Start Num: 136

Candidate Starts for Thresher\_36:

(Start: 136 @32612 has 124 MA's), (Start: 156 @32651 has 3 MA's), (166, 32681), (175, 32702), (191, 32738), (205, 32768), (236, 32843), (259, 32891), (262, 32894), (272, 32918), (274, 32921), (280, 32936), (346, 33107), (393, 33221), (398, 33236), (420, 33242), (444, 33284), (445, 33287), (470, 33341), (511, 33419), (522, 33452),

Gene: Thyatira\_30 Start: 27046, Stop: 27918, Start Num: 153

Candidate Starts for Thyatira\_30:

(100, 26944), (129, 26998), (Start: 153 @27046 has 137 MA's), (Start: 161 @27058 has 1 MA's), (162, 27061), (164, 27064), (175, 27091), (188, 27121), (192, 27127), (Start: 214 @27181 has 1 MA's), (218, 27190), (222, 27202), (242, 27235), (254, 27268), (274, 27316), (299, 27385), (332, 27469), (363, 27538), (368, 27556), (369, 27559), (394, 27619), (421, 27664), (448, 27736), (466, 27772), (467, 27775), (477, 27796), (503, 27853), (521, 27889), (523, 27898), (529, 27907),

Gene: Tierra\_31 Start: 26561, Stop: 27304, Start Num: 153

Candidate Starts for Tierra\_31:

(140, 26534), (Start: 153 @26561 has 137 MA's), (162, 26579), (173, 26603), (175, 26609), (192, 26645), (Start: 214 @26693 has 1 MA's), (218, 26702), (238, 26738), (254, 26780), (296, 26888), (349, 27023), (360, 27038), (363, 27050), (369, 27071), (385, 27086), (387, 27089), (421, 27095), (470, 27173), (509, 27254), (521, 27275), (523, 27284),

Gene: Tiffany\_12 Start: 5856, Stop: 6821, Start Num: 101

Candidate Starts for Tiffany\_12:

(Start: 101 @5856 has 93 MA's), (Start: 126 @5901 has 6 MA's), (Start: 138 @5922 has 2 MA's), (201, 6042), (263, 6180), (286, 6237), (291, 6252), (333, 6333), (337, 6348), (347, 6366), (365, 6417), (369, 6435), (388, 6480), (428, 6576), (447, 6639), (465, 6678), (490, 6729),

Gene: Timshel\_11 Start: 7306, Stop: 8283, Start Num: 111

Candidate Starts for Timshel\_11:

(Start: 111 @7306 has 315 MA's), (Start: 138 @7360 has 2 MA's), (173, 7414), (186, 7447), (247, 7579), (286, 7684), (327, 7756), (334, 7783), (337, 7795), (347, 7813), (369, 7882), (397, 7945), (428, 8023), (434, 8050), (447, 8086), (468, 8134), (490, 8176), (498, 8200), (518, 8242),

Gene: TinaFeyge\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for TinaFeyge\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: TingHuaYa\_31 Start: 25601, Stop: 26455, Start Num: 153

Candidate Starts for TingHuaYa\_31:

(Start: 110 @25520 has 4 MA's), (129, 25553), (140, 25574), (Start: 153 @25601 has 137 MA's), (Start: 161 @25613 has 1 MA's), (173, 25640), (175, 25646), (188, 25676), (Start: 214 @25736 has 1 MA's), (218, 25745), (242, 25790), (254, 25823), (349, 26066), (360, 26081), (363, 26093), (369, 26114), (377, 26138), (421, 26210), (448, 26276), (467, 26315), (477, 26336), (529, 26444),

Gene: TiniBug\_31 Start: 26379, Stop: 27251, Start Num: 153

Candidate Starts for TiniBug\_31:

(100, 26277), (140, 26352), (Start: 153 @26379 has 137 MA's), (Start: 161 @26391 has 1 MA's), (192, 26460), (205, 26487), (Start: 214 @26517 has 1 MA's), (218, 26526), (238, 26562), (242, 26571), (254, 26604), (259, 26622), (296, 26712), (349, 26847), (363, 26874), (369, 26895), (377, 26919), (445, 27066), (448, 27072), (466, 27108), (477, 27132), (523, 27231), (529, 27240),

Gene: TinyTim\_251 Start: 144329, Stop: 145357, Start Num: 87

Candidate Starts for TinyTim\_251:

(Start: 87 @144329 has 167 MA's), (Start: 105 @144359 has 4 MA's), (Start: 112 @144371 has 111 MA's), (130, 144413), (168, 144476), (177, 144497), (Start: 214 @144581 has 1 MA's), (235, 144623), (241, 144635), (250, 144650), (273, 144719), (286, 144746), (309, 144800), (324, 144845), (326, 144848), (354, 144926), (361, 144947), (407, 145058), (440, 145148), (445, 145166), (480, 145238), (496, 145271),

Gene: Tinybot\_9 Start: 5861, Stop: 6841, Start Num: 112

Candidate Starts for Tinybot\_9:

(Start: 112 @5861 has 111 MA's), (125, 5888), (Start: 135 @5909 has 1 MA's), (Start: 138 @5912 has 2 MA's), (263, 6161), (286, 6218), (289, 6230), (320, 6281), (328, 6302), (345, 6350), (369, 6407), (428, 6557), (470, 6680), (477, 6692), (511, 6758),

Gene: Tiri\_31 Start: 26466, Stop: 27338, Start Num: 153

Candidate Starts for Tiri\_31:

(140, 26439), (Start: 153 @26466 has 137 MA's), (Start: 161 @26478 has 1 MA's), (192, 26547), (205, 26574), (Start: 214 @26604 has 1 MA's), (218, 26613), (238, 26649), (242, 26658), (254, 26691), (259, 26709), (274, 26739), (296, 26799), (349, 26934), (363, 26961), (369, 26982), (377, 27006), (405, 27057), (448, 27159), (466, 27195), (477, 27219), (523, 27318), (529, 27327),

Gene: TiroTheta9\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for TiroTheta9\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Todacoro\_11 Start: 6052, Stop: 7017, Start Num: 101

Candidate Starts for Todacoro\_11:

(Start: 101 @6052 has 93 MA's), (Start: 126 @6097 has 6 MA's), (Start: 138 @6118 has 2 MA's), (201, 6238), (209, 6253), (Start: 231 @6292 has 2 MA's), (263, 6376), (286, 6433), (291, 6448), (333, 6529), (337, 6544), (347, 6562), (365, 6613), (369, 6631), (388, 6676), (428, 6772), (447, 6835), (465,



6874), (490, 6925),

Gene: Tomaszewski\_34 Start: 31455, Stop: 32312, Start Num: 136

Candidate Starts for Tomaszewski\_34:

(Start: 136 @31455 has 124 MA's), (Start: 156 @31494 has 3 MA's), (166, 31524), (175, 31545), (191, 31581), (205, 31611), (236, 31686), (259, 31734), (262, 31737), (272, 31761), (274, 31764), (280, 31779), (346, 31950), (393, 32064), (398, 32079), (420, 32085), (444, 32127), (445, 32130), (470, 32184), (511, 32262), (522, 32295),

Gene: Tomathan\_14 Start: 6597, Stop: 7361, Start Num: 229

Candidate Starts for Tomathan\_14:

(Start: 229 @6597 has 16 MA's), (286, 6741), (327, 6828), (334, 6855), (337, 6867), (369, 6954), (428, 7095), (445, 7155), (447, 7158), (464, 7194), (490, 7248), (512, 7296),

Gene: Tonenili\_274 Start: 149660, Stop: 150688, Start Num: 87

Candidate Starts for Tonenili\_274:

(Start: 87 @149660 has 167 MA's), (130, 149744), (168, 149807), (177, 149828), (Start: 214 @149912 has 1 MA's), (235, 149954), (250, 149981), (273, 150050), (286, 150077), (309, 150131), (319, 150161), (324, 150176), (354, 150257), (361, 150278), (404, 150386), (407, 150389), (440, 150479), (445, 150497), (495, 150599), (496, 150602), (501, 150614),

Gene: TootsiePop\_32 Start: 27407, Stop: 28408, Start Num: 95

Candidate Starts for TootsiePop\_32:

(26, 27146), (Start: 56 @27308 has 7 MA's), (Start: 95 @27407 has 260 MA's), (130, 27482), (168, 27545), (177, 27566), (Start: 214 @27650 has 1 MA's), (223, 27674), (235, 27689), (241, 27701), (286, 27812), (334, 27926), (341, 27944), (357, 27983), (365, 28007), (374, 28043), (388, 28070), (407, 28109), (445, 28217), (468, 28265), (474, 28277), (501, 28334), (515, 28364),

Gene: Tootsieroll\_32 Start: 27571, Stop: 28572, Start Num: 95

Candidate Starts for Tootsieroll\_32:

(Start: 56 @27472 has 7 MA's), (Start: 95 @27571 has 260 MA's), (130, 27646), (168, 27709), (170, 27715), (177, 27730), (199, 27778), (Start: 214 @27814 has 1 MA's), (235, 27853), (237, 27856), (241, 27865), (250, 27880), (269, 27937), (286, 27976), (333, 28087), (357, 28147), (361, 28159), (374, 28207), (388, 28234), (407, 28273), (445, 28381), (468, 28429), (501, 28498), (515, 28528),

Gene: Topanga\_10 Start: 5820, Stop: 6794, Start Num: 111

Candidate Starts for Topanga\_10:

(Start: 111 @5820 has 315 MA's), (Start: 114 @5826 has 13 MA's), (Start: 138 @5874 has 2 MA's), (216, 6027), (286, 6189), (291, 6204), (302, 6225), (333, 6297), (336, 6303), (337, 6312), (365, 6381), (369, 6399), (388, 6444), (397, 6462), (428, 6540), (434, 6567), (440, 6582), (447, 6603), (465, 6642), (490, 6693), (508, 6735), (534, 6786),

Gene: Topgun\_10 Start: 5783, Stop: 6718, Start Num: 126

Candidate Starts for Topgun\_10:

(Start: 111 @5750 has 315 MA's), (Start: 126 @5783 has 6 MA's), (Start: 135 @5801 has 1 MA's), (Start: 138 @5804 has 2 MA's), (266, 6071), (286, 6122), (289, 6134), (327, 6209), (349, 6272), (355, 6284), (361, 6305), (365, 6317), (369, 6335), (374, 6353), (386, 6377), (407, 6416), (437, 6497), (445, 6521), (446, 6524), (448, 6527), (454, 6536), (495, 6623), (531, 6710),

Gene: Topper\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for Topper\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242,

26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: Toro\_13 Start: 7534, Stop: 8301, Start Num: 226

Candidate Starts for Toro\_13:

(203, 7486), (Start: 226 @7534 has 1 MA's), (247, 7570), (286, 7675), (327, 7747), (334, 7774), (337, 7786), (347, 7804), (369, 7873), (397, 7936), (419, 7987), (428, 8014), (434, 8041), (447, 8077), (468, 8125), (490, 8167),

Gene: Toron\_32 Start: 28021, Stop: 29040, Start Num: 95

Candidate Starts for Toron\_32:

(Start: 95 @28021 has 260 MA's), (Start: 109 @28048 has 1 MA's), (130, 28096), (168, 28159), (177, 28180), (Start: 214 @28264 has 1 MA's), (241, 28318), (250, 28333), (263, 28375), (266, 28384), (286, 28429), (327, 28516), (337, 28555), (361, 28612), (369, 28642), (392, 28693), (407, 28723), (454, 28846), (471, 28888), (472, 28891), (481, 28915), (483, 28921), (486, 28927), (487, 28930), (496, 28951),

Gene: Torres\_27 Start: 25978, Stop: 26736, Start Num: 152

Candidate Starts for Torres\_27:

(100, 25876), (129, 25930), (140, 25951), (Start: 152 @25978 has 16 MA's), (175, 26023), (192, 26059), (216, 26119), (218, 26125), (234, 26155), (254, 26203), (271, 26245), (296, 26311), (308, 26347), (349, 26446), (363, 26473), (369, 26494), (371, 26500), (442, 26539), (445, 26551), (448, 26557), (462, 26581), (470, 26605), (523, 26716), (529, 26725),

Gene: Tortoise16\_250 Start: 144342, Stop: 145370, Start Num: 87

Candidate Starts for Tortoise16\_250:

(Start: 87 @144342 has 167 MA's), (Start: 105 @144372 has 4 MA's), (Start: 112 @144384 has 111 MA's), (130, 144426), (168, 144489), (177, 144510), (Start: 214 @144594 has 1 MA's), (235, 144636), (241, 144648), (250, 144663), (273, 144732), (286, 144759), (309, 144813), (324, 144858), (326, 144861), (354, 144939), (361, 144960), (407, 145071), (440, 145161), (445, 145179), (480, 145251), (496, 145284),

Gene: Tote\_12 Start: 6491, Stop: 7459, Start Num: 111

Candidate Starts for Tote\_12:

(Start: 111 @6491 has 315 MA's), (Start: 126 @6524 has 6 MA's), (Start: 135 @6542 has 1 MA's), (Start: 138 @6545 has 2 MA's), (266, 6812), (286, 6863), (289, 6875), (327, 6950), (349, 7013), (355, 7025), (361, 7046), (369, 7076), (374, 7094), (386, 7118), (407, 7157), (437, 7238), (445, 7262), (446, 7265), (448, 7268), (454, 7277), (495, 7364), (515, 7409), (531, 7451),

Gene: Totinger\_32 Start: 27501, Stop: 28502, Start Num: 95

Candidate Starts for Totinger\_32:

(Start: 95 @27501 has 260 MA's), (130, 27576), (149, 27609), (168, 27639), (177, 27660), (189, 27690), (196, 27702), (Start: 214 @27744 has 1 MA's), (223, 27768), (235, 27783), (241, 27795), (286, 27906), (334, 28020), (341, 28038), (357, 28077), (365, 28101), (374, 28137), (388, 28164), (407, 28203), (428, 28251), (445, 28311), (474, 28371), (495, 28413), (496, 28416), (501, 28428), (515, 28458),

Gene: Toto\_35 Start: 31858, Stop: 32715, Start Num: 136

Candidate Starts for Toto\_35:

(Start: 136 @31858 has 124 MA's), (Start: 156 @31897 has 3 MA's), (166, 31927), (175, 31948), (191, 31984), (205, 32014), (236, 32089), (259, 32137), (262, 32140), (272, 32164), (274, 32167), (280, 32182), (346, 32353), (384, 32452), (393, 32467), (398, 32482), (420, 32488), (444, 32530), (445,

32533), (470, 32587), (511, 32665), (522, 32698),

Gene: Tourach\_28 Start: 26300, Stop: 27271, Start Num: 51

Candidate Starts for Tourach\_28:

(Start: 51 @26300 has 22 MA's), (67, 26354), (125, 26474), (141, 26504), (147, 26519), (175, 26585), (218, 26675), (245, 26729), (272, 26780), (277, 26792), (288, 26819), (300, 26855), (306, 26870), (310, 26885), (330, 26945), (363, 27026), (368, 27044), (369, 27047), (371, 27050), (380, 27077), (449, 27101), (470, 27146), (494, 27188), (514, 27230),

Gene: Traaww1\_33 Start: 31496, Stop: 32353, Start Num: 136

Candidate Starts for Traaww1\_33:

(Start: 136 @31496 has 124 MA's), (Start: 156 @31535 has 3 MA's), (166, 31565), (175, 31586), (191, 31622), (205, 31652), (236, 31727), (259, 31775), (262, 31778), (272, 31802), (274, 31805), (280, 31820), (346, 31991), (393, 32105), (398, 32120), (420, 32126), (444, 32168), (445, 32171), (470, 32225), (511, 32303), (522, 32336),

Gene: Traft412\_12 Start: 6678, Stop: 7646, Start Num: 111

Candidate Starts for Traft412\_12:

(Start: 111 @6678 has 315 MA's), (Start: 126 @6711 has 6 MA's), (Start: 135 @6729 has 1 MA's), (Start: 138 @6732 has 2 MA's), (266, 6999), (286, 7050), (289, 7062), (327, 7137), (349, 7200), (355, 7212), (361, 7233), (365, 7245), (369, 7263), (374, 7281), (386, 7305), (407, 7344), (437, 7425), (445, 7449), (446, 7452), (448, 7455), (454, 7464), (495, 7551), (515, 7596), (531, 7638),

Gene: Travvers\_14 Start: 6597, Stop: 7361, Start Num: 229

Candidate Starts for Travvers\_14:

(Start: 229 @6597 has 16 MA's), (286, 6741), (327, 6828), (334, 6855), (337, 6867), (369, 6954), (428, 7095), (445, 7155), (447, 7158), (464, 7194), (490, 7248), (512, 7296),

Gene: Treddle\_11 Start: 6485, Stop: 7453, Start Num: 111

Candidate Starts for Treddle\_11:

(Start: 111 @6485 has 315 MA's), (Start: 126 @6518 has 6 MA's), (Start: 135 @6536 has 1 MA's), (266, 6806), (286, 6857), (289, 6869), (327, 6944), (349, 7007), (355, 7019), (361, 7040), (365, 7052), (369, 7070), (374, 7088), (386, 7112), (407, 7151), (437, 7232), (445, 7256), (446, 7259), (448, 7262), (454, 7271), (495, 7358), (506, 7382), (515, 7403), (531, 7445),

Gene: TreyKay\_31 Start: 26427, Stop: 27299, Start Num: 153

Candidate Starts for TreyKay\_31:

(140, 26400), (Start: 153 @26427 has 137 MA's), (Start: 161 @26439 has 1 MA's), (192, 26508), (205, 26535), (Start: 214 @26565 has 1 MA's), (218, 26574), (238, 26610), (242, 26619), (254, 26652), (259, 26670), (296, 26760), (349, 26895), (363, 26922), (369, 26943), (377, 26967), (405, 27018), (448, 27120), (466, 27156), (477, 27180), (523, 27279), (529, 27288),

Gene: TribelTrouble\_30 Start: 26988, Stop: 27776, Start Num: 153

Candidate Starts for TribelTrouble\_30:

(129, 26943), (Start: 153 @26988 has 137 MA's), (175, 27033), (192, 27069), (Start: 214 @27126 has 1 MA's), (218, 27135), (259, 27225), (271, 27249), (326, 27390), (349, 27453), (363, 27495), (368, 27513), (369, 27516), (371, 27522), (377, 27540), (444, 27570), (477, 27639), (511, 27711), (523, 27741),

Gene: Trike\_8 Start: 3772, Stop: 4746, Start Num: 111

Candidate Starts for Trike\_8:

(65, 3733), (Start: 111 @3772 has 315 MA's), (Start: 126 @3805 has 6 MA's), (Start: 138 @3826 has 2 MA's), (222, 3994), (241, 4036), (247, 4051), (286, 4156), (327, 4228), (334, 4255), (336, 4258),

(337, 4267), (353, 4303), (369, 4354), (428, 4501), (447, 4564), (465, 4603), (486, 4645),

Gene: Trinitium\_249 Start: 143083, Stop: 144111, Start Num: 87

Candidate Starts for Trinitium\_249:

(Start: 87 @143083 has 167 MA's), (Start: 105 @143113 has 4 MA's), (Start: 112 @143125 has 111 MA's), (130, 143167), (168, 143230), (177, 143251), (Start: 214 @143335 has 1 MA's), (235, 143377), (241, 143389), (250, 143404), (273, 143473), (286, 143500), (309, 143554), (324, 143599), (326, 143602), (354, 143680), (361, 143701), (407, 143812), (440, 143902), (445, 143920), (480, 143992), (496, 144025),

Gene: Tripl3t\_11 Start: 6673, Stop: 7641, Start Num: 111

Candidate Starts for Tripl3t\_11:

(Start: 111 @6673 has 315 MA's), (Start: 126 @6706 has 6 MA's), (Start: 135 @6724 has 1 MA's), (Start: 138 @6727 has 2 MA's), (266, 6994), (286, 7045), (289, 7057), (327, 7132), (349, 7195), (355, 7207), (361, 7228), (365, 7240), (369, 7258), (374, 7276), (386, 7300), (407, 7339), (437, 7420), (445, 7444), (446, 7447), (448, 7450), (454, 7459), (495, 7546), (506, 7570), (531, 7633),

Gene: Trixie\_14 Start: 8087, Stop: 9064, Start Num: 111

Candidate Starts for Trixie\_14:

(80, 8045), (Start: 111 @8087 has 315 MA's), (Start: 138 @8141 has 2 MA's), (263, 8378), (286, 8435), (327, 8519), (337, 8558), (365, 8627), (366, 8630), (369, 8645), (397, 8708), (404, 8729), (416, 8750), (428, 8798), (434, 8825), (440, 8840), (445, 8858), (447, 8861), (490, 8951),

Gene: Trooper\_11 Start: 6230, Stop: 7222, Start Num: 111

Candidate Starts for Trooper\_11:

(Start: 111 @6230 has 315 MA's), (Start: 126 @6263 has 6 MA's), (Start: 135 @6281 has 1 MA's), (Start: 138 @6284 has 2 MA's), (209, 6419), (233, 6452), (235, 6458), (237, 6461), (247, 6485), (268, 6545), (286, 6590), (327, 6677), (341, 6722), (361, 6761), (376, 6809), (384, 6824), (417, 6890), (418, 6893), (427, 6932), (438, 6968), (458, 7019), (507, 7133), (538, 7208),

Gene: Trouble\_10 Start: 6322, Stop: 7290, Start Num: 111

Candidate Starts for Trouble\_10:

(Start: 111 @6322 has 315 MA's), (Start: 126 @6355 has 6 MA's), (Start: 135 @6373 has 1 MA's), (Start: 138 @6376 has 2 MA's), (266, 6643), (286, 6694), (289, 6706), (327, 6781), (349, 6844), (361, 6877), (365, 6889), (369, 6907), (374, 6925), (386, 6949), (407, 6988), (437, 7069), (445, 7093), (446, 7096), (448, 7099), (454, 7108), (495, 7195), (531, 7282),

Gene: TroyPia\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for TroyPia\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: TruffulaTree\_31 Start: 26457, Stop: 27329, Start Num: 153

Candidate Starts for TruffulaTree\_31:

(32, 26127), (100, 26355), (140, 26430), (Start: 153 @26457 has 137 MA's), (Start: 161 @26469 has 1 MA's), (192, 26538), (205, 26565), (Start: 214 @26595 has 1 MA's), (218, 26604), (238, 26640), (242, 26649), (254, 26682), (259, 26700), (274, 26730), (295, 26787), (296, 26790), (349, 26925), (363, 26952), (369, 26973), (377, 26997), (405, 27048), (448, 27150), (466, 27186), (477, 27210), (523, 27309), (529, 27318),

Gene: Tuco\_36 Start: 32366, Stop: 33223, Start Num: 136

Candidate Starts for Tuco\_36:

(Start: 136 @32366 has 124 MA's), (Start: 156 @32405 has 3 MA's), (166, 32435), (175, 32456), (191, 32492), (205, 32522), (236, 32597), (259, 32645), (262, 32648), (272, 32672), (274, 32675), (280, 32690), (346, 32861), (393, 32975), (398, 32990), (420, 32996), (444, 33038), (445, 33041), (470, 33095), (511, 33173), (522, 33206),

Gene: Turbido\_13 Start: 6895, Stop: 7887, Start Num: 111

Candidate Starts for Turbido\_13:

(Start: 111 @6895 has 315 MA's), (Start: 126 @6928 has 6 MA's), (Start: 135 @6946 has 1 MA's), (Start: 138 @6949 has 2 MA's), (233, 7117), (235, 7123), (247, 7150), (268, 7210), (286, 7255), (327, 7342), (341, 7387), (361, 7426), (376, 7474), (384, 7489), (417, 7555), (427, 7597), (458, 7684), (507, 7798),

Gene: Turj99\_9 Start: 5766, Stop: 6734, Start Num: 111

Candidate Starts for Turj99\_9:

(Start: 111 @5766 has 315 MA's), (Start: 126 @5799 has 6 MA's), (Start: 135 @5817 has 1 MA's), (Start: 138 @5820 has 2 MA's), (266, 6087), (286, 6138), (289, 6150), (327, 6225), (349, 6288), (355, 6300), (361, 6321), (365, 6333), (369, 6351), (374, 6369), (386, 6393), (407, 6432), (437, 6513), (445, 6537), (446, 6540), (448, 6543), (454, 6552), (495, 6639), (515, 6684), (531, 6726),

Gene: Turret\_243 Start: 142216, Stop: 143244, Start Num: 87

Candidate Starts for Turret\_243:

(Start: 87 @142216 has 167 MA's), (Start: 105 @142246 has 4 MA's), (Start: 112 @142258 has 111 MA's), (130, 142300), (168, 142363), (177, 142384), (Start: 214 @142468 has 1 MA's), (235, 142510), (241, 142522), (250, 142537), (273, 142606), (286, 142633), (309, 142687), (324, 142732), (326, 142735), (354, 142813), (361, 142834), (407, 142945), (440, 143035), (445, 143053), (480, 143125), (496, 143158),

Gene: Tweety\_31 Start: 27740, Stop: 28741, Start Num: 95

Candidate Starts for Tweety\_31:

(Start: 95 @27740 has 260 MA's), (130, 27815), (149, 27848), (168, 27878), (177, 27899), (Start: 214 @27983 has 1 MA's), (241, 28034), (250, 28049), (286, 28145), (341, 28277), (357, 28316), (361, 28328), (374, 28376), (388, 28403), (400, 28427), (407, 28442), (445, 28550), (468, 28598), (501, 28667), (515, 28697),

Gene: Twister\_10 Start: 5719, Stop: 6693, Start Num: 111

Candidate Starts for Twister\_10:

(Start: 111 @5719 has 315 MA's), (Start: 114 @5725 has 13 MA's), (Start: 138 @5773 has 2 MA's), (216, 5926), (286, 6088), (291, 6103), (302, 6124), (333, 6196), (336, 6202), (337, 6211), (365, 6280), (369, 6298), (388, 6343), (397, 6361), (428, 6439), (434, 6466), (440, 6481), (447, 6502), (465, 6541), (490, 6592), (508, 6634), (534, 6685),

Gene: Twitch\_31 Start: 26494, Stop: 27366, Start Num: 153

Candidate Starts for Twitch\_31:

(32, 26164), (100, 26392), (140, 26467), (Start: 153 @26494 has 137 MA's), (Start: 161 @26506 has 1 MA's), (192, 26575), (205, 26602), (Start: 214 @26632 has 1 MA's), (218, 26641), (238, 26677), (242, 26686), (254, 26719), (259, 26737), (274, 26767), (296, 26827), (349, 26962), (363, 26989), (369, 27010), (377, 27034), (405, 27085), (448, 27187), (466, 27223), (477, 27247), (523, 27346), (529, 27355),

Gene: TwoPeat\_11 Start: 6284, Stop: 7252, Start Num: 111

Candidate Starts for TwoPeat\_11:

(Start: 111 @6284 has 315 MA's), (Start: 126 @6317 has 6 MA's), (Start: 135 @6335 has 1 MA's), (Start: 138 @6338 has 2 MA's), (266, 6605), (286, 6656), (289, 6668), (327, 6743), (349, 6806), (355,

6818), (361, 6839), (365, 6851), (369, 6869), (374, 6887), (386, 6911), (407, 6950), (437, 7031), (445, 7055), (446, 7058), (448, 7061), (454, 7070), (495, 7157), (515, 7202), (531, 7244),

Gene: TyDawg\_38 Start: 31794, Stop: 32765, Start Num: 58

Candidate Starts for TyDawg\_38:

(Start: 58 @31794 has 13 MA's), (63, 31818), (69, 31833), (134, 31971), (150, 31998), (158, 32016), (162, 32028), (166, 32037), (185, 32082), (191, 32094), (206, 32121), (218, 32148), (222, 32160), (246, 32205), (257, 32232), (272, 32262), (276, 32271), (277, 32274), (310, 32361), (317, 32376), (371, 32529), (372, 32532), (441, 32592), (444, 32604), (448, 32613), (466, 32649), (471, 32664), (494, 32703), (509, 32736),

Gene: Tydolla\_47 Start: 42271, Stop: 43335, Start Num: 84

Candidate Starts for Tydolla\_47:

(Start: 84 @42271 has 45 MA's), (115, 42334), (157, 42415), (189, 42481), (197, 42496), (203, 42508), (215, 42535), (245, 42592), (250, 42601), (308, 42748), (315, 42763), (333, 42817), (347, 42850), (362, 42889), (366, 42901), (401, 42982), (411, 43000), (412, 43003), (428, 43048), (468, 43159), (521, 43270), (527, 43291), (541, 43324),

Gene: TygerBlood\_10 Start: 5883, Stop: 6863, Start Num: 112

Candidate Starts for TygerBlood\_10:

(Start: 112 @5883 has 111 MA's), (Start: 114 @5886 has 13 MA's), (125, 5910), (Start: 135 @5931 has 1 MA's), (Start: 138 @5934 has 2 MA's), (263, 6183), (286, 6240), (320, 6303), (328, 6324), (333, 6345), (345, 6372), (362, 6402), (369, 6429), (428, 6579), (466, 6690), (470, 6702), (477, 6714), (511, 6780),

Gene: Tyke\_249 Start: 146465, Stop: 147493, Start Num: 87

Candidate Starts for Tyke\_249:

(Start: 87 @146465 has 167 MA's), (Start: 105 @146495 has 4 MA's), (Start: 112 @146507 has 111 MA's), (130, 146549), (168, 146612), (177, 146633), (Start: 214 @146717 has 1 MA's), (235, 146759), (241, 146771), (250, 146786), (273, 146855), (286, 146882), (309, 146936), (324, 146981), (326, 146984), (354, 147062), (361, 147083), (407, 147194), (440, 147284), (445, 147302), (480, 147374), (496, 147407),

Gene: Tyson\_26 Start: 25547, Stop: 26578, Start Num: 96

Candidate Starts for Tyson\_26:

(Start: 96 @25547 has 29 MA's), (181, 25700), (182, 25703), (194, 25727), (198, 25739), (206, 25757), (211, 25775), (218, 25793), (219, 25799), (223, 25808), (228, 25823), (237, 25838), (263, 25910), (286, 25967), (304, 26006), (336, 26084), (337, 26093), (339, 26096), (347, 26111), (364, 26165), (369, 26186), (373, 26201), (414, 26285), (425, 26315), (446, 26384), (454, 26396), (465, 26420), (471, 26438), (473, 26441), (480, 26453), (482, 26456), (496, 26486), (501, 26498),

Gene: U2\_9 Start: 5609, Stop: 6577, Start Num: 111

Candidate Starts for U2\_9:

(Start: 111 @5609 has 315 MA's), (Start: 126 @5642 has 6 MA's), (Start: 135 @5660 has 1 MA's), (Start: 138 @5663 has 2 MA's), (266, 5930), (286, 5981), (289, 5993), (327, 6068), (349, 6131), (355, 6143), (361, 6164), (365, 6176), (369, 6194), (374, 6212), (386, 6236), (407, 6275), (437, 6356), (445, 6380), (446, 6383), (448, 6386), (454, 6395), (486, 6461), (495, 6482), (531, 6569),

Gene: UPIE\_26 Start: 25545, Stop: 26576, Start Num: 96

Candidate Starts for UPIE\_26:

(Start: 96 @25545 has 29 MA's), (182, 25701), (194, 25725), (198, 25737), (206, 25755), (211, 25773), (218, 25791), (219, 25797), (223, 25806), (228, 25821), (237, 25836), (255, 25884), (263, 25908), (286, 25965), (304, 26004), (336, 26082), (337, 26091), (339, 26094), (347, 26109), (364,

26163), (369, 26184), (373, 26199), (414, 26283), (425, 26313), (446, 26382), (454, 26394), (465, 26418), (471, 26436), (473, 26439), (480, 26451), (482, 26454), (496, 26484), (501, 26496),

Gene: Ukulele\_35 Start: 31616, Stop: 32473, Start Num: 136

Candidate Starts for Ukulele\_35:

(Start: 136 @31616 has 124 MA's), (Start: 156 @31655 has 3 MA's), (166, 31685), (175, 31706), (191, 31742), (205, 31772), (236, 31847), (259, 31895), (262, 31898), (272, 31922), (274, 31925), (280, 31940), (346, 32111), (393, 32225), (398, 32240), (420, 32246), (444, 32288), (445, 32291), (470, 32345), (511, 32423), (522, 32456),

Gene: Ulysses\_9 Start: 5600, Stop: 6580, Start Num: 112

Candidate Starts for Ulysses\_9:

(Start: 112 @5600 has 111 MA's), (125, 5627), (Start: 138 @5651 has 2 MA's), (219, 5816), (263, 5900), (286, 5957), (289, 5969), (320, 6020), (328, 6041), (333, 6062), (345, 6089), (361, 6116), (369, 6146), (428, 6296), (470, 6419), (477, 6431), (511, 6497),

Gene: UncleRicky\_34 Start: 28832, Stop: 29833, Start Num: 95

Candidate Starts for UncleRicky\_34:

(26, 28580), (Start: 56 @28733 has 7 MA's), (Start: 95 @28832 has 260 MA's), (Start: 105 @28853 has 4 MA's), (Start: 112 @28865 has 111 MA's), (130, 28907), (168, 28970), (177, 28991), (189, 29021), (Start: 214 @29075 has 1 MA's), (223, 29099), (241, 29126), (286, 29237), (334, 29351), (341, 29369), (357, 29408), (365, 29432), (374, 29468), (388, 29495), (407, 29534), (428, 29582), (445, 29642), (474, 29702), (501, 29759), (515, 29789),

Gene: Unicorn\_31 Start: 25890, Stop: 26633, Start Num: 153

Candidate Starts for Unicorn\_31:

(140, 25863), (Start: 153 @25890 has 137 MA's), (173, 25932), (175, 25938), (192, 25974), (Start: 214 @26022 has 1 MA's), (218, 26031), (238, 26067), (254, 26109), (296, 26217), (349, 26352), (360, 26367), (363, 26379), (369, 26400), (387, 26418), (421, 26424), (470, 26502), (509, 26583), (521, 26604), (523, 26613),

Gene: Updawg\_13 Start: 6926, Stop: 7903, Start Num: 111

Candidate Starts for Updawg\_13:

(Start: 111 @6926 has 315 MA's), (Start: 138 @6980 has 2 MA's), (180, 7037), (247, 7169), (263, 7217), (286, 7274), (302, 7310), (327, 7358), (337, 7397), (366, 7469), (369, 7484), (388, 7529), (397, 7547), (416, 7589), (428, 7637), (434, 7664), (440, 7679), (445, 7697), (447, 7700), (490, 7790),

Gene: Urkel\_31 Start: 26382, Stop: 27254, Start Num: 153

Candidate Starts for Urkel\_31:

(100, 26280), (140, 26355), (Start: 153 @26382 has 137 MA's), (Start: 161 @26394 has 1 MA's), (192, 26463), (205, 26490), (Start: 214 @26520 has 1 MA's), (218, 26529), (238, 26565), (242, 26574), (254, 26607), (259, 26625), (296, 26715), (349, 26850), (363, 26877), (369, 26898), (377, 26922), (405, 26973), (448, 27075), (466, 27111), (477, 27135), (523, 27234), (529, 27243),

Gene: VA6\_11 Start: 6428, Stop: 7405, Start Num: 111

Candidate Starts for VA6\_11:

(16, 5960), (Start: 111 @6428 has 315 MA's), (Start: 138 @6482 has 2 MA's), (247, 6671), (257, 6707), (263, 6719), (286, 6776), (302, 6812), (327, 6860), (337, 6899), (358, 6947), (364, 6965), (366, 6971), (369, 6986), (397, 7049), (416, 7091), (428, 7139), (434, 7166), (440, 7181), (445, 7199), (447, 7202), (465, 7241), (490, 7292),

Gene: VC3\_14 Start: 6596, Stop: 7345, Start Num: 229

Candidate Starts for VC3\_14:

(Start: 229 @6596 has 16 MA's), (233, 6602), (287, 6743), (327, 6830), (333, 6854), (336, 6860), (347, 6887), (365, 6938), (369, 6956), (428, 7100), (447, 7163), (468, 7211), (469, 7214), (486, 7244), (490, 7253),

Gene: VRedHorse\_31 Start: 27690, Stop: 28691, Start Num: 95

Candidate Starts for VRedHorse\_31:

(Start: 95 @27690 has 260 MA's), (130, 27765), (149, 27798), (168, 27828), (177, 27849), (Start: 214 @27933 has 1 MA's), (241, 27984), (286, 28095), (333, 28206), (341, 28227), (357, 28266), (361, 28278), (374, 28326), (388, 28353), (400, 28377), (407, 28392), (445, 28500), (474, 28560), (501, 28617), (515, 28647),

Gene: Vagabond\_65 Start: 43249, Stop: 44289, Start Num: 95

Candidate Starts for Vagabond\_65:

(Start: 95 @43249 has 260 MA's), (130, 43324), (168, 43405), (170, 43411), (177, 43426), (213, 43507), (Start: 214 @43510 has 1 MA's), (241, 43564), (250, 43579), (286, 43675), (304, 43714), (312, 43744), (324, 43774), (326, 43777), (336, 43810), (361, 43876), (374, 43924), (388, 43951), (407, 43990), (478, 44164), (501, 44215),

Gene: Validus\_31 Start: 25785, Stop: 26546, Start Num: 153

Candidate Starts for Validus\_31:

(Start: 153 @25785 has 137 MA's), (175, 25830), (192, 25866), (218, 25932), (234, 25962), (238, 25968), (242, 25977), (254, 26010), (271, 26052), (290, 26103), (296, 26118), (349, 26253), (363, 26280), (369, 26301), (371, 26307), (377, 26325), (445, 26358), (448, 26364), (470, 26412), (503, 26481), (523, 26526), (529, 26535),

Gene: ValleyTerrace\_253 Start: 143793, Stop: 144821, Start Num: 87

Candidate Starts for ValleyTerrace\_253:

(Start: 87 @143793 has 167 MA's), (Start: 105 @143823 has 4 MA's), (Start: 112 @143835 has 111 MA's), (130, 143877), (168, 143940), (177, 143961), (Start: 214 @144045 has 1 MA's), (235, 144087), (241, 144099), (250, 144114), (273, 144183), (286, 144210), (309, 144264), (324, 144309), (326, 144312), (354, 144390), (361, 144411), (407, 144522), (440, 144612), (445, 144630), (480, 144702), (496, 144735),

Gene: Veliki\_31 Start: 26497, Stop: 27369, Start Num: 153

Candidate Starts for Veliki\_31:

(140, 26470), (Start: 153 @26497 has 137 MA's), (Start: 161 @26509 has 1 MA's), (192, 26578), (205, 26605), (Start: 214 @26635 has 1 MA's), (218, 26644), (238, 26680), (242, 26689), (254, 26722), (259, 26740), (274, 26770), (295, 26827), (296, 26830), (349, 26965), (363, 26992), (369, 27013), (377, 27037), (405, 27088), (448, 27190), (466, 27226), (477, 27250), (523, 27349), (529, 27358),

Gene: Velveteen\_27 Start: 23733, Stop: 24731, Start Num: 95

Candidate Starts for Velveteen\_27:

(Start: 95 @23733 has 260 MA's), (130, 23808), (168, 23868), (177, 23889), (Start: 214 @23973 has 1 MA's), (241, 24024), (250, 24039), (286, 24135), (327, 24222), (333, 24246), (341, 24267), (357, 24306), (361, 24318), (374, 24366), (388, 24393), (400, 24417), (407, 24432), (445, 24540), (468, 24588), (501, 24657), (515, 24687),

Gene: Veracruz\_10 Start: 6052, Stop: 7017, Start Num: 101

Candidate Starts for Veracruz\_10:

(Start: 101 @6052 has 93 MA's), (Start: 126 @6097 has 6 MA's), (Start: 138 @6118 has 2 MA's), (201, 6238), (209, 6253), (Start: 231 @6292 has 2 MA's), (263, 6376), (286, 6433), (291, 6448), (333, 6529), (337, 6544), (347, 6562), (365, 6613), (369, 6631), (388, 6676), (428, 6772), (447, 6835), (465, 6874), (490, 6925),



Gene: Veteran\_31 Start: 27537, Stop: 28538, Start Num: 95

Candidate Starts for Veteran\_31:

(5, 26916), (7, 26994), (9, 27057), (15, 27096), (22, 27249), (26, 27285), (Start: 95 @27537 has 260 MA's), (Start: 105 @27558 has 4 MA's), (Start: 112 @27570 has 111 MA's), (130, 27612), (168, 27675), (177, 27696), (189, 27726), (Start: 214 @27780 has 1 MA's), (223, 27804), (241, 27831), (286, 27942), (334, 28056), (341, 28074), (357, 28113), (365, 28137), (374, 28173), (388, 28200), (407, 28239), (428, 28287), (445, 28347), (474, 28407), (501, 28464), (515, 28494),

Gene: Vetric\_28 Start: 26309, Stop: 27280, Start Num: 51

Candidate Starts for Vetric\_28:

(Start: 51 @26309 has 22 MA's), (67, 26363), (125, 26483), (141, 26513), (Start: 161 @26561 has 1 MA's), (162, 26564), (166, 26573), (175, 26594), (205, 26657), (218, 26684), (232, 26708), (245, 26738), (272, 26789), (277, 26801), (300, 26864), (306, 26879), (325, 26939), (330, 26954), (363, 27035), (369, 27056), (371, 27059), (449, 27110), (470, 27155), (494, 27197), (514, 27239),

Gene: Violet\_9 Start: 5558, Stop: 6526, Start Num: 111

Candidate Starts for Violet\_9:

(Start: 111 @5558 has 315 MA's), (Start: 126 @5591 has 6 MA's), (Start: 135 @5609 has 1 MA's), (Start: 138 @5612 has 2 MA's), (266, 5879), (286, 5930), (289, 5942), (327, 6017), (349, 6080), (355, 6092), (361, 6113), (365, 6125), (369, 6143), (374, 6161), (386, 6185), (407, 6224), (437, 6305), (445, 6329), (446, 6332), (448, 6335), (454, 6344), (495, 6431), (531, 6518),

Gene: Vix\_12 Start: 6044, Stop: 7009, Start Num: 101

Candidate Starts for Vix\_12:

(Start: 101 @6044 has 93 MA's), (Start: 126 @6089 has 6 MA's), (Start: 138 @6110 has 2 MA's), (201, 6230), (263, 6368), (286, 6425), (291, 6440), (333, 6521), (337, 6536), (347, 6554), (365, 6605), (369, 6623), (388, 6668), (428, 6764), (447, 6827), (465, 6866), (490, 6917),

Gene: Vorrps\_67 Start: 43461, Stop: 44501, Start Num: 95

Candidate Starts for Vorrps\_67:

(Start: 95 @43461 has 260 MA's), (130, 43536), (168, 43617), (170, 43623), (177, 43638), (213, 43719), (Start: 214 @43722 has 1 MA's), (241, 43776), (250, 43791), (286, 43887), (304, 43926), (312, 43956), (324, 43986), (326, 43989), (336, 44022), (361, 44088), (372, 44127), (374, 44136), (388, 44163), (407, 44202), (478, 44376), (501, 44427),

Gene: Wachhund\_31 Start: 27697, Stop: 28698, Start Num: 95

Candidate Starts for Wachhund\_31:

(Start: 95 @27697 has 260 MA's), (Start: 105 @27718 has 4 MA's), (Start: 112 @27730 has 111 MA's), (130, 27772), (177, 27856), (189, 27886), (Start: 214 @27940 has 1 MA's), (223, 27964), (235, 27979), (241, 27991), (286, 28102), (333, 28213), (341, 28234), (357, 28273), (361, 28285), (374, 28333), (388, 28360), (400, 28384), (407, 28399), (445, 28507), (468, 28555), (501, 28624), (515, 28654),

Gene: Wally\_250 Start: 143777, Stop: 144805, Start Num: 87

Candidate Starts for Wally\_250:

(Start: 87 @143777 has 167 MA's), (Start: 105 @143807 has 4 MA's), (Start: 112 @143819 has 111 MA's), (130, 143861), (168, 143924), (177, 143945), (Start: 214 @144029 has 1 MA's), (235, 144071), (241, 144083), (250, 144098), (273, 144167), (286, 144194), (309, 144248), (324, 144293), (326, 144296), (354, 144374), (361, 144395), (407, 144506), (440, 144596), (445, 144614), (480, 144686), (496, 144719),

Gene: WalterMcMickey\_10 Start: 5719, Stop: 6693, Start Num: 111

Candidate Starts for WalterMcMickey\_10:

(Start: 111 @5719 has 315 MA's), (Start: 114 @5725 has 13 MA's), (Start: 138 @5773 has 2 MA's), (216, 5926), (286, 6088), (291, 6103), (302, 6124), (333, 6196), (336, 6202), (337, 6211), (365, 6280), (369, 6298), (388, 6343), (397, 6361), (428, 6439), (434, 6466), (440, 6481), (447, 6502), (465, 6541), (490, 6592), (508, 6634), (534, 6685),

Gene: Wamburgexpress\_26 Start: 25560, Stop: 26591, Start Num: 96

Candidate Starts for Wamburgexpress\_26:

(Start: 96 @25560 has 29 MA's), (181, 25713), (182, 25716), (194, 25740), (198, 25752), (206, 25770), (211, 25788), (218, 25806), (219, 25812), (223, 25821), (228, 25836), (237, 25851), (263, 25923), (286, 25980), (304, 26019), (336, 26097), (337, 26106), (339, 26109), (347, 26124), (364, 26178), (369, 26199), (373, 26214), (414, 26298), (425, 26328), (446, 26397), (454, 26409), (465, 26433), (471, 26451), (473, 26454), (480, 26466), (482, 26469), (496, 26499), (501, 26511),

Gene: Wanda\_55 Start: 42450, Stop: 43322, Start Num: 91

Candidate Starts for Wanda\_55:

(Start: 91 @42450 has 31 MA's), (Start: 104 @42477 has 1 MA's), (132, 42537), (158, 42585), (190, 42651), (202, 42672), (Start: 214 @42693 has 1 MA's), (243, 42747), (279, 42828), (379, 43107), (380, 43110), (439, 43134), (452, 43170), (462, 43185), (466, 43197), (475, 43218),

Gene: Wander\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for Wander\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (466, 6688), (470, 6700), (477, 6712), (511, 6778),

Gene: Waterfoul\_30 Start: 27070, Stop: 27942, Start Num: 153

Candidate Starts for Waterfoul\_30:

(100, 26968), (129, 27022), (Start: 153 @27070 has 137 MA's), (Start: 161 @27082 has 1 MA's), (162, 27085), (164, 27088), (175, 27115), (188, 27145), (192, 27151), (Start: 214 @27205 has 1 MA's), (218, 27214), (222, 27226), (234, 27244), (242, 27259), (254, 27292), (259, 27310), (274, 27340), (299, 27409), (363, 27562), (368, 27580), (369, 27583), (394, 27643), (405, 27661), (421, 27688), (448, 27760), (460, 27775), (466, 27796), (467, 27799), (477, 27820), (521, 27913), (523, 27922), (529, 27931),

Gene: Watermelon\_12 Start: 6873, Stop: 7841, Start Num: 111

Candidate Starts for Watermelon\_12:

(Start: 111 @6873 has 315 MA's), (Start: 126 @6906 has 6 MA's), (Start: 135 @6924 has 1 MA's), (Start: 138 @6927 has 2 MA's), (266, 7194), (286, 7245), (289, 7257), (327, 7332), (349, 7395), (361, 7428), (365, 7440), (369, 7458), (374, 7476), (407, 7539), (437, 7620), (445, 7644), (446, 7647), (448, 7650), (454, 7659), (495, 7746), (515, 7791), (531, 7833),

Gene: Watson\_12 Start: 5954, Stop: 6919, Start Num: 101

Candidate Starts for Watson\_12:

(Start: 101 @5954 has 93 MA's), (Start: 126 @5999 has 6 MA's), (Start: 138 @6020 has 2 MA's), (201, 6140), (263, 6278), (286, 6335), (291, 6350), (333, 6431), (337, 6446), (347, 6464), (365, 6515), (369, 6533), (388, 6578), (428, 6674), (447, 6737), (465, 6776), (490, 6827),

Gene: Wee\_32 Start: 28223, Stop: 29221, Start Num: 95

Candidate Starts for Wee\_32:

(Start: 95 @28223 has 260 MA's), (130, 28298), (168, 28358), (177, 28379), (Start: 214 @28463 has 1 MA's), (241, 28514), (250, 28529), (286, 28625), (333, 28736), (341, 28757), (357, 28796), (361, 28808), (374, 28856), (388, 28883), (400, 28907), (407, 28922), (445, 29030), (468, 29078), (501,

29147), (515, 29177),

Gene: WeiHuaDA\_17 Start: 8697, Stop: 9674, Start Num: 111

Candidate Starts for WeiHuaDA\_17:

(80, 8655), (Start: 111 @8697 has 315 MA's), (Start: 138 @8751 has 2 MA's), (263, 8988), (286, 9045), (327, 9129), (337, 9168), (365, 9237), (369, 9255), (397, 9318), (416, 9360), (428, 9408), (434, 9435), (440, 9450), (445, 9468), (447, 9471), (490, 9561), (527, 9660),

Gene: Weiss13\_39 Start: 35042, Stop: 36091, Start Num: 90

Candidate Starts for Weiss13\_39:

(Start: 90 @35042 has 9 MA's), (130, 35126), (Start: 138 @35135 has 2 MA's), (150, 35159), (168, 35189), (177, 35210), (193, 35246), (203, 35267), (208, 35276), (Start: 214 @35294 has 1 MA's), (250, 35363), (285, 35453), (303, 35495), (310, 35516), (340, 35615), (352, 35642), (374, 35714), (407, 35768), (465, 35921), (476, 35945), (480, 35954), (498, 35996), (501, 35999), (504, 36005), (510, 36014), (524, 36050), (527, 36059), (534, 36068),

Gene: Whabigail7\_13 Start: 6883, Stop: 7875, Start Num: 111

Candidate Starts for Whabigail7\_13:

(Start: 111 @6883 has 315 MA's), (Start: 135 @6934 has 1 MA's), (Start: 138 @6937 has 2 MA's), (233, 7105), (235, 7111), (247, 7138), (268, 7198), (286, 7243), (327, 7330), (341, 7375), (361, 7414), (376, 7462), (384, 7477), (417, 7543), (427, 7585), (458, 7672), (507, 7786),

Gene: Whatsapiecost\_32 Start: 27956, Stop: 28957, Start Num: 95

Candidate Starts for Whatsapiecost\_32:

(Start: 95 @27956 has 260 MA's), (130, 28031), (168, 28094), (177, 28115), (Start: 214 @28199 has 1 MA's), (223, 28223), (235, 28238), (241, 28250), (286, 28361), (334, 28475), (341, 28493), (357, 28532), (365, 28556), (374, 28592), (388, 28619), (407, 28658), (445, 28766), (468, 28814), (501, 28883), (515, 28913),

Gene: Wheeler\_10 Start: 6039, Stop: 7007, Start Num: 111

Candidate Starts for Wheeler\_10:

(Start: 111 @6039 has 315 MA's), (Start: 126 @6072 has 6 MA's), (Start: 135 @6090 has 1 MA's), (Start: 138 @6093 has 2 MA's), (266, 6360), (286, 6411), (289, 6423), (327, 6498), (349, 6561), (355, 6573), (361, 6594), (365, 6606), (369, 6624), (374, 6642), (386, 6666), (407, 6705), (437, 6786), (445, 6810), (446, 6813), (448, 6816), (454, 6825), (495, 6912), (531, 6999),

Gene: Whirlwind\_29 Start: 26586, Stop: 27629, Start Num: 46

Candidate Starts for Whirlwind\_29:

(Start: 46 @26586 has 17 MA's), (47, 26592), (50, 26598), (55, 26619), (60, 26640), (83, 26691), (99, 26721), (124, 26772), (141, 26805), (145, 26817), (178, 26877), (216, 26958), (218, 26964), (242, 27009), (268, 27060), (275, 27078), (277, 27084), (280, 27090), (306, 27162), (329, 27219), (352, 27279), (378, 27354), (389, 27375), (441, 27399), (445, 27414), (448, 27420), (477, 27483), (523, 27585), (532, 27606), (537, 27612),

Gene: Whouxphf\_32 Start: 28010, Stop: 29011, Start Num: 95

Candidate Starts for Whouxphf\_32:

(Start: 95 @28010 has 260 MA's), (130, 28085), (149, 28118), (168, 28148), (177, 28169), (189, 28199), (196, 28211), (Start: 214 @28253 has 1 MA's), (223, 28277), (235, 28292), (241, 28304), (286, 28415), (334, 28529), (341, 28547), (357, 28586), (365, 28610), (374, 28646), (388, 28673), (407, 28712), (428, 28760), (445, 28820), (468, 28868), (474, 28880), (496, 28925), (501, 28937), (515, 28967),

Gene: WideWale\_13 Start: 6926, Stop: 7903, Start Num: 111

Candidate Starts for WideWale\_13:

(Start: 111 @6926 has 315 MA's), (Start: 138 @6980 has 2 MA's), (180, 7037), (247, 7169), (263, 7217), (286, 7274), (302, 7310), (327, 7358), (337, 7397), (366, 7469), (369, 7484), (388, 7529), (397, 7547), (416, 7589), (428, 7637), (434, 7664), (440, 7679), (445, 7697), (447, 7700), (490, 7790),

Gene: Wiggin\_38 Start: 32362, Stop: 33219, Start Num: 136

Candidate Starts for Wiggin\_38:

(Start: 136 @32362 has 124 MA's), (Start: 156 @32401 has 3 MA's), (166, 32431), (175, 32452), (191, 32488), (205, 32518), (236, 32593), (259, 32641), (262, 32644), (272, 32668), (274, 32671), (280, 32686), (346, 32857), (393, 32971), (398, 32986), (420, 32992), (444, 33034), (445, 33037), (470, 33091), (511, 33169), (522, 33202),

Gene: Wigglewigggle\_28 Start: 26335, Stop: 27306, Start Num: 51

Candidate Starts for Wigglewigggle\_28:

(Start: 51 @26335 has 22 MA's), (67, 26389), (125, 26509), (141, 26539), (147, 26554), (Start: 161 @26587 has 1 MA's), (162, 26590), (166, 26599), (175, 26620), (205, 26683), (218, 26710), (232, 26734), (245, 26764), (272, 26815), (277, 26827), (300, 26890), (306, 26905), (325, 26965), (330, 26980), (363, 27061), (368, 27079), (369, 27082), (371, 27085), (449, 27136), (470, 27181), (494, 27223), (514, 27265),

Gene: Wilbur\_10 Start: 5880, Stop: 6860, Start Num: 112

Candidate Starts for Wilbur\_10:

(Start: 112 @5880 has 111 MA's), (Start: 114 @5883 has 13 MA's), (125, 5907), (Start: 135 @5928 has 1 MA's), (Start: 138 @5931 has 2 MA's), (263, 6180), (286, 6237), (328, 6321), (333, 6342), (345, 6369), (369, 6426), (428, 6576), (466, 6687), (470, 6699), (477, 6711), (511, 6777),

Gene: Wildcat\_52 Start: 38376, Stop: 39341, Start Num: 95

Candidate Starts for Wildcat\_52:

(Start: 95 @38376 has 260 MA's), (Start: 126 @38439 has 6 MA's), (169, 38499), (175, 38514), (177, 38517), (183, 38529), (185, 38535), (203, 38571), (204, 38574), (241, 38646), (250, 38661), (252, 38667), (273, 38730), (286, 38760), (301, 38793), (333, 38856), (334, 38859), (349, 38898), (361, 38931), (369, 38958), (372, 38967), (386, 39000), (442, 39135), (446, 39150), (468, 39195), (490, 39237), (501, 39264), (521, 39306),

Gene: Wilder\_28 Start: 26308, Stop: 27279, Start Num: 51

Candidate Starts for Wilder\_28:

(Start: 51 @26308 has 22 MA's), (67, 26362), (125, 26482), (141, 26512), (147, 26527), (Start: 161 @26560 has 1 MA's), (162, 26563), (166, 26572), (175, 26593), (205, 26656), (218, 26683), (232, 26707), (245, 26737), (272, 26788), (277, 26800), (300, 26863), (306, 26878), (325, 26938), (330, 26953), (363, 27034), (368, 27052), (369, 27055), (371, 27058), (449, 27109), (470, 27154), (494, 27196), (514, 27238),

Gene: Wildflower\_67 Start: 42973, Stop: 44013, Start Num: 95

Candidate Starts for Wildflower\_67:

(Start: 95 @42973 has 260 MA's), (130, 43048), (168, 43129), (170, 43135), (177, 43150), (213, 43231), (Start: 214 @43234 has 1 MA's), (241, 43288), (250, 43303), (286, 43399), (304, 43438), (312, 43468), (324, 43498), (326, 43501), (336, 43534), (361, 43600), (372, 43639), (374, 43648), (388, 43675), (407, 43714), (478, 43888), (501, 43939),

Gene: Wile\_10 Start: 5888, Stop: 6871, Start Num: 111

Candidate Starts for Wile\_10:

(Start: 111 @5888 has 315 MA's), (125, 5918), (Start: 135 @5939 has 1 MA's), (Start: 138 @5942 has 2 MA's), (263, 6191), (285, 6242), (286, 6248), (289, 6260), (305, 6290), (328, 6332), (345, 6380),

(362, 6410), (369, 6437), (428, 6587), (470, 6710), (477, 6722), (481, 6731), (511, 6788), (540, 6863),

Gene: Wilkins\_10 Start: 5750, Stop: 6718, Start Num: 111

Candidate Starts for Wilkins\_10:

(Start: 111 @5750 has 315 MA's), (Start: 126 @5783 has 6 MA's), (Start: 135 @5801 has 1 MA's), (Start: 138 @5804 has 2 MA's), (266, 6071), (286, 6122), (289, 6134), (327, 6209), (349, 6272), (355, 6284), (361, 6305), (365, 6317), (369, 6335), (374, 6353), (386, 6377), (407, 6416), (437, 6497), (445, 6521), (446, 6524), (448, 6527), (454, 6536), (495, 6623), (531, 6710),

Gene: WillSterrel\_33 Start: 29145, Stop: 30146, Start Num: 95

Candidate Starts for WillSterrel\_33:

(Start: 56 @29046 has 7 MA's), (83, 29118), (Start: 95 @29145 has 260 MA's), (Start: 105 @29166 has 4 MA's), (Start: 112 @29178 has 111 MA's), (130, 29220), (149, 29253), (168, 29283), (177, 29304), (Start: 214 @29388 has 1 MA's), (223, 29412), (235, 29427), (241, 29439), (286, 29550), (333, 29661), (341, 29682), (357, 29721), (374, 29781), (388, 29808), (407, 29847), (445, 29955), (454, 29970), (468, 30003), (501, 30072), (515, 30102),

Gene: Willez\_34 Start: 31362, Stop: 32219, Start Num: 136

Candidate Starts for Willez\_34:

(Start: 136 @31362 has 124 MA's), (Start: 156 @31401 has 3 MA's), (166, 31431), (175, 31452), (191, 31488), (205, 31518), (236, 31593), (259, 31641), (262, 31644), (272, 31668), (274, 31671), (280, 31686), (346, 31857), (393, 31971), (398, 31986), (420, 31992), (444, 32034), (445, 32037), (470, 32091), (511, 32169), (522, 32202),

Gene: Willis\_253 Start: 144716, Stop: 145744, Start Num: 87

Candidate Starts for Willis\_253:

(Start: 87 @144716 has 167 MA's), (Start: 105 @144746 has 4 MA's), (Start: 112 @144758 has 111 MA's), (130, 144800), (168, 144863), (177, 144884), (Start: 214 @144968 has 1 MA's), (235, 145010), (241, 145022), (250, 145037), (273, 145106), (286, 145133), (309, 145187), (324, 145232), (326, 145235), (354, 145313), (361, 145334), (407, 145445), (440, 145535), (445, 145553), (480, 145625), (496, 145658),

Gene: Winget\_68 Start: 43679, Stop: 44719, Start Num: 95

Candidate Starts for Winget\_68:

(Start: 95 @43679 has 260 MA's), (130, 43754), (168, 43835), (170, 43841), (177, 43856), (213, 43937), (Start: 214 @43940 has 1 MA's), (241, 43994), (250, 44009), (286, 44105), (304, 44144), (312, 44174), (324, 44204), (326, 44207), (336, 44240), (361, 44306), (372, 44345), (374, 44354), (388, 44381), (407, 44420), (478, 44594), (501, 44645),

Gene: Winky\_28 Start: 26303, Stop: 27274, Start Num: 51

Candidate Starts for Winky\_28:

(Start: 51 @26303 has 22 MA's), (67, 26357), (141, 26507), (144, 26516), (147, 26522), (Start: 161 @26555 has 1 MA's), (162, 26558), (166, 26567), (175, 26588), (205, 26651), (218, 26678), (232, 26702), (272, 26783), (277, 26795), (300, 26858), (306, 26873), (325, 26933), (330, 26948), (363, 27029), (368, 27047), (369, 27050), (371, 27053), (449, 27104), (470, 27149), (494, 27191), (514, 27233),

Gene: Wintermute\_32 Start: 27629, Stop: 28420, Start Num: 143

Candidate Starts for Wintermute\_32:

(Start: 143 @27629 has 20 MA's), (Start: 161 @27662 has 1 MA's), (175, 27695), (185, 27719), (196, 27740), (Start: 214 @27788 has 1 MA's), (218, 27797), (238, 27833), (276, 27914), (349, 28121), (363, 28148), (366, 28154), (369, 28169), (377, 28193), (445, 28217), (460, 28238), (470, 28271), (477, 28283), (511, 28355),

Gene: Wizard007\_10 Start: 5883, Stop: 6863, Start Num: 112

Candidate Starts for Wizard007\_10:

(Start: 112 @5883 has 111 MA's), (Start: 114 @5886 has 13 MA's), (125, 5910), (Start: 135 @5931 has 1 MA's), (Start: 138 @5934 has 2 MA's), (263, 6183), (286, 6240), (328, 6324), (333, 6345), (345, 6372), (362, 6402), (369, 6429), (428, 6579), (466, 6690), (470, 6702), (477, 6714), (511, 6780),

Gene: Wooldri\_14 Start: 5873, Stop: 6838, Start Num: 101

Candidate Starts for Wooldri\_14:

(Start: 101 @5873 has 93 MA's), (Start: 126 @5918 has 6 MA's), (Start: 138 @5939 has 2 MA's), (201, 6059), (263, 6197), (286, 6254), (291, 6269), (333, 6350), (337, 6365), (347, 6383), (365, 6434), (369, 6452), (388, 6497), (428, 6593), (447, 6656), (465, 6695), (490, 6746),

Gene: Wyatt2\_26 Start: 25547, Stop: 26578, Start Num: 96

Candidate Starts for Wyatt2\_26:

(Start: 96 @25547 has 29 MA's), (181, 25700), (182, 25703), (194, 25727), (198, 25739), (206, 25757), (211, 25775), (218, 25793), (219, 25799), (223, 25808), (228, 25823), (237, 25838), (263, 25910), (286, 25967), (304, 26006), (336, 26084), (337, 26093), (339, 26096), (347, 26111), (364, 26165), (369, 26186), (373, 26201), (414, 26285), (425, 26315), (446, 26384), (454, 26396), (465, 26420), (471, 26438), (473, 26441), (480, 26453), (482, 26456), (496, 26486), (501, 26498),

Gene: XFactor\_31 Start: 27697, Stop: 28698, Start Num: 95

Candidate Starts for XFactor\_31:

(Start: 95 @27697 has 260 MA's), (Start: 105 @27718 has 4 MA's), (Start: 112 @27730 has 111 MA's), (130, 27772), (168, 27835), (177, 27856), (189, 27886), (Start: 214 @27940 has 1 MA's), (223, 27964), (241, 27991), (286, 28102), (334, 28216), (341, 28234), (357, 28273), (365, 28297), (374, 28333), (388, 28360), (407, 28399), (428, 28447), (445, 28507), (474, 28567), (501, 28624), (515, 28654),

Gene: Xandras\_37 Start: 31848, Stop: 32705, Start Num: 136

Candidate Starts for Xandras\_37:

(Start: 136 @31848 has 124 MA's), (Start: 156 @31887 has 3 MA's), (166, 31917), (175, 31938), (191, 31974), (205, 32004), (236, 32079), (259, 32127), (262, 32130), (272, 32154), (274, 32157), (280, 32172), (346, 32343), (393, 32457), (398, 32472), (420, 32478), (444, 32520), (445, 32523), (470, 32577), (511, 32655), (522, 32688),

Gene: Xena\_10 Start: 5878, Stop: 6858, Start Num: 112

Candidate Starts for Xena\_10:

(73, 5818), (82, 5836), (Start: 112 @5878 has 111 MA's), (Start: 114 @5881 has 13 MA's), (125, 5905), (Start: 135 @5926 has 1 MA's), (Start: 138 @5929 has 2 MA's), (263, 6178), (285, 6229), (286, 6235), (289, 6247), (305, 6277), (328, 6319), (345, 6367), (362, 6397), (369, 6424), (428, 6574), (470, 6697), (477, 6709), (481, 6718), (511, 6775), (540, 6850),

Gene: XianYue\_11 Start: 6359, Stop: 7345, Start Num: 111

Candidate Starts for XianYue\_11:

(Start: 111 @6359 has 315 MA's), (125, 6389), (Start: 138 @6413 has 2 MA's), (209, 6548), (263, 6662), (273, 6689), (285, 6713), (286, 6719), (345, 6851), (369, 6908), (428, 7058), (433, 7082), (449, 7127), (467, 7172), (477, 7193), (494, 7229), (511, 7265), (520, 7295),

Gene: Ximenita\_32 Start: 25917, Stop: 26660, Start Num: 153

Candidate Starts for Ximenita\_32:

(140, 25890), (Start: 153 @25917 has 137 MA's), (173, 25959), (175, 25965), (192, 26001), (Start: 214 @26049 has 1 MA's), (218, 26058), (238, 26094), (254, 26136), (296, 26244), (349, 26379), (360,

26394), (363, 26406), (369, 26427), (385, 26442), (421, 26451), (509, 26610), (521, 26631), (523, 26640),

Gene: Y10\_32 Start: 27629, Stop: 28420, Start Num: 143

Candidate Starts for Y10\_32:

(Start: 143 @27629 has 20 MA's), (Start: 161 @27662 has 1 MA's), (175, 27695), (185, 27719), (196, 27740), (Start: 214 @27788 has 1 MA's), (218, 27797), (238, 27833), (276, 27914), (349, 28121), (363, 28148), (366, 28154), (369, 28169), (377, 28193), (445, 28217), (460, 28238), (470, 28271), (477, 28283), (511, 28355),

Gene: Y2\_32 Start: 27629, Stop: 28420, Start Num: 143

Candidate Starts for Y2\_32:

(Start: 143 @27629 has 20 MA's), (Start: 161 @27662 has 1 MA's), (175, 27695), (185, 27719), (196, 27740), (Start: 214 @27788 has 1 MA's), (218, 27797), (238, 27833), (276, 27914), (349, 28121), (363, 28148), (366, 28154), (369, 28169), (377, 28193), (445, 28217), (460, 28238), (470, 28271), (477, 28283), (511, 28355),

Gene: Yahalom\_47 Start: 41547, Stop: 42611, Start Num: 84

Candidate Starts for Yahalom\_47:

(Start: 84 @41547 has 45 MA's), (115, 41610), (157, 41691), (189, 41757), (197, 41772), (203, 41784), (215, 41811), (245, 41868), (250, 41877), (308, 42024), (315, 42039), (333, 42093), (347, 42126), (362, 42165), (366, 42177), (401, 42258), (411, 42276), (412, 42279), (428, 42324), (468, 42435), (521, 42546), (527, 42567), (541, 42600),

Gene: YassJohnny\_36 Start: 32373, Stop: 33230, Start Num: 136

Candidate Starts for YassJohnny\_36:

(Start: 136 @32373 has 124 MA's), (Start: 156 @32412 has 3 MA's), (166, 32442), (175, 32463), (191, 32499), (205, 32529), (236, 32604), (259, 32652), (262, 32655), (272, 32679), (274, 32682), (280, 32697), (346, 32868), (393, 32982), (398, 32997), (420, 33003), (444, 33045), (445, 33048), (470, 33102), (511, 33180), (522, 33213),

Gene: Yassified\_248 Start: 143912, Stop: 144940, Start Num: 87

Candidate Starts for Yassified\_248:

(Start: 87 @143912 has 167 MA's), (Start: 105 @143942 has 4 MA's), (130, 143996), (168, 144059), (177, 144080), (Start: 214 @144164 has 1 MA's), (235, 144206), (241, 144218), (250, 144233), (273, 144302), (286, 144329), (309, 144383), (324, 144428), (326, 144431), (354, 144509), (361, 144530), (407, 144641), (440, 144731), (445, 144749), (480, 144821), (496, 144854),

Gene: Yeet\_47 Start: 41871, Stop: 42743, Start Num: 91

Candidate Starts for Yeet\_47:

(Start: 91 @41871 has 31 MA's), (Start: 104 @41898 has 1 MA's), (132, 41958), (158, 42006), (190, 42072), (202, 42093), (Start: 214 @42114 has 1 MA's), (243, 42168), (279, 42249), (379, 42528), (380, 42531), (439, 42555), (452, 42591), (462, 42606), (466, 42618), (475, 42639),

Gene: Yelo\_39 Start: 35335, Stop: 36384, Start Num: 90

Candidate Starts for Yelo\_39:

(Start: 90 @35335 has 9 MA's), (130, 35419), (Start: 138 @35428 has 2 MA's), (150, 35452), (168, 35482), (177, 35503), (184, 35521), (193, 35539), (203, 35560), (208, 35569), (Start: 214 @35587 has 1 MA's), (Start: 231 @35614 has 2 MA's), (250, 35656), (303, 35788), (310, 35809), (340, 35908), (374, 36007), (407, 36061), (464, 36211), (476, 36238), (480, 36247), (498, 36289), (501, 36292), (504, 36298), (510, 36307), (524, 36343), (527, 36352), (534, 36361),

Gene: YemiJoy2021\_253 Start: 145447, Stop: 146475, Start Num: 87

Candidate Starts for YemiJoy2021\_253:

(Start: 87 @145447 has 167 MA's), (Start: 105 @145477 has 4 MA's), (Start: 112 @145489 has 111 MA's), (130, 145531), (168, 145594), (177, 145615), (Start: 214 @145699 has 1 MA's), (235, 145741), (241, 145753), (250, 145768), (273, 145837), (286, 145864), (309, 145918), (324, 145963), (326, 145966), (354, 146044), (361, 146065), (407, 146176), (440, 146266), (445, 146284), (480, 146356), (496, 146389),

Gene: Yinz\_47 Start: 41573, Stop: 42637, Start Num: 84

Candidate Starts for Yinz\_47:

(Start: 84 @41573 has 45 MA's), (115, 41636), (157, 41717), (189, 41783), (197, 41798), (203, 41810), (215, 41837), (245, 41894), (250, 41903), (308, 42050), (315, 42065), (333, 42119), (347, 42152), (362, 42191), (366, 42203), (401, 42284), (411, 42302), (412, 42305), (468, 42461), (521, 42572), (527, 42593), (541, 42626),

Gene: YoSam321\_10 Start: 5881, Stop: 6861, Start Num: 112

Candidate Starts for YoSam321\_10:

(Start: 112 @5881 has 111 MA's), (Start: 114 @5884 has 13 MA's), (125, 5908), (Start: 135 @5929 has 1 MA's), (Start: 138 @5932 has 2 MA's), (263, 6181), (286, 6238), (320, 6301), (328, 6322), (333, 6343), (345, 6370), (362, 6400), (369, 6427), (428, 6577), (470, 6700), (477, 6712), (526, 6823),

Gene: Yorick\_31 Start: 27697, Stop: 28698, Start Num: 95

Candidate Starts for Yorick\_31:

(Start: 95 @27697 has 260 MA's), (Start: 105 @27718 has 4 MA's), (Start: 112 @27730 has 111 MA's), (130, 27772), (168, 27835), (177, 27856), (189, 27886), (Start: 214 @27940 has 1 MA's), (223, 27964), (235, 27979), (241, 27991), (286, 28102), (334, 28216), (341, 28234), (357, 28273), (365, 28297), (374, 28333), (388, 28360), (407, 28399), (428, 28447), (445, 28507), (474, 28567), (501, 28624), (515, 28654),

Gene: Yoshi\_38 Start: 27091, Stop: 28161, Start Num: 95

Candidate Starts for Yoshi\_38:

(Start: 95 @27091 has 260 MA's), (203, 27307), (208, 27316), (Start: 231 @27361 has 2 MA's), (250, 27403), (266, 27454), (285, 27496), (298, 27538), (308, 27568), (317, 27598), (318, 27601), (339, 27676), (348, 27697), (353, 27709), (357, 27721), (365, 27742), (401, 27826), (428, 27901), (468, 28009), (469, 28012), (471, 28018), (491, 28054), (493, 28057), (495, 28063), (501, 28078), (529, 28144),

Gene: YoungMoneyMata\_252 Start: 144908, Stop: 145936, Start Num: 87

Candidate Starts for YoungMoneyMata\_252:

(Start: 87 @144908 has 167 MA's), (Start: 105 @144938 has 4 MA's), (Start: 112 @144950 has 111 MA's), (130, 144992), (168, 145055), (177, 145076), (Start: 214 @145160 has 1 MA's), (235, 145202), (241, 145214), (250, 145229), (273, 145298), (286, 145325), (309, 145379), (324, 145424), (326, 145427), (354, 145505), (361, 145526), (407, 145637), (440, 145727), (445, 145745), (480, 145817), (496, 145850),

Gene: Youngblood\_35 Start: 32018, Stop: 32875, Start Num: 136

Candidate Starts for Youngblood\_35:

(Start: 136 @32018 has 124 MA's), (Start: 156 @32057 has 3 MA's), (166, 32087), (175, 32108), (191, 32144), (205, 32174), (236, 32249), (259, 32297), (262, 32300), (272, 32324), (274, 32327), (280, 32342), (346, 32513), (393, 32627), (398, 32642), (420, 32648), (444, 32690), (445, 32693), (470, 32747), (511, 32825), (522, 32858),

Gene: YoureAdopted\_30 Start: 26430, Stop: 27302, Start Num: 153

Candidate Starts for YoureAdopted\_30:



(32, 26100), (100, 26328), (140, 26403), (Start: 153 @26430 has 137 MA's), (Start: 161 @26442 has 1 MA's), (192, 26511), (205, 26538), (Start: 214 @26568 has 1 MA's), (218, 26577), (238, 26613), (254, 26655), (259, 26673), (274, 26703), (296, 26763), (349, 26898), (363, 26925), (369, 26946), (377, 26970), (405, 27021), (448, 27123), (466, 27159), (477, 27183), (523, 27282), (529, 27291),

Gene: Yucca\_253 Start: 145888, Stop: 146916, Start Num: 87

Candidate Starts for Yucca\_253:

(Start: 87 @145888 has 167 MA's), (Start: 105 @145918 has 4 MA's), (Start: 112 @145930 has 111 MA's), (130, 145972), (168, 146035), (177, 146056), (Start: 214 @146140 has 1 MA's), (235, 146182), (241, 146194), (250, 146209), (273, 146278), (286, 146305), (309, 146359), (324, 146404), (326, 146407), (354, 146485), (361, 146506), (407, 146617), (440, 146707), (445, 146725), (480, 146797), (496, 146830),

Gene: Yuna\_32 Start: 26320, Stop: 27069, Start Num: 153

Candidate Starts for Yuna\_32:

(100, 26218), (Start: 110 @26239 has 4 MA's), (129, 26272), (140, 26293), (Start: 153 @26320 has 137 MA's), (Start: 161 @26332 has 1 MA's), (162, 26335), (173, 26359), (175, 26365), (192, 26401), (Start: 214 @26449 has 1 MA's), (218, 26458), (242, 26503), (254, 26536), (274, 26584), (306, 26671), (349, 26779), (363, 26806), (369, 26827), (377, 26851), (466, 26926), (477, 26950), (499, 26998), (521, 27040), (523, 27049),

Gene: YungJamal\_72 Start: 44871, Stop: 45911, Start Num: 95

Candidate Starts for YungJamal\_72:

(Start: 95 @44871 has 260 MA's), (130, 44946), (168, 45027), (170, 45033), (177, 45048), (213, 45129), (Start: 214 @45132 has 1 MA's), (241, 45186), (250, 45201), (286, 45297), (304, 45336), (312, 45366), (324, 45396), (326, 45399), (336, 45432), (361, 45498), (372, 45537), (374, 45546), (388, 45573), (407, 45612), (428, 45660), (478, 45786), (501, 45837),

Gene: Yunkel11\_31 Start: 25718, Stop: 26587, Start Num: 153

Candidate Starts for Yunkel11\_31:

(129, 25670), (140, 25691), (Start: 153 @25718 has 137 MA's), (Start: 161 @25730 has 1 MA's), (173, 25757), (175, 25763), (188, 25793), (192, 25799), (218, 25862), (238, 25898), (242, 25907), (254, 25940), (274, 25988), (299, 26057), (363, 26210), (369, 26231), (377, 26255), (385, 26273), (396, 26294), (421, 26333), (448, 26408), (466, 26444), (509, 26537), (523, 26567), (529, 26576),

Gene: Zabiza\_31 Start: 26461, Stop: 27333, Start Num: 153

Candidate Starts for Zabiza\_31:

(140, 26434), (Start: 153 @26461 has 137 MA's), (Start: 161 @26473 has 1 MA's), (192, 26542), (205, 26569), (Start: 214 @26599 has 1 MA's), (218, 26608), (238, 26644), (242, 26653), (254, 26686), (259, 26704), (274, 26734), (295, 26791), (296, 26794), (349, 26929), (363, 26956), (369, 26977), (377, 27001), (405, 27052), (448, 27154), (466, 27190), (477, 27214), (523, 27313), (529, 27322),

Gene: Zakai\_28 Start: 26511, Stop: 27539, Start Num: 96

Candidate Starts for Zakai\_28:

(Start: 96 @26511 has 29 MA's), (176, 26655), (179, 26661), (230, 26790), (234, 26799), (286, 26931), (336, 27048), (337, 27057), (339, 27060), (347, 27075), (369, 27150), (373, 27165), (425, 27279), (432, 27306), (442, 27333), (446, 27348), (454, 27360), (486, 27426),

Gene: Zakhe101\_66 Start: 43519, Stop: 44559, Start Num: 95

Candidate Starts for Zakhe101\_66:

(Start: 95 @43519 has 260 MA's), (130, 43594), (168, 43675), (170, 43681), (177, 43696), (213, 43777), (Start: 214 @43780 has 1 MA's), (241, 43834), (250, 43849), (286, 43945), (304, 43984), (312, 44014), (324, 44044), (326, 44047), (336, 44080), (361, 44146), (372, 44185), (374, 44194),

(388, 44221), (407, 44260), (478, 44434), (501, 44485),

Gene: Zalkecks\_251 Start: 144545, Stop: 145573, Start Num: 87

Candidate Starts for Zalkecks\_251:

(Start: 87 @144545 has 167 MA's), (Start: 105 @144575 has 4 MA's), (Start: 112 @144587 has 111 MA's), (130, 144629), (168, 144692), (177, 144713), (Start: 214 @144797 has 1 MA's), (235, 144839), (241, 144851), (250, 144866), (273, 144935), (286, 144962), (309, 145016), (324, 145061), (326, 145064), (354, 145142), (361, 145163), (407, 145274), (440, 145364), (445, 145382), (480, 145454), (496, 145487),

Gene: Zapner\_38 Start: 28198, Stop: 29271, Start Num: 95

Candidate Starts for Zapner\_38:

(Start: 95 @28198 has 260 MA's), (Start: 109 @28225 has 1 MA's), (124, 28255), (173, 28348), (177, 28357), (180, 28366), (208, 28423), (Start: 231 @28468 has 2 MA's), (245, 28501), (250, 28510), (266, 28561), (285, 28603), (291, 28627), (294, 28636), (298, 28648), (308, 28678), (317, 28708), (318, 28711), (333, 28768), (334, 28771), (339, 28786), (346, 28798), (348, 28807), (357, 28831), (366, 28855), (401, 28936), (428, 29011), (469, 29122), (491, 29164), (493, 29167), (495, 29173), (501, 29188), (529, 29254),

Gene: Zaria\_26 Start: 25561, Stop: 26592, Start Num: 96

Candidate Starts for Zaria\_26:

(Start: 96 @25561 has 29 MA's), (181, 25714), (182, 25717), (194, 25741), (198, 25753), (206, 25771), (211, 25789), (218, 25807), (219, 25813), (223, 25822), (228, 25837), (237, 25852), (263, 25924), (286, 25981), (304, 26020), (336, 26098), (337, 26107), (339, 26110), (347, 26125), (364, 26179), (369, 26200), (373, 26215), (414, 26299), (425, 26329), (446, 26398), (454, 26410), (465, 26434), (471, 26452), (473, 26455), (480, 26467), (482, 26470), (496, 26500), (501, 26512),

Gene: Zavala\_31 Start: 26436, Stop: 27308, Start Num: 153

Candidate Starts for Zavala\_31:

(140, 26409), (Start: 153 @26436 has 137 MA's), (Start: 161 @26448 has 1 MA's), (192, 26517), (205, 26544), (Start: 214 @26574 has 1 MA's), (218, 26583), (238, 26619), (242, 26628), (254, 26661), (259, 26679), (274, 26709), (296, 26769), (349, 26904), (363, 26931), (369, 26952), (377, 26976), (405, 27027), (448, 27129), (466, 27165), (477, 27189), (523, 27288), (529, 27297),

Gene: Zeeculate\_9 Start: 5734, Stop: 6702, Start Num: 111

Candidate Starts for Zeeculate\_9:

(Start: 111 @5734 has 315 MA's), (Start: 126 @5767 has 6 MA's), (Start: 135 @5785 has 1 MA's), (Start: 138 @5788 has 2 MA's), (266, 6055), (286, 6106), (289, 6118), (327, 6193), (349, 6256), (355, 6268), (361, 6289), (365, 6301), (369, 6319), (374, 6337), (386, 6361), (407, 6400), (437, 6481), (445, 6505), (446, 6508), (448, 6511), (454, 6520), (495, 6607), (515, 6652), (531, 6694),

Gene: Zeenon\_253 Start: 145079, Stop: 146107, Start Num: 87

Candidate Starts for Zeenon\_253:

(Start: 87 @145079 has 167 MA's), (Start: 105 @145109 has 4 MA's), (Start: 112 @145121 has 111 MA's), (130, 145163), (168, 145226), (177, 145247), (Start: 214 @145331 has 1 MA's), (235, 145373), (241, 145385), (250, 145400), (273, 145469), (286, 145496), (309, 145550), (324, 145595), (326, 145598), (354, 145676), (361, 145697), (407, 145808), (440, 145898), (445, 145916), (480, 145988), (496, 146021),

Gene: Zelink\_50 Start: 43683, Stop: 44528, Start Num: 104

Candidate Starts for Zelink\_50:

(Start: 91 @43656 has 31 MA's), (Start: 104 @43683 has 1 MA's), (168, 43812), (190, 43857), (202, 43878), (Start: 214 @43899 has 1 MA's), (243, 43953), (279, 44034), (379, 44313), (380, 44316),

(439, 44340), (452, 44376), (462, 44391), (466, 44403), (475, 44424),

Gene: Zenon\_40 Start: 35354, Stop: 36403, Start Num: 90

Candidate Starts for Zenon\_40:

(Start: 90 @35354 has 9 MA's), (130, 35438), (Start: 138 @35447 has 2 MA's), (150, 35471), (168, 35501), (177, 35522), (184, 35540), (193, 35558), (203, 35579), (208, 35588), (Start: 214 @35606 has 1 MA's), (Start: 231 @35633 has 2 MA's), (250, 35675), (285, 35765), (303, 35807), (310, 35828), (340, 35927), (352, 35954), (374, 36026), (407, 36080), (464, 36230), (476, 36257), (480, 36266), (498, 36308), (501, 36311), (504, 36317), (510, 36326), (524, 36362), (527, 36371), (534, 36380),

Gene: Zenteno07\_53 Start: 41898, Stop: 42902, Start Num: 110

Candidate Starts for Zenteno07\_53:

(Start: 110 @41898 has 4 MA's), (125, 41928), (131, 41943), (Start: 135 @41949 has 1 MA's), (Start: 138 @41952 has 2 MA's), (209, 42093), (Start: 214 @42108 has 1 MA's), (285, 42258), (286, 42264), (302, 42300), (320, 42327), (328, 42348), (350, 42411), (369, 42459), (428, 42609), (433, 42633), (435, 42639), (448, 42675), (453, 42687), (477, 42744),

Gene: Zephyr\_10 Start: 5875, Stop: 6843, Start Num: 111

Candidate Starts for Zephyr\_10:

(Start: 111 @5875 has 315 MA's), (Start: 126 @5908 has 6 MA's), (Start: 135 @5926 has 1 MA's), (Start: 138 @5929 has 2 MA's), (266, 6196), (286, 6247), (289, 6259), (327, 6334), (349, 6397), (361, 6430), (365, 6442), (369, 6460), (374, 6478), (386, 6502), (407, 6541), (437, 6622), (445, 6646), (446, 6649), (448, 6652), (454, 6661), (495, 6748), (515, 6793), (531, 6835),

Gene: Zerg\_31 Start: 27550, Stop: 28551, Start Num: 95

Candidate Starts for Zerg\_31:

(8, 27070), (14, 27109), (22, 27262), (26, 27298), (Start: 95 @27550 has 260 MA's), (130, 27625), (149, 27658), (168, 27688), (177, 27709), (Start: 214 @27793 has 1 MA's), (223, 27817), (235, 27832), (241, 27844), (286, 27955), (334, 28069), (341, 28087), (357, 28126), (365, 28150), (374, 28186), (388, 28213), (407, 28252), (445, 28360), (474, 28420), (496, 28465), (501, 28477), (515, 28507),

Gene: Zetzy\_11 Start: 5527, Stop: 6492, Start Num: 101

Candidate Starts for Zetzy\_11:

(Start: 101 @5527 has 93 MA's), (103, 5533), (Start: 126 @5572 has 6 MA's), (Start: 138 @5593 has 2 MA's), (201, 5713), (263, 5851), (286, 5908), (291, 5923), (333, 6004), (337, 6019), (364, 6085), (365, 6088), (366, 6091), (369, 6106), (428, 6247), (434, 6274), (445, 6307), (447, 6310), (465, 6349),

Gene: Zeuska\_11 Start: 6553, Stop: 7521, Start Num: 111

Candidate Starts for Zeuska\_11:

(Start: 111 @6553 has 315 MA's), (Start: 126 @6586 has 6 MA's), (Start: 135 @6604 has 1 MA's), (Start: 138 @6607 has 2 MA's), (266, 6874), (286, 6925), (289, 6937), (327, 7012), (349, 7075), (355, 7087), (361, 7108), (365, 7120), (369, 7138), (374, 7156), (386, 7180), (407, 7219), (437, 7300), (445, 7324), (446, 7327), (448, 7330), (454, 7339), (495, 7426), (515, 7471), (531, 7513),

Gene: ZhongYanYuan\_27 Start: 26124, Stop: 27095, Start Num: 51

Candidate Starts for ZhongYanYuan\_27:

(Start: 51 @26124 has 22 MA's), (67, 26178), (125, 26298), (130, 26313), (141, 26328), (147, 26343), (Start: 161 @26376 has 1 MA's), (166, 26388), (175, 26409), (205, 26472), (218, 26499), (232, 26523), (272, 26604), (277, 26616), (288, 26643), (300, 26679), (306, 26694), (310, 26709), (325, 26754), (330, 26769), (363, 26850), (368, 26868), (369, 26871), (371, 26874), (380, 26901), (449, 26925), (470, 26970), (494, 27012), (514, 27054),

Gene: Zimmer\_13 Start: 8022, Stop: 8996, Start Num: 111

Candidate Starts for Zimmer\_13:

(Start: 111 @8022 has 315 MA's), (Start: 138 @8076 has 2 MA's), (177, 8136), (203, 8196), (256, 8322), (261, 8334), (264, 8343), (286, 8397), (291, 8412), (327, 8481), (333, 8505), (336, 8511), (337, 8520), (369, 8607), (388, 8649), (428, 8748), (447, 8811), (475, 8874), (486, 8892), (508, 8943),

Gene: Zizzle\_31 Start: 27641, Stop: 28642, Start Num: 95

Candidate Starts for Zizzle\_31:

(Start: 95 @27641 has 260 MA's), (Start: 105 @27662 has 4 MA's), (Start: 112 @27674 has 111 MA's), (130, 27716), (168, 27779), (177, 27800), (189, 27830), (Start: 214 @27884 has 1 MA's), (223, 27908), (235, 27923), (241, 27935), (286, 28046), (334, 28160), (341, 28178), (357, 28217), (365, 28241), (374, 28277), (388, 28304), (407, 28343), (428, 28391), (445, 28451), (474, 28511), (501, 28568), (515, 28598),

Gene: ZoeJ\_29 Start: 24755, Stop: 25963, Start Num: 48

Candidate Starts for ZoeJ\_29:

(42, 24713), (Start: 48 @24755 has 10 MA's), (57, 24782), (59, 24797), (76, 24839), (86, 24860), (99, 24887), (146, 24983), (Start: 161 @25016 has 1 MA's), (162, 25019), (175, 25049), (205, 25115), (218, 25154), (257, 25232), (278, 25277), (306, 25352), (329, 25424), (363, 25517), (369, 25538), (375, 25559), (423, 25670), (426, 25685), (444, 25754), (470, 25811), (509, 25892),

Gene: ZygoTaiga\_249 Start: 146185, Stop: 147213, Start Num: 87

Candidate Starts for ZygoTaiga\_249:

(Start: 87 @146185 has 167 MA's), (Start: 105 @146215 has 4 MA's), (Start: 112 @146227 has 111 MA's), (130, 146269), (168, 146332), (177, 146353), (Start: 214 @146437 has 1 MA's), (235, 146479), (241, 146491), (250, 146506), (273, 146575), (286, 146602), (309, 146656), (324, 146701), (326, 146704), (354, 146782), (361, 146803), (407, 146914), (440, 147004), (445, 147022), (480, 147094), (496, 147127),

Gene: xkcd\_36 Start: 32027, Stop: 32884, Start Num: 136

Candidate Starts for xkcd\_36:

(Start: 136 @32027 has 124 MA's), (Start: 156 @32066 has 3 MA's), (166, 32096), (175, 32117), (191, 32153), (205, 32183), (236, 32258), (259, 32306), (262, 32309), (272, 32333), (274, 32336), (280, 32351), (346, 32522), (384, 32621), (393, 32636), (398, 32651), (420, 32657), (444, 32699), (445, 32702), (470, 32756), (511, 32834), (522, 32867),