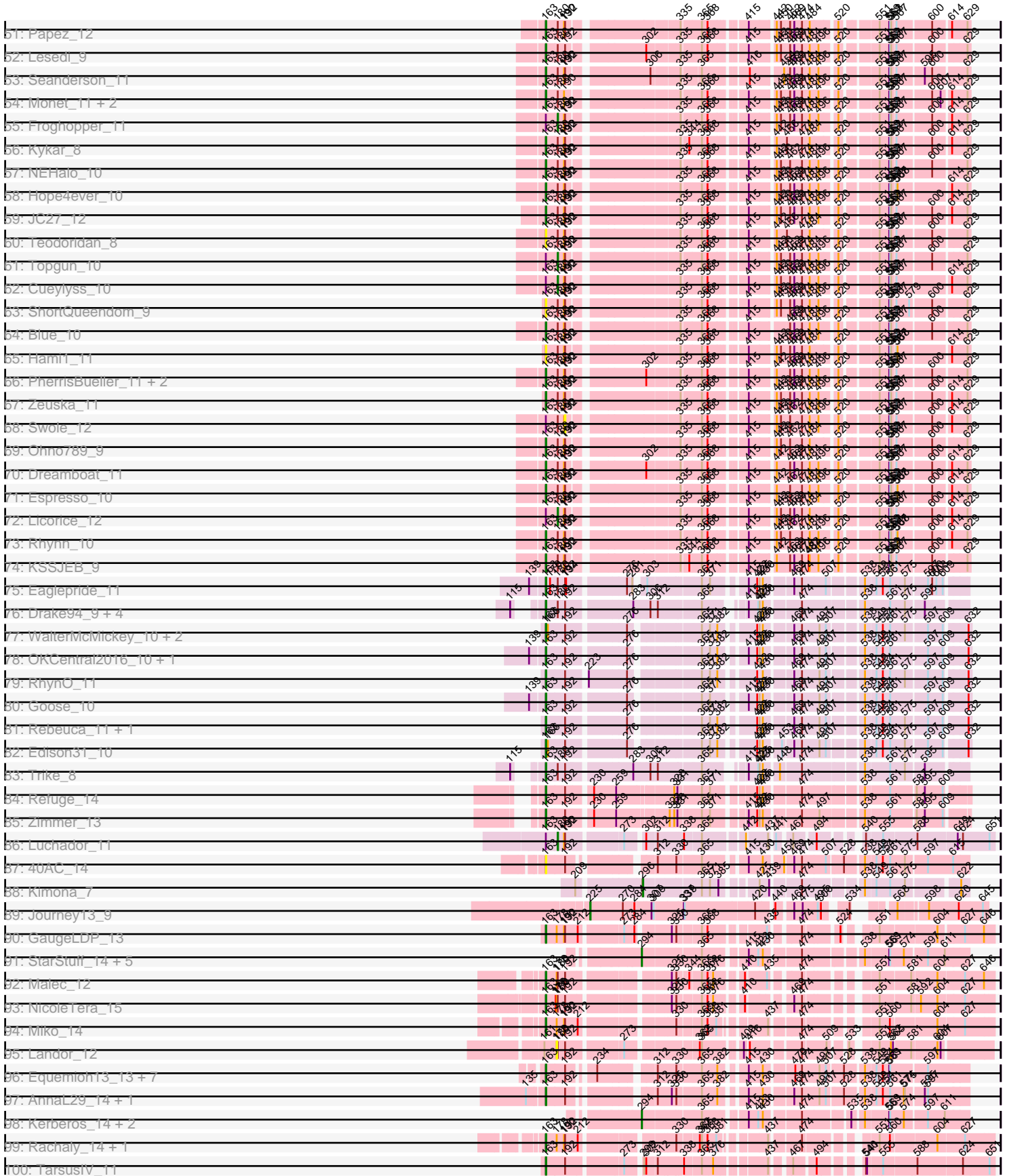
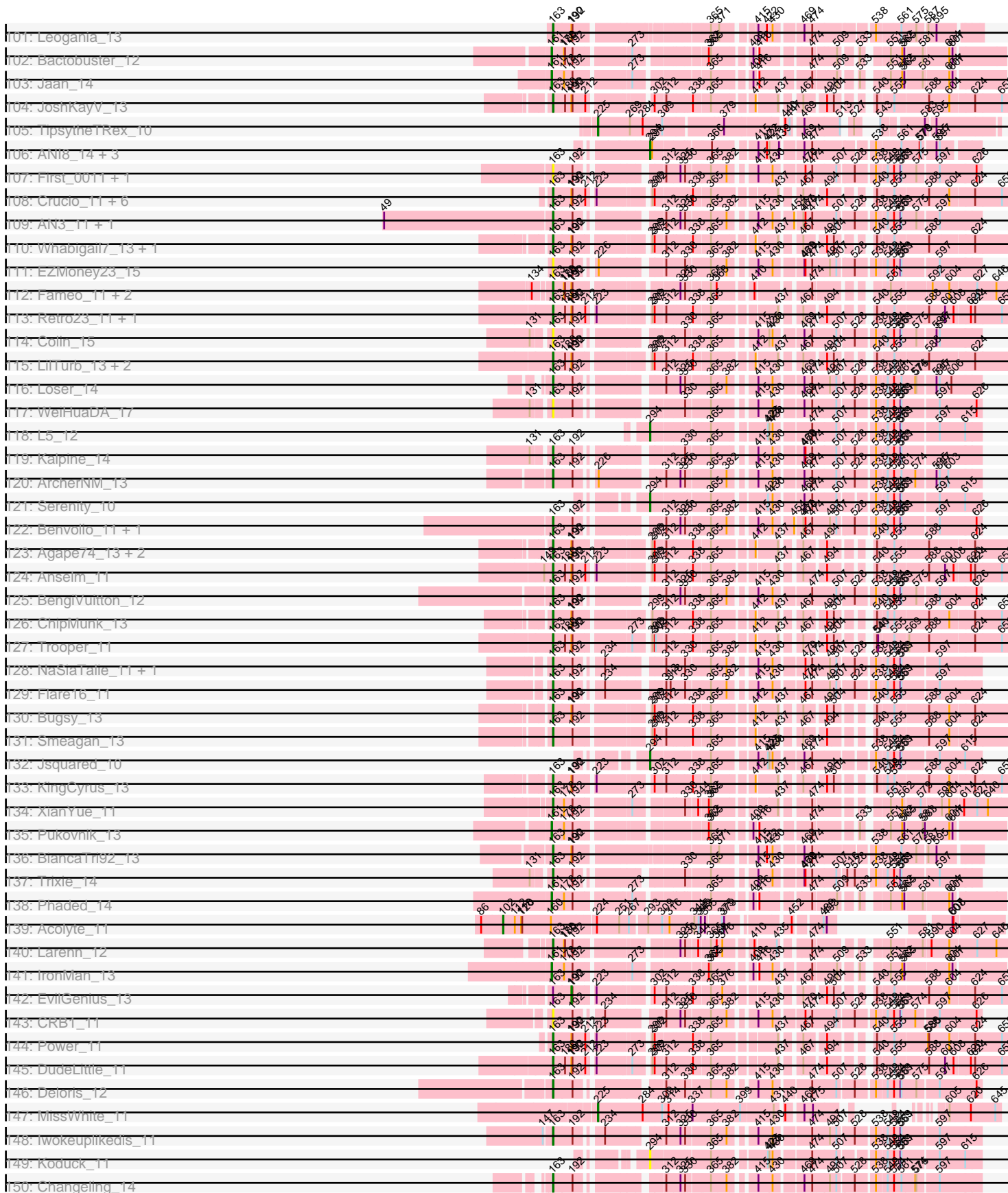


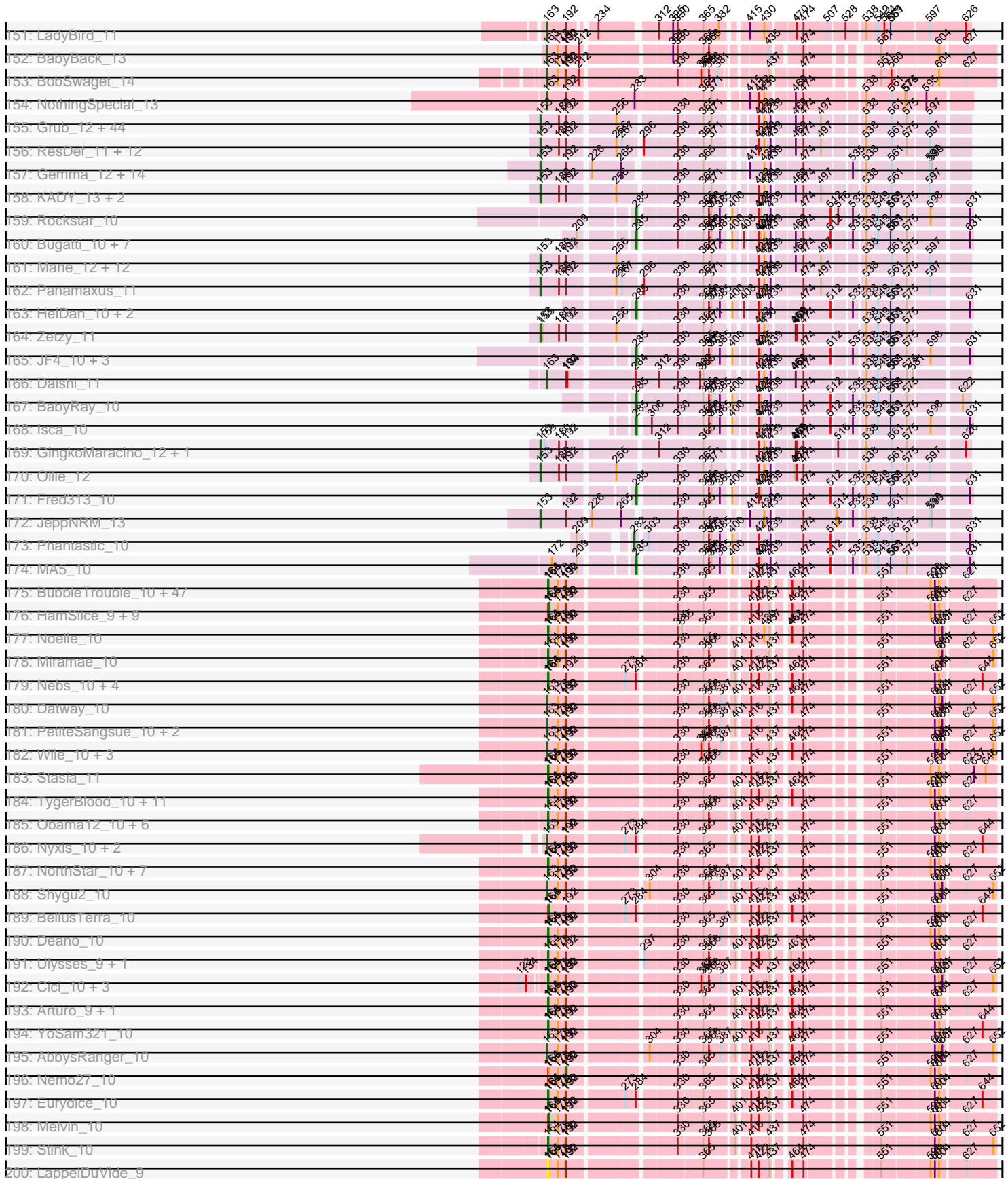


Pham 171069

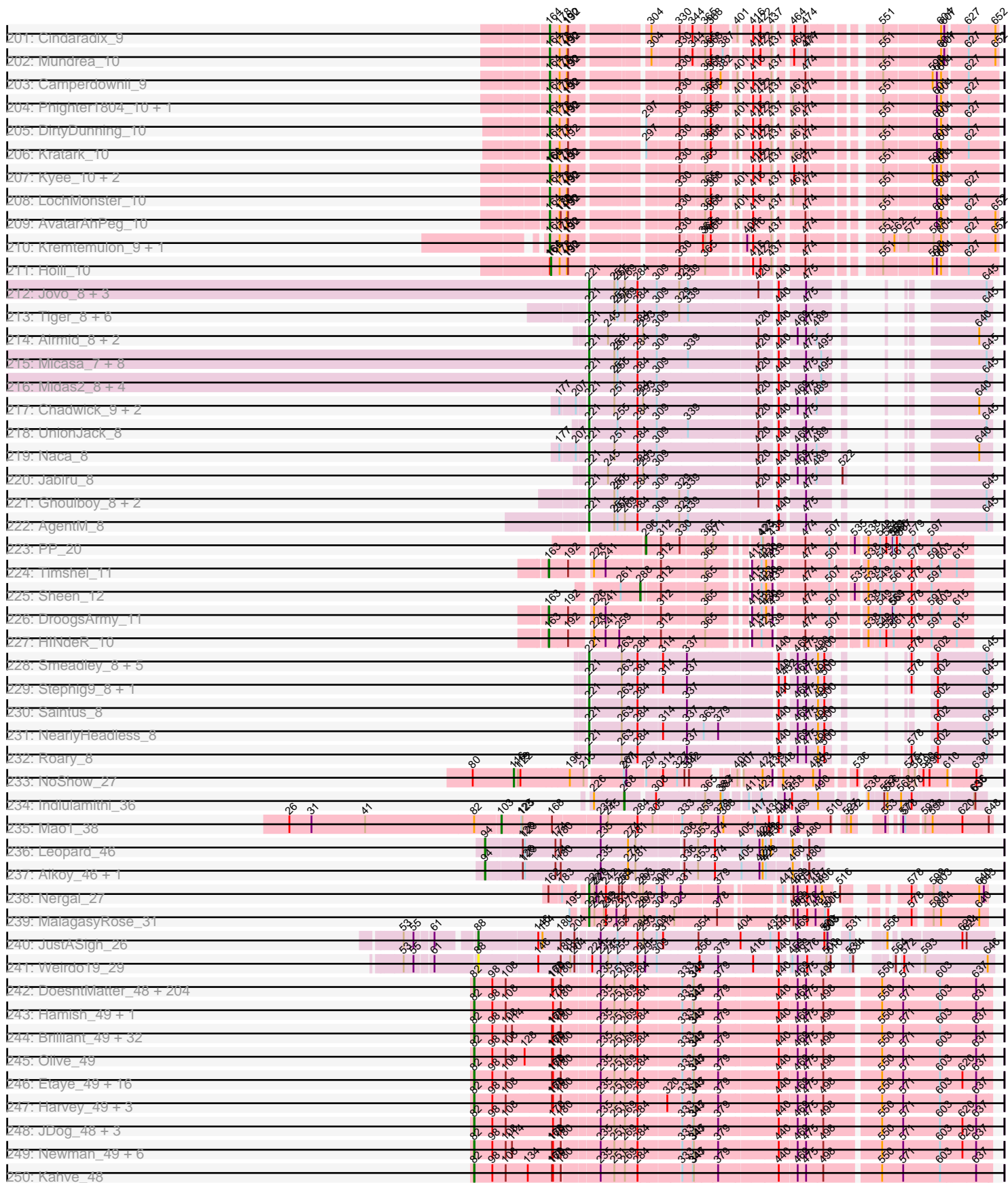


Pham 171069

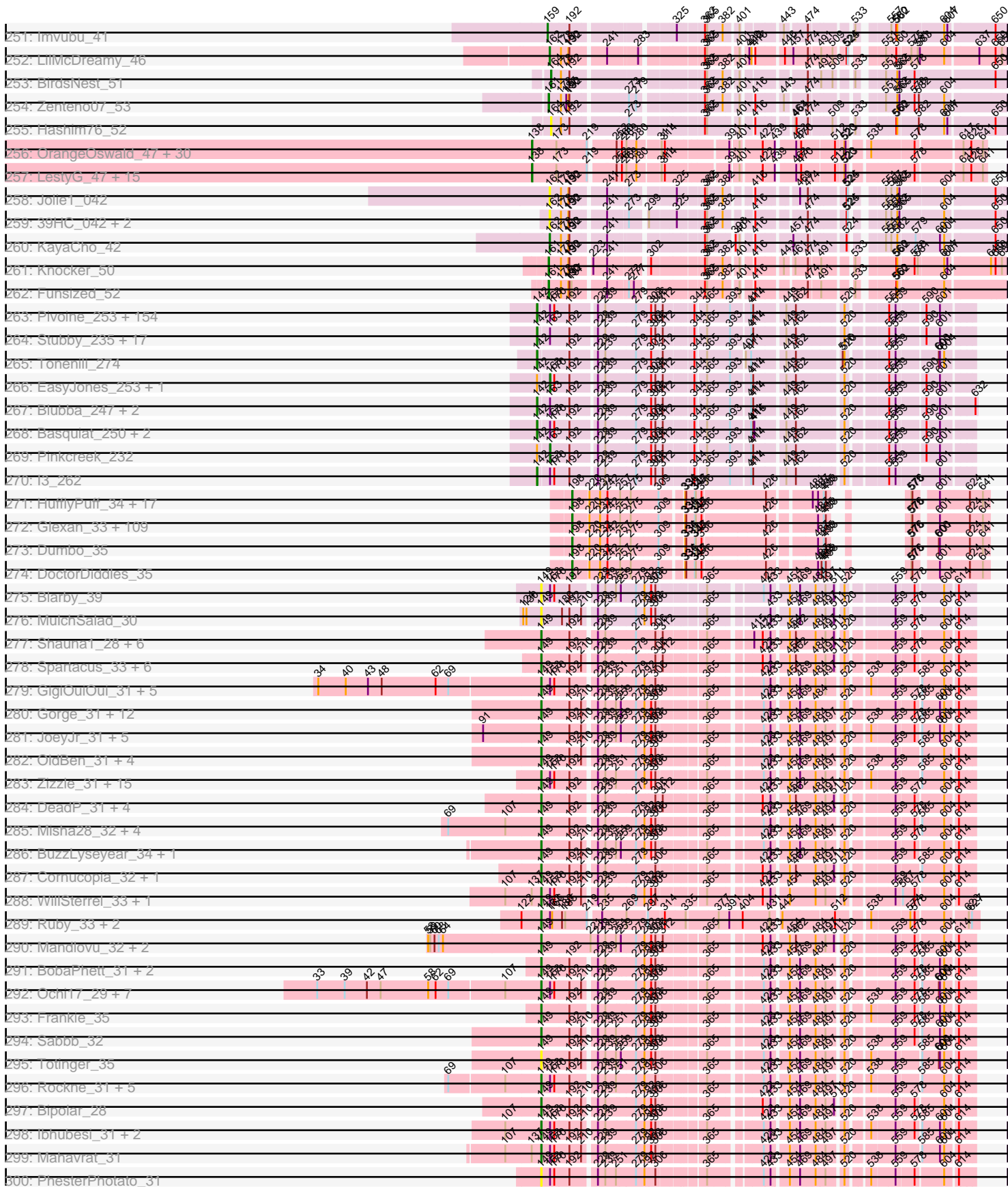




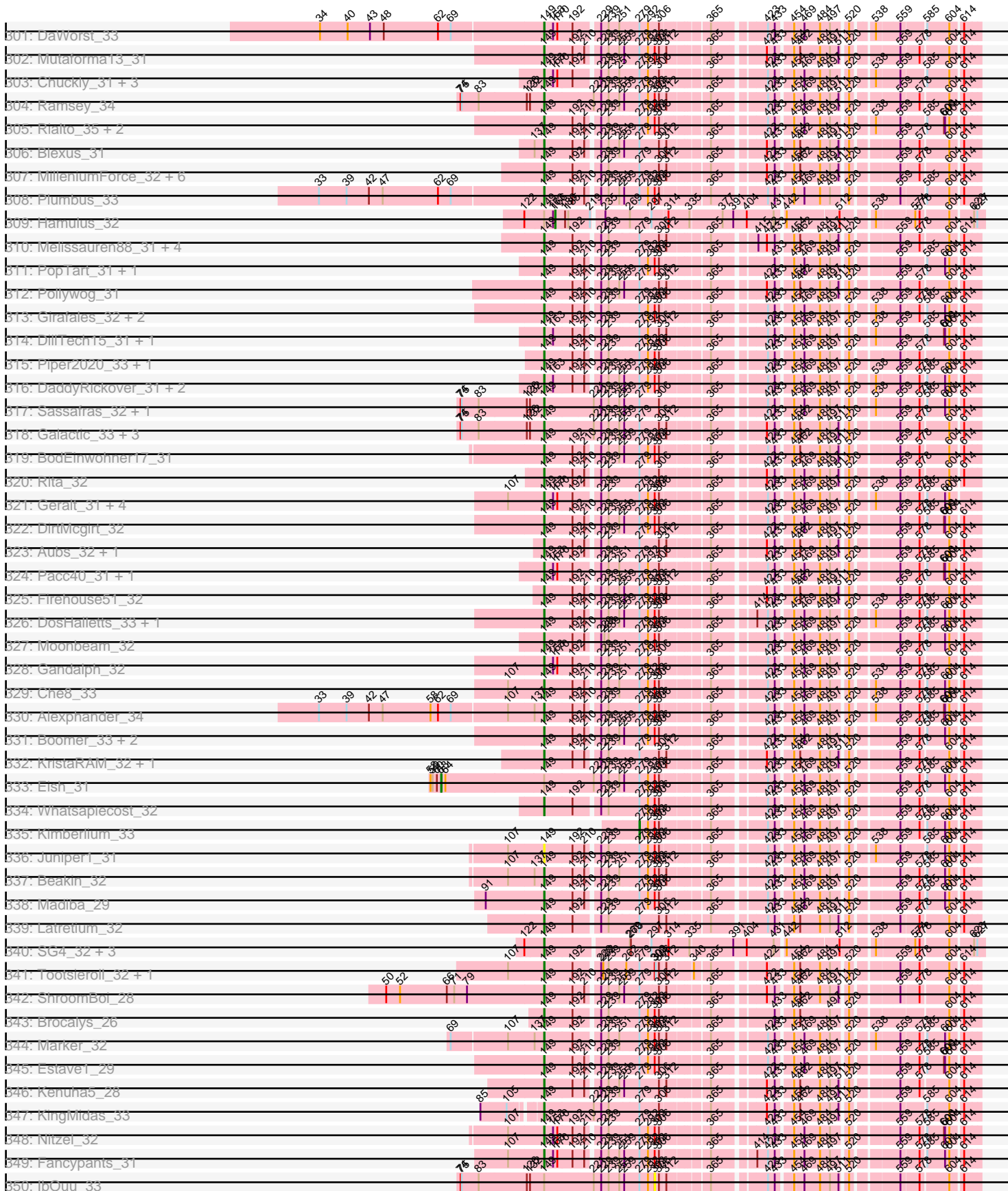
Pham 171069



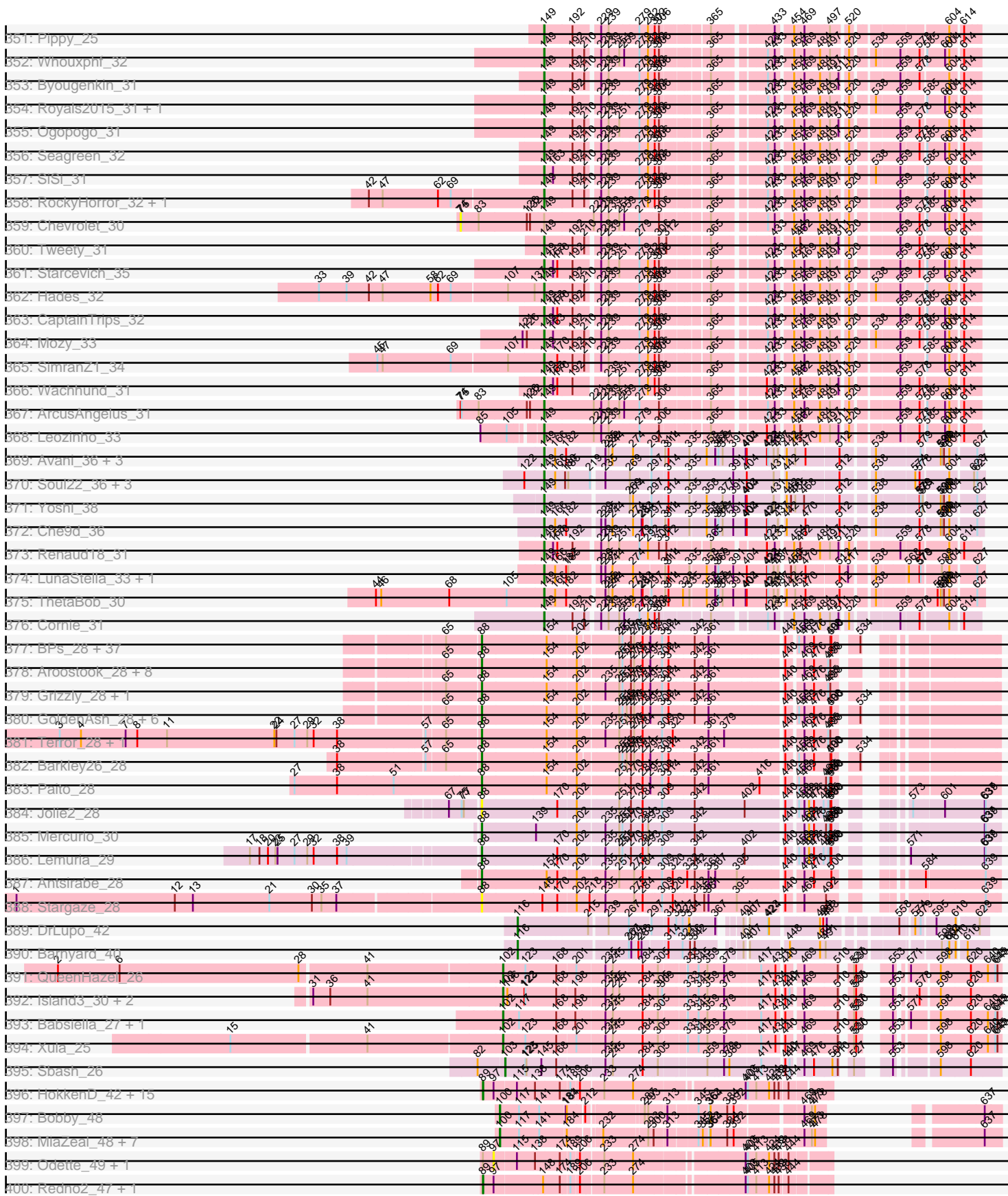
Pham 171069



Pham 171069

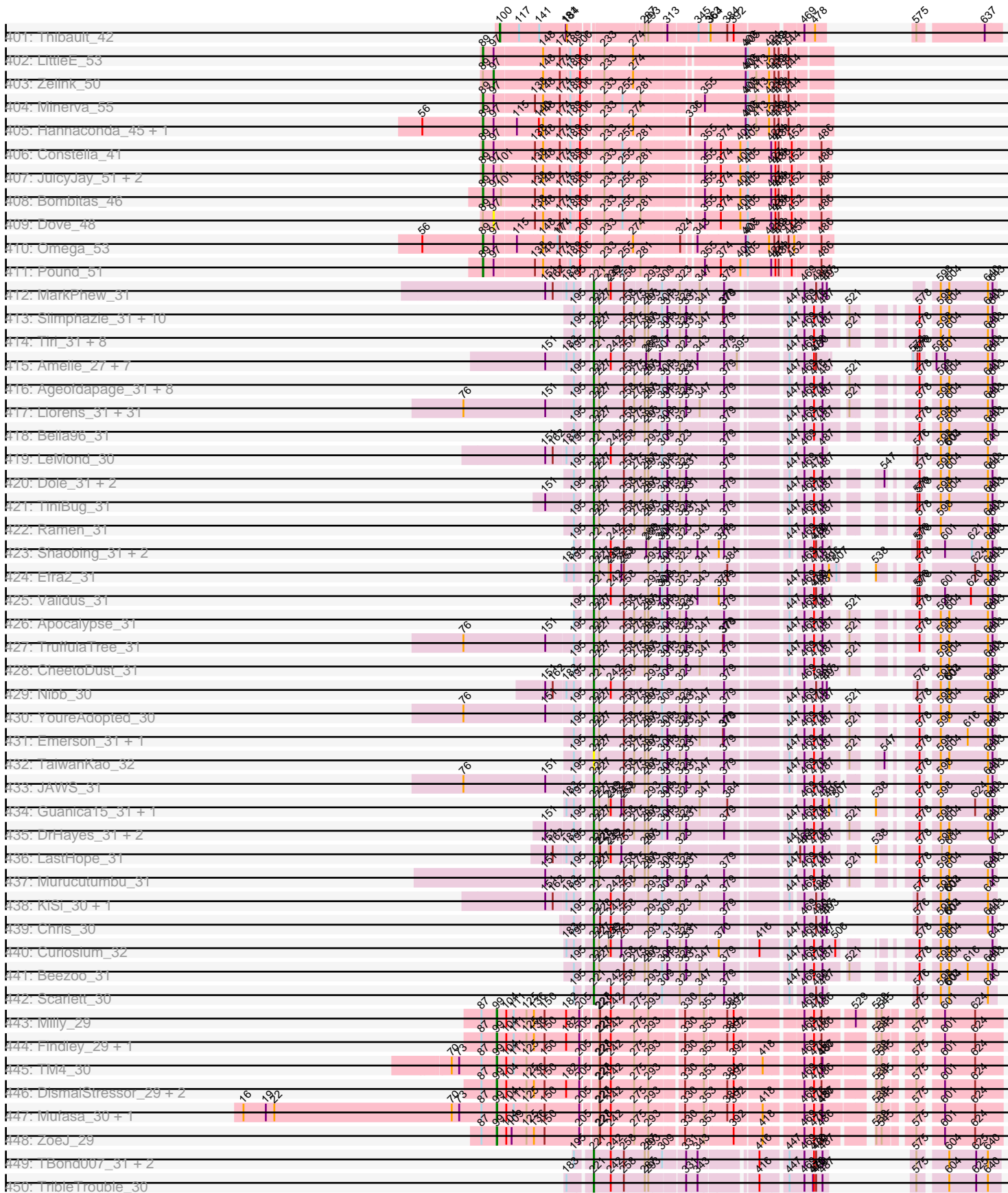


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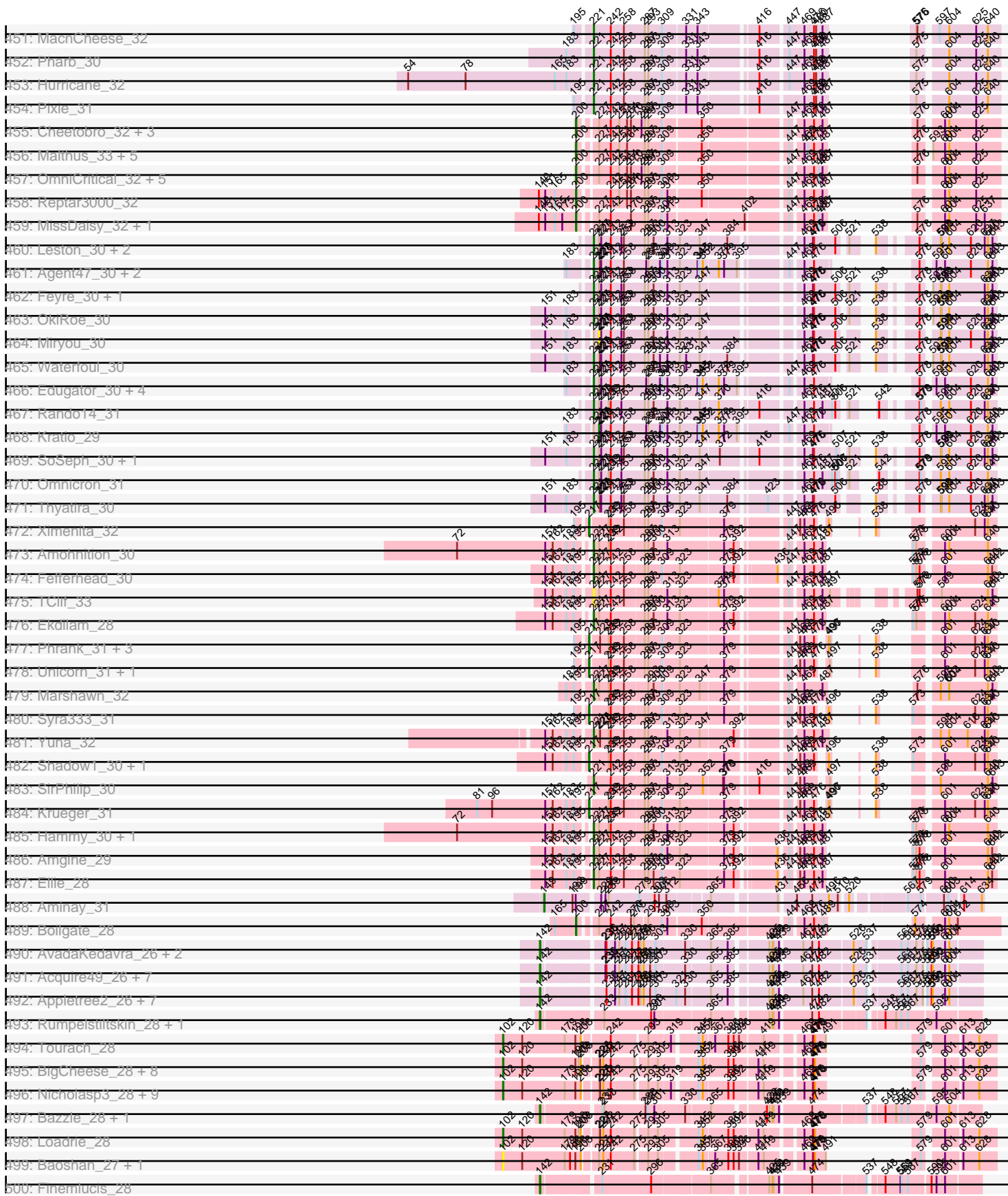




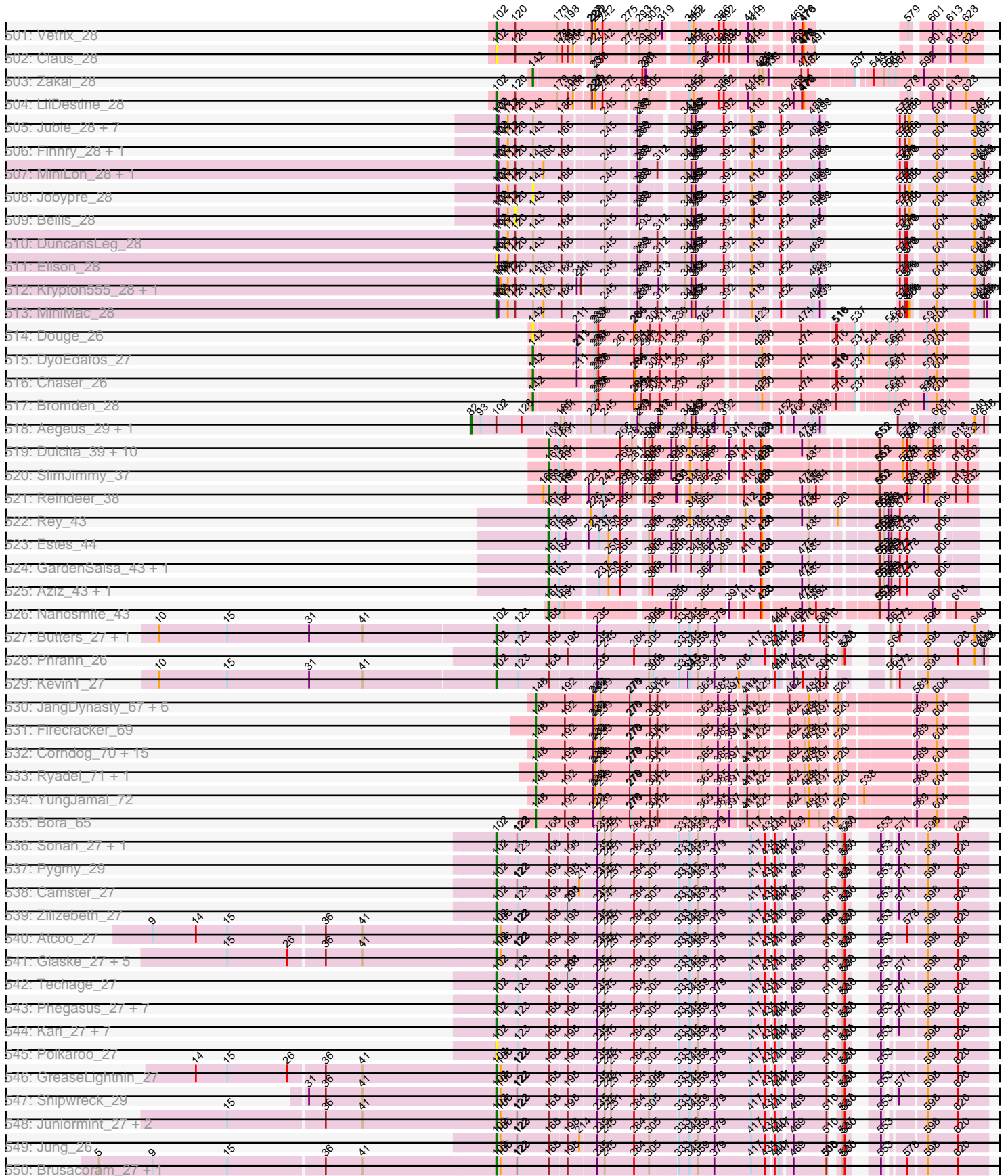
Pham 171069



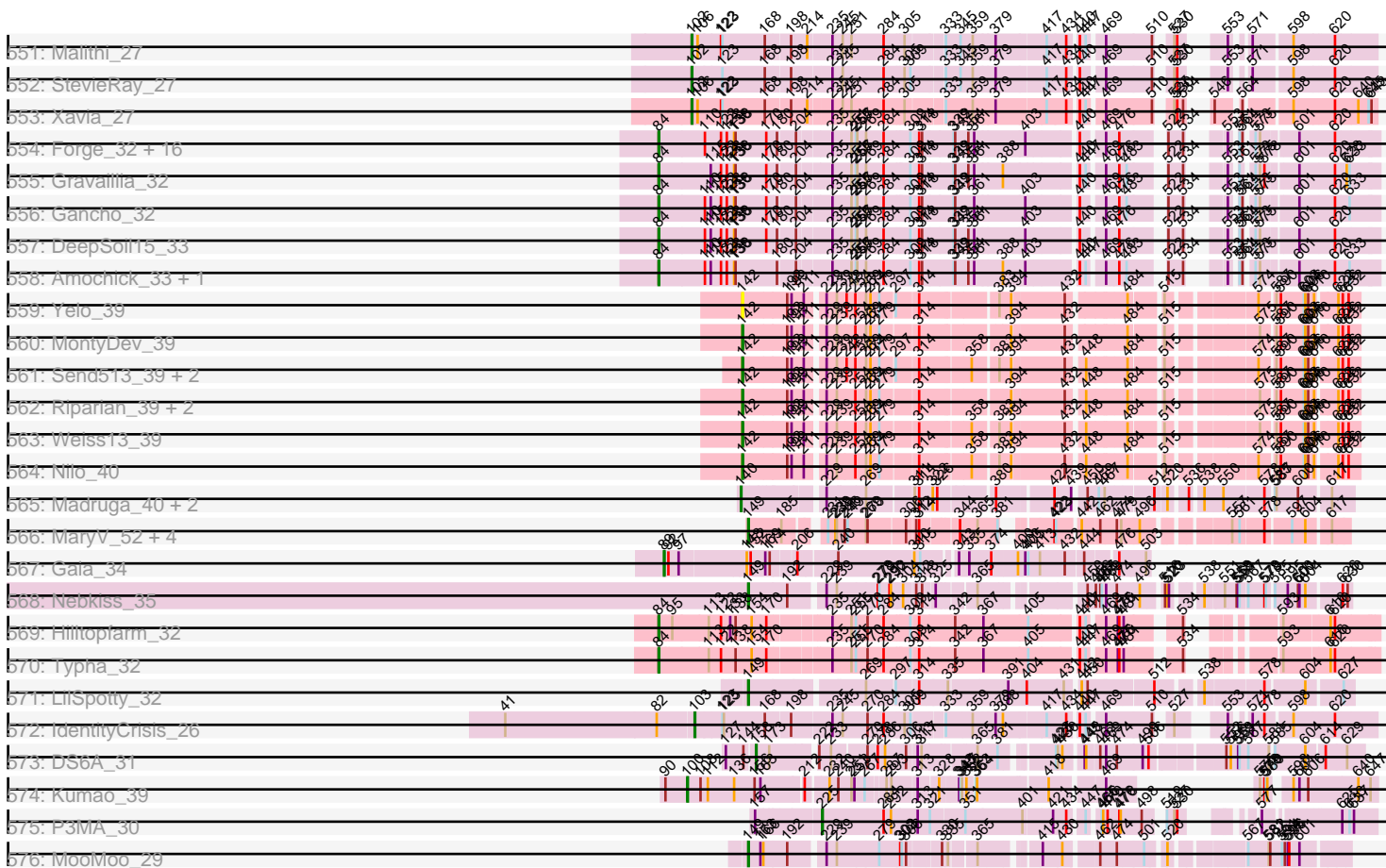
Pham 171069



Pham 171069



Pham 171069



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 171069 Report

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

Pham number 171069 has 2064 members, 132 are drafts.

Phages represented in each track:

- Track 1 : Lopton\_11, Anglerfish\_10, KBG\_11, Acme\_11, BigPaolini\_11, Parliament\_9, Magnito\_9, Lockley\_10, Fajezeel\_11, PinkPlastic\_8, Pari\_11, BigMau\_11, Violet\_9, Slagathor\_10, Smairt\_11, Rajelicia\_9, Sanya\_9, PattyP\_11, KyMonks1A\_12, Ashballer\_8, Bob3\_9, StewieG\_9, Museum\_11, Pippin\_11, Arcanine\_10, Abrogate\_110, Rubeus\_10, Sibs6\_11, MaryBeth\_10, Ruotula\_9, Wilkins\_10, Niza\_11, DD5\_11, Greg\_11, Wheeler\_10, Scowl\_11, MetalQZJ\_10, MPlant7149\_9, Corvo\_10, Oogway\_9, Burton\_10, Bones\_10, Chanagan\_9, Homines\_10, Sagefire\_11, 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, Mryolo\_9, Applejack\_10, JackSparrow\_10, Bircsak\_10, Sunshine924\_9, Seabiscuit\_11, Altman\_11, Gompeii16\_10, PascalRango\_9, Manatee\_10, Kanely\_11, Dynamix\_10, ConceptII\_10, ILeeKay\_12, Pinto\_12, McGuire\_10, Trouble\_10
- Track 7 : Agaliana\_10, Ajay\_10, PacerPaul\_10, Watermelon\_12, Graduation\_12, Adahisdi\_11, Sorpresa\_9
- Track 8 : Switzer\_10, U2\_9, BillKnuckles\_11
- Track 9 : Alvin\_11, Petruccio\_10, Doom\_10, Paphu\_9, Abbyshoes\_11, Zeeculate\_9, Gandalf20\_11, Sumter\_9, Gyzlar\_11, SpikeBT\_11, Turj99\_9, GageAP\_11, Traft412\_12, Jasper\_11, TwoPeat\_11, Michley\_10, Dussy\_11, Solon\_10, SkiPole\_12, Carlyle\_12, Kugel\_11, Crispicous1\_9, Snazzy\_8, Big3\_10, BeesKnees\_10
- Track 10 : Maroc7\_9, CactusRose\_9, Eyeball\_10, Fascinus\_9, Ciao\_10, Marcell\_10
- Track 11 : Kenmech\_12
- Track 12 : Dulcie\_9
- Track 13 : IgnatiusPatJac\_9, Buttons\_11, BluSpix\_10
- Track 14 : Fushigi\_10
- Track 15 : Bethlehem\_10, Briton15\_11, DreamCatcher\_11, Ichabod\_10
- Track 16 : TheloniousMonk\_11, Gwendoluna\_11
- Track 17 : Mule\_10, PhrostyMug\_10, Aeneas\_12
- Track 18 : Pelly\_11
- Track 19 : Ringer\_10
- Track 20 : A6\_08, BK1\_08

- Track 21 : Perseus\_11, Forsytheast\_9, Petp2012\_12, Zephyr\_10, Moose\_9, DrFeelGood\_9, Tasp14\_11, SwissCheese\_10, Dexes\_11
- Track 22 : Arlo\_9
- Track 23 : STLscum\_11
- Track 24 : Squee\_10, Naira\_10, Fenn\_10
- Track 25 : Nerujay\_11
- Track 26 : Jerm2\_10, Rufus\_10, Nhonho\_10
- Track 27 : Pepe\_11
- Track 28 : Rohr\_11
- Track 29 : QTRlifeCrisis\_10
- Track 30 : BaconJack\_12
- Track 31 : Bruns\_8, Alsfro\_14
- Track 32 : Bexan\_9, StrongArm\_9, Beatrix\_9, Lamina13\_10
- Track 33 : HermioneGrange\_11
- Track 34 : Marsha\_10
- Track 35 : Smeagol\_11
- Track 36 : Hermia\_12
- Track 37 : Magnar\_10, GrecoEtereo\_11
- Track 38 : HanShotFirst\_10
- Track 39 : Marchy\_8
- Track 40 : Payneful\_9, Sandaddy\_9
- Track 41 : LilBib\_11
- Track 42 : Target\_11
- Track 43 : HarryOW\_11
- Track 44 : Norz\_12
- Track 45 : Makemake\_10
- Track 46 : Tripl3t\_11
- Track 47 : Atkinbua\_10
- Track 48 : Killigrew\_8
- Track 49 : SarFire\_10
- Track 50 : Peterson\_13
- Track 51 : Papez\_12
- Track 52 : Lesedi\_9
- Track 53 : Seanderson\_11
- Track 54 : Monet\_11, Edtherson\_11, Treddle\_11
- Track 55 : Froghopper\_11
- Track 56 : Kykar\_8
- Track 57 : NEHalo\_10
- Track 58 : Hope4ever\_10
- Track 59 : JC27\_12
- Track 60 : Teodoridan\_8
- Track 61 : Topgun\_10
- Track 62 : Cueylyss\_10
- Track 63 : ShortQueendom\_9
- Track 64 : Blue\_10
- Track 65 : Hami1\_11
- Track 66 : PherrisBueller\_11, Jorgensen\_10, Rutherferd\_11
- Track 67 : Zeuska\_11
- Track 68 : Swole\_12
- Track 69 : Ohno789\_9
- Track 70 : Dreamboat\_11
- Track 71 : Espresso\_10
- Track 72 : Licorice\_12

- Track 73 : Rhynn\_10
- Track 74 : KSSJEB\_9
- Track 75 : Eaglepride\_11
- Track 76 : Drake94\_9, KittenMittens\_9, Severus\_9, Poompha\_9, PeaceMeal1\_9
- Track 77 : WalterMcMickey\_10, Topanga\_10, Twister\_10
- Track 78 : OKCentral2016\_10, Chupacabra\_10
- Track 79 : RhynO\_11
- Track 80 : Goose\_10
- Track 81 : Rebeuca\_11, Kristoff\_11
- Track 82 : Edison31\_10
- Track 83 : Trike\_8
- Track 84 : Refuge\_14
- Track 85 : Zimmer\_13
- Track 86 : Luchador\_11
- Track 87 : 40AC\_14
- Track 88 : Kimona\_7
- Track 89 : Journey13\_9
- Track 90 : GaugeLDP\_13
- Track 91 : StarStuff\_14, D32\_14, Pomar16\_14, D29\_12, Naji\_14, Tomathan\_14
- Track 92 : Malec\_12
- Track 93 : NicoleTera\_15
- Track 94 : Miko\_14
- Track 95 : Landor\_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 : TarsusIV\_11
- Track 101 : Leogania\_13
- Track 102 : Bactobuster\_12
- Track 103 : Jaan\_14
- Track 104 : JoshKayV\_13
- Track 105 : TipsytheTRex\_10
- 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 : Colin\_15
- Track 115 : LilTurb\_13, Jerm\_13, Turbido\_13
- Track 116 : Loser\_14
- Track 117 : WeiHuaDA\_17
- Track 118 : L5\_12
- Track 119 : Kalpine\_14
- Track 120 : ArcherNM\_13
- Track 121 : Serenity\_10
- Track 122 : Benvolio\_11, Echid\_11
- Track 123 : Agape74\_13, Leviathan\_13, AbbyPaige\_13

- Track 124 : Anselm\_11
- Track 125 : BengiVuitton\_12
- Track 126 : ChipMunk\_13
- Track 127 : Trooper\_11
- Track 128 : NaSiaTalie\_11, MiculUcigas\_11
- Track 129 : Flare16\_11
- Track 130 : Buggy\_13
- Track 131 : Smeagan\_13
- Track 132 : Jsquared\_10
- Track 133 : KingCyrus\_13
- Track 134 : XianYue\_11
- Track 135 : Pukovnik\_13
- Track 136 : BiancaTri92\_13
- Track 137 : Trixie\_14
- 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 : MissWhite\_11
- Track 148 : Iwokeuplikedis\_11
- Track 149 : Koduck\_11
- Track 150 : Changeling\_14
- Track 151 : LadyBird\_11
- Track 152 : BabyBack\_13
- Track 153 : BobSwaget\_14
- Track 154 : NothingSpecial\_13
- Track 155 : Grub\_12, Microwolf\_12, Stagni\_12, PGHhamlin\_14, Mainiac\_12, EpicPhail\_12, MuchMore\_14, BreSam8\_12, Beauxregard13\_12, Lilith\_12, Pembroke\_12, Snickers\_12, Louie6\_12, Tiffany\_12, HashRod\_13, Vix\_12, LBerry\_12, Grum1\_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, Malinsilva\_14, Jobu08\_12, Spike509\_12, Methuselah\_12, Grif\_12, Phoxy\_12, SoilDragon\_12, StepMih\_12, Farber\_12, Soshari\_14, Sabia\_12, Bxz2\_12, AugsMagnumOpus\_14, Rummer\_12
- Track 156 : ResDef\_11, Texage\_10, Pocahontas\_11, Caviar\_11, Veracruz\_10, QuinnKiro\_10, Norbert\_10, Todacoro\_11, Noella\_11, Lambert1\_11, Margo\_11, Popcicle\_11, Hookmount\_11
- Track 157 : 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 158 : KADY\_13, Misomonster\_14, BuzzBuzz\_11
- Track 159 : Rockstar\_10
- Track 160 : Bugatti\_10, Giroux\_10, TNguyen7\_10, BlueBird\_11, Puppy\_11, Pistachio\_11, Idleandcovert\_10, SaturnRing\_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 : HelDan\_10, Heathen\_10, Scout\_10
- Track 164 : Zetzy\_11
- Track 165 : JF4\_10, JF2\_10, MK4\_10, B1\_08
- Track 166 : Daishi\_11
- Track 167 : BabyRay\_10
- Track 168 : Isca\_10
- Track 169 : GingkoMaracino\_12, Anubis\_14
- Track 170 : Ollie\_12
- Track 171 : Fred313\_10
- Track 172 : JeppNRM\_13
- Track 173 : Phantastic\_10
- Track 174 : MA5\_10
- Track 175 : BubbleTrouble\_10, Chaph\_10, Citius\_10, Bartimeaus\_10, Palestino\_10, JoongJeon\_10, Sabertooth\_10, Bruiser\_10, Eros\_10, Scamp\_10, Baby16\_10, Cocoaberry\_10, Maverick\_10, Florean\_10, Jaykayelowell\_10, Dhanush\_10, Happiness\_10, Clarenza\_10, Sparxx\_10, PeterPeter\_10, Maxo\_10, Druantia\_10, Kamy\_10, Spino\_10, Roosevelt\_10, Connomayer\_10, KFPoly\_10, Phacado\_10, Shaka\_10, Wizard007\_10, Gadost\_10, Blackmoor\_10, OKaNui\_10, Phelipe\_10, Alberto7\_11, Lorenzo\_10, CentreCat\_10, TinaFeyge\_10, LittleB\_10, Wander\_10, TroyPia\_10, Iceman\_10, Eapen\_10, Houdini22\_10, NotAPhaseMom\_10, Mazhar510\_10, Abdiel\_10, Caelakin\_10
- Track 176 : HamSlice\_9, MeeZee\_10, Flux\_10, Peaches\_10, Burger\_9, ICleared\_10, Pipcraft\_10, Eagle\_9, Medusa\_10, Avle17\_10
- Track 177 : Noelle\_10
- Track 178 : Miramae\_10
- Track 179 : Nebs\_10, Polymorphads\_10, Ohfah\_10, LeoAvram\_10, Morrow\_10
- Track 180 : Datway\_10
- Track 181 : PetiteSangsue\_10, Perplexer\_10, Morpher26\_10
- Track 182 : Wile\_10, Backyardigan\_10, Katalie136\_10, Bumblebee11\_10
- Track 183 : Stasia\_11
- Track 184 : TygerBlood\_10, Thanksgivukkah\_10, Funston\_10, Commander\_10, Eris\_10, Skipitt\_10, Taquarus\_10, Annyong\_10, Albee\_10, Bombshell\_10, Kingmustik0402\_10, Millski\_10
- Track 185 : Obama12\_10, SheldonCooper\_10, Cerulean\_10, BangNhom\_9, Tinybot\_9, ChampagnePapi\_10, LHTSCC\_10
- Track 186 : Nyxis\_10, LittleGuy\_10, Phontbonne\_10
- Track 187 : NorthStar\_10, Ruin\_10, Broseidon\_10, Romney\_10, Relief\_10, Koreni\_9, TiroTheta9\_10, Wilbur\_10
- Track 188 : Shygu2\_10
- Track 189 : BellusTerra\_10
- Track 190 : Deano\_10
- Track 191 : Ulysses\_9, Pumbaa\_10
- Track 192 : Cici\_10, Xena\_10, Achebe\_10, Badger\_10
- Track 193 : Arturo\_9, JetBlade\_10
- Track 194 : YoSam321\_10
- Track 195 : AbbysRanger\_10
- Track 196 : Nemo27\_10
- Track 197 : Eurydice\_10
- Track 198 : Melvin\_10
- Track 199 : Stink\_10
- Track 200 : LappelDuVide\_9
- Track 201 : Cindaradix\_9
- Track 202 : Mundrea\_10

- Track 203 : Camperdownii\_9
- Track 204 : Phighter1804\_10, Iracema64\_10
- Track 205 : DirtyDunning\_10
- Track 206 : Kratak\_10
- Track 207 : Kyee\_10, Lunsford\_11, Lemur\_10
- Track 208 : LochMonster\_10
- Track 209 : AvatarAhPeg\_10
- Track 210 : Kremtemulon\_9, Cintron\_10
- Track 211 : Holli\_10
- Track 212 : Jovo\_8, Discoknowium\_8, Bluefalcon\_7, Aragog\_8
- Track 213 : Tiger\_8, Conspiracy\_8, ForGetIt\_8, Archetta\_8, Lev2\_8, PickleBack\_8, Phlorence\_8
- Track 214 : Airmid\_8, EITiger69\_8, Benedict\_8
- Track 215 : Micasa\_7, George\_7, Milcery\_8, Bonamassa\_8, HuhtaEnerson15\_8, Tarynearal\_7, LittleCherry\_8, Swirley\_8, Cuco\_8
- Track 216 : Midas2\_8, Dublin\_7, Coog\_8, MarysWell\_7, Theia\_7
- Track 217 : Chadwick\_9, Scorpio\_9, PetterN\_9
- Track 218 : UnionJack\_8
- Track 219 : Naca\_8
- Track 220 : Jabiru\_8
- Track 221 : Ghoulboy\_8, SydNat\_8, Zolita\_7
- Track 222 : AgentM\_8
- Track 223 : PP\_20
- Track 224 : Timshel\_11
- Track 225 : Sheen\_12
- Track 226 : DroogsArmy\_11
- Track 227 : HINdeR\_10
- Track 228 : Smeadley\_8, Astro\_8, Expelliarmus\_7, Danforth\_7, Phillis\_8, Groundhog\_7
- Track 229 : Stephig9\_8, Dixon\_8
- Track 230 : Saintus\_8
- Track 231 : NearlyHeadless\_8
- Track 232 : Roary\_8
- Track 233 : NoShow\_27
- Track 234 : Indulamithi\_36
- Track 235 : Mao1\_38
- Track 236 : Leopard\_46
- Track 237 : Aikoy\_46, Onyinye\_47
- Track 238 : Nergal\_27
- Track 239 : MalagasyRose\_31
- Track 240 : JustASigh\_26
- Track 241 : Weirdo19\_29
- Track 242 : DoesntMatter\_48, Haleema\_48, Freya\_48, Keitherie\_49, Jiraiya\_51, Wallhey\_48, Phipps\_49, Xavier\_48, Jillium\_48, Kwadwo\_48, Pherdinand\_50, Murdoc\_49, Mag7\_48, Morty\_50, Gophee\_49, Waterdiva\_49, Eremos\_49, Matalotodo\_49, Labeouficaum\_48, BlackStallion\_50, Struggle\_48, Zelda\_49, Podrick\_49, Cannibal\_49, Selr12\_51, Phleuron\_48, Chaelin\_49, Megamind20\_49, MrPhizzler\_48, Charles1\_49, Serpentine\_0049, Magic8\_49, Zonia\_49, Maru\_48, Riggan\_49, Vista\_49, Craff\_50, Sigman\_50, Banjo\_48, Gareth\_48, Plmatters\_49, Oline\_48, PhrodoBaggins\_49, Grand2040\_48, Coletti\_48, Scoot17C\_50, Emiris\_50, PG1\_50, Serendipity\_49, Kailash\_49, QueenBeane\_49, Virgeve\_48, JacAttac\_50, FluffyNinja\_50, Virapocalypse\_49, Chah\_51, Hocus\_48, LemonSlice\_49, Phareon\_49, ProfessorX\_49, Horchata\_49, Pipsqueak\_49, Telesworld\_48, Trypo\_50,

Held\_49, Orfeu\_49, Hartsy\_49, Piglet\_0049, Quisquiliae\_49, Puhltonio\_49, PhatLouie\_49, Rimu\_51, Inchworm\_50, TomBombadil\_49, Maskar\_49, Placalicious\_48, Doddsville\_49, Dione\_48, Buckeye\_49, Sheila\_49, DuchessDung\_48, Kikipoo\_50, Mulan\_49, Usavi\_49, Valjean\_49, DelRivs\_48, Numberten\_49, Chunky\_49, Bishoperium\_48, ABU\_50, Tomlarah\_49, KLucky39\_49, Basato\_50, Swiphy\_51, Roy17\_49, Dice\_51, ImtiyazSitla\_49, Lopsy\_48, Eugenia\_49, Megatron\_50, IsaacEli\_50, Gyarad\_0049, LeeLot\_49, Olak\_49, PinheadLarry\_49, Lego3393\_48, Thunderbird\_49, Phamished\_50, Toni\_48, Anderson\_49, Legolas\_49, GeneCoco\_49, Bluephacebaby\_48, Morgushi\_49, PhenghisKhan\_48, JangoPhett\_49, Chute\_48, Solosis\_48, True\_48, Timmi\_48, Lulumae\_48, Cobra\_49, UAch1\_49, Phunky\_49, Squiggle\_49, Fringe\_50, Orwigg\_50, DaddyDaniels\_49, Nyala\_48, Ricotta\_49, Roscoe\_50, Vivaldi\_50, Scrick\_49, Mikota\_49, Vaticameos\_45, HighStump\_49, Fozzie\_48, CamL\_49, Lumine\_48, ShiVal\_49, BatteryCK\_48, Derpp\_48, Kwksand96\_48, Cher\_48, Vortex\_49, Adriana\_50, MichaelPhcott\_48, Boehler\_49, Durga\_50, Swish\_50, Jiminy\_48, Suffolk\_49, Katniss\_50, Ashraf\_49, UncleHowie\_49, Duggie\_48, Vaishali24\_48, PhatCats2014\_50, Longacauda\_48, TyrionL\_48, Daffy\_49, Spartan300\_49, Beaglebox\_48, PhrankReynolds\_47, Kloppinator\_50, Phergie\_49, Lulwa\_49, HenryJackson\_48, Slatt\_49, FugateOSU\_48, Andre\_52, DonSanchon\_48, Apizium\_49, KingTut\_40, Mesh1\_49, Lasso\_49, YouGoGlencoco\_49, Fang\_50, CharlieGBrown\_48, Cosmolli16\_48, Yoshand\_50, FriarPreacher\_48, Carthage\_47, TallGrassMM\_49, Samaymay\_49, LasagnaCat\_50, LuckyMarjie\_48, Hetaeria\_49, Burr\_48, Veritas\_48, Iridoclysis\_49, Pinkman\_48, Mcshane\_48, Simielle\_48, Nicole21\_49, Frankicide\_49, Altwerkus\_48, Windsor\_48, Pacifista\_51, Schadenfreude\_48, Skippy\_49, Orion\_50, Mutante\_48, CampRoach\_50, Childish\_48

- Track 243 : Hamish\_49, Haimas\_49
- Track 244 : Brilliant\_49, SassyCat97\_48, Kimbrough\_49, AltPhacts\_49, BlueHusk\_49, MRabcd\_48, Soto\_49, Mosaic\_48, KingVeVeVe\_49, Giraffe\_49, Badfish\_50, JakeO\_48, Sophia\_48, Mana\_48, Mecca\_48, Chorkpop\_49, Squid\_49, Nacho\_0050, Crownjwl\_49, Dingo\_49, Roliet\_49, MitKao\_49, SDcharge11\_49, Schueller\_49, MiniBoss\_49, Soile\_49, LostAndPhound\_48, LeiMonet\_50, Omniscient\_49, Zaider\_50, Potter\_48, EmpTee\_49, MelsMeow\_49
- Track 245 : Olive\_49
- Track 246 : Etaye\_49, CheetO\_49, ThreeOh3D2\_50, Colbert\_49, DirtJuice\_49, OliverWalter\_49, OSmaximus\_50, Tooj\_49, Oosterbaan\_49, RedMaple\_49, Pops\_49, Surely\_49, Inverness\_49, Cornobble\_48, Thora\_49, Manad\_49, Hertubise\_49
- Track 247 : Harvey\_49, Robyn\_48, Aelin\_48, Antonia\_48
- Track 248 : JDog\_48, Melc17\_49, Dati\_49, Weher20\_49
- Track 249 : Newman\_49, AbsoluteMadLad\_48, Daka\_50, HSavage\_49, KlimbOn\_49, Prickles\_49, Gwilliam\_50
- Track 250 : Kahve\_48
- Track 251 : Imvubu\_41
- Track 252 : LilMcDreamy\_46
- Track 253 : BirdsNest\_51
- Track 254 : Zenteno07\_53
- Track 255 : Hashim76\_52
- Track 256 : OrangeOswald\_47, Ben11\_46, HarveySr\_47, Marley1013\_47, Tydolla\_47, RagingRooster\_47, SlippinJimmy\_47, Kronus\_46, Yahalom\_47, Heathcliff\_47, Mortcellus\_46, RomaT\_47, Nozo\_47, Daisy\_47, Abinghost\_47, Deenasa\_47, SynergyX\_47, MmasiCarm\_47, Jackstina\_44, Phayeta\_48, Neos5\_47, Akoma\_47, Phaedrus\_45, Gervas\_47, Philly\_46, Morty007\_47, Casbah\_46, Compostia\_48, Halfpint\_46, Devonte\_47, ChaChing\_47

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- Track 572 : IdentityCrisis\_26
- Track 573 : DS6A\_31
- Track 574 : Kumao\_39

- Track 575 : P3MA\_30
- Track 576 : 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 163, it was called in 304 of the 1932 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 20ES\_11, 40AC\_14, 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, 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, Crispicous1\_9, Crucio\_11, DD5\_11, Daishi\_11, Dalmatian\_11, Datway\_10, Deloris\_12, Dexes\_11, Dignity\_13, Doom\_10, DrFeelGood\_9, Drake55\_13, Drake94\_9, DreamCatcher\_11, Dreamboat\_11, DroogsArmy\_11, DudeLittle\_11, Dulcie\_9, Dussy\_11, Dynamix\_10, EZMoney23\_15, Eaglepride\_11, EasyJones\_253, 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, ILeeKay\_12, Ichabod\_10, IgnatiusPatJac\_9, Iwokeuplikedis\_11, Izajani\_248, JC27\_12, JackSparrow\_10, Jasper\_11, Jerm2\_10, Jerm\_13, Jorgensen\_10, JoshKayV\_13, JuliaChild\_12, KBG\_11, KSSJEB\_9, Kalpine\_14, Kanely\_11, Katalie136\_10, Kenmech\_12, Killigrew\_8, KingCyrus\_13, KittenMittens\_9, Kristoff\_11, Kugel\_11, KyMonks1A\_12, Kykar\_8, LadyBird\_11, Lamina13\_10, Larenn\_12, Leogania\_13, Lesedi\_9, Leviathan\_13, LilBib\_11, LilTurb\_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, 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, PeaceMeal1\_9, Pepe\_11, Perplexer\_10, Perseus\_11, Peterson\_13, PetiteSangsue\_10, Petp2012\_12, Petruccio\_10, PherrisBueller\_11, Phontbonne\_10, PhrostyMug\_10, PinkPlastic\_8, Pinkcreek\_232, Pinto\_12, Pippin\_11, Piro94\_12, Pita2\_12, Poompha\_9, Power\_11, 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, 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, ShortQueendom\_9, Shygu2\_10, Sibs6\_11, SkiPole\_12, Slagathor\_10, Smairt\_11, Smeagan\_13, Smeagol\_11, SnapTap\_11, Snazzy\_8, Solon\_10, Sorpresa\_9, 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:

- Ading\_255, Adlitam\_252, Alice\_238, AlpineSix\_32, Amataga\_253, ArcherS7\_253, Asterius\_249, Astraea\_248, Atlantean\_252, Audrick\_255, Ava3\_249, Babyland\_255, BackyardAgain\_247, BadAgartude\_246, BananaFence\_250, Bangla1971\_253, Basquiat\_250, BeanWater\_245, BigCity\_260, Bigswole\_257, Bipolarisk\_250, Blackbrain\_251, Blackdragon\_247, Blarby\_39, Blubba\_247, BlueCrab\_31, Bonray\_255, Bread\_249, Breeniome\_252, Burrough\_253, Burwell21\_31, Bxz1\_238, Cactojaque\_247, Cali\_242, Cane17\_241, Capablanca\_257, CaptainTrips\_32, Caravan\_242, Catera\_241, Chargie21\_250, CharlieB\_247, ChaylaJr\_251, ChickenPhender\_248, Chomp\_250, Chuckly\_31, CindyLou\_253, Clifton\_25, Colt\_242, Concombre\_258, Cueylyss\_10, DTDevon\_253, DaWorst\_33, DaddyRickover\_31, Daffodil\_258, Dandelion\_258, Darko\_252, Deb65\_31, Delilah\_250, Delylah\_254, Derek\_248, Dietrick\_241, DillTech15\_31, DirtMonster\_241, Dorothy\_31, DrPhinkDaddy\_249, Drago\_32, Drazdys\_249, ET08\_238, EggyFarm\_260, EmToTheThree\_253, EmmaElysia\_257, Erdmann\_254, ErnieJ\_246, Essence\_250, EvilGenius\_13, Ewok\_251, Fancypants\_31, Fastidio\_33, Flabslab\_247, Fludd\_252, FoxtrotP1\_251, FrayBell\_255, Froghopper\_11, FudgeTart\_248, GUmbie\_31, Gabriel\_255, Gamgam\_254, Gandolph\_32, Geralt\_31, Ghost\_252, GigiOuiOui\_31, Girr\_33, Gizmo\_258, Grasshills\_259, Grungle\_234, Guwapp\_248, Halldule\_244, Hamulus\_32, Harley\_31, HyRo\_237, I3\_262, Ibhubesi\_31, IkeLoa\_246, InigoMontoya\_256, InterFolia\_254, Iota\_249, IrishSherpFalk\_33, Issimir\_249, JPickles\_250, Janiyra\_256, Jarcob\_31, JayJay\_248, Jaygup\_249, Jedediah\_254, Jemmno\_252, Jessibeth14\_252, Jinglebell\_31, JulietS\_244, JustHall\_246, Kamryn\_251, Karhdo\_31, Kboogie\_256, Kersh\_30, Khaleesi\_251, Koella\_25, Koguma\_251, Krakatau\_32, Kumao\_39, LRRHood\_244, LastJedi\_25, Latch\_252, Lee7\_253, Leperchaun\_31, Licorice\_12, LifeSavor\_253, LilMoolah\_31, LinStu\_249, Littleton\_256, Lizziana\_31, Llama\_31, Llij\_31, Loanshark\_249, LolaVinca\_248, LordLeafolot\_254, Luchador\_11, Lukilu\_241, Maby2021\_253, Mahavrat\_31, Mangeria\_252, Mantra\_31, Maravista\_31, Marchy\_8, Martik\_31, Matsumoto\_250, McGee\_254, McWolfish\_249, Megamind\_249, Melpomini\_247, MikeLiesIn\_253, Mikro\_246, MisterCuddles\_33, MoMoMixon\_248, Modragons\_31, Momo\_254, MooMoo\_29, Morizzled23\_250, Mozy\_33, Naija\_253, Napoleon13\_249, Nappy\_251, Naval22\_257, NedWong\_251, Nerujay\_11, Ngannou\_247, Nidhogg\_253, Nimbo\_31, Nitzel\_32, Nivrat\_31, NoodleTree\_248, Norm\_252, NormanBulbieJr\_31, NuevoMundo\_254, Ochi17\_29, OfUltron\_31, Oksu\_32, PHappiness\_31, PMC\_31, Pacc40\_31, ParkTD\_251, Patter\_254, Payneful\_9, Pelly\_11, Phalconet\_31, Phasih\_32, Phatniss\_32, PhesterPhotato\_31, Phlegm\_257, Phox\_253, Phusco\_251, Pier\_251, Pio\_259, Pivoine\_253,

Pleione\_256, PurduePete\_253, QBert\_244, Quasimodo\_255, Rabinovish\_245, Rahel\_254, RedBird\_31, Renaud18\_31, Rizal\_241, RoMag\_247, Rockne\_31, Ronan\_248, Roots515\_255, Ruby\_33, Salacia\_254, Sandaddy\_9, Sauce\_249, ScottMcG\_244, Seabastian\_31, Sebata\_252, Shaqnato\_243, Shelob\_253, ShiLan\_31, ShiaLabeouf\_250, Shifa\_228, Shnickers\_251, ShowerHandel\_31, Shrimp\_255, SiSi\_31, SilverDipper\_257, SmallFry\_253, Spec\_246, Specks\_257, Sprinklers\_250, Spud\_244, SrishMeg2525\_250, Starceвич\_35, StephanieG\_246, StubbySaigey\_259, Stubby\_235, SwagPiggett\_31, Swole\_12, Teardrop\_251, TinyTim\_251, Topgun\_10, Tortoise16\_250, Trinitium\_249, Turret\_243, Tyke\_249, UncleRicky\_34, ValleyTerrace\_253, Veteran\_31, Wachhund\_31, Wally\_250, WillSterrel\_33, Willis\_253, XFactor\_31, Yassified\_248, YemiJoy2021\_253, Yorick\_31, YoungMoneyMata\_252, Yucca\_253, Zalkecks\_251, Zeenon\_253, Zizzle\_31, ZygoTaiga\_249,

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

• 244\_37, 39HC\_042, 40BC\_042, ABCat\_34, ABU\_50, ACFishhook\_12, AN9\_14, ANI8\_14, Abdiel\_10, Abinghost\_47, AbsoluteMadLad\_48, Achebe\_10, Acolyte\_11, Acquire49\_26, ActinUp\_31, Adephagia\_31, Adnama\_38, Adonis\_31, Adriana\_50, Aegeus\_29, Aelin\_48, Agent47\_30, AgentM\_8, Ageofdapage\_31, Aglet\_12, AgronaGT15\_12, Aikoy\_46, Airmid\_8, Akhila\_25, Akoma\_47, Albee\_10, Alberto7\_11, Alexphander\_34, AlishaPH\_31, Alkhayr\_65, AlleyCat\_31, AltPhacts\_49, Altwerkus\_48, Amao\_35, Amelie\_27, AmericanBeauty\_38, Amgine\_29, Aminay\_31, Amochick\_33, Amohnition\_30, Amymech\_33, Anaya\_32, Anderson\_49, Andre\_52, Angel\_28, Angelica\_31, Annihilator\_28, Annyong\_10, Antonia\_48, Antsirabe\_28, Anubis\_14, Apizium\_49, Apocalypse\_31, Appletree2\_26, Aragog\_8, Archetta\_8, Archie\_28, ArcusAngelus\_31, Ardmore\_30, Argent26\_37, Arib1\_27, Ariel\_48, Aroostook\_28, Arturo\_9, Asayake\_31, Ashraf\_49, Ashwin\_69, Asriel\_34, Astro\_8, Atcoo\_27, Athena\_48, Atiba\_31, Aubs\_32, Audrey\_47, AugsMagnumOpus\_14, Auspice\_38, AvadaKedavra\_26, Avani\_36, AvatarAhPeg\_10, Avle17\_10, Avrafan\_28, Awesomesauce\_32, Aziz\_43, Azrael100\_51, B1\_08, BAKA\_53, BEEST\_31, BGlluviae\_31, BPs\_28, BQuat\_28, BaboJay\_34, Babsiella\_27, Baby16\_10, BabyRay\_10, Bactobuster\_12, BadStone\_34, Badfish\_50, Badger\_10, BaghaKamala\_31, Bagrid\_48, Balomoji\_34, Baloo\_47, BangNhom\_9, Banjo\_48, Baoshan\_27, Barbarian\_34, Barkley26\_28, Barnyard\_40, BarrelRoll\_31, Bartholomew\_26, Bartimeaus\_10, Basato\_50, Bask21\_35, Batiatus\_31, BatteryCK\_48, Baudelaire\_29, Bazzle\_28, Beaglebox\_48, Beakin\_32, Beauxregard13\_12, Beem\_49, Beezoo\_31, Bella96\_31, Belladonna\_31, Bellis\_28, BellusTerra\_10, Ben11\_46, Bench\_37, Benedict\_8, Bernardo\_48, BigBubba\_36, BigCheese\_28, BigPhil\_27, Binglebops\_27, BilboSwaggins\_35, Bipolar\_28, BirdsNest\_51, Bishoperium\_48, BlackStallion\_50, Blackmoor\_10, Blessica\_68, Blexus\_31, Blizzard\_31, BlueBird\_11, BlueHusk\_49, Bluefalcon\_7, Bluephacebaby\_48, BobaPhett\_31, Bobby\_48, Bobi\_33, BobsGarage\_28, BodEinwohner17\_31, Boehler\_49, Bogie\_29, Boiiii\_31, Boilgate\_28, Bombitas\_46, Bombshell\_10, Bonamassa\_8, Bongo\_38, Boomer\_33, BoostSeason\_30, Bora\_65, BreSam8\_12, Breezona\_28, Briakila\_48, Bricole\_38, Brilliant\_49, Brocalys\_26, Bromden\_28, Broseidon\_10, BruceB\_28, Bruin\_35, Bruiser\_10, Brujita\_30, Brusacoram\_27, Bryler\_31, BubbleTrouble\_10, Bubbles123\_33, Buck\_34, Buckeye\_49, Bugatti\_10, BugsBunny\_33, Bunnies\_27, Burger\_9, Burr\_48, Butters\_27, BuzzBuzz\_11, BuzzLyseyear\_34, Bxz2\_12, Byougenkin\_31, C3\_09, CLED96\_28, CREW\_31, Cabrinians\_31, CactusJack\_27, Cactus\_36, Caelakin\_10, Cain\_31, Calm\_26, CamL\_49, CampRoach\_50, Camperdownii\_9, Camri\_28, Camster\_27, Candle\_39, Cannibal\_49, Capricorn\_31, Carthage\_47, Casbah\_46, CaseJules\_31, CassieYates\_28, Catdawg\_67, Caviar\_11, Cedasite\_28,

CentreCat\_10, Cerasum\_27, Cerulean\_10, ChaChing\_47, Chadwick\_9, Chaelin\_49, Chah\_51, ChampagnePapi\_10, Chance64\_28, Chancellor\_32, Chandler\_47, Chaph\_10, Charles1\_49, CharlieGBrown\_48, Chaser\_26, Che8\_33, Che9d\_36, CheetO\_49, CheetoDust\_31, Cheetobro\_32, Cher\_48, Cherrybomb426\_28, Chevrolet\_30, ChickenDinner\_33, Childish\_48, Chorkpop\_49, ChosenOne\_35, ChotaBhai\_35, Chris\_30, Chunky\_49, Chute\_48, CicholasNage\_26, Cici\_10, Cindaradix\_9, Cintron\_10, Citius\_10, Cjw1\_35, Clarenza\_10, Claus\_28, Clautastrophe\_28, Cobra\_49, Coco12\_31, Cocoaberry\_10, Colbert\_49, Colbster\_12, Coleslaw\_28, Coletti\_48, Collard\_30, Command613\_36, Commander\_10, Compostia\_48, Connomayer\_10, Conspiracy\_8, Constella\_41, Contagion\_34, Coog\_8, Cookies\_35, Corndog\_70, Cornie\_31, Cornobble\_48, Cornucopia\_32, Corofin\_47, Cosmo\_52, Cosmolli16\_48, Courthouse\_48, Craff\_50, Crespo\_28, CrimD\_31, Crossroads\_28, Crownjwl\_49, Crumble\_25, CrystalP\_35, Cuco\_8, Cullens\_12, Curiosium\_32, Czyszczon1\_36, D29\_12, D32\_14, DBQu4n\_14, DLane\_31, DMoney\_28, DNAll\_0028, DRBy19\_31, DS6A\_31, DaHudson\_12, DaddyDaniels\_49, Dadosky\_31, Daegal\_34, Daenerys\_31, Daffy\_49, Daikon\_34, Daisy\_47, Daka\_50, Dallas\_51, Dalmuri\_31, Danforth\_7, Dante\_31, Darionha\_28, DarthP\_30, Dati\_49, DeadP\_31, Deano\_10, Deby\_31, Deenasa\_47, DeepSoil15\_33, DelRivs\_48, Demsculpinboyz\_36, Derpp\_48, Devera\_31, Devonte\_47, Dewey\_32, Dhanush\_10, Dice\_51, Dieselweasel\_12, Diminimus\_39, Dingo\_49, Dione\_48, DirkDirk\_26, DirtJuice\_49, DirtMcgirt\_32, DirtyDunning\_10, Discoknowium\_8, DismalFunk\_29, DismalStressor\_29, Dixon\_8, DmpstrDiver\_50, DocMcStuffins\_32, DoctorDiddles\_35, Doddsville\_49, DoesntMatter\_48, Dole\_31, DonSanchon\_48, Donkeykong\_31, Donovan\_27, Doomphist\_31, DosHalletts\_33, DotProduct\_31, Doug\_32, Douge\_26, Dove\_48, DrDrey\_36, DrHayes\_31, DrLupo\_42, DrSeegs\_28, Druantia\_10, Dublin\_7, DuchessDung\_48, Duggie\_48, Duke13\_52, Dulcita\_39, Dumbo\_35, DuncansLeg\_28, Duplo\_14, Durfee\_31, Durga\_50, Dusk\_34, Dylan\_67, Dynamo\_27, DyoEdafos\_27, ECartman\_28, Eagle\_9, Eapen\_10, Easy2Say\_37, Edugator\_30, Efra2\_31, Ein37\_33, Eish\_31, Ejimix\_49, Ekdilam\_28, EITiger69\_8, EleanorGeorge\_32, Elite2014\_34, Ellie\_28, Ellson\_28, Elph10\_36, Emerson\_31, Emiris\_50, Emma\_33, Emmina\_36, EmpTee\_49, Empress\_32, Enby\_33, Enceladus\_26, EniyanLRS\_49, Enkosi\_27, EpicPhail\_12, Eponine\_34, Eradicator\_31, Eremos\_49, EricMillard\_49, Eris\_10, Eros\_10, Estave1\_29, Estes\_44, Etaye\_49, Eugenia\_49, Eureka\_35, Eurydice\_10, Evanesce\_32, Expelliarmus\_7, Faith1\_28, Familton\_68, Fang\_50, Farber\_12, Fefferhead\_30, Fernando\_12, Feyre\_30, Filch\_36, Filuzino\_31, Findley\_29, Finemlucis\_28, Finnry\_28, Fionnbharth\_32, FireRed\_35, Firecracker\_69, Firehouse51\_32, FirstPlacePfu\_27, Fishburne\_27, Flathead\_31, Florean\_10, Florinda\_31, FluffyNinja\_50, Flux\_10, Flypotenuse\_33, ForGetIt\_8, Forge\_32, FoulBall\_64, Fozzie\_48, Frankicide\_49, Frankie\_35, Fred313\_10, FreddyB\_31, Freya\_48, FriarPreacher\_48, Fringe\_50, Frosty24\_28, Fruitloop\_30, FugateOSU\_48, Funsized\_52, Funston\_10, Gabriela\_28, Gadget\_48, Gadost\_10, Gage\_37, Gaia\_34, Galactic\_33, Gancho\_32, Ganymede\_32, Gardann\_28, GardenSalsa\_43, Gareth\_48, Gator\_33, Gemini\_38, Gemma\_12, GeneCoco\_49, GenevaB15\_43, Gengar\_30, George\_7, Geraldini\_31, Gervas\_47, Ghoulboy\_8, Gideon\_28, Giles\_32, GinkgoMaracino\_12, Girafales\_32, Giraffe\_49, Giroux\_10, Glaske16\_39, Glaske\_27, GlenHope\_48, Glexan\_33, Goku\_35, GoldenAsh\_28, GoldenSpark\_37, Goldilocks\_36, Gomashi\_28, Gonephishing\_50, GooberAzure\_37, Gophee\_49, Gorge\_31, Grand2040\_48, Gravaiilla\_32, GreaseLightnin\_27, Grif\_12, Grizzly\_28, Groundhog\_7, Groupthink\_13, Grub\_12, Grum1\_12, GtownJaz\_12, Guanica15\_31, Guillsminger\_30, Guppsters\_33, GuuelaD\_28, Gwilliam\_50, Gyarad\_0049, HC\_28, HH92\_32, HSavage\_49, HUHilltop\_27, Hades\_32, Hadrien\_33, Hafay\_28, Hail\_32, Haimas\_49, Haleema\_48, Halena\_26, Halfpint\_46, Halley\_49, Halo\_28, HamSlice\_9,

Hamish\_49, Hammy\_30, HanKaySha\_36, Hannaconda\_45, Happiness\_10, Harella\_34, Hartsy\_49, HarveySr\_47, Harvey\_49, HashRod\_13, Hashim76\_52, HaveUMetTed\_13, Heathcliff\_47, Heathen\_10, HedwigODU\_31, Heftyboy\_30, Hegedechwinu\_32, HelDan\_10, Held\_49, Heliosoles\_12, HenryJackson\_48, Henry\_36, Hercules11\_12, Hertubise\_49, Hetaeria\_49, HighStump\_49, Highbury\_36, Hilltopfarm\_32, Hlubikazi\_32, Hocus\_48, HokkenD\_42, Holli\_10, Holt\_36, Homura\_31, Hookmount\_11, Hoonter\_37, Hope\_28, Hopey\_37, Horchata\_49, Hosp\_040, Hotshotbaby7\_28, Houdini22\_10, HufflyPuff\_34, Hughesyang\_47, HuhtaEnerson15\_8, Hurricane\_32, Hyperbowlee\_31, ICleared\_10, IHOP\_35, IPhane7\_38, IbOuu\_33, Icee\_34, Iceman\_10, IdentityCrisis\_26, Idergollasper\_67, Idleandcovert\_10, Illumine\_31, ImtiyazSitla\_49, Imvubu\_41, Inca\_34, Inchworm\_50, Indlulamithi\_36, Inky\_31, Inventum\_31, Inverness\_49, InvictusManeo\_30, Iracema64\_10, Iridoclysis\_49, IronMan\_13, IsaacEli\_50, Isca\_10, Island3\_30, Itos\_28, JAWS\_31, JDog\_48, JF1\_32, JF2\_10, JF4\_10, JHC117\_12, Jaan\_14, Jabbawokkie\_39, Jabiru\_8, JacAttac\_50, Jackstina\_44, JakeO\_48, JalFarm20\_34, James\_31, Jane\_28, JangDynasty\_67, JangoPhett\_49, Jarvi\_31, Jayhawk\_32, Jaykayelowell\_10, JeTaimie\_37, Jebeks\_27, Jeckyll\_31, JenCasNa\_12, JeppNRM\_13, JetBlade\_10, Jillium\_48, Jiminy\_48, Jiraiya\_51, Job42\_35, Jobu08\_12, Jobypre\_28, JoeDirt\_26, JoeyJr\_31, Jolene\_28, Jolie1\_042, Jolie2\_28, Jonghyun\_28, JoongJeon\_10, JorRay\_28, Journey13\_9, Jovo\_8, Joy99\_31, Jsquared\_10, Jubie\_28, Juice456\_32, JuicyJay\_51, Juliette\_34, Jung\_26, Juniormint\_27, Juniper1\_31, JustASigh\_26, KADY\_13, KFPoly\_10, KLucky39\_49, Kahlid\_28, Kahve\_48, Kailash\_49, Kalah2\_49, Kalb97\_13, Kalnoky\_13, Kamiyu\_47, Kamy\_10, Kanye\_37, Kareem\_28, Kari\_27, Kasen3\_28, KashFlow\_42, Katniss\_50, KayaCho\_42, Keitherie\_49, Kenuha5\_28, Kerberos\_14, Keshu\_32, Kevin1\_27, KiSi\_30, Kikipoo\_50, KilKor\_27, Kimberlium\_33, Kimbrough\_49, Kimchi\_37, Kimona\_7, Kinbote\_33, KingMidas\_33, KingTut\_40, KingVeVeVe\_49, Kingmustik0402\_10, Kingsley\_30, Kingsolomon\_28, Klein\_49, KlimbOn\_49, Kloppinator\_50, Knocker\_50, Koduck\_11, Koreni\_9, Kostya\_36, KratarK\_10, Kratio\_29, Kremtemulon\_9, Krili\_66, KristaRAM\_32, Kronus\_46, Krueger\_31, Krypton555\_28, Ksquared\_27, Kwadwo\_48, Kwksand96\_48, Kyee\_10, L5\_12, LBerry\_12, LHTSCC\_10, Labelle\_41, Labeouficaum\_48, Lambert1\_11, Landor\_12, Langerak\_27, LappelDuVide\_9, LarryKay\_12, Larva\_31, LasagnaCat\_50, Lasso\_49, LastHope\_31, LaterM\_31, Latretium\_32, LeBron\_26, LeMond\_30, LeeLot\_49, Lego3393\_48, Legolas\_49, LeiMonet\_50, LemonSlice\_49, Lemur\_10, Lemuria\_29, LeoAvram\_10, Leopard\_46, Leozinho\_33, Leston\_30, LestyG\_47, Lev2\_8, Lewan\_28, Liefie\_28, LilDestine\_28, LilHazelnut\_33, LilMcDreamy\_46, LilPharaoh\_27, LilSpotty\_32, Lilac\_37, LilhomieP\_37, Lilith\_12, Lilizi\_37, Lilpickle\_34, LindNT\_31, LittleB\_10, LittleCherry\_8, LittleE\_53, LittleShirley\_34, Llorens\_31, Loadrie\_28, LochMonster\_10, Lolly9\_28, Longacauda\_48, Lopsy\_48, Lorde\_33, Lorenzo\_10, LostAndPhound\_48, Louie6\_12, LouisV14\_28, Lucky2013\_48, LuckyMarjie\_48, LugYA\_14, Luke\_33, Lulumae\_48, Lulwa\_49, Lumine\_48, Lumos\_28, Luna22\_32, LunaBlu\_34, LunaStella\_33, Lunahalos\_31, Lunsford\_11, MA5\_10, MAckerman\_26, MISSy\_34, MK4\_10, MPhalcon\_34, MRabcd\_48, MacnCheese\_32, MadKillah\_68, MadMarie\_12, MadMen\_29, MadamMonkfish\_35, Madiba\_29, Madrugua\_40, Mag7\_48, Magic8\_49, Mainiac\_12, Majeke\_27, MalagasyRose\_31, Malinsilva\_14, Malithi\_27, Malthus\_33, Mana\_48, Manad\_49, Manda\_36, Mandlovu\_32, Mangethe\_27, Manu\_13, Mao1\_38, MarQuardt\_12, Marcoliusprime\_29, Margo\_11, Marie\_12, Marius\_13, MarkPhew\_31, Marker\_32, Marley1013\_47, Marmie\_28, Marshawn\_32, Marshmallow\_35, Maru\_48, MaryV\_52, MarysWell\_7, Maskar\_49, Matalotodo\_49, Mattes\_31, Maverick\_10, Maxo\_10, Maxxinista\_36, Mazhar510\_10, Mcshane\_48, Mdavu\_27, MeaningOfLife\_31, Mecca\_48, Medusa\_10, MeeZee\_10, Megamind20\_49, Megatron\_50, Megiddo\_27,



Megsy\_31, Melc17\_49, Melissauren88\_31, MelsMeow\_49, Melvin\_10, Mercurio\_30, Mesh1\_49, Methuselah\_12, MiaZeal\_48, Micasa\_7, MichaelPhcott\_48, Microwolf\_12, Midas2\_8, Mikota\_49, MilanaBonita\_25, Milcery\_8, Miley16\_28, MilleniumForce\_32, Millski\_10, Milly\_29, Mindy\_35, Minerva\_55, MiniBoss\_49, MiniLon\_28, MiniMac\_28, MinionDave\_34, Miniwave\_35, Minnie\_33, Miramae\_10, Miryou\_30, Misfit\_35, Misha28\_32, Misomonster\_14, MissDaisy\_32, MissWhite\_11, MitKao\_49, Mitti\_32, MkaliMitinis3\_28, MmasiCarm\_47, Moldemort\_36, MoneyMay\_12, MontyDev\_39, Moonbeam\_32, Moostard\_28, Morgushi\_49, Mori\_67, Morrow\_10, Mortcellus\_46, Morty007\_47, Morty\_50, Mosaic\_48, Mosby\_34, Mova\_32, Mowgli\_28, MrMagoo\_43, MrPhizzler\_48, Ms6\_25, MsGreen\_28, MuchMore\_14, Mufasa\_30, Mulan\_49, MulchSalad\_30, Mundrea\_10, Murai\_68, Murdoc\_49, Murica\_34, Murphy\_36, Murucutumbu\_31, Mutaforma13\_31, Mutante\_48, Mynx\_31, Myrale\_35, Naca\_8, Nacho\_0050, Naji\_14, Nala\_35, Nanosmite\_43, NearlyHeadless\_8, Nebkiss\_35, Nebs\_10, Necropolis\_27, NelitzaMV\_35, Nemo27\_10, Neos5\_47, Nergal\_27, Netyap\_28, Newman\_49, Nibb\_30, Nicholas\_28, Nicholasp3\_28, Nicole21\_49, NiebruSaylor\_66, NihilNomen\_48, Nikao\_27, Niklas\_31, Nilo\_40, Nimrod\_35, NoShow\_27, NoSleep\_36, Noella\_11, Noelle\_10, Norbert\_10, NorthStar\_10, NotAPhaseMom\_10, Nozo\_47, Numberten\_49, Nutello\_27, Nyala\_48, OBUpride\_33, OKaNui\_10, OSmaximus\_50, Obama12\_10, Obutu\_47, OctaviousRex\_28, Odette\_49, Ogopogo\_31, OhShagHennessy\_26, Ohfah\_10, OkiRoe\_30, Olak\_49, OlanP\_12, OldBen\_31, Olga\_28, Oline\_48, Olive\_49, OliverWalter\_49, Ollie\_12, OlympiaSaint\_31, Omega\_53, OmniCritical\_32, Omnicron\_31, Omniscient\_49, Onyinye\_47, Oosterbaan\_49, Optimus\_54, OrangeOswald\_47, Orfeu\_49, OrionPax\_36, Orion\_50, Orwigg\_50, Oscar\_30, Ovechkin\_32, OwlsT2W\_32, P28Green\_12, P3MA\_30, PG1\_50, PGHhamlin\_14, PP\_20, Pacifista\_51, Padfoot\_31, Padpat\_31, Paito\_28, Palestino\_10, Palpatine\_35, Panamaxus\_11, Paola\_30, Paperbeatsrock\_37, Papyrus\_39, Pat3\_34, Patience\_42, Patt\_32, Pawn\_13, Peaches\_10, Peanam\_31, Peeb\_28, Peel\_31, PegLeg\_38, Pembroke\_12, Penny1\_12, Periodt\_28, PeterPeter\_10, Petra64142\_37, PetterN\_9, Phacado\_10, Phaded\_14, Phaedrus\_45, Phaja\_35, Phalm\_27, Phamished\_50, Phanphagia\_28, Phantastic\_10, Pharb\_30, Phareon\_49, Pharsalus\_36, PhatBacter\_35, PhatCats2014\_50, PhatLouie\_49, Phaux\_34, Phayeta\_48, Phegasus\_27, Felipe\_10, PhelpsODU\_31, PhenghisKhan\_48, Pherdinand\_50, Phergie\_49, Phighter1804\_10, Phillis\_8, Philly\_46, Philus\_31, Phineas\_27, Phipps\_49, PhishRPhriends\_11, Phish\_28, Phleuron\_48, Phlorence\_8, Phlyer\_47, Phoebe\_12, Phoebus\_48, Phoxy\_12, PhrankReynolds\_47, Phrank\_31, Phrann\_26, Phranny\_13, Phreak\_28, PhrodoBaggins\_49, Phrux\_35, Phunky\_49, Piatt\_31, PickleBack\_8, Piglet\_0049, PinheadLarry\_49, PinkYoshi\_28, Pinkman\_48, Pipcraft\_10, Pipefish\_49, Piper2020\_33, Pippy\_25, Pipsqueak\_49, Pistachio\_11, Pixie\_31, Placalicious\_48, Plagueis\_28, Plmatters\_49, Plumbus\_33, Pocahontas\_11, Podrick\_49, Poenanya\_31, Pokerus\_30, Policronamos\_36, Polka14\_32, Polkaroo\_27, Pollywog\_31, Polymorphads\_10, Pomar16\_14, PopTart\_31, Popcicle\_11, Pops\_49, Porcelain\_47, Porky\_35, PotatoSplit\_13, Potter\_48, Pound\_51, Prickles\_49, Priscilla\_31, Prithvi\_31, ProfessorX\_49, Psycho\_31, Puhltonio\_49, Pukovnik\_13, Pumbaa\_10, Pumpkin\_37, Puppy\_11, PurpleHaze\_12, Pygmy\_29, Quallification\_36, QueenBeane\_49, QueenHazel\_26, QuickMath\_32, Quico\_32, QuincyRose\_30, QuinnKiro\_10, Quisquilliae\_49, Rabbs\_28, Radiance\_31, RagingRooster\_47, Rakim\_36, Ramen\_31, Ramsey\_34, Rando14\_31, Rapunzel97\_31, Reba\_13, RedMaple\_49, Redno2\_47, Reindeer\_38, Relief\_10, Remy19\_28, Renaissance\_28, Reptar3000\_32, ResDef\_11, Rey\_43, Rialto\_35, Ricotta\_49, Riggan\_49, Rimmer\_34, Rimu\_51, Riparian\_39, Rita1961\_47, RitaG\_32, Rita\_32, RiverMonster\_35, Roary\_8, Robyn\_48, Rockstar\_10, RockyHorror\_32, Roliet\_49, RomaT\_47, Romney\_10, Roosevelt\_10, Rope\_39, Roscoe\_50, Rose5\_26, Rosmarinus\_31, Roy17\_49,

Royals2015\_31, Rubeelu\_27, Ruin\_10, Rummer\_12, Rumpelstiltskin\_28, Ruthiejr\_33, Ryadel\_71, SDcharge11\_49, SG4\_32, Saal\_31, Sabbb\_32, Sabertooth\_10, Sabia\_12, Sabinator\_12, Saints25\_36, Saintus\_8, SamScheppers\_32, Samaymay\_49, Samty\_28, SamuelLPlaqson\_31, Sandalphon\_32, Sarma624\_27, Sassafras\_32, Sassay\_34, SassyB\_31, SassyCat97\_48, SaturnRing\_10, Sbash\_26, Scamp\_10, Scarlett\_30, Schadenfreude\_48, Schatzie\_46, Schiebel\_28, SchoolBus\_67, Schueller\_49, Schuy\_68, Scoot17C\_50, Scorpia\_9, Scottish\_32, Scout\_10, Scrick\_49, Seagreen\_32, Selr12\_51, Send513\_39, Serendipity\_49, Serenity\_10, Serpentine\_0049, SgtBeansprout\_27, ShaboiShabazz\_28, Shadow1\_30, Shaka\_10, ShamWow\_35, Shaobing\_31, Shauna1\_28, ShedlockHolmes\_32, Sheen\_12, Sheila\_49, SheldonCooper\_10, ShereKhan\_37, ShiVal\_49, ShiaSurprise\_31, Shida\_67, Shipwreck\_29, ShroomBoi\_28, Sigman\_50, Silverleaf\_26, Simielle\_48, Simpliphy\_36, SimranZ1\_34, SirDuracell\_34, SirPhilip\_30, Sizemore\_28, Skinny\_39, Skipitt\_10, Skippy\_49, Slarp\_32, Slatt\_49, SlimJimmy\_37, Slimphazie\_31, SlippinJimmy\_47, Smeadley\_8, Smooch\_70, Sneeze\_28, Snenia\_28, Snickers\_12, SoSeph\_30, SoYo\_12, SoilDragon\_12, Soile\_49, Solosis\_48, Sonah\_27, SophKB\_35, Sophia\_48, Soshari\_14, Soto\_49, Sotrice96\_35, Soul22\_36, Sparkdehlily\_31, Spartacus\_33, Spartan300\_49, Sparxx\_10, Spike509\_12, Spikelee\_33, Spino\_10, Spock\_31, Spoonbill\_31, Squid\_49, Squiggle\_49, Squint\_47, StAnnes\_30, Stagni\_12, Stank\_38, Stap\_32, StarStuff\_14, Stargaze\_28, Stark\_36, Stasia\_11, StellaBean\_35, StepMih\_12, Stephig9\_8, StevieRay\_27, Stink\_10, Stinson\_32, StolenFromERC\_37, StressBall\_27, Strobilo\_29, Strokeseat\_32, Struggle\_48, Suffolk\_49, Sulley\_31, Sunflower1121\_30, SuperGrey\_32, Superphikiman\_48, Surely\_49, Sweets\_28, Swiphy\_51, Swirley\_8, Swish\_50, SydNat\_8, SynergyX\_47, Syra333\_31, TBond007\_31, TBrady12\_37, TChen\_31, TClif\_33, TDanisky\_31, TM4\_30, TNguyen7\_10, Tachez\_31, Taheera\_28, TaiwanKao\_32, Taj\_31, TallGrassMM\_49, Taquarus\_10, Taquito\_32, Tarkin\_37, Tarynearal\_7, Taurus\_12, TeardropMSU\_34, Teaspoon\_36, Techage\_27, TelAviv\_64, Telesworld\_48, Terminus\_35, Terror\_28, Texage\_10, Thanksgivukkah\_10, Theia\_7, Thespis\_27, ThetaBob\_30, Thibault\_42, Thora\_49, ThreeOh3D2\_50, ThreeRngTarjay\_47, Thresher\_36, Thunderbird\_49, Thyatira\_30, Tierra\_31, Tiffany\_12, Tiger\_8, Timmi\_48, TinaFeyge\_10, TiniBug\_31, Tinybot\_9, TipsytheTRex\_10, Tiri\_31, TiroTheta9\_10, Todacoro\_11, TomBombadil\_49, TomBrady\_28, Tomaszewski\_34, Tomathan\_14, Tomlarah\_49, Tonenili\_274, Toni\_48, Tooj\_49, TootsiePop\_32, Tootsieroll\_32, Topper\_31, Totinger\_35, Toto\_35, Tourach\_28, Traaww1\_33, TreyKay\_31, TripleTrouble\_30, TroyPia\_10, True\_48, TruffulaTree\_31, Trypo\_50, Tuco\_36, Tweety\_31, Twitch\_31, TyDawg\_38, Tydolla\_47, TygerBlood\_10, Typha\_32, TyrionL\_48, Tyson\_26, UAch1\_49, UPIE\_26, Ubuntu\_33, Ukulele\_35, Ulysses\_9, UncleHowie\_49, Unicorn\_31, UnionJack\_8, Urkel\_31, Usavi\_49, VC3\_14, VRedHorse\_31, Vaishali24\_48, Validus\_31, Valjean\_49, Vaticameos\_45, Veliki\_31, Velveteen\_27, Venti\_27, Veracruz\_10, Veritas\_48, Vetric\_28, Vidya\_27, Virapocalypse\_49, Virgeve\_48, Vista\_49, Vivaldi\_50, Vix\_12, Vorrrps\_67, Vortex\_49, Wallhey\_48, Wamburggrxpress\_26, Wanda\_55, Wander\_10, Waterdiva\_49, Waterfoul\_30, Watson\_12, Webster2\_33, Wee\_32, Weher20\_49, Weirdo19\_29, Weiss13\_39, Whatsapiecost\_32, Whirlwind\_29, Whouxphf\_32, Wiggin\_38, Wigglewiggle\_28, Wilbur\_10, Wildcat\_52, Wilder\_28, Wildflower\_67, Willez\_34, Windsor\_48, Winget\_68, Winky\_28, Wintermute\_32, Wishmaker\_32, Wizard007\_10, Wooldri\_14, Wyatt2\_26, Xandras\_37, Xavia\_27, Xavier\_48, Xena\_10, Ximenita\_32, Xula\_25, Y10\_32, Y2\_32, Yahalom\_47, YassJohnny\_36, Yeet\_47, Yelo\_39, Yinz\_47, YoSam321\_10, Yoshand\_50, Yoshi\_38, YouGoGlencoco\_49, Youngblood\_35, YoureAdopted\_30, Yuna\_32, YungJamal\_72, Yunkel11\_31, Zabiza\_32, Zaider\_50, Zakai\_28,

Zakhe101\_66, Zapner\_38, Zaria\_26, Zavala\_31, Zelda\_49, Zelink\_50, Zenon\_40, Zenteno07\_53, Zerg\_31, Zetzy\_11, ZhongYanYuan\_27, Zilizebeth\_27, ZoMa\_28, ZoeJ\_29, Zolita\_7, Zombie\_28, Zonia\_49, xkcd\_36,

### Summary by start number:

#### Start 63:

- Found in 4 of 2064 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 1932
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Eish\_31 (F1),

#### Start 74:

- Found in 10 of 2064 ( 0.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Chevrolet\_30 (F1),

#### Start 82:

- Found in 279 of 2064 ( 13.5% ) of genes in pham
- Manual Annotations of this start: 255 of 1932
- Called 98.9% of time when present
- Phage (with cluster) where this start called: ABU\_50 (B1), AbsoluteMadLad\_48 (B1), Adriana\_50 (B1), Aegeus\_29 (L5), Aelin\_48 (B1), AltPhacts\_49 (B1), Altwerkus\_48 (B1), Anderson\_49 (B1), Andre\_52 (B1), Antonia\_48 (B1), Apizium\_49 (B1), Ashraf\_49 (B1), Badfish\_50 (B1), Banjo\_48 (B1), Basato\_50 (B1), BatteryCK\_48 (B1), Baudelaire\_29 (L5), Beaglebox\_48 (B1), Bishoperium\_48 (B1), BlackStallion\_50 (B1), BlueHusk\_49 (B1), Bluephacebaby\_48 (B1), Boehler\_49 (B1), Brilliant\_49 (B1), Buckeye\_49 (B1), Burr\_48 (B1), CamL\_49 (B1), CampRoach\_50 (B1), Cannibal\_49 (B1), Carthage\_47 (B1), Chaelin\_49 (B1), Chah\_51 (B1), Charles1\_49 (B1), CharlieGBrown\_48 (B1), CheetO\_49 (B1), Cher\_48 (B1), Childish\_48 (B1), Chorkpop\_49 (B1), Chunky\_49 (B1), Chute\_48 (B1), Cobra\_49 (B1), Colbert\_49 (B1), Coletti\_48 (B1), Cornobble\_48 (B1), Cosmolli16\_48 (B1), Craff\_50 (B1), Crownjwl\_49 (B1), DaddyDaniels\_49 (B1), Daffy\_49 (B1), Daka\_50 (B1), Dati\_49 (B1), DelRivs\_48 (B1), Derpp\_48 (B1), Dice\_51 (B1), Dingo\_49 (B1), Dione\_48 (B1), DirtJuice\_49 (B1), Doddsville\_49 (B1), DoesntMatter\_48 (B1), DonSanchon\_48 (B1), DuchessDung\_48 (B1), Duggie\_48 (B1), Durga\_50 (B1), Emiris\_50 (B1), EmpTee\_49 (B1), Eremos\_49 (B1), Etaye\_49 (B1), Eugenia\_49 (B1), Fang\_50 (B1), FluffyNinja\_50 (B1), Fozzie\_48 (B1), Frankicide\_49 (B1), Freya\_48 (B1), FriarPreacher\_48 (B1), Fringe\_50 (B1), FugateOSU\_48 (B1), Gareth\_48 (B1), GeneCoco\_49 (B1), Giraffe\_49 (B1), Gophee\_49 (B1), Grand2040\_48 (B1), Gwilliam\_50 (B1), Gyarad\_0049 (B1), HSavage\_49 (B1), Haimas\_49 (B1), Haleema\_48 (B1), Hamish\_49 (B1), Hartsy\_49 (B1), Harvey\_49 (B1), Held\_49 (B1), HenryJackson\_48 (B1), Hertubise\_49 (B1), Hetaeria\_49 (B1), HighStump\_49 (B1), Hocus\_48 (B1), Horchata\_49 (B1), ImtiyazSitla\_49 (B1), Inchworm\_50 (B1), Inverness\_49 (B1), Iridoclysis\_49 (B1), IsaacEli\_50 (B1), JDog\_48 (B1), JacAttac\_50 (B1), JakeO\_48 (B1), JangoPhett\_49 (B1), Jillium\_48 (B1), Jiminy\_48 (B1), Jiraiya\_51 (B1), KLucky39\_49 (B1), Kahve\_48 (B1), Kailash\_49 (B1), Katniss\_50 (B1), Keitherie\_49 (B1), Kikipoo\_50 (B1), Kimbrough\_49 (B1), KingTut\_40 (B1), KingVeVeVe\_49 (B1), KlimbOn\_49 (B1), Kloppinator\_50 (B1), Kwadwo\_48 (B1), Kwksand96\_48 (B1), Labeouficaum\_48 (B1), LasagnaCat\_50 (B1), Lasso\_49 (B1), LeeLot\_49 (B1), Lego3393\_48 (B1), Legolas\_49 (B1), LeiMonet\_50 (B1), LemonSlice\_49 (B1), Longacauda\_48 (B1), Lopsy\_48 (B1), LostAndPhound\_48 (B1),

LuckyMarjie\_48 (B1), Lulumae\_48 (B1), Lulwa\_49 (B1), Lumine\_48 (B1), MRabcd\_48 (B1), Mag7\_48 (B1), Magic8\_49 (B1), Mana\_48 (B1), Manad\_49 (B1), Maru\_48 (B1), Maskar\_49 (B1), Matalotodo\_49 (B1), Mcshane\_48 (B1), Mecca\_48 (B1), Megamind20\_49 (B1), Megatron\_50 (B1), Melc17\_49 (B1), MelsMeow\_49 (B1), Mesh1\_49 (B1), MichaelPhcott\_48 (B1), Mikota\_49 (B1), MiniBoss\_49 (B1), MitKao\_49 (B1), Morgushi\_49 (B1), Morty\_50 (B1), Mosaic\_48 (B1), MrPhizzler\_48 (B1), Mulan\_49 (B1), Murdoc\_49 (B1), Mutante\_48 (B1), Nacho\_0050 (B1), Newman\_49 (B1), Nicole21\_49 (B1), Numberten\_49 (B1), Nyala\_48 (B1), OSmaximus\_50 (B1), Olak\_49 (B1), Oline\_48 (B1), Olive\_49 (B1), OliverWalter\_49 (B1), Omniscient\_49 (B1), Oosterbaan\_49 (B1), Orfeu\_49 (B1), Orion\_50 (B1), Orwigg\_50 (B1), PG1\_50 (B1), Pacifista\_51 (B1), Phamished\_50 (B1), Phareon\_49 (B1), PhatCats2014\_50 (B1), PhatLouie\_49 (B1), PhenghisKhan\_48 (B1), Pherdinand\_50 (B1), Phergie\_49 (B1), Phipps\_49 (B1), Phleuron\_48 (B1), PhrankReynolds\_47 (B1), PhrodoBaggins\_49 (B1), Phunky\_49 (B1), Piglet\_0049 (B1), PinheadLarry\_49 (B1), Pinkman\_48 (B1), Pipsqueak\_49 (B1), Placalicious\_48 (B1), Plmatters\_49 (B1), Podrick\_49 (B1), Pops\_49 (B1), Potter\_48 (B1), Prickles\_49 (B1), ProfessorX\_49 (B1), Puhltonio\_49 (B1), QueenBeane\_49 (B1), Quisquillae\_49 (B1), RedMaple\_49 (B1), Ricotta\_49 (B1), Riggan\_49 (B1), Rimu\_51 (B1), Robyn\_48 (B1), Roliet\_49 (B1), Roscoe\_50 (B1), Roy17\_49 (B1), SDcharge11\_49 (B1), Samaymay\_49 (B1), SassyCat97\_48 (B1), Schadenfreude\_48 (B1), Schueller\_49 (B1), Scoot17C\_50 (B1), Scrick\_49 (B1), Selr12\_51 (B1), Serendipity\_49 (B1), Serpentine\_0049 (B1), Sheila\_49 (B1), ShiVal\_49 (B1), Sigman\_50 (B1), Simielle\_48 (B1), Skippy\_49 (B1), Slatt\_49 (B1), Soile\_49 (B1), Solosis\_48 (B1), Sophia\_48 (B1), Soto\_49 (B1), Spartan300\_49 (B1), Squid\_49 (B1), Squiggle\_49 (B1), Struggle\_48 (B1), Suffolk\_49 (B1), Surely\_49 (B1), Swiphy\_51 (B1), Swish\_50 (B1), TallGrassMM\_49 (B1), Telesworld\_48 (B1), Thora\_49 (B1), ThreeOh3D2\_50 (B1), Thunderbird\_49 (B1), Timmi\_48 (B1), TomBombadil\_49 (B1), Tomlarah\_49 (B1), Toni\_48 (B1), Tooj\_49 (B1), True\_48 (B1), Trypo\_50 (B1), TyrionL\_48 (B1), UAch1\_49 (B1), UncleHowie\_49 (B1), Usavi\_49 (B1), Vaishali24\_48 (B1), Valjean\_49 (B1), Vaticameos\_45 (B1), Veritas\_48 (B1), Virapocalypse\_49 (B1), Virgeve\_48 (B1), Vista\_49 (B1), Vivaldi\_50 (B1), Vortex\_49 (B1), Wallhey\_48 (B1), Waterdiva\_49 (B1), Weher20\_49 (B1), Windsor\_48 (B1), Xavier\_48 (B1), Yoshand\_50 (B1), YouGoGlencoco\_49 (B1), Zaider\_50 (B1), Zelda\_49 (B1), Zonia\_49 (B1),

#### Start 84:

- Found in 24 of 2064 ( 1.2% ) of genes in pham
- Manual Annotations of this start: 24 of 1932
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amochick\_33 (Q), Amymech\_33 (Q), Daegal\_34 (Q), DeepSoil15\_33 (Q), Dewey\_32 (Q), Ein37\_33 (Q), Evanesce\_32 (Q), Forge\_32 (Q), Gancho\_32 (Q), Giles\_32 (Q), Gravallia\_32 (Q), HH92\_32 (Q), Hadrien\_33 (Q), Hail\_32 (Q), Hilltopfarm\_32 (Y), Kinbote\_33 (Q), LilHazelNut\_33 (Q), Luke\_33 (Q), Luna22\_32 (Q), OBUpride\_33 (Q), Typha\_32 (Y), Ubuntu\_33 (Q), Webster2\_33 (Q), Wishmaker\_32 (Q),

#### Start 88:

- Found in 67 of 2064 ( 3.2% ) of genes in pham
- Manual Annotations of this start: 62 of 1932
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Angel\_28 (G1), Annihilator\_28 (G1), Antsirabe\_28 (G5), Aroostook\_28 (G1), Avrafan\_28 (G1), BPs\_28 (G1), BQuat\_28 (G1), Barkley26\_28 (G1), BruceB\_28 (G1), CLED96\_28 (G1), Camri\_28 (G1),

CassieYates\_28 (G1), Cedasite\_28 (G1), Chance64\_28 (G1), Cherrybomb426\_28 (G1), Coleslaw\_28 (G1), Crespo\_28 (G1), DMoney\_28 (G1), DNAllI\_0028 (G1), Darionha\_28 (G1), ECartman\_28 (G1), Frosty24\_28 (G1), Gideon\_28 (G1), GoldenAsh\_28 (G1), Gomashi\_28 (G1), Grizzly\_28 (G1), Halo\_28 (G1), Hope\_28 (G1), Hotshotbaby7\_28 (G1), Jane\_28 (G1), Jolene\_28 (G1), Jolie2\_28 (G4), Jonghyun\_28 (G1), JorRay\_28 (G1), JustASigh\_26 (AH), Kareem\_28 (G1), Kasen3\_28 (G1), Lemuria\_29 (G4), Liefie\_28 (G1), LouisV14\_28 (G1), Marmie\_28 (G1), Mercurio\_30 (G4), Mowgli\_28 (G1), OctaviousRex\_28 (G1), Olga\_28 (G1), Paito\_28 (G1), Peeb\_28 (G1), Periodt\_28 (G1), Phish\_28 (G1), Phreak\_28 (G1), PinkYoshi\_28 (G1), Plagueis\_28 (G1), Rabbs\_28 (G1), Remy19\_28 (G1), Renaissance\_28 (G1), Schiebel\_28 (G1), ShaboiShabazz\_28 (G1), Sizemore\_28 (G1), Sneeze\_28 (G1), Stargaze\_28 (G5), Sweets\_28 (G1), Taheera\_28 (G1), Terror\_28 (G1), TomBrady\_28 (G1), Weirido19\_29 (AH), ZoMa\_28 (G1), Zombie\_28 (G1),

Start 89:

- Found in 34 of 2064 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 30 of 1932
- Called 88.2% 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), 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 94:

- Found in 3 of 2064 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 3 of 1932
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aikoy\_46 (AE), Leopard\_46 (AE), Onyinye\_47 (AE),

Start 97:

- Found in 34 of 2064 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 1 of 1932
- Called 11.8% of time when present
- Phage (with cluster) where this start called: Bagrid\_48 (J), Dove\_48 (J), Odette\_49 (J), Zelink\_50 (J),

Start 99:

- Found in 10 of 2064 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 10 of 1932
- 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 100:

- Found in 11 of 2064 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 10 of 1932
- 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 102:

- Found in 100 of 2064 ( 4.8% ) of genes in pham
- Manual Annotations of this start: 88 of 1932
- Called 96.0% of time when present
- Phage (with cluster) where this start called: Acolyte\_11 (A2), Arib1\_27 (P1), Atcoo\_27 (P1), Babsiella\_27 (I1), Baoshan\_27 (L2), Bartholomew\_26 (P1), BigCheese\_28 (L2), BobsGarage\_28 (L2), Bogie\_29 (P1), Breezona\_28 (L2), Brujita\_30 (I1), Brusacoram\_27 (P1), Bunnies\_27 (P1), Butters\_27 (N), CactusJack\_27 (P1), Camster\_27 (P1), Claus\_28 (L2), Clautastrophe\_28 (L3), Crossroads\_28 (L2), Donovan\_27 (P1), DrSeegs\_28 (L2), DuncansLeg\_28 (L3), Dynamo\_27 (P1), Ellson\_28 (L3), Faith1\_28 (L2), Finnry\_28 (L3), FirstPlacePfu\_27 (P1), Fishburne\_27 (P1), Gardann\_28 (L2), Glaske\_27 (P1), GreaseLightnin\_27 (P1), GuuelaD\_28 (L2), HC\_28 (I1), HUHilltop\_27 (P1), Hafay\_28 (L2), Island3\_30 (I1), Itos\_28 (L2), Jebeks\_27 (P1), Jubie\_28 (L3), Jung\_26 (P1), Juniormint\_27 (P1), Kahlid\_28 (L2), Kari\_27 (P1), Kevin1\_27 (N), KilKor\_27 (P1), Kingsolomon\_28 (L3), Krypton555\_28 (L3), Ksquared\_27 (P1), Langerak\_27 (P1), Lewan\_28 (L2), LilDestine\_28 (L2), Loadrie\_28 (L2), Lolly9\_28 (L3), Lumos\_28 (L3), Majeke\_27 (P1), Malithi\_27 (P1), Mangethe\_27 (P1), Megiddo\_27 (P1), Miley16\_28 (L2), MiniLon\_28 (L3), MiniMac\_28 (L3), MkaliMitinis3\_28 (L2), Moostard\_28 (L3), MsGreen\_28 (L3), Necropolis\_27 (P1), Netyap\_28 (L2), Nicholas\_28 (L3), Nicholasp3\_28 (L2), Phalm\_27 (P1), Phegasus\_27 (P1), Phineas\_27 (P1), Phrann\_26 (N), Polkaroo\_27 (P1), Pygmy\_29 (P1), QueenHazel\_26 (I1), Rubeelu\_27 (N), Samty\_28 (L3), Shipwreck\_29 (P1), Snenia\_28 (L3), Sonah\_27 (P1), StevieRay\_27 (P1), StressBall\_27 (P1), Techage\_27 (P1), Thespi\_27 (P1), Tourach\_28 (L2), Venti\_27 (P1), Vetrrix\_28 (L2), Vidya\_27 (P1), Whirlwind\_29 (L3), Wigglewiggle\_28 (L2), Wilder\_28 (L2), Winky\_28 (L2), Xavia\_27 (P3), Xula\_25 (I1), ZhongYanYuan\_27 (L2), Zilizebeth\_27 (P1),

#### Start 103:

- Found in 22 of 2064 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 3 of 1932
- Called 13.6% of time when present
- Phage (with cluster) where this start called: IdentityCrisis\_26 (singleton), Mao1\_38 (AD), Sbash\_26 (I2),

#### Start 116:

- Found in 3 of 2064 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 3 of 1932
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Barnyard\_40 (H2), DrLupo\_42 (H2), NoShow\_27 (AB),

#### Start 120:

- Found in 46 of 2064 ( 2.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 2.2% of time when present
- Phage (with cluster) where this start called: Bellis\_28 (L3),

Start 138:

- Found in 97 of 2064 ( 4.7% ) of genes in pham
- Manual Annotations of this start: 44 of 1932
- Called 48.5% 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 140:

- Found in 8 of 2064 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 3 of 1932
- Called 37.5% of time when present
- Phage (with cluster) where this start called: Labelle\_41 (U), Madrugua\_40 (U), Patience\_42 (U),

Start 142:

- Found in 223 of 2064 ( 10.8% ) of genes in pham
- Manual Annotations of this start: 200 of 1932
- Called 98.7% of time when present
- Phage (with cluster) where this start called: Acquire49\_26 (L1), Ading\_255 (C1), Adlitam\_252 (C1), Alice\_238 (C1), Amataga\_253 (C1), Appletree2\_26 (L1), ArcherS7\_253 (C1), Archie\_28 (L2), Asterius\_249 (C1), Astraea\_248 (C1), Atlantean\_252 (C1), Audrick\_255 (C1), Ava3\_249 (C1), AvadaKedavra\_26 (L1), Babyland\_255 (C1), BackyardAgain\_247 (C1), BadAgartude\_246 (C1), BananaFence\_250 (C1), Bangla1971\_253 (C1), Basquiat\_250 (C1), Bazzle\_28 (L2), BeanWater\_245 (C1), BigCity\_260 (C1), Bigswole\_257 (C1), Bipolarisk\_250 (C1), Blackbrain\_251 (C1), Blackdragon\_247 (C1), Blubba\_247 (C1), Bonray\_255 (C1), Bread\_249 (C1), Breeniome\_252 (C1), Bromden\_28 (L4), Burrough\_253 (C1), Bxz1\_238 (C1), Cactojaque\_247 (C1), Cali\_242 (C1), Calm\_26 (L1), Candle\_39 (R), Cane17\_241 (C1), Capablanca\_257 (C1), Caravan\_242 (C1), Catera\_241 (C1), Chergie21\_250 (C1), CharlieB\_247 (C1), Chaser\_26 (L4), ChaylaJr\_251 (C1), ChickenPhender\_248 (C1), Chomp\_250 (C1), CicholasNage\_26 (L1), 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), Derek\_248 (C1), Dietrick\_241 (C1), DirkDirk\_26 (L1), DirtMonster\_241 (C1), Douge\_26 (L4), DrPhinkDaddy\_249 (C1), Drazdys\_249 (C1), DyoEdafos\_27 (L4), ET08\_238 (C1), EggyFarm\_260 (C1), EmToTheThree\_253 (C1), EmmaElysia\_257 (C1), Enceladus\_26 (L1), Erdmann\_254 (C1), ErnieJ\_246 (C1), Essence\_250 (C1), Ewok\_251 (C1), Finemlucis\_28 (L2), Flabslab\_247 (C1), Fludd\_252 (C1), FoxtrotP1\_251 (C1), FrayBell\_255 (C1), FudgeTart\_248 (C1), Gabriel\_255 (C1), Gabriela\_28 (L2), Gamgam\_254 (C1), Ghost\_252 (C1), Gizmo\_258 (C1), Grasshills\_259 (C1), Grungle\_234 (C1), Guwapp\_248 (C1), Halena\_26 (L1), Halldule\_244 (C1), HyRo\_237 (C1), I3\_262 (C1), IkeLoa\_246 (C1), InigoMontoya\_256 (C1), InterFolia\_254 (C1), Iota\_249 (C1), Issimir\_249 (C1),

JPickles\_250 (C1), Janiyra\_256 (C1), JayJay\_248 (C1), Jaygup\_249 (C1), Jedediah\_254 (C1), Jemmno\_252 (C1), Jessibeth14\_252 (C1), JoeDirt\_26 (L1), JulietS\_244 (C1), JustHall\_246 (C1), Kamryn\_251 (C1), Kboogie\_256 (C1), Khaleesi\_251 (C1), Koguma\_251 (C1), LRRHood\_244 (C1), Latch\_252 (C1), LeBron\_26 (L1), Lee7\_253 (C1), LifeSavor\_253 (C1), LinStu\_249 (C1), Littleton\_256 (C1), Loanshark\_249 (C1), LolaVinca\_248 (C1), LordLeafolot\_254 (C1), Lukilu\_241 (C1), MAckerman\_26 (L1), 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), MontyDev\_39 (R), Morizzled23\_250 (C1), Naija\_253 (C1), Napoleon13\_249 (C1), Nappy\_251 (C1), Naval22\_257 (C1), NedWong\_251 (C1), Ngannou\_247 (C1), Nidhogg\_253 (C1), Nilo\_40 (R), NoodleTree\_248 (C1), Norm\_252 (C1), NuevoMundo\_254 (C1), OhShagHennessy\_26 (L1), Papyrus\_39 (R), 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), Rabinovich\_245 (C1), Rahel\_254 (C1), Riparian\_39 (R), Rizal\_241 (C1), RoMag\_247 (C1), Ronan\_248 (C1), Roots515\_255 (C1), Rope\_39 (R), Rose5\_26 (L1), Rumpelstiltskin\_28 (L2), Salacia\_254 (C1), Sauce\_249 (C1), ScottMcG\_244 (C1), Sebata\_252 (C1), Send513\_39 (R), Shaqnato\_243 (C1), Shelob\_253 (C1), ShiaLabeouf\_250 (C1), Shifa\_228 (C1), Shnickers\_251 (C1), Shrimp\_255 (C1), SilverDipper\_257 (C1), Silverleaf\_26 (L1), 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), Teardrop\_251 (C1), TinyTim\_251 (C1), Tonenili\_274 (C1), Tortoise16\_250 (C1), Trinitium\_249 (C1), Turret\_243 (C1), Tyke\_249 (C1), Tyson\_26 (L1), UPIE\_26 (L1), ValleyTerrace\_253 (C1), Wally\_250 (C1), Wamburgxpress\_26 (L1), Weiss13\_39 (R), Willis\_253 (C1), Wyatt2\_26 (L1), Yassified\_248 (C1), Yelo\_39 (R), YemiJoy2021\_253 (C1), YoungMoneyMata\_252 (C1), Yucca\_253 (C1), Zakai\_28 (L2), Zalkecks\_251 (C1), Zaria\_26 (L1), Zeenon\_253 (C1), Zenon\_40 (R), ZygoTaiga\_249 (C1),

#### Start 143:

- Found in 19 of 2064 ( 0.9% ) of genes in pham
- No Manual Annotations of this start.
- Called 5.3% of time when present
- Phage (with cluster) where this start called: Jobypre\_28 (L3),

#### Start 148:

- Found in 44 of 2064 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 26 of 1932
- Called 63.6% of time when present
- Phage (with cluster) where this start called: Alkhayr\_65 (O), Ashwin\_69 (O), Blessica\_68 (O), Bora\_65 (O), Catdawg\_67 (O), Corndog\_70 (O), Dylan\_67 (O), Familton\_68 (O), Firecracker\_69 (O), FoulBall\_64 (O), Idergollasper\_67 (O), JangDynasty\_67 (O), Krili\_66 (O), MadKillah\_68 (O), Mori\_67 (O), Murai\_68 (O), NiebruSaylor\_66 (O), Ryadel\_71 (O), SchoolBus\_67 (O), Schuy\_68 (O), Shida\_67 (O), Smooch\_70 (O), TelAviv\_64 (O), Vorrrps\_67 (O), Wildflower\_67 (O), Winget\_68 (O), YungJamal\_72 (O), Zakhe101\_66 (O),

#### Start 149:

- Found in 244 of 2064 ( 11.8% ) of genes in pham
- Manual Annotations of this start: 225 of 1932
- Called 98.0% of time when present



• Phage (with cluster) where this start called: Akhila\_25 (F1), Alexphander\_34 (F1), AlpineSix\_32 (F1), Aminay\_31 (K7), ArcusAngelus\_31 (F1), Ardmore\_30 (F1), 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), Blexus\_31 (F1), BlueCrab\_31 (F1), BobaPhett\_31 (F1), Bobi\_33 (F1), BodEinwohner17\_31 (F1), Boomer\_33 (F1), Brocalys\_26 (F1), Bubbles123\_33 (F1), Burwell21\_31 (F1), BuzzLyseyear\_34 (F1), Byougenkin\_31 (F1), Cabrinians\_31 (F1), CaptainTrips\_32 (F1), Cerasum\_27 (F1), Che8\_33 (F1), Che9d\_36 (F2), ChickenDinner\_33 (F1), Chuckly\_31 (F1), Clifton\_25 (F1), Coco12\_31 (F1), 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\_32 (F1), Donkeykong\_31 (F1), Doomphist\_31 (F1), Dorothy\_31 (F1), DosHalletts\_33 (F1), DotProduct\_31 (F1), Doug\_32 (F1), Drago\_32 (F1), EleanorGeorge\_32 (F1), Emma\_33 (F1), Empress\_32 (F1), Enby\_33 (F1), EniyanLRS\_49 (V), Eradicator\_31 (F1), Estave1\_29 (F1), Fancypants\_31 (F1), Fastidio\_33 (F1), Filuzino\_31 (F1), Firehouse51\_32 (F1), Flathead\_31 (F1), Florinda\_31 (F1), Frankie\_35 (F1), FreddyB\_31 (F1), Fruitloop\_30 (F1), GUmbe\_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), Ibhubesi\_31 (F1), Inventum\_31 (F1), IrishSherpFalk\_33 (F1), Jabbawokkie\_39 (F2), JalFarm20\_34 (F1), James\_31 (F1), Jarcob\_31 (F1), Jinglebell\_31 (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), 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), 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), Mova\_32 (F1), Mozy\_33 (F1), Ms6\_25 (F1), MulchSalad\_30 (F), Mutaforma13\_31 (F1), Nebkiss\_35 (X), 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), SG4\_32 (F1), Saal\_31 (F1), Sabbb\_32 (F1), Sandalphon\_32 (F1), Sarma624\_27 (F1), Sassafras\_32 (F1), SassyB\_31 (F1), Scottish\_32 (F1), Seabastian\_31 (F1), Seagreen\_32 (F1), Shauna1\_28 (F1), ShiLan\_31 (F1), ShowerHandel\_31 (F1), ShroomBoi\_28 (F1), SiSi\_31 (F1), SimranZ1\_34 (F1), 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), SwagPiggett\_31 (F1), TChen\_31 (F4), TDanisky\_31 (F1), Taj\_31 (F1), ThetaBob\_30 (F4), TootsiePop\_32 (F1), Tootsieroll\_32 (F1), Totinger\_35 (F1), Tweety\_31 (F1), UncleRicky\_34 (F1),

VRedHorse\_31 (F1), Velveteen\_27 (F1), Veteran\_31 (F1), Wachhund\_31 (F1), Wee\_32 (F1), Whatsapiecost\_32 (F1), Whouxphf\_32 (F1), Wildcat\_52 (V), WillSterrel\_33 (F1), XFactor\_31 (F1), Yorick\_31 (F1), Yoshi\_38 (F2), Zapner\_38 (F2), Zerg\_31 (F1), Zizzle\_31 (F1),

#### Start 153:

- Found in 95 of 2064 ( 4.6% ) of genes in pham
- Manual Annotations of this start: 92 of 1932
- 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 158:

- Found in 1 of 2064 ( 0.0% ) of genes in pham
- Manual Annotations of this start: 1 of 1932
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DS6A\_31 (singleton),

#### Start 159:

- Found in 3 of 2064 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 1932
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Imvubu\_41 (B10),

#### Start 161:

- Found in 9 of 2064 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 8 of 1932
- Called 88.9% of time when present
- Phage (with cluster) where this start called: Bactobuster\_12 (A2), Funsized\_52 (B9), IronMan\_13 (A2), Jaan\_14 (A2), Knocker\_50 (B9), Phaded\_14 (A2), Pukovnik\_13 (A2), Zenteno07\_53 (B13),

Start 162:

- Found in 25 of 2064 ( 1.2% ) of genes in pham
- Manual Annotations of this start: 2 of 1932
- Called 24.0% of time when present
- Phage (with cluster) where this start called: 39HC\_042 (B6), 40BC\_042 (B6), Hosp\_040 (B6), Jolie1\_042 (B6), KayaCho\_42 (B6), LilMcDreamy\_46 (B12),

Start 163:

- Found in 588 of 2064 ( 28.5% ) of genes in pham
- Manual Annotations of this start: 304 of 1932
- Called 54.4% of time when present
- Phage (with cluster) where this start called: 20ES\_11 (A2), 40AC\_14 (A17), 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), 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), Concept11\_10 (A1), Corvo\_10 (A1), Crispicous1\_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), 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), Dynamix\_10 (A1), EZMoney23\_15 (A2), Eaglepride\_11 (A10), EasyJones\_253 (C1), 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), ILeeKay\_12 (A1), Ichabod\_10 (A1), IgnatiusPatJac\_9 (A1), Iwokeuplikedis\_11 (A2), Izajani\_248 (C1), JC27\_12 (A1), JackSparrow\_10 (A1), Jasper\_11 (A1), Jerm2\_10 (A1), Jerm\_13 (A2), Jorgensen\_10 (A1), JoshKayV\_13 (A2), JuliaChild\_12 (A1), KBG\_11 (A1), KSSJEB\_9 (A1), Kalpine\_14 (A2), Kanely\_11 (A1), Katalie136\_10 (A4), Kenmech\_12 (A1), Killigrew\_8 (A1), KingCyrus\_13 (A2), KittenMittens\_9 (A10), Kristoff\_11 (A10), Kugel\_11 (A1), KyMonks1A\_12 (A1), Kykar\_8 (A1), LadyBird\_11 (A2), Lamina13\_10 (A1), Larenn\_12 (A2), Leogania\_13 (A2), Lesedi\_9 (A1), Leviathan\_13 (A2), LilBib\_11 (A1), 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), 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), PeaceMeal1\_9 (A10), Pepe\_11 (A1), Perplexer\_10 (A4), Perseus\_11 (A1), Peterson\_13 (A1), PetiteSangsue\_10 (A4), Petp2012\_12 (A1), Petruchio\_10 (A1), PherrisBueller\_11 (A1), Phontbonne\_10 (A4), PhrostyMug\_10 (A1), PinkPlastic\_8 (A1), Pinkcreek\_232 (C1), Pinto\_12 (A1), Pippin\_11 (A1), Piro94\_12 (A2), Pita2\_12 (A1), Poompha\_9 (A10), Power\_11 (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), 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), 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\_9 (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), Tripl3t\_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 164:

- Found in 126 of 2064 ( 6.1% ) of genes in pham
- Manual Annotations of this start: 109 of 1932
- Called 88.9% 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), Kampy\_10 (A4), Kingmustik0402\_10 (A4), Koreni\_9 (A4), Kratark\_10 (A4), Kremtemulon\_9 (A4), Kyee\_10 (A4), LHTSCC\_10 (A4), LappelDuVide\_9 (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), 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 166:

- Found in 123 of 2064 ( 6.0% ) of genes in pham
- Manual Annotations of this start: 14 of 1932
- Called 11.4% 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), Hamulus\_32 (F1), Holli\_10 (A4), ICleared\_10 (A4), Medusa\_10 (A4), MeeZee\_10 (A4), Melvin\_10 (A4), Peaches\_10 (A4), Pipcraft\_10 (A4),

Start 167:

- Found in 7 of 2064 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 7 of 1932
- Called 100.0% 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 169:

- Found in 14 of 2064 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 13 of 1932
- Called 92.9% 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 178:

- Found in 158 of 2064 ( 7.7% ) of genes in pham
- No Manual Annotations of this start.
- Called 0.6% of time when present
- Phage (with cluster) where this start called: Landor\_12 (A2),

Start 180:

- Found in 630 of 2064 ( 30.5% ) of genes in pham
- Manual Annotations of this start: 5 of 1932
- Called 1.0% of time when present
- Phage (with cluster) where this start called: Cueyllyss\_10 (A1), Froghopper\_11 (A1), Licorice\_12 (A1), Luchador\_11 (A14), Marchy\_8 (A1), Topgun\_10 (A1),

Start 190:

- Found in 389 of 2064 ( 18.8% ) of genes in pham
- Manual Annotations of this start: 1 of 1932
- Called 0.3% of time when present
- Phage (with cluster) where this start called: EvilGenius\_13 (A2),

#### Start 192:

- Found in 985 of 2064 ( 47.7% ) of genes in pham
- Manual Annotations of this start: 2 of 1932
- Called 0.6% of time when present
- Phage (with cluster) where this start called: Nemo27\_10 (A4), Nerujay\_11 (A1), Payneful\_9 (A1), Pelly\_11 (A1), Sandaddy\_9 (A1), Swole\_12 (A1),

#### Start 198:

- Found in 204 of 2064 ( 9.9% ) of genes in pham
- Manual Annotations of this start: 122 of 1932
- Called 63.7% of time when present
- Phage (with cluster) where this start called: 244\_37 (E), ABCat\_34 (E), Adnama\_38 (E), Amao\_35 (E), AmericanBeauty\_38 (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), Czystoczon1\_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), JeTaimie\_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 200:

- Found in 20 of 2064 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 20 of 1932
- 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 217:

- Found in 11 of 2064 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 11 of 1932
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bryler\_31 (K6), Cain\_31 (K6), Krueger\_31 (K6), PhelpsODU\_31 (K6), Phrank\_31 (K6), Shadow1\_30 (K6), Sunflower1121\_30 (K6), Syra333\_31 (K6), Tierra\_31 (K6), Unicorn\_31 (K6), Ximenita\_32 (K6),

Start 221:

- Found in 212 of 2064 ( 10.3% ) of genes in pham
- Manual Annotations of this start: 188 of 1932
- Called 91.5% of time when present
- Phage (with cluster) where this start called: ActinUp\_31 (K1), Adephagia\_31 (K1), Adonis\_31 (K1), Agent47\_30 (K5), AgentM\_8 (A5), Ageofdapage\_31 (K1), Airmid\_8 (A5), AlishaPH\_31 (K1), AlleyCat\_31 (K5), Amelie\_27 (K1), Amgine\_29 (K6), Amohntion\_30 (K6), Anaya\_32 (K1), Angelica\_31 (K1), Apocalypse\_31 (K1), Aragog\_8 (A5), Archetta\_8 (A5), Asayake\_31 (K1), Astro\_8 (A8), Atiba\_31 (K1), BEEST\_31 (K1), BGlluviae\_31 (K1), BaghaKamala\_31 (K1), BarrelRoll\_31 (K1), Beezoo\_31 (K1), Bella96\_31 (K1), Belladonna\_31 (K1), Benedict\_8 (A5), Binglebops\_27 (K1), Blizzard\_31 (K1), Bluefalcon\_7 (A5), Boiiii\_31 (K1), Bonamassa\_8 (A5), CREW\_31 (K1), Capricorn\_31 (K1), CaseJules\_31 (K1), Chadwick\_9 (A5), CheetoDust\_31 (K1), Chris\_30 (K1), Collard\_30 (K5), Conspiracy\_8 (A5), Coog\_8 (A5), CrimD\_31 (K1), Cuco\_8 (A5), Curiosium\_32 (K1), Dadosky\_31 (K5), Dalmuri\_31 (K1), Danforth\_7 (A8), DarthP\_30 (K6), Deby\_31 (K1), Devera\_31 (K1), Discoknowium\_8 (A5), Dixon\_8 (A8), Dole\_31 (K1), DrHayes\_31 (K1), Dublin\_7 (A5), Durfee\_31 (K1), Edugator\_30 (K5), Efra2\_31 (K1), Ekdilam\_28 (K6), EITiger69\_8 (A5), Ellie\_28 (K6), Emerson\_31 (K1), Enkosi\_27 (K1), Expelliarmus\_7 (A8), Fefferhead\_30 (K6), Feyre\_30 (K5), ForGetIt\_8 (A5), Ganymede\_32 (K1), Gengar\_30 (K5), George\_7 (A5), Geraldini\_31 (K1), Ghouboy\_8 (A5), Groundhog\_7 (A8), Guanica15\_31 (K1), Guillsminger\_30 (K5), Hammy\_30 (K6), HedwigODU\_31 (K1), Heftyboy\_30 (K5), Homura\_31 (K1), HuhtaEnerson15\_8 (A5), Hurricane\_32 (K3), Hyperbowlee\_31 (K1), Illumine\_31 (K1), Inky\_31 (K1), InvictusManeo\_30 (K5), JAWS\_31 (K1), Jabiru\_8 (A5), Jarvi\_31 (K1), Jayhawk\_32 (K1), Jeckyll\_31 (K1), Jovo\_8 (A5), Joy99\_31 (K1), Keshu\_32 (K3), KiSi\_30 (K1), Larva\_31 (K5), LastHope\_31 (K1), LaterM\_31 (K1), LeMond\_30 (K1), Leston\_30 (K5), Lev2\_8 (A5), LilPharaoh\_27 (K1), LindNT\_31 (K1), LittleCherry\_8 (A5), Llorens\_31 (K1), Lunahalos\_31 (K1), MacnCheese\_32 (K3), MalagasyRose\_31 (AG), MarkPhew\_31 (K1), Marshawn\_32 (K6), MarysWell\_7 (A5), Mdavu\_27 (K1), MeaningOfLife\_31 (K1), Megsy\_31 (K1), Micasa\_7 (A5), Midas2\_8 (A5), Milcery\_8 (A5), Murucutumbu\_31 (K1), Mynx\_31 (K1), Naca\_8 (A5), NearlyHeadless\_8 (A8), Nergal\_27 (AG), Nibb\_30 (K1), Nikao\_27 (K1), Niklas\_31 (K1), Nutello\_27 (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), PetterN\_9 (A5), Pharb\_30 (K3), Phillis\_8 (A8), Phlorence\_8 (A5), Piatt\_31 (K1), PickleBack\_8 (A5), Pixie\_31 (K3), Pokerus\_30 (K1), Prithvi\_31 (K1), Psycho\_31 (K5), QuincyRose\_30 (K1), Ramen\_31 (K1), Rando14\_31 (K5), Rapunzel97\_31 (K1), Roary\_8 (A8), Rosmarinus\_31 (K1), Saintus\_8 (A8), SamuelLPlaqson\_31 (K1), Scarlett\_30 (K1), Scorpia\_9 (A5), SgtBeansprout\_27 (K1), Shaobing\_31 (K1), ShedlockHolmes\_32 (K3), ShiaSurprise\_31 (K1), SirPhilip\_30 (K6), Slimphazie\_31 (K1), Smeadley\_8 (A8),

SoSeph\_30 (K5), Spock\_31 (K1), StepHig9\_8 (A8), Stinson\_32 (K1), Sulley\_31 (K1), Swirley\_8 (A5), SydNat\_8 (A5), TBond007\_31 (K3), TClif\_33 (K6), Tachez\_31 (K1), TaiwanKao\_32 (K1), Tarynearal\_7 (A5), Theia\_7 (A5), Thyatira\_30 (K5), Tiger\_8 (A5), TiniBug\_31 (K1), Tiri\_31 (K1), Topper\_31 (K1), TreyKay\_31 (K1), TribelTrouble\_30 (K3), TruffulaTree\_31 (K1), Twitch\_31 (K1), UnionJack\_8 (A5), Urkel\_31 (K1), Validus\_31 (K1), Veliki\_31 (K1), Waterfoul\_30 (K5), YoureAdopted\_30 (K1), Yuna\_32 (K6), Yunkel11\_31 (K1), Zabiza\_32 (K1), Zavala\_31 (K1), Zolita\_7 (A5),

Start 225:

- Found in 4 of 2064 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 4 of 1932
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Journey13\_9 (A2), MissWhite\_11 (A2), P3MA\_30 (singleton), TipsytheTRex\_10 (A2),

Start 227:

- Found in 175 of 2064 ( 8.5% ) of genes in pham
- Manual Annotations of this start: 1 of 1932
- Called 1.1% of time when present
- Phage (with cluster) where this start called: Kratio\_29 (K5), Miryou\_30 (K5),

Start 268:

- Found in 1 of 2064 ( 0.0% ) of genes in pham
- Manual Annotations of this start: 1 of 1932
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Indlulamithi\_36 (AC),

Start 279:

- Found in 440 of 2064 ( 21.3% ) of genes in pham
- Manual Annotations of this start: 1 of 1932
- Called 0.2% of time when present
- Phage (with cluster) where this start called: Kimberlium\_33 (F1),

Start 282:

- Found in 1 of 2064 ( 0.0% ) of genes in pham
- Manual Annotations of this start: 1 of 1932
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phantastic\_10 (A3),

Start 285:

- Found in 20 of 2064 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 17 of 1932
- Called 100.0% of time when present
- Phage (with cluster) where this start called: B1\_08 (A3), BabyRay\_10 (A3), BlueBird\_11 (A3), Bugatti\_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), MA5\_10 (A3), MK4\_10 (A3), Pistachio\_11 (A3), Puppy\_11 (A3), Rockstar\_10 (A3), SaturnRing\_10 (A3), Scout\_10 (A3), TNguyen7\_10 (A3),

Start 288:

- Found in 3 of 2064 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 1932



- Called 33.3% of time when present
- Phage (with cluster) where this start called: Sheen\_12 (A7),

#### Start 294:

- Found in 35 of 2064 ( 1.7% ) of genes in pham
- Manual Annotations of this start: 16 of 1932
- Called 48.6% of time when present
- Phage (with cluster) where this start called: AN9\_14 (A2), ANI8\_14 (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), Naji\_14 (A2), Pomar16\_14 (A2), Serenity\_10 (A2), StarStuff\_14 (A2), Tomathan\_14 (A2), VC3\_14 (A2),

#### Start 296:

- Found in 20 of 2064 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 2 of 1932
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Kimona\_7 (A19), PP\_20 (A7),

#### Start 302:

- Found in 362 of 2064 ( 17.5% ) 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 66 clusters represented in this pham: singleton, M3, M2, AC, K3, K2, K1, AB, M1, K6, K5, K4, AE, K8, A14, G5, G4, A10, G1, A12, I1, I2, A19, A1, A3, A2, A5, A4, A7, A8, C1, B10, P3, V, P1, E, AD, AG, F, AH, B12, J, A17, O, N, Q, L4, R, L2, L3, L1, Y, X, F1, F2, F4, F5, H2, B6, L5, B1, K7, B3, U, B9, B13,

#### Info for manual annotations of cluster A1:

- Start number 163 was manually annotated 196 times for cluster A1.
- Start number 180 was manually annotated 4 times for cluster A1.
- Start number 192 was manually annotated 1 time for cluster A1.

#### Info for manual annotations of cluster A10:

- Start number 163 was manually annotated 17 times for cluster A10.

#### Info for manual annotations of cluster A12:

- Start number 163 was manually annotated 2 times for cluster A12.

#### Info for manual annotations of cluster A14:

- Start number 180 was manually annotated 1 time for cluster A14.

#### Info for manual annotations of cluster A19:

- Start number 296 was manually annotated 1 time for cluster A19.

#### Info for manual annotations of cluster A2:

- Start number 102 was manually annotated 1 time for cluster A2.
- Start number 161 was manually annotated 5 times for cluster A2.
- Start number 163 was manually annotated 69 times for cluster A2.

- Start number 190 was manually annotated 1 time for cluster A2.
- Start number 225 was manually annotated 3 times for cluster A2.
- Start number 294 was manually annotated 16 times for cluster A2.

Info for manual annotations of cluster A3:

- Start number 153 was manually annotated 92 times for cluster A3.
- Start number 163 was manually annotated 1 time for cluster A3.
- Start number 282 was manually annotated 1 time for cluster A3.
- Start number 285 was manually annotated 17 times for cluster A3.

Info for manual annotations of cluster A4:

- Start number 163 was manually annotated 13 times for cluster A4.
- Start number 164 was manually annotated 108 times for cluster A4.
- Start number 166 was manually annotated 13 times for cluster A4.
- Start number 192 was manually annotated 1 time for cluster A4.

Info for manual annotations of cluster A5:

- Start number 221 was manually annotated 37 times for cluster A5.

Info for manual annotations of cluster A7:

- Start number 163 was manually annotated 3 times for cluster A7.
- Start number 288 was manually annotated 1 time for cluster A7.
- Start number 296 was manually annotated 1 time for cluster A7.

Info for manual annotations of cluster A8:

- Start number 221 was manually annotated 11 times for cluster A8.

Info for manual annotations of cluster AB:

- Start number 116 was manually annotated 1 time for cluster AB.

Info for manual annotations of cluster AC:

- Start number 268 was manually annotated 1 time for cluster AC.

Info for manual annotations of cluster AD:

- Start number 103 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster AE:

- Start number 94 was manually annotated 3 times for cluster AE.

Info for manual annotations of cluster AG:

- Start number 221 was manually annotated 2 times for cluster AG.

Info for manual annotations of cluster AH:

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

Info for manual annotations of cluster B1:

- Start number 82 was manually annotated 253 times for cluster B1.

Info for manual annotations of cluster B10:

- Start number 159 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B12:

- Start number 162 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B13:

- Start number 161 was manually annotated 1 time for cluster B13.
- Start number 164 was manually annotated 1 time for cluster B13.

Info for manual annotations of cluster B3:

- Start number 138 was manually annotated 44 times for cluster B3.

Info for manual annotations of cluster B6:

- Start number 162 was manually annotated 1 time for cluster B6.

Info for manual annotations of cluster B9:

- Start number 161 was manually annotated 2 times for cluster B9.

Info for manual annotations of cluster C1:

- Start number 142 was manually annotated 164 times for cluster C1.
- Start number 163 was manually annotated 3 times for cluster C1.

Info for manual annotations of cluster E:

- Start number 198 was manually annotated 122 times for cluster E.

Info for manual annotations of cluster F1:

- Start number 63 was manually annotated 1 time for cluster F1.
- Start number 149 was manually annotated 204 times for cluster F1.
- Start number 166 was manually annotated 1 time for cluster F1.
- Start number 279 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F2:

- Start number 149 was manually annotated 7 times for cluster F2.

Info for manual annotations of cluster F4:

- Start number 149 was manually annotated 4 times for cluster F4.

Info for manual annotations of cluster F5:

- Start number 149 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster G1:

- Start number 88 was manually annotated 58 times for cluster G1.

Info for manual annotations of cluster G4:

- Start number 88 was manually annotated 2 times for cluster G4.

Info for manual annotations of cluster G5:

- Start number 88 was manually annotated 1 time for cluster G5.

Info for manual annotations of cluster H2:

- Start number 116 was manually annotated 2 times for cluster H2.

Info for manual annotations of cluster I1:

- Start number 102 was manually annotated 6 times for cluster I1.

Info for manual annotations of cluster I2:

- Start number 103 was manually annotated 1 time for cluster I2.

Info for manual annotations of cluster J:

- Start number 89 was manually annotated 29 times for cluster J.
- Start number 97 was manually annotated 1 time for cluster J.
- Start number 100 was manually annotated 9 times for cluster J.

Info for manual annotations of cluster K1:

- Start number 221 was manually annotated 100 times for cluster K1.

Info for manual annotations of cluster K2:

- Start number 99 was manually annotated 10 times for cluster K2.

Info for manual annotations of cluster K3:

- Start number 221 was manually annotated 8 times for cluster K3.

Info for manual annotations of cluster K4:

- Start number 200 was manually annotated 19 times for cluster K4.

Info for manual annotations of cluster K5:

- Start number 221 was manually annotated 20 times for cluster K5.
- Start number 227 was manually annotated 1 time for cluster K5.

Info for manual annotations of cluster K6:

- Start number 217 was manually annotated 11 times for cluster K6.
- Start number 221 was manually annotated 10 times for cluster K6.

Info for manual annotations of cluster K7:

- Start number 149 was manually annotated 1 time for cluster K7.

Info for manual annotations of cluster K8:

- Start number 200 was manually annotated 1 time for cluster K8.

Info for manual annotations of cluster L1:

- Start number 142 was manually annotated 18 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 102 was manually annotated 22 times for cluster L2.
- Start number 142 was manually annotated 6 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 102 was manually annotated 16 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 142 was manually annotated 3 times for cluster L4.

Info for manual annotations of cluster L5:

- Start number 82 was manually annotated 2 times for cluster L5.

Info for manual annotations of cluster M1:

- Start number 169 was manually annotated 13 times for cluster M1.

Info for manual annotations of cluster M2:

- Start number 167 was manually annotated 6 times for cluster M2.

Info for manual annotations of cluster M3:

- Start number 167 was manually annotated 1 time for cluster M3.

Info for manual annotations of cluster N:

- Start number 102 was manually annotated 4 times for cluster N.

Info for manual annotations of cluster O:

- Start number 148 was manually annotated 26 times for cluster O.

Info for manual annotations of cluster P1:

- Start number 102 was manually annotated 38 times for cluster P1.

Info for manual annotations of cluster P3:

- Start number 102 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster Q:

- Start number 84 was manually annotated 22 times for cluster Q.

Info for manual annotations of cluster R:

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

Info for manual annotations of cluster U:

- Start number 140 was manually annotated 3 times for cluster U.

Info for manual annotations of cluster V:

- Start number 149 was manually annotated 5 times for cluster V.

Info for manual annotations of cluster X:

- Start number 89 was manually annotated 1 time for cluster X.
- Start number 149 was manually annotated 1 time for cluster X.

Info for manual annotations of cluster Y:

- Start number 84 was manually annotated 2 times for cluster Y.

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

Gene: 20ES\_11 Start: 6443, Stop: 7420, Start Num: 163

Candidate Starts for 20ES\_11:

(Start: 163 @6443 has 304 MA's), (Start: 192 @6497 has 2 MA's), (312, 6686), (325, 6722), (330, 6734), (365, 6791), (382, 6827), (415, 6875), (430, 6914), (470, 6986), (474, 7001), (507, 7064), (528, 7106), (538, 7154), (549, 7181), (554, 7196), (559, 7214), (561, 7217), (575, 7256), (597, 7307), (626, 7406),

Gene: 244\_37 Start: 32138, Stop: 32995, Start Num: 198

Candidate Starts for 244\_37:

(Start: 198 @32138 has 122 MA's), (220, 32177), (232, 32207), (242, 32228), (257, 32264), (275, 32294), (309, 32369), (334, 32417), (336, 32420), (345, 32444), (347, 32447), (356, 32462), (426, 32633), (487, 32747), (495, 32762), (498, 32768), (575, 32810), (576, 32813), (601, 32867), (624, 32945), (641, 32978),

Gene: 39HC\_042 Start: 40379, Stop: 41374, Start Num: 162

Candidate Starts for 39HC\_042:

(Start: 162 @40379 has 2 MA's), (178, 40409), (Start: 190 @40430 has 1 MA's), (Start: 192 @40433 has 2 MA's), (241, 40520), (273, 40568), (299, 40601), (325, 40670), (362, 40733), (365, 40739), (382, 40775), (416, 40823), (474, 40934), (524, 41021), (525, 41024), (551, 41084), (557, 41096), (562, 41108), (565, 41114), (604, 41219), (650, 41351),

Gene: 40AC\_14 Start: 8493, Stop: 9470, Start Num: 163

Candidate Starts for 40AC\_14:

(Start: 163 @8493 has 304 MA's), (Start: 192 @8547 has 2 MA's), (312, 8736), (330, 8784), (365, 8841), (415, 8925), (430, 8964), (454, 9012), (469, 9033), (474, 9051), (507, 9114), (528, 9156), (538, 9204), (549, 9231), (554, 9246), (561, 9267), (575, 9306), (597, 9357), (615, 9426),

Gene: 40BC\_042 Start: 40379, Stop: 41374, Start Num: 162

Candidate Starts for 40BC\_042:

(Start: 162 @40379 has 2 MA's), (178, 40409), (Start: 190 @40430 has 1 MA's), (Start: 192 @40433 has 2 MA's), (241, 40520), (273, 40568), (299, 40601), (325, 40670), (362, 40733), (365, 40739), (382, 40775), (416, 40823), (474, 40934), (524, 41021), (525, 41024), (551, 41084), (557, 41096), (562, 41108), (565, 41114), (604, 41219), (650, 41351),

Gene: A6\_08 Start: 5593, Stop: 6561, Start Num: 163

Candidate Starts for A6\_08:

(Start: 163 @5593 has 304 MA's), (Start: 180 @5626 has 5 MA's), (Start: 190 @5644 has 1 MA's), (Start: 192 @5647 has 2 MA's), (302, 5836), (335, 5914), (344, 5932), (365, 5965), (368, 5977), (415, 6052), (442, 6115), (456, 6139), (474, 6178), (484, 6196), (520, 6259), (551, 6340), (559, 6364), (561, 6367), (563, 6370), (567, 6379), (600, 6466), (607, 6490), (614, 6511), (629, 6553),

Gene: ABCat\_34 Start: 31850, Stop: 32707, Start Num: 198

Candidate Starts for ABCat\_34:

(Start: 198 @31850 has 122 MA's), (220, 31889), (232, 31919), (242, 31940), (257, 31976), (275, 32006), (309, 32081), (334, 32129), (336, 32132), (345, 32156), (347, 32159), (356, 32174), (426, 32345), (487, 32459), (495, 32474), (498, 32480), (575, 32522), (576, 32525), (601, 32579), (624, 32657), (641, 32690),

Gene: ABU\_50 Start: 41835, Stop: 43190, Start Num: 82

Candidate Starts for ABU\_50:

(Start: 82 @41835 has 255 MA's), (98, 41886), (108, 41919), (168, 42048), (170, 42051), (Start: 180 @42066 has 5 MA's), (235, 42162), (251, 42201), (269, 42231), (284, 42267), (333, 42378), (345, 42408), (347, 42411), (379, 42477), (440, 42636), (469, 42684), (475, 42702), (498, 42750), (550, 42894), (571, 42954), (603, 43059), (637, 43146),

Gene: ACFishhook\_12 Start: 6114, Stop: 7079, Start Num: 153

Candidate Starts for ACFishhook\_12:

(Start: 153 @6114 has 92 MA's), (Start: 192 @6180 has 2 MA's), (226, 6234), (265, 6312), (330, 6435), (365, 6492), (415, 6564), (430, 6603), (439, 6621), (474, 6690), (535, 6807), (538, 6834), (561, 6897), (597, 6987), (599, 6993),

Gene: AFIS\_10 Start: 5930, Stop: 6898, Start Num: 163

Candidate Starts for AFIS\_10:

(Start: 163 @5930 has 304 MA's), (Start: 180 @5963 has 5 MA's), (Start: 190 @5981 has 1 MA's), (Start: 192 @5984 has 2 MA's), (335, 6251), (365, 6302), (368, 6314), (415, 6389), (442, 6452), (450, 6464), (462, 6485), (469, 6497), (474, 6515), (484, 6533), (496, 6557), (520, 6596), (551, 6677), (559,

6701), (561, 6704), (563, 6707), (567, 6716), (600, 6803), (629, 6890),

Gene: AN3\_11 Start: 6428, Stop: 7405, Start Num: 163

Candidate Starts for AN3\_11:

(49, 5960), (Start: 163 @6428 has 304 MA's), (Start: 192 @6482 has 2 MA's), (312, 6671), (325, 6707), (330, 6719), (365, 6776), (382, 6812), (415, 6860), (430, 6899), (454, 6947), (467, 6965), (470, 6971), (474, 6986), (507, 7049), (528, 7091), (538, 7139), (549, 7166), (554, 7181), (559, 7199), (561, 7202), (575, 7241), (597, 7292),

Gene: AN9\_14 Start: 6596, Stop: 7345, Start Num: 294

Candidate Starts for AN9\_14:

(Start: 294 @6596 has 16 MA's), (298, 6602), (366, 6743), (415, 6830), (422, 6854), (425, 6860), (439, 6887), (469, 6938), (474, 6956), (538, 7100), (561, 7163), (578, 7211), (579, 7214), (595, 7244), (597, 7253),

Gene: ANI8\_14 Start: 6596, Stop: 7345, Start Num: 294

Candidate Starts for ANI8\_14:

(Start: 294 @6596 has 16 MA's), (298, 6602), (366, 6743), (415, 6830), (422, 6854), (425, 6860), (439, 6887), (469, 6938), (474, 6956), (538, 7100), (561, 7163), (578, 7211), (579, 7214), (595, 7244), (597, 7253),

Gene: AbbyPaige\_13 Start: 6873, Stop: 7865, Start Num: 163

Candidate Starts for AbbyPaige\_13:

(Start: 163 @6873 has 304 MA's), (Start: 190 @6924 has 1 MA's), (Start: 192 @6927 has 2 MA's), (299, 7095), (302, 7101), (312, 7128), (338, 7188), (365, 7233), (412, 7320), (437, 7365), (467, 7404), (494, 7452), (540, 7533), (555, 7575), (588, 7662), (624, 7776),

Gene: AbbysRanger\_10 Start: 5887, Stop: 6870, Start Num: 163

Candidate Starts for AbbysRanger\_10:

(Start: 163 @5887 has 304 MA's), (178, 5917), (Start: 190 @5938 has 1 MA's), (Start: 192 @5941 has 2 MA's), (304, 6121), (330, 6190), (365, 6247), (368, 6259), (387, 6289), (401, 6310), (416, 6331), (437, 6379), (464, 6409), (474, 6436), (551, 6586), (601, 6709), (604, 6721), (607, 6730), (627, 6787), (652, 6862),

Gene: Abbysshoes\_11 Start: 6019, Stop: 6987, Start Num: 163

Candidate Starts for Abbysshoes\_11:

(Start: 163 @6019 has 304 MA's), (Start: 180 @6052 has 5 MA's), (Start: 190 @6070 has 1 MA's), (Start: 192 @6073 has 2 MA's), (335, 6340), (365, 6391), (368, 6403), (415, 6478), (442, 6541), (450, 6553), (462, 6574), (469, 6586), (474, 6604), (484, 6622), (496, 6646), (520, 6685), (551, 6766), (559, 6790), (561, 6793), (563, 6796), (567, 6805), (600, 6892), (614, 6937), (629, 6979),

Gene: Abdiel\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Abdiel\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Abinghost\_47 Start: 41532, Stop: 42590, Start Num: 138

Candidate Starts for Abinghost\_47:

(Start: 138 @41532 has 44 MA's), (173, 41595), (219, 41676), (252, 41736), (260, 41751), (269, 41763), (280, 41790), (311, 41847), (314, 41856), (391, 42003), (401, 42018), (422, 42072), (439, 42105), (463, 42144), (470, 42156), (512, 42237), (520, 42255), (523, 42258), (538, 42303), (578, 42414), (617, 42525), (626, 42546), (641, 42579),

Gene: Abrogate\_110 Start: 6675, Stop: 7643, Start Num: 163

Candidate Starts for Abrogate\_110:

(Start: 163 @6675 has 304 MA's), (Start: 180 @6708 has 5 MA's), (Start: 190 @6726 has 1 MA's), (Start: 192 @6729 has 2 MA's), (335, 6996), (365, 7047), (368, 7059), (415, 7134), (442, 7197), (450, 7209), (462, 7230), (469, 7242), (474, 7260), (484, 7278), (496, 7302), (520, 7341), (551, 7422), (559, 7446), (561, 7449), (563, 7452), (567, 7461), (600, 7548), (629, 7635),

Gene: AbsoluteMadLad\_48 Start: 41712, Stop: 43067, Start Num: 82

Candidate Starts for AbsoluteMadLad\_48:

(Start: 82 @41712 has 255 MA's), (98, 41763), (108, 41796), (114, 41814), (168, 41925), (170, 41928), (Start: 180 @41943 has 5 MA's), (235, 42039), (251, 42078), (269, 42108), (284, 42144), (333, 42255), (345, 42285), (347, 42288), (379, 42354), (440, 42513), (469, 42561), (475, 42579), (498, 42627), (550, 42771), (571, 42831), (603, 42936), (620, 42990), (637, 43023),

Gene: Achebe\_10 Start: 5878, Stop: 6858, Start Num: 164

Candidate Starts for Achebe\_10:

(123, 5818), (134, 5836), (Start: 164 @5878 has 109 MA's), (Start: 166 @5881 has 14 MA's), (178, 5905), (Start: 190 @5926 has 1 MA's), (Start: 192 @5929 has 2 MA's), (330, 6178), (362, 6229), (365, 6235), (368, 6247), (387, 6277), (416, 6319), (437, 6367), (464, 6397), (474, 6424), (551, 6574), (601, 6697), (604, 6709), (607, 6718), (627, 6775), (652, 6850),

Gene: Acme\_11 Start: 5864, Stop: 6832, Start Num: 163

Candidate Starts for Acme\_11:

(Start: 163 @5864 has 304 MA's), (Start: 180 @5897 has 5 MA's), (Start: 190 @5915 has 1 MA's), (Start: 192 @5918 has 2 MA's), (335, 6185), (365, 6236), (368, 6248), (415, 6323), (442, 6386), (450, 6398), (462, 6419), (469, 6431), (474, 6449), (484, 6467), (496, 6491), (520, 6530), (551, 6611), (559, 6635), (561, 6638), (563, 6641), (567, 6650), (600, 6737), (629, 6824),

Gene: Acolyte\_11 Start: 6523, Stop: 7593, Start Num: 102

Candidate Starts for Acolyte\_11:

(86, 6463), (Start: 102 @6523 has 88 MA's), (112, 6556), (118, 6574), (120, 6577), (160, 6658), (224, 6775), (251, 6838), (267, 6865), (293, 6907), (309, 6943), (316, 6958), (341, 7027), (345, 7039), (349, 7045), (355, 7057), (375, 7096), (379, 7102), (452, 7249), (489, 7315), (493, 7324), (607, 7453), (608, 7456),

Gene: Acquire49\_26 Start: 25547, Stop: 26578, Start Num: 142

Candidate Starts for Acquire49\_26:

(Start: 142 @25547 has 200 MA's), (235, 25700), (236, 25703), (247, 25727), (251, 25739), (261, 25757), (272, 25775), (278, 25793), (281, 25799), (286, 25808), (Start: 294 @25823 has 16 MA's), (303, 25838), (330, 25910), (365, 25967), (385, 26006), (425, 26084), (430, 26093), (431, 26096), (439, 26111), (467, 26165), (474, 26186), (482, 26201), (526, 26285), (537, 26315), (561, 26384), (567, 26396), (575, 26420), (581, 26438), (585, 26441), (590, 26453), (592, 26456), (601, 26486), (604, 26498),

Gene: ActinUp\_31 Start: 26463, Stop: 27335, Start Num: 221

Candidate Starts for ActinUp\_31:

(195, 26436), (Start: 221 @26463 has 188 MA's), (Start: 227 @26475 has 1 MA's), (258, 26544), (275, 26571), (287, 26601), (293, 26610), (309, 26646), (313, 26655), (323, 26688), (331, 26706), (347, 26736), (378, 26793), (379, 26796), (447, 26931), (469, 26958), (476, 26979), (487, 27003), (521, 27054), (578, 27156), (598, 27192), (604, 27216), (640, 27315), (643, 27324),

Gene: Adahisdi\_11 Start: 6258, Stop: 7226, Start Num: 163



Candidate Starts for Adahisdi\_11:

(Start: 163 @6258 has 304 MA's), (Start: 180 @6291 has 5 MA's), (Start: 190 @6309 has 1 MA's), (Start: 192 @6312 has 2 MA's), (335, 6579), (365, 6630), (368, 6642), (415, 6717), (442, 6780), (462, 6813), (469, 6825), (474, 6843), (484, 6861), (520, 6924), (551, 7005), (559, 7029), (561, 7032), (563, 7035), (567, 7044), (600, 7131), (614, 7176), (629, 7218),

Gene: Adephagia\_31 Start: 26460, Stop: 27332, Start Num: 221

Candidate Starts for Adephagia\_31:

(195, 26433), (Start: 221 @26460 has 188 MA's), (Start: 227 @26472 has 1 MA's), (258, 26541), (275, 26568), (287, 26598), (293, 26607), (309, 26643), (313, 26652), (323, 26685), (331, 26703), (347, 26733), (378, 26790), (379, 26793), (447, 26928), (469, 26955), (476, 26976), (487, 27000), (521, 27051), (578, 27153), (598, 27189), (604, 27213), (640, 27312), (643, 27321),

Gene: Ading\_255 Start: 146639, Stop: 147667, Start Num: 142

Candidate Starts for Ading\_255:

(Start: 142 @146639 has 200 MA's), (Start: 163 @146669 has 304 MA's), (170, 146681), (Start: 192 @146723 has 2 MA's), (229, 146786), (239, 146807), (Start: 279 @146891 has 1 MA's), (302, 146933), (306, 146945), (312, 146960), (344, 147029), (365, 147056), (393, 147110), (411, 147155), (414, 147158), (449, 147236), (462, 147257), (520, 147368), (554, 147458), (559, 147476), (590, 147548), (601, 147581),

Gene: Adlitam\_252 Start: 144794, Stop: 145822, Start Num: 142

Candidate Starts for Adlitam\_252:

(Start: 142 @144794 has 200 MA's), (Start: 163 @144824 has 304 MA's), (170, 144836), (Start: 192 @144878 has 2 MA's), (229, 144941), (239, 144962), (Start: 279 @145046 has 1 MA's), (302, 145088), (306, 145100), (312, 145115), (344, 145184), (365, 145211), (393, 145265), (411, 145310), (414, 145313), (449, 145391), (462, 145412), (520, 145523), (554, 145613), (559, 145631), (590, 145703), (601, 145736),

Gene: Adnama\_38 Start: 32365, Stop: 33222, Start Num: 198

Candidate Starts for Adnama\_38:

(Start: 198 @32365 has 122 MA's), (220, 32404), (232, 32434), (242, 32455), (257, 32491), (275, 32521), (309, 32596), (334, 32644), (336, 32647), (345, 32671), (347, 32674), (356, 32689), (426, 32860), (487, 32974), (495, 32989), (498, 32995), (575, 33037), (576, 33040), (601, 33094), (624, 33172), (641, 33205),

Gene: Adonis\_31 Start: 26466, Stop: 27338, Start Num: 221

Candidate Starts for Adonis\_31:

(195, 26439), (Start: 221 @26466 has 188 MA's), (Start: 227 @26478 has 1 MA's), (258, 26547), (275, 26574), (287, 26604), (293, 26613), (309, 26649), (313, 26658), (323, 26691), (331, 26709), (347, 26739), (379, 26799), (447, 26934), (469, 26961), (476, 26982), (487, 27006), (521, 27057), (578, 27159), (598, 27195), (604, 27219), (640, 27318), (643, 27327),

Gene: Adriana\_50 Start: 41833, Stop: 43188, Start Num: 82

Candidate Starts for Adriana\_50:

(Start: 82 @41833 has 255 MA's), (98, 41884), (108, 41917), (168, 42046), (170, 42049), (Start: 180 @42064 has 5 MA's), (235, 42160), (251, 42199), (269, 42229), (284, 42265), (333, 42376), (345, 42406), (347, 42409), (379, 42475), (440, 42634), (469, 42682), (475, 42700), (498, 42748), (550, 42892), (571, 42952), (603, 43057), (637, 43144),

Gene: Aegeus\_29 Start: 25621, Stop: 26718, Start Num: 82

Candidate Starts for Aegeus\_29:

(Start: 82 @25621 has 255 MA's), (93, 25648), (Start: 102 @25693 has 88 MA's), (128, 25756), (185, 25852), (191, 25861), (Start: 227 @25915 has 1 MA's), (245, 25954), (289, 26035), (293, 26041), (313, 26086), (316, 26092), (341, 26155), (349, 26173), (352, 26179), (355, 26185), (379, 26230), (392, 26257), (452, 26374), (469, 26398), (489, 26449), (499, 26470), (570, 26488), (603, 26575), (611, 26599), (640, 26680), (648, 26707),

Gene: Aelin\_48 Start: 41276, Stop: 42631, Start Num: 82

Candidate Starts for Aelin\_48:

(Start: 82 @41276 has 255 MA's), (98, 41327), (108, 41360), (168, 41489), (170, 41492), (Start: 180 @41507 has 5 MA's), (235, 41603), (251, 41642), (269, 41672), (284, 41708), (320, 41783), (333, 41819), (345, 41849), (347, 41852), (379, 41918), (440, 42077), (469, 42125), (475, 42143), (498, 42191), (550, 42335), (571, 42395), (603, 42500), (637, 42587),

Gene: Aeneas\_12 Start: 6353, Stop: 7321, Start Num: 163

Candidate Starts for Aeneas\_12:

(Start: 163 @6353 has 304 MA's), (Start: 180 @6386 has 5 MA's), (Start: 190 @6404 has 1 MA's), (Start: 192 @6407 has 2 MA's), (335, 6674), (365, 6725), (368, 6737), (415, 6812), (442, 6875), (450, 6887), (462, 6908), (469, 6920), (474, 6938), (484, 6956), (496, 6980), (520, 7019), (551, 7100), (559, 7124), (561, 7127), (563, 7130), (567, 7139), (600, 7226), (629, 7313),

Gene: Agaliana\_10 Start: 6067, Stop: 7035, Start Num: 163

Candidate Starts for Agaliana\_10:

(Start: 163 @6067 has 304 MA's), (Start: 180 @6100 has 5 MA's), (Start: 190 @6118 has 1 MA's), (Start: 192 @6121 has 2 MA's), (335, 6388), (365, 6439), (368, 6451), (415, 6526), (442, 6589), (462, 6622), (469, 6634), (474, 6652), (484, 6670), (520, 6733), (551, 6814), (559, 6838), (561, 6841), (563, 6844), (567, 6853), (600, 6940), (614, 6985), (629, 7027),

Gene: Agape74\_13 Start: 6873, Stop: 7865, Start Num: 163

Candidate Starts for Agape74\_13:

(Start: 163 @6873 has 304 MA's), (Start: 190 @6924 has 1 MA's), (Start: 192 @6927 has 2 MA's), (299, 7095), (302, 7101), (312, 7128), (338, 7188), (365, 7233), (412, 7320), (437, 7365), (467, 7404), (494, 7452), (540, 7533), (555, 7575), (588, 7662), (624, 7776),

Gene: Agent47\_30 Start: 27227, Stop: 27988, Start Num: 221

Candidate Starts for Agent47\_30:

(183, 27179), (Start: 221 @27227 has 188 MA's), (Start: 227 @27239 has 1 MA's), (228, 27242), (229, 27245), (242, 27272), (258, 27308), (289, 27368), (293, 27374), (307, 27404), (309, 27410), (313, 27419), (323, 27452), (343, 27494), (345, 27497), (352, 27509), (370, 27545), (379, 27560), (395, 27596), (447, 27695), (469, 27722), (476, 27743), (578, 27806), (595, 27830), (601, 27854), (620, 27923), (640, 27968), (643, 27977),

Gene: AgentM\_8 Start: 5433, Stop: 6242, Start Num: 221

Candidate Starts for AgentM\_8:

(Start: 221 @5433 has 188 MA's), (251, 5496), (255, 5505), (269, 5526), (284, 5562), (309, 5610), (329, 5667), (339, 5691), (440, 5922), (475, 5979), (645, 6228),

Gene: Ageofdapage\_31 Start: 26403, Stop: 27275, Start Num: 221

Candidate Starts for Ageofdapage\_31:

(195, 26376), (Start: 221 @26403 has 188 MA's), (Start: 227 @26415 has 1 MA's), (258, 26484), (275, 26511), (287, 26541), (293, 26550), (309, 26586), (313, 26595), (323, 26628), (331, 26646), (379, 26736), (447, 26871), (469, 26898), (476, 26919), (487, 26943), (521, 26994), (578, 27096), (598, 27132), (604, 27156), (640, 27255), (643, 27264),

Gene: Aglet\_12 Start: 5963, Stop: 6928, Start Num: 153

Candidate Starts for Aglet\_12:

(Start: 153 @5963 has 92 MA's), (Start: 180 @6008 has 5 MA's), (Start: 192 @6029 has 2 MA's), (256, 6149), (330, 6287), (365, 6344), (371, 6359), (422, 6440), (430, 6455), (439, 6473), (469, 6524), (474, 6542), (497, 6587), (538, 6683), (561, 6746), (575, 6785), (597, 6836),

Gene: AgronaGT15\_12 Start: 5870, Stop: 6835, Start Num: 153

Candidate Starts for AgronaGT15\_12:

(Start: 153 @5870 has 92 MA's), (Start: 180 @5915 has 5 MA's), (Start: 192 @5936 has 2 MA's), (256, 6056), (330, 6194), (365, 6251), (371, 6266), (422, 6347), (430, 6362), (439, 6380), (469, 6431), (474, 6449), (497, 6494), (538, 6590), (561, 6653), (575, 6692), (597, 6743),

Gene: Aikoy\_46 Start: 36375, Stop: 37256, Start Num: 94

Candidate Starts for Aikoy\_46:

(Start: 94 @36375 has 3 MA's), (126, 36471), (129, 36477), (174, 36561), (Start: 180 @36573 has 5 MA's), (235, 36675), (274, 36753), (281, 36774), (336, 36897), (353, 36936), (374, 36981), (405, 37050), (421, 37101), (424, 37110), (429, 37119), (460, 37179), (480, 37215),

Gene: Airmid\_8 Start: 5180, Stop: 5989, Start Num: 221

Candidate Starts for Airmid\_8:

(Start: 221 @5180 has 188 MA's), (245, 5225), (284, 5309), (293, 5324), (309, 5357), (420, 5627), (440, 5669), (469, 5708), (475, 5726), (489, 5756), (640, 5954),

Gene: Ajay\_10 Start: 6063, Stop: 7031, Start Num: 163

Candidate Starts for Ajay\_10:

(Start: 163 @6063 has 304 MA's), (Start: 180 @6096 has 5 MA's), (Start: 190 @6114 has 1 MA's), (Start: 192 @6117 has 2 MA's), (335, 6384), (365, 6435), (368, 6447), (415, 6522), (442, 6585), (462, 6618), (469, 6630), (474, 6648), (484, 6666), (520, 6729), (551, 6810), (559, 6834), (561, 6837), (563, 6840), (567, 6849), (600, 6936), (614, 6981), (629, 7023),

Gene: Akhila\_25 Start: 23599, Stop: 24597, Start Num: 149

Candidate Starts for Akhila\_25:

(Start: 149 @23599 has 225 MA's), (Start: 192 @23674 has 2 MA's), (229, 23734), (239, 23755), (Start: 279 @23839 has 1 MA's), (306, 23890), (312, 23905), (365, 24001), (415, 24088), (422, 24112), (433, 24133), (454, 24172), (462, 24184), (484, 24232), (497, 24259), (511, 24283), (520, 24298), (559, 24406), (578, 24454), (604, 24523), (614, 24553),

Gene: Akoma\_47 Start: 41537, Stop: 42601, Start Num: 138

Candidate Starts for Akoma\_47:

(Start: 138 @41537 has 44 MA's), (173, 41600), (219, 41681), (252, 41747), (260, 41762), (269, 41774), (280, 41801), (311, 41858), (314, 41867), (391, 42014), (401, 42029), (422, 42083), (439, 42116), (463, 42155), (470, 42167), (512, 42248), (520, 42266), (523, 42269), (538, 42314), (578, 42425), (617, 42536), (626, 42557), (641, 42590),

Gene: Albee\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Albee\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (401, 6301), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Alberto7\_11 Start: 6186, Stop: 7166, Start Num: 164

Candidate Starts for Alberto7\_11:

(Start: 164 @6186 has 109 MA's), (Start: 166 @6189 has 14 MA's), (178, 6213), (Start: 190 @6234 has 1 MA's), (Start: 192 @6237 has 2 MA's), (330, 6486), (365, 6543), (416, 6627), (422, 6648), (437, 6675), (464, 6705), (474, 6732), (551, 6882), (598, 6993), (601, 7005), (604, 7017), (627, 7083),

Gene: Alexphander\_34 Start: 28281, Stop: 29282, Start Num: 149

Candidate Starts for Alexphander\_34:

(33, 27660), (39, 27738), (42, 27801), (47, 27840), (58, 27972), (62, 27993), (69, 28029), (107, 28182), (137, 28254), (Start: 149 @28281 has 225 MA's), (Start: 192 @28356 has 2 MA's), (210, 28389), (229, 28419), (239, 28440), (Start: 279 @28524 has 1 MA's), (292, 28548), (302, 28563), (306, 28575), (365, 28686), (423, 28800), (433, 28818), (454, 28857), (469, 28881), (484, 28917), (497, 28944), (520, 28983), (538, 29031), (559, 29091), (578, 29139), (585, 29151), (600, 29193), (601, 29196), (604, 29208), (614, 29238),

Gene: Alice\_238 Start: 141870, Stop: 142898, Start Num: 142

Candidate Starts for Alice\_238:

(Start: 142 @141870 has 200 MA's), (Start: 163 @141900 has 304 MA's), (Start: 192 @141954 has 2 MA's), (229, 142017), (239, 142038), (Start: 279 @142122 has 1 MA's), (302, 142164), (306, 142176), (312, 142191), (344, 142260), (365, 142287), (393, 142341), (411, 142386), (414, 142389), (449, 142467), (462, 142488), (520, 142599), (554, 142689), (559, 142707), (590, 142779), (601, 142812),

Gene: AlishaPH\_31 Start: 26453, Stop: 27325, Start Num: 221

Candidate Starts for AlishaPH\_31:

(76, 26123), (151, 26351), (195, 26426), (Start: 221 @26453 has 188 MA's), (Start: 227 @26465 has 1 MA's), (258, 26534), (275, 26561), (287, 26591), (293, 26600), (309, 26636), (313, 26645), (323, 26678), (331, 26696), (347, 26726), (379, 26786), (447, 26921), (469, 26948), (476, 26969), (487, 26993), (521, 27044), (578, 27146), (598, 27182), (604, 27206), (640, 27305), (643, 27314),

Gene: Alkhayr\_65 Start: 43133, Stop: 44173, Start Num: 148

Candidate Starts for Alkhayr\_65:

(Start: 148 @43133 has 26 MA's), (Start: 192 @43208 has 2 MA's), (229, 43289), (232, 43295), (239, 43310), (278, 43391), (Start: 279 @43394 has 1 MA's), (306, 43448), (312, 43463), (365, 43559), (385, 43598), (397, 43628), (411, 43658), (414, 43661), (425, 43694), (462, 43760), (479, 43799), (484, 43808), (497, 43835), (520, 43874), (589, 44048), (604, 44099),

Gene: AlleyCat\_31 Start: 27158, Stop: 27919, Start Num: 221

Candidate Starts for AlleyCat\_31:

(183, 27110), (Start: 221 @27158 has 188 MA's), (Start: 227 @27170 has 1 MA's), (229, 27176), (242, 27203), (258, 27239), (289, 27299), (293, 27305), (307, 27335), (309, 27341), (313, 27350), (323, 27383), (343, 27425), (345, 27428), (352, 27440), (370, 27476), (379, 27491), (395, 27527), (447, 27626), (469, 27653), (476, 27674), (578, 27737), (595, 27761), (601, 27785), (620, 27854), (640, 27899), (643, 27908),

Gene: AlpineSix\_32 Start: 27729, Stop: 28730, Start Num: 149

Candidate Starts for AlpineSix\_32:

(33, 27108), (39, 27186), (42, 27249), (47, 27288), (58, 27420), (62, 27441), (69, 27477), (107, 27630), (Start: 149 @27729 has 225 MA's), (Start: 163 @27750 has 304 MA's), (170, 27762), (Start: 192 @27804 has 2 MA's), (210, 27837), (229, 27867), (239, 27888), (Start: 279 @27972 has 1 MA's), (292, 27996), (302, 28011), (306, 28023), (365, 28134), (423, 28248), (433, 28266), (454, 28305), (469, 28329), (484, 28365), (497, 28392), (520, 28431), (559, 28539), (578, 28587), (585, 28599), (600, 28641), (601, 28644), (604, 28656), (614, 28686),

Gene: Alsfro\_14 Start: 6806, Stop: 7774, Start Num: 163

Candidate Starts for Alsfro\_14:

(Start: 163 @6806 has 304 MA's), (Start: 180 @6839 has 5 MA's), (Start: 190 @6857 has 1 MA's), (Start: 192 @6860 has 2 MA's), (335, 7127), (365, 7178), (368, 7190), (415, 7265), (442, 7328), (456, 7352), (474, 7391), (484, 7409), (520, 7472), (551, 7553), (559, 7577), (561, 7580), (563, 7583), (567, 7592), (600, 7679), (614, 7724), (629, 7766),

Gene: AltPhacts\_49 Start: 41685, Stop: 43040, Start Num: 82

Candidate Starts for AltPhacts\_49:

(Start: 82 @41685 has 255 MA's), (98, 41736), (108, 41769), (114, 41787), (168, 41898), (170, 41901), (Start: 180 @41916 has 5 MA's), (235, 42012), (251, 42051), (269, 42081), (284, 42117), (333, 42228), (345, 42258), (347, 42261), (379, 42327), (440, 42486), (469, 42534), (475, 42552), (498, 42600), (550, 42744), (571, 42804), (603, 42909), (637, 42996),

Gene: Altman\_11 Start: 6601, Stop: 7569, Start Num: 163

Candidate Starts for Altman\_11:

(Start: 163 @6601 has 304 MA's), (Start: 180 @6634 has 5 MA's), (Start: 190 @6652 has 1 MA's), (Start: 192 @6655 has 2 MA's), (335, 6922), (365, 6973), (368, 6985), (415, 7060), (442, 7123), (462, 7156), (469, 7168), (474, 7186), (484, 7204), (496, 7228), (520, 7267), (551, 7348), (559, 7372), (561, 7375), (563, 7378), (567, 7387), (600, 7474), (629, 7561),

Gene: Altwerkus\_48 Start: 41391, Stop: 42746, Start Num: 82

Candidate Starts for Altwerkus\_48:

(Start: 82 @41391 has 255 MA's), (98, 41442), (108, 41475), (168, 41604), (170, 41607), (Start: 180 @41622 has 5 MA's), (235, 41718), (251, 41757), (269, 41787), (284, 41823), (333, 41934), (345, 41964), (347, 41967), (379, 42033), (440, 42192), (469, 42240), (475, 42258), (498, 42306), (550, 42450), (571, 42510), (603, 42615), (637, 42702),

Gene: Alvin\_11 Start: 6274, Stop: 7242, Start Num: 163

Candidate Starts for Alvin\_11:

(Start: 163 @6274 has 304 MA's), (Start: 180 @6307 has 5 MA's), (Start: 190 @6325 has 1 MA's), (Start: 192 @6328 has 2 MA's), (335, 6595), (365, 6646), (368, 6658), (415, 6733), (442, 6796), (450, 6808), (462, 6829), (469, 6841), (474, 6859), (484, 6877), (496, 6901), (520, 6940), (551, 7021), (559, 7045), (561, 7048), (563, 7051), (567, 7060), (600, 7147), (614, 7192), (629, 7234),

Gene: Amao\_35 Start: 31062, Stop: 31919, Start Num: 198

Candidate Starts for Amao\_35:

(Start: 198 @31062 has 122 MA's), (220, 31101), (232, 31131), (242, 31152), (257, 31188), (275, 31218), (309, 31293), (334, 31341), (336, 31344), (345, 31368), (347, 31371), (356, 31386), (426, 31557), (487, 31671), (495, 31686), (498, 31692), (575, 31734), (576, 31737), (601, 31791), (624, 31869), (641, 31902),

Gene: Amataga\_253 Start: 143793, Stop: 144821, Start Num: 142

Candidate Starts for Amataga\_253:

(Start: 142 @143793 has 200 MA's), (Start: 163 @143823 has 304 MA's), (170, 143835), (Start: 192 @143877 has 2 MA's), (229, 143940), (239, 143961), (Start: 279 @144045 has 1 MA's), (302, 144087), (306, 144099), (312, 144114), (344, 144183), (365, 144210), (393, 144264), (411, 144309), (414, 144312), (449, 144390), (462, 144411), (520, 144522), (554, 144612), (559, 144630), (590, 144702), (601, 144735),

Gene: Amelie\_27 Start: 25978, Stop: 26736, Start Num: 221

Candidate Starts for Amelie\_27:

(151, 25876), (183, 25930), (195, 25951), (Start: 221 @25978 has 188 MA's), (242, 26023), (258, 26059), (289, 26119), (293, 26125), (307, 26155), (323, 26203), (343, 26245), (379, 26311), (395, 26347), (447, 26446), (469, 26473), (476, 26494), (480, 26500), (573, 26539), (576, 26551), (578,

26557), (595, 26581), (601, 26605), (640, 26716), (643, 26725),

Gene: AmericanBeauty\_38 Start: 31845, Stop: 32702, Start Num: 198

Candidate Starts for AmericanBeauty\_38:

(Start: 198 @31845 has 122 MA's), (220, 31884), (232, 31914), (242, 31935), (257, 31971), (275, 32001), (309, 32076), (334, 32124), (336, 32127), (345, 32151), (347, 32154), (356, 32169), (426, 32340), (487, 32454), (495, 32469), (498, 32475), (575, 32517), (576, 32520), (601, 32574), (624, 32652), (641, 32685),

Gene: Amgine\_29 Start: 26539, Stop: 27276, Start Num: 221

Candidate Starts for Amgine\_29:

(151, 26428), (Start: 162 @26449 has 2 MA's), (183, 26488), (195, 26509), (Start: 221 @26539 has 188 MA's), (Start: 227 @26551 has 1 MA's), (242, 26584), (258, 26620), (287, 26668), (293, 26677), (309, 26713), (313, 26722), (323, 26755), (379, 26863), (392, 26890), (436, 26977), (447, 26995), (462, 27010), (469, 27022), (476, 27043), (487, 27067), (573, 27079), (575, 27088), (578, 27097), (601, 27145), (640, 27256), (642, 27265),

Gene: Aminay\_31 Start: 27639, Stop: 28646, Start Num: 149

Candidate Starts for Aminay\_31:

(Start: 149 @27639 has 225 MA's), (Start: 192 @27714 has 2 MA's), (199, 27723), (229, 27777), (235, 27789), (239, 27798), (Start: 279 @27879 has 1 MA's), (302, 27921), (306, 27933), (312, 27948), (365, 28044), (437, 28185), (456, 28218), (474, 28257), (496, 28299), (510, 28323), (520, 28338), (567, 28461), (579, 28497), (600, 28548), (603, 28560), (614, 28593), (634, 28641),

Gene: Amochick\_33 Start: 28345, Stop: 29580, Start Num: 84

Candidate Starts for Amochick\_33:

(Start: 84 @28345 has 24 MA's), (110, 28438), (115, 28450), (122, 28471), (128, 28483), (136, 28495), (Start: 138 @28498 has 44 MA's), (Start: 180 @28579 has 5 MA's), (204, 28612), (235, 28672), (251, 28711), (255, 28720), (257, 28723), (269, 28741), (284, 28777), (309, 28825), (314, 28837), (318, 28843), (339, 28906), (342, 28909), (354, 28936), (361, 28948), (388, 29005), (403, 29050), (440, 29137), (447, 29149), (469, 29176), (476, 29197), (483, 29212), (522, 29266), (534, 29296), (553, 29329), (561, 29338), (564, 29344), (573, 29356), (575, 29365), (601, 29428), (620, 29497), (633, 29524),

Gene: Amohnition\_30 Start: 26969, Stop: 27709, Start Num: 221

Candidate Starts for Amohnition\_30:

(72, 26624), (151, 26870), (Start: 162 @26891 has 2 MA's), (183, 26924), (195, 26945), (Start: 221 @26969 has 188 MA's), (Start: 227 @26981 has 1 MA's), (239, 27008), (242, 27014), (287, 27098), (293, 27107), (300, 27119), (313, 27152), (379, 27293), (392, 27320), (447, 27428), (469, 27455), (476, 27476), (487, 27500), (573, 27512), (575, 27521), (601, 27578), (604, 27590), (640, 27689),

Gene: Amymech\_33 Start: 28339, Stop: 29574, Start Num: 84

Candidate Starts for Amymech\_33:

(Start: 84 @28339 has 24 MA's), (110, 28432), (122, 28465), (128, 28477), (136, 28489), (Start: 138 @28492 has 44 MA's), (170, 28555), (Start: 180 @28573 has 5 MA's), (204, 28606), (235, 28666), (251, 28705), (255, 28714), (257, 28717), (269, 28735), (284, 28771), (309, 28819), (314, 28831), (318, 28837), (339, 28900), (342, 28903), (354, 28930), (361, 28942), (403, 29044), (440, 29131), (469, 29170), (476, 29191), (522, 29260), (534, 29290), (553, 29323), (561, 29332), (564, 29338), (573, 29350), (575, 29359), (601, 29422), (620, 29491),

Gene: Anaya\_32 Start: 26479, Stop: 27351, Start Num: 221

Candidate Starts for Anaya\_32:

(195, 26452), (Start: 221 @26479 has 188 MA's), (Start: 227 @26491 has 1 MA's), (258, 26560), (275, 26587), (287, 26617), (293, 26626), (309, 26662), (313, 26671), (323, 26704), (331, 26722), (379, 26812), (447, 26947), (469, 26974), (476, 26995), (487, 27019), (521, 27070), (578, 27172), (598, 27208), (604, 27232), (640, 27331), (643, 27340),

Gene: Anderson\_49 Start: 41690, Stop: 43045, Start Num: 82

Candidate Starts for Anderson\_49:

(Start: 82 @41690 has 255 MA's), (98, 41741), (108, 41774), (168, 41903), (170, 41906), (Start: 180 @41921 has 5 MA's), (235, 42017), (251, 42056), (269, 42086), (284, 42122), (333, 42233), (345, 42263), (347, 42266), (379, 42332), (440, 42491), (469, 42539), (475, 42557), (498, 42605), (550, 42749), (571, 42809), (603, 42914), (637, 43001),

Gene: Andre\_52 Start: 41827, Stop: 43182, Start Num: 82

Candidate Starts for Andre\_52:

(Start: 82 @41827 has 255 MA's), (98, 41878), (108, 41911), (168, 42040), (170, 42043), (Start: 180 @42058 has 5 MA's), (235, 42154), (251, 42193), (269, 42223), (284, 42259), (333, 42370), (345, 42400), (347, 42403), (379, 42469), (440, 42628), (469, 42676), (475, 42694), (498, 42742), (550, 42886), (571, 42946), (603, 43051), (637, 43138),

Gene: Angel\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Angel\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (263, 25567), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: Angelica\_31 Start: 26428, Stop: 27282, Start Num: 221

Candidate Starts for Angelica\_31:

(76, 26098), (151, 26326), (195, 26401), (Start: 221 @26428 has 188 MA's), (Start: 227 @26440 has 1 MA's), (258, 26509), (275, 26536), (287, 26566), (293, 26575), (309, 26611), (313, 26620), (323, 26653), (331, 26671), (347, 26701), (379, 26761), (447, 26896), (469, 26923), (476, 26944), (487, 26968), (521, 27001), (578, 27103), (598, 27139), (604, 27163), (640, 27262), (643, 27271),

Gene: Anglerfish\_10 Start: 5635, Stop: 6603, Start Num: 163

Candidate Starts for Anglerfish\_10:

(Start: 163 @5635 has 304 MA's), (Start: 180 @5668 has 5 MA's), (Start: 190 @5686 has 1 MA's), (Start: 192 @5689 has 2 MA's), (335, 5956), (365, 6007), (368, 6019), (415, 6094), (442, 6157), (450, 6169), (462, 6190), (469, 6202), (474, 6220), (484, 6238), (496, 6262), (520, 6301), (551, 6382), (559, 6406), (561, 6409), (563, 6412), (567, 6421), (600, 6508), (629, 6595),

Gene: AnnaL29\_14 Start: 8319, Stop: 9296, Start Num: 163

Candidate Starts for AnnaL29\_14:

(135, 8274), (Start: 163 @8319 has 304 MA's), (Start: 192 @8373 has 2 MA's), (312, 8562), (325, 8598), (330, 8610), (365, 8667), (382, 8703), (415, 8751), (430, 8790), (469, 8859), (474, 8877), (497, 8922), (507, 8940), (528, 8982), (538, 9030), (549, 9057), (554, 9072), (561, 9093), (574, 9129), (575, 9132), (595, 9174), (597, 9183),

Gene: Annihilator\_28 Start: 25192, Stop: 26400, Start Num: 88

Candidate Starts for Annihilator\_28:

(65, 25099), (Start: 88 @25192 has 62 MA's), (154, 25366), (202, 25438), (251, 25537), (255, 25546), (270, 25570), (275, 25579), (284, 25603), (295, 25624), (309, 25651), (314, 25663), (342, 25735), (361, 25774), (440, 25963), (459, 25987), (469, 26002), (476, 26023), (498, 26068), (500, 26071), (534, 26122),

Gene: Annyong\_10 Start: 5882, Stop: 6862, Start Num: 164

Candidate Starts for Annyong\_10:

(Start: 164 @5882 has 109 MA's), (Start: 166 @5885 has 14 MA's), (178, 5909), (Start: 190 @5930 has 1 MA's), (Start: 192 @5933 has 2 MA's), (330, 6182), (365, 6239), (401, 6302), (416, 6323), (422, 6344), (437, 6371), (464, 6401), (474, 6428), (551, 6578), (598, 6689), (601, 6701), (604, 6713), (627, 6779),

Gene: Anselm\_11 Start: 6531, Stop: 7523, Start Num: 163

Candidate Starts for Anselm\_11:

(Start: 149 @6510 has 225 MA's), (Start: 163 @6531 has 304 MA's), (Start: 180 @6564 has 5 MA's), (Start: 190 @6582 has 1 MA's), (Start: 192 @6585 has 2 MA's), (212, 6618), (223, 6633), (299, 6753), (302, 6759), (312, 6786), (338, 6846), (365, 6891), (437, 7023), (467, 7062), (494, 7110), (540, 7191), (555, 7233), (588, 7320), (601, 7356), (608, 7380), (620, 7422), (624, 7434), (651, 7509),

Gene: Antonia\_48 Start: 41276, Stop: 42631, Start Num: 82

Candidate Starts for Antonia\_48:

(Start: 82 @41276 has 255 MA's), (98, 41327), (108, 41360), (168, 41489), (170, 41492), (Start: 180 @41507 has 5 MA's), (235, 41603), (251, 41642), (269, 41672), (284, 41708), (320, 41783), (333, 41819), (345, 41849), (347, 41852), (379, 41918), (440, 42077), (469, 42125), (475, 42143), (498, 42191), (550, 42335), (571, 42395), (603, 42500), (637, 42587),

Gene: Antsirabe\_28 Start: 26892, Stop: 28115, Start Num: 88

Candidate Starts for Antsirabe\_28:

(Start: 88 @26892 has 62 MA's), (154, 27066), (170, 27096), (202, 27138), (235, 27210), (251, 27249), (275, 27291), (284, 27315), (309, 27363), (320, 27387), (332, 27426), (342, 27447), (361, 27486), (367, 27504), (395, 27564), (440, 27675), (469, 27714), (476, 27735), (500, 27783), (584, 27927), (639, 28077),

Gene: Anubis\_14 Start: 5848, Stop: 6813, Start Num: 153

Candidate Starts for Anubis\_14:

(Start: 153 @5848 has 92 MA's), (Start: 159 @5860 has 1 MA's), (Start: 180 @5893 has 5 MA's), (Start: 192 @5914 has 2 MA's), (312, 6124), (365, 6229), (422, 6325), (430, 6340), (439, 6358), (467, 6406), (469, 6409), (470, 6412), (474, 6427), (516, 6511), (538, 6568), (561, 6631), (575, 6670), (626, 6802),

Gene: Apizium\_49 Start: 41591, Stop: 42946, Start Num: 82

Candidate Starts for Apizium\_49:

(Start: 82 @41591 has 255 MA's), (98, 41642), (108, 41675), (168, 41804), (170, 41807), (Start: 180 @41822 has 5 MA's), (235, 41918), (251, 41957), (269, 41987), (284, 42023), (333, 42134), (345, 42164), (347, 42167), (379, 42233), (440, 42392), (469, 42440), (475, 42458), (498, 42506), (550, 42650), (571, 42710), (603, 42815), (637, 42902),

Gene: Apocalypse\_31 Start: 26431, Stop: 27303, Start Num: 221

Candidate Starts for Apocalypse\_31:

(195, 26404), (Start: 221 @26431 has 188 MA's), (Start: 227 @26443 has 1 MA's), (258, 26512), (275, 26539), (287, 26569), (293, 26578), (309, 26614), (313, 26623), (323, 26656), (331, 26674), (379, 26764), (447, 26899), (469, 26926), (476, 26947), (487, 26971), (521, 27022), (578, 27124), (598, 27160), (604, 27184), (640, 27283), (643, 27292),

Gene: Applejack\_10 Start: 6001, Stop: 6969, Start Num: 163

Candidate Starts for Applejack\_10:



(Start: 163 @6001 has 304 MA's), (Start: 180 @6034 has 5 MA's), (Start: 190 @6052 has 1 MA's), (Start: 192 @6055 has 2 MA's), (335, 6322), (365, 6373), (368, 6385), (415, 6460), (442, 6523), (462, 6556), (469, 6568), (474, 6586), (484, 6604), (496, 6628), (520, 6667), (551, 6748), (559, 6772), (561, 6775), (563, 6778), (567, 6787), (600, 6874), (629, 6961),

Gene: Appletree2\_26 Start: 25490, Stop: 26521, Start Num: 142

Candidate Starts for Appletree2\_26:

(Start: 142 @25490 has 200 MA's), (236, 25646), (247, 25670), (251, 25682), (261, 25700), (272, 25718), (278, 25736), (281, 25742), (286, 25751), (Start: 294 @25766 has 16 MA's), (303, 25781), (321, 25829), (330, 25853), (365, 25910), (385, 25949), (425, 26027), (430, 26036), (431, 26039), (439, 26054), (467, 26108), (474, 26129), (482, 26144), (526, 26228), (537, 26258), (561, 26327), (567, 26339), (575, 26363), (581, 26381), (585, 26384), (590, 26396), (592, 26399), (601, 26429), (604, 26441),

Gene: Aragog\_8 Start: 5463, Stop: 6272, Start Num: 221

Candidate Starts for Aragog\_8:

(Start: 221 @5463 has 188 MA's), (251, 5526), (255, 5535), (269, 5556), (284, 5592), (309, 5640), (329, 5697), (339, 5721), (420, 5910), (440, 5952), (475, 6009), (645, 6258),

Gene: Arcanine\_10 Start: 5601, Stop: 6569, Start Num: 163

Candidate Starts for Arcanine\_10:

(Start: 163 @5601 has 304 MA's), (Start: 180 @5634 has 5 MA's), (Start: 190 @5652 has 1 MA's), (Start: 192 @5655 has 2 MA's), (335, 5922), (365, 5973), (368, 5985), (415, 6060), (442, 6123), (450, 6135), (462, 6156), (469, 6168), (474, 6186), (484, 6204), (496, 6228), (520, 6267), (551, 6348), (559, 6372), (561, 6375), (563, 6378), (567, 6387), (600, 6474), (629, 6561),

Gene: ArcherNM\_13 Start: 8227, Stop: 9204, Start Num: 163

Candidate Starts for ArcherNM\_13:

(Start: 163 @8227 has 304 MA's), (Start: 192 @8281 has 2 MA's), (226, 8320), (312, 8470), (325, 8506), (330, 8518), (365, 8575), (382, 8611), (415, 8659), (430, 8698), (469, 8767), (474, 8785), (507, 8848), (528, 8890), (538, 8938), (549, 8965), (554, 8980), (561, 9001), (574, 9037), (595, 9082), (597, 9091), (603, 9115),

Gene: ArcherS7\_253 Start: 145538, Stop: 146566, Start Num: 142

Candidate Starts for ArcherS7\_253:

(Start: 142 @145538 has 200 MA's), (Start: 163 @145568 has 304 MA's), (170, 145580), (Start: 192 @145622 has 2 MA's), (229, 145685), (239, 145706), (Start: 279 @145790 has 1 MA's), (302, 145832), (306, 145844), (312, 145859), (344, 145928), (365, 145955), (393, 146009), (411, 146054), (414, 146057), (449, 146135), (462, 146156), (520, 146267), (554, 146357), (559, 146375), (590, 146447), (601, 146480),

Gene: Archetta\_8 Start: 5172, Stop: 5981, Start Num: 221

Candidate Starts for Archetta\_8:

(Start: 221 @5172 has 188 MA's), (251, 5235), (255, 5244), (269, 5265), (284, 5301), (309, 5349), (329, 5406), (339, 5430), (440, 5661), (475, 5718), (645, 5967),

Gene: Archie\_28 Start: 26734, Stop: 27762, Start Num: 142

Candidate Starts for Archie\_28:

(Start: 142 @26734 has 200 MA's), (231, 26878), (233, 26884), (Start: 288 @26998 has 1 MA's), (291, 27004), (301, 27022), (330, 27097), (365, 27154), (422, 27265), (425, 27271), (430, 27280), (431, 27283), (439, 27298), (474, 27373), (537, 27502), (548, 27529), (557, 27556), (561, 27571), (567, 27583), (595, 27649), (604, 27685),

Gene: ArcusAngelus\_31 Start: 28050, Stop: 29066, Start Num: 149

Candidate Starts for ArcusAngelus\_31:

(74, 27819), (75, 27822), (83, 27870), (126, 28005), (132, 28014), (Start: 149 @28050 has 225 MA's), (Start: 221 @28182 has 188 MA's), (229, 28203), (239, 28224), (251, 28254), (259, 28266), (Start: 279 @28308 has 1 MA's), (306, 28359), (365, 28470), (423, 28584), (433, 28602), (454, 28641), (469, 28665), (484, 28701), (497, 28728), (520, 28767), (559, 28875), (578, 28923), (585, 28935), (601, 28980), (604, 28992), (614, 29022),

Gene: Ardmore\_30 Start: 27516, Stop: 28514, Start Num: 149

Candidate Starts for Ardmore\_30:

(Start: 149 @27516 has 225 MA's), (Start: 192 @27591 has 2 MA's), (229, 27651), (239, 27672), (Start: 279 @27756 has 1 MA's), (306, 27807), (312, 27822), (365, 27918), (422, 28029), (433, 28050), (454, 28089), (462, 28101), (484, 28149), (497, 28176), (511, 28200), (520, 28215), (559, 28323), (578, 28371), (604, 28440), (614, 28470),

Gene: Argent26\_37 Start: 31848, Stop: 32705, Start Num: 198

Candidate Starts for Argent26\_37:

(Start: 198 @31848 has 122 MA's), (220, 31887), (232, 31917), (242, 31938), (257, 31974), (275, 32004), (309, 32079), (334, 32127), (336, 32130), (345, 32154), (347, 32157), (356, 32172), (426, 32343), (487, 32457), (495, 32472), (498, 32478), (575, 32520), (576, 32523), (601, 32577), (624, 32655), (641, 32688),

Gene: Arib1\_27 Start: 24058, Stop: 25224, Start Num: 102

Candidate Starts for Arib1\_27:

(Start: 102 @24058 has 88 MA's), (123, 24115), (168, 24202), (Start: 198 @24247 has 122 MA's), (235, 24322), (245, 24343), (284, 24427), (305, 24466), (333, 24532), (345, 24562), (359, 24583), (379, 24628), (417, 24724), (434, 24763), (440, 24778), (469, 24817), (510, 24904), (527, 24922), (530, 24928), (553, 24976), (571, 24997), (598, 25069), (620, 25144),

Gene: Ariel\_48 Start: 38682, Stop: 39686, Start Num: 100

Candidate Starts for Ariel\_48:

(Start: 100 @38682 has 10 MA's), (117, 38736), (141, 38787), (184, 38859), (232, 38934), (293, 39048), (300, 39060), (313, 39093), (345, 39162), (352, 39174), (363, 39186), (364, 39189), (384, 39234), (392, 39252), (469, 39414), (473, 39429), (478, 39438), (637, 39639),

Gene: Arlo\_9 Start: 5626, Stop: 6594, Start Num: 163

Candidate Starts for Arlo\_9:

(Start: 163 @5626 has 304 MA's), (Start: 180 @5659 has 5 MA's), (Start: 190 @5677 has 1 MA's), (Start: 192 @5680 has 2 MA's), (335, 5947), (365, 5998), (368, 6010), (415, 6085), (442, 6148), (450, 6160), (462, 6181), (469, 6193), (474, 6211), (484, 6229), (496, 6253), (520, 6292), (551, 6373), (559, 6397), (561, 6400), (563, 6403), (567, 6412), (600, 6499), (607, 6523), (614, 6544), (629, 6586),

Gene: Aroostook\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Aroostook\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (469, 26011), (476, 26032), (495, 26071), (498, 26077),

Gene: Arturo\_9 Start: 5992, Stop: 6972, Start Num: 164

Candidate Starts for Arturo\_9:

(Start: 164 @5992 has 109 MA's), (Start: 166 @5995 has 14 MA's), (178, 6019), (Start: 190 @6040 has 1 MA's), (Start: 192 @6043 has 2 MA's), (330, 6292), (365, 6349), (401, 6412), (416, 6433), (422, 6454), (437, 6481), (464, 6511), (474, 6538), (551, 6688), (601, 6811), (604, 6823), (627, 6889),

Gene: Asayake\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for Asayake\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: Ashballer\_8 Start: 5504, Stop: 6472, Start Num: 163

Candidate Starts for Ashballer\_8:

(Start: 163 @5504 has 304 MA's), (Start: 180 @5537 has 5 MA's), (Start: 190 @5555 has 1 MA's), (Start: 192 @5558 has 2 MA's), (335, 5825), (365, 5876), (368, 5888), (415, 5963), (442, 6026), (450, 6038), (462, 6059), (469, 6071), (474, 6089), (484, 6107), (496, 6131), (520, 6170), (551, 6251), (559, 6275), (561, 6278), (563, 6281), (567, 6290), (600, 6377), (629, 6464),

Gene: Ashraf\_49 Start: 41392, Stop: 42747, Start Num: 82

Candidate Starts for Ashraf\_49:

(Start: 82 @41392 has 255 MA's), (98, 41443), (108, 41476), (168, 41605), (170, 41608), (Start: 180 @41623 has 5 MA's), (235, 41719), (251, 41758), (269, 41788), (284, 41824), (333, 41935), (345, 41965), (347, 41968), (379, 42034), (440, 42193), (469, 42241), (475, 42259), (498, 42307), (550, 42451), (571, 42511), (603, 42616), (637, 42703),

Gene: Ashwin\_69 Start: 43903, Stop: 44943, Start Num: 148

Candidate Starts for Ashwin\_69:

(Start: 148 @43903 has 26 MA's), (Start: 192 @43978 has 2 MA's), (229, 44059), (232, 44065), (239, 44080), (278, 44161), (Start: 279 @44164 has 1 MA's), (306, 44218), (312, 44233), (365, 44329), (385, 44368), (397, 44398), (411, 44428), (414, 44431), (425, 44464), (462, 44530), (479, 44569), (484, 44578), (497, 44605), (520, 44644), (589, 44818), (604, 44869),

Gene: Asriel\_34 Start: 30719, Stop: 31576, Start Num: 198

Candidate Starts for Asriel\_34:

(Start: 198 @30719 has 122 MA's), (220, 30758), (232, 30788), (242, 30809), (257, 30845), (275, 30875), (309, 30950), (334, 30998), (336, 31001), (345, 31025), (347, 31028), (356, 31043), (426, 31214), (487, 31328), (495, 31343), (498, 31349), (575, 31391), (576, 31394), (601, 31448), (624, 31526), (641, 31559),

Gene: Asterius\_249 Start: 144651, Stop: 145679, Start Num: 142

Candidate Starts for Asterius\_249:

(Start: 142 @144651 has 200 MA's), (Start: 163 @144681 has 304 MA's), (170, 144693), (Start: 192 @144735 has 2 MA's), (229, 144798), (239, 144819), (Start: 279 @144903 has 1 MA's), (302, 144945), (306, 144957), (312, 144972), (344, 145041), (365, 145068), (393, 145122), (411, 145167), (414, 145170), (449, 145248), (462, 145269), (520, 145380), (554, 145470), (559, 145488), (590, 145560), (601, 145593),

Gene: Astraea\_248 Start: 143846, Stop: 144874, Start Num: 142

Candidate Starts for Astraea\_248:

(Start: 142 @143846 has 200 MA's), (Start: 163 @143876 has 304 MA's), (170, 143888), (Start: 192 @143930 has 2 MA's), (229, 143993), (239, 144014), (Start: 279 @144098 has 1 MA's), (302, 144140), (306, 144152), (312, 144167), (344, 144236), (365, 144263), (393, 144317), (411, 144362), (414, 144365), (449, 144443), (462, 144464), (520, 144575), (554, 144665), (559, 144683), (590, 144755), (601, 144788),

Gene: Astro\_8 Start: 4873, Stop: 5682, Start Num: 221

Candidate Starts for Astro\_8:

(Start: 221 @4873 has 188 MA's), (263, 4957), (284, 5002), (314, 5062), (337, 5128), (440, 5362), (469, 5401), (475, 5419), (490, 5452), (500, 5470), (578, 5515), (602, 5539), (645, 5668),

Gene: Atcoo\_27 Start: 24541, Stop: 25707, Start Num: 102

Candidate Starts for Atcoo\_27:

(9, 23575), (14, 23698), (15, 23788), (36, 24055), (41, 24160), (Start: 102 @24541 has 88 MA's), (106, 24550), (122, 24595), (123, 24598), (168, 24685), (Start: 198 @24730 has 122 MA's), (235, 24805), (245, 24826), (251, 24844), (284, 24910), (305, 24949), (333, 25015), (345, 25045), (359, 25066), (379, 25111), (417, 25207), (434, 25246), (440, 25261), (469, 25300), (508, 25384), (510, 25387), (527, 25405), (530, 25411), (553, 25459), (578, 25504), (598, 25552), (620, 25627),

Gene: Athena\_48 Start: 42284, Stop: 43348, Start Num: 138

Candidate Starts for Athena\_48:

(Start: 138 @42284 has 44 MA's), (173, 42347), (219, 42428), (252, 42494), (260, 42509), (269, 42521), (280, 42548), (311, 42605), (314, 42614), (391, 42761), (401, 42776), (422, 42830), (439, 42863), (463, 42902), (470, 42914), (512, 42995), (520, 43013), (523, 43016), (578, 43172), (617, 43283), (626, 43304), (641, 43337),

Gene: Atiba\_31 Start: 26423, Stop: 27295, Start Num: 221

Candidate Starts for Atiba\_31:

(195, 26396), (Start: 221 @26423 has 188 MA's), (Start: 227 @26435 has 1 MA's), (258, 26504), (275, 26531), (287, 26561), (293, 26570), (309, 26606), (313, 26615), (323, 26648), (331, 26666), (347, 26696), (378, 26753), (379, 26756), (447, 26891), (469, 26918), (476, 26939), (487, 26963), (521, 27014), (578, 27116), (598, 27152), (604, 27176), (640, 27275), (643, 27284),

Gene: Atkinbua\_10 Start: 5646, Stop: 6614, Start Num: 163

Candidate Starts for Atkinbua\_10:

(Start: 163 @5646 has 304 MA's), (Start: 180 @5679 has 5 MA's), (Start: 190 @5697 has 1 MA's), (Start: 192 @5700 has 2 MA's), (335, 5967), (365, 6018), (368, 6030), (415, 6105), (462, 6201), (474, 6231), (484, 6249), (496, 6273), (520, 6312), (551, 6393), (559, 6417), (561, 6420), (563, 6423), (567, 6432), (600, 6519), (629, 6606),

Gene: Atlantean\_252 Start: 143793, Stop: 144821, Start Num: 142

Candidate Starts for Atlantean\_252:

(Start: 142 @143793 has 200 MA's), (Start: 163 @143823 has 304 MA's), (170, 143835), (Start: 192 @143877 has 2 MA's), (229, 143940), (239, 143961), (Start: 279 @144045 has 1 MA's), (302, 144087), (306, 144099), (312, 144114), (344, 144183), (365, 144210), (393, 144264), (411, 144309), (414, 144312), (449, 144390), (462, 144411), (520, 144522), (554, 144612), (559, 144630), (590, 144702), (601, 144735),

Gene: Aubs\_32 Start: 27847, Stop: 28848, Start Num: 149

Candidate Starts for Aubs\_32:

(Start: 149 @27847 has 225 MA's), (Start: 192 @27922 has 2 MA's), (210, 27955), (229, 27985), (239, 28006), (Start: 279 @28090 has 1 MA's), (306, 28141), (312, 28156), (365, 28252), (422, 28363), (433, 28384), (454, 28423), (462, 28435), (484, 28483), (497, 28510), (511, 28534), (520, 28549), (559, 28657), (578, 28705), (604, 28774), (614, 28804),

Gene: Audrey\_47 Start: 41532, Stop: 42596, Start Num: 138

Candidate Starts for Audrey\_47:

(Start: 138 @41532 has 44 MA's), (173, 41595), (219, 41676), (252, 41742), (260, 41757), (269, 41769), (280, 41796), (311, 41853), (314, 41862), (391, 42009), (401, 42024), (422, 42078), (439, 42111), (463, 42150), (470, 42162), (512, 42243), (520, 42261), (523, 42264), (578, 42420), (617,

42531), (626, 42552), (641, 42585),

Gene: Audrick\_255 Start: 143683, Stop: 144711, Start Num: 142

Candidate Starts for Audrick\_255:

(Start: 142 @143683 has 200 MA's), (Start: 163 @143713 has 304 MA's), (170, 143725), (Start: 192 @143767 has 2 MA's), (229, 143830), (239, 143851), (Start: 279 @143935 has 1 MA's), (302, 143977), (306, 143989), (312, 144004), (344, 144073), (365, 144100), (393, 144154), (411, 144199), (414, 144202), (449, 144280), (462, 144301), (520, 144412), (554, 144502), (559, 144520), (590, 144592), (601, 144625),

Gene: AugsMagnumOpus\_14 Start: 5954, Stop: 6919, Start Num: 153

Candidate Starts for AugsMagnumOpus\_14:

(Start: 153 @5954 has 92 MA's), (Start: 180 @5999 has 5 MA's), (Start: 192 @6020 has 2 MA's), (256, 6140), (330, 6278), (365, 6335), (371, 6350), (422, 6431), (430, 6446), (439, 6464), (469, 6515), (474, 6533), (497, 6578), (538, 6674), (561, 6737), (575, 6776), (597, 6827),

Gene: Auspice\_38 Start: 31794, Stop: 32765, Start Num: 169

Candidate Starts for Auspice\_38:

(Start: 169 @31794 has 13 MA's), (183, 31818), (191, 31833), (266, 31971), (281, 31998), (300, 32016), (305, 32028), (308, 32037), (325, 32082), (330, 32094), (346, 32121), (365, 32148), (368, 32160), (397, 32205), (410, 32232), (423, 32262), (428, 32271), (430, 32274), (475, 32361), (485, 32376), (551, 32529), (552, 32532), (574, 32592), (578, 32604), (581, 32613), (598, 32649), (602, 32664), (618, 32703), (632, 32736),

Gene: Ava3\_249 Start: 144253, Stop: 145281, Start Num: 142

Candidate Starts for Ava3\_249:

(Start: 142 @144253 has 200 MA's), (Start: 163 @144283 has 304 MA's), (170, 144295), (Start: 192 @144337 has 2 MA's), (229, 144400), (239, 144421), (Start: 279 @144505 has 1 MA's), (302, 144547), (306, 144559), (312, 144574), (344, 144643), (365, 144670), (393, 144724), (411, 144769), (414, 144772), (449, 144850), (462, 144871), (520, 144982), (554, 145072), (559, 145090), (590, 145162), (601, 145195),

Gene: AvadaKedavra\_26 Start: 25557, Stop: 26588, Start Num: 142

Candidate Starts for AvadaKedavra\_26:

(Start: 142 @25557 has 200 MA's), (235, 25710), (236, 25713), (247, 25737), (251, 25749), (261, 25767), (272, 25785), (278, 25803), (281, 25809), (286, 25818), (303, 25848), (330, 25920), (365, 25977), (385, 26016), (425, 26094), (430, 26103), (431, 26106), (439, 26121), (467, 26175), (474, 26196), (482, 26211), (526, 26295), (537, 26325), (561, 26394), (567, 26406), (575, 26430), (581, 26448), (585, 26451), (590, 26463), (592, 26466), (601, 26496), (604, 26508),

Gene: Avani\_36 Start: 26807, Stop: 27880, Start Num: 149

Candidate Starts for Avani\_36:

(Start: 149 @26807 has 225 MA's), (Start: 166 @26834 has 14 MA's), (182, 26864), (235, 26957), (239, 26966), (244, 26975), (274, 27032), (297, 27077), (311, 27110), (314, 27119), (335, 27170), (358, 27212), (367, 27236), (369, 27245), (377, 27257), (391, 27287), (403, 27317), (404, 27320), (422, 27377), (423, 27380), (431, 27395), (437, 27407), (442, 27416), (455, 27440), (470, 27464), (512, 27545), (538, 27620), (579, 27731), (598, 27773), (599, 27776), (600, 27782), (604, 27797), (627, 27863),

Gene: AvatarAhPeg\_10 Start: 5845, Stop: 6825, Start Num: 164

Candidate Starts for AvatarAhPeg\_10:

(Start: 164 @5845 has 109 MA's), (178, 5872), (Start: 180 @5875 has 5 MA's), (Start: 190 @5893 has 1 MA's), (Start: 192 @5896 has 2 MA's), (330, 6145), (365, 6202), (368, 6214), (401, 6265), (416,

6286), (437, 6334), (474, 6391), (551, 6541), (601, 6664), (604, 6676), (627, 6742), (652, 6817),

Gene: Avle17\_10 Start: 5884, Stop: 6861, Start Num: 166

Candidate Starts for Avle17\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Avrafan\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Avrafan\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: Awesomesauce\_32 Start: 27402, Stop: 28403, Start Num: 149

Candidate Starts for Awesomesauce\_32:

(69, 27141), (107, 27303), (Start: 149 @27402 has 225 MA's), (Start: 192 @27477 has 2 MA's), (229, 27540), (239, 27561), (Start: 279 @27645 has 1 MA's), (292, 27669), (302, 27684), (306, 27696), (365, 27807), (423, 27921), (433, 27939), (454, 27978), (469, 28002), (484, 28038), (497, 28065), (520, 28104), (559, 28212), (578, 28260), (585, 28272), (604, 28329), (614, 28359),

Gene: Aziz\_43 Start: 32938, Stop: 33918, Start Num: 167

Candidate Starts for Aziz\_43:

(Start: 167 @32938 has 7 MA's), (183, 32965), (237, 33061), (250, 33088), (266, 33118), (305, 33175), (308, 33184), (365, 33295), (428, 33418), (430, 33421), (475, 33511), (485, 33526), (551, 33679), (552, 33682), (557, 33691), (559, 33703), (564, 33712), (572, 33733), (578, 33754), (606, 33829),

Gene: Azrael100\_51 Start: 38380, Stop: 39345, Start Num: 149

Candidate Starts for Azrael100\_51:

(Start: 149 @38380 has 225 MA's), (185, 38443), (231, 38503), (238, 38518), (239, 38521), (246, 38533), (249, 38539), (269, 38575), (270, 38578), (306, 38650), (312, 38665), (314, 38671), (344, 38734), (365, 38764), (381, 38797), (422, 38860), (423, 38863), (442, 38902), (462, 38935), (474, 38962), (479, 38971), (496, 39004), (557, 39139), (561, 39154), (578, 39199), (597, 39241), (604, 39268), (617, 39310),

Gene: B1\_08 Start: 5376, Stop: 6116, Start Num: 285

Candidate Starts for B1\_08:

(Start: 285 @5376 has 17 MA's), (330, 5463), (365, 5520), (368, 5532), (371, 5535), (385, 5559), (400, 5574), (422, 5622), (425, 5628), (439, 5655), (474, 5724), (512, 5796), (535, 5838), (538, 5865), (549, 5892), (559, 5925), (561, 5928), (575, 5967), (598, 6021), (631, 6108),

Gene: BAKA\_53 Start: 42677, Stop: 43549, Start Num: 89

Candidate Starts for BAKA\_53:

(Start: 89 @42677 has 30 MA's), (Start: 97 @42704 has 1 MA's), (115, 42764), (Start: 138 @42812 has 44 MA's), (174, 42878), (189, 42899), (206, 42920), (233, 42974), (274, 43055), (403, 43334), (405, 43337), (413, 43361), (424, 43397), (432, 43412), (438, 43424), (444, 43445),

Gene: BEEST\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for BEEST\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323,

26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: BGlluviae\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for BGlluviae\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: BK1\_08 Start: 5593, Stop: 6561, Start Num: 163

Candidate Starts for BK1\_08:

(Start: 163 @5593 has 304 MA's), (Start: 180 @5626 has 5 MA's), (Start: 190 @5644 has 1 MA's), (Start: 192 @5647 has 2 MA's), (302, 5836), (335, 5914), (344, 5932), (365, 5965), (368, 5977), (415, 6052), (442, 6115), (456, 6139), (474, 6178), (484, 6196), (520, 6259), (551, 6340), (559, 6364), (561, 6367), (563, 6370), (567, 6379), (600, 6466), (607, 6490), (614, 6511), (629, 6553),

Gene: BPBiebs31\_11 Start: 6265, Stop: 7233, Start Num: 163

Candidate Starts for BPBiebs31\_11:

(Start: 163 @6265 has 304 MA's), (Start: 180 @6298 has 5 MA's), (Start: 190 @6316 has 1 MA's), (Start: 192 @6319 has 2 MA's), (335, 6586), (365, 6637), (368, 6649), (415, 6724), (442, 6787), (450, 6799), (462, 6820), (474, 6850), (484, 6868), (496, 6892), (520, 6931), (551, 7012), (559, 7036), (561, 7039), (563, 7042), (567, 7051), (600, 7138), (614, 7183), (629, 7225),

Gene: BPs\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for BPs\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: BQuat\_28 Start: 25192, Stop: 26400, Start Num: 88

Candidate Starts for BQuat\_28:

(65, 25099), (Start: 88 @25192 has 62 MA's), (154, 25366), (202, 25438), (251, 25537), (255, 25546), (270, 25570), (275, 25579), (284, 25603), (295, 25624), (309, 25651), (314, 25663), (342, 25735), (361, 25774), (440, 25963), (459, 25987), (469, 26002), (476, 26023), (498, 26068), (500, 26071), (534, 26122),

Gene: BaboJay\_34 Start: 31408, Stop: 32265, Start Num: 198

Candidate Starts for BaboJay\_34:

(Start: 198 @31408 has 122 MA's), (220, 31447), (232, 31477), (242, 31498), (257, 31534), (275, 31564), (309, 31639), (334, 31687), (336, 31690), (345, 31714), (347, 31717), (356, 31732), (426, 31903), (487, 32017), (495, 32032), (498, 32038), (575, 32080), (576, 32083), (601, 32137), (624, 32215), (641, 32248),

Gene: Babsiella\_27 Start: 24108, Stop: 25286, Start Num: 102

Candidate Starts for Babsiella\_27:

(Start: 102 @24108 has 88 MA's), (117, 24150), (168, 24255), (Start: 198 @24309 has 122 MA's), (235, 24384), (245, 24405), (284, 24489), (305, 24528), (333, 24594), (345, 24624), (359, 24645), (379, 24690), (417, 24786), (434, 24825), (440, 24840), (469, 24879), (510, 24966), (527, 24984), (530, 24990), (553, 25038), (571, 25059), (598, 25131), (620, 25206), (640, 25248), (645, 25269), (648, 25275),

Gene: Baby16\_10 Start: 5890, Stop: 6870, Start Num: 164

Candidate Starts for Baby16\_10:

(Start: 164 @5890 has 109 MA's), (Start: 166 @5893 has 14 MA's), (178, 5917), (Start: 190 @5938 has 1 MA's), (Start: 192 @5941 has 2 MA's), (330, 6190), (365, 6247), (416, 6331), (422, 6352), (437, 6379), (464, 6409), (474, 6436), (551, 6586), (598, 6697), (601, 6709), (604, 6721), (627, 6787),

Gene: BabyBack\_13 Start: 8108, Stop: 9085, Start Num: 163

Candidate Starts for BabyBack\_13:

(Start: 163 @8108 has 304 MA's), (178, 8138), (Start: 190 @8159 has 1 MA's), (Start: 192 @8162 has 2 MA's), (212, 8195), (325, 8399), (330, 8411), (365, 8468), (368, 8480), (435, 8597), (474, 8657), (551, 8804), (604, 8939), (627, 9005),

Gene: BabyRay\_10 Start: 5972, Stop: 6706, Start Num: 285

Candidate Starts for BabyRay\_10:

(Start: 285 @5972 has 17 MA's), (330, 6059), (365, 6116), (368, 6128), (371, 6131), (385, 6155), (400, 6170), (422, 6218), (425, 6224), (439, 6251), (474, 6320), (512, 6392), (535, 6434), (538, 6461), (549, 6488), (559, 6521), (561, 6524), (575, 6563), (622, 6686),

Gene: Babyland\_255 Start: 144570, Stop: 145598, Start Num: 142

Candidate Starts for Babyland\_255:

(Start: 142 @144570 has 200 MA's), (Start: 163 @144600 has 304 MA's), (170, 144612), (Start: 192 @144654 has 2 MA's), (229, 144717), (239, 144738), (Start: 279 @144822 has 1 MA's), (302, 144864), (306, 144876), (312, 144891), (344, 144960), (365, 144987), (393, 145041), (411, 145086), (414, 145089), (449, 145167), (462, 145188), (520, 145299), (554, 145389), (559, 145407), (590, 145479), (601, 145512),

Gene: BackyardAgain\_247 Start: 141943, Stop: 142971, Start Num: 142

Candidate Starts for BackyardAgain\_247:

(Start: 142 @141943 has 200 MA's), (Start: 163 @141973 has 304 MA's), (170, 141985), (Start: 192 @142027 has 2 MA's), (229, 142090), (239, 142111), (Start: 279 @142195 has 1 MA's), (302, 142237), (306, 142249), (312, 142264), (344, 142333), (365, 142360), (393, 142414), (411, 142459), (414, 142462), (449, 142540), (462, 142561), (520, 142672), (554, 142762), (559, 142780), (590, 142852), (601, 142885),

Gene: Backyardigan\_10 Start: 5887, Stop: 6870, Start Num: 163

Candidate Starts for Backyardigan\_10:

(Start: 163 @5887 has 304 MA's), (178, 5917), (Start: 190 @5938 has 1 MA's), (Start: 192 @5941 has 2 MA's), (330, 6190), (362, 6241), (365, 6247), (368, 6259), (387, 6289), (416, 6331), (437, 6379), (464, 6409), (474, 6436), (551, 6586), (601, 6709), (604, 6721), (607, 6730), (627, 6787), (652, 6862),

Gene: BaconJack\_12 Start: 6044, Stop: 7012, Start Num: 163

Candidate Starts for BaconJack\_12:

(Start: 163 @6044 has 304 MA's), (Start: 180 @6077 has 5 MA's), (Start: 190 @6095 has 1 MA's), (Start: 192 @6098 has 2 MA's), (335, 6365), (344, 6383), (365, 6416), (368, 6428), (415, 6503), (442, 6566), (462, 6599), (469, 6611), (474, 6629), (484, 6647), (496, 6671), (520, 6710), (551, 6791), (559, 6815), (561, 6818), (563, 6821), (567, 6830), (600, 6917), (629, 7004),

Gene: Bactobuster\_12 Start: 8187, Stop: 9173, Start Num: 161

Candidate Starts for Bactobuster\_12:

(Start: 161 @8187 has 8 MA's), (178, 8217), (Start: 180 @8220 has 5 MA's), (Start: 192 @8241 has 2 MA's), (273, 8376), (362, 8541), (365, 8547), (409, 8622), (416, 8631), (474, 8742), (509, 8802), (533, 8838), (551, 8892), (562, 8916), (565, 8922), (581, 8967), (604, 9027), (607, 9036),



Gene: BadAgartude\_246 Start: 143855, Stop: 144883, Start Num: 142

Candidate Starts for BadAgartude\_246:

(Start: 142 @143855 has 200 MA's), (Start: 163 @143885 has 304 MA's), (170, 143897), (Start: 192 @143939 has 2 MA's), (229, 144002), (239, 144023), (Start: 279 @144107 has 1 MA's), (302, 144149), (306, 144161), (312, 144176), (344, 144245), (365, 144272), (393, 144326), (411, 144371), (414, 144374), (449, 144452), (462, 144473), (520, 144584), (554, 144674), (559, 144692), (590, 144764), (601, 144797),

Gene: BadStone\_34 Start: 31850, Stop: 32707, Start Num: 198

Candidate Starts for BadStone\_34:

(Start: 198 @31850 has 122 MA's), (220, 31889), (232, 31919), (242, 31940), (257, 31976), (275, 32006), (309, 32081), (334, 32129), (336, 32132), (345, 32156), (347, 32159), (356, 32174), (426, 32345), (487, 32459), (495, 32474), (498, 32480), (575, 32522), (576, 32525), (601, 32579), (624, 32657), (641, 32690),

Gene: Badfish\_50 Start: 41858, Stop: 43213, Start Num: 82

Candidate Starts for Badfish\_50:

(Start: 82 @41858 has 255 MA's), (98, 41909), (108, 41942), (114, 41960), (168, 42071), (170, 42074), (Start: 180 @42089 has 5 MA's), (235, 42185), (251, 42224), (269, 42254), (284, 42290), (333, 42401), (345, 42431), (347, 42434), (379, 42500), (440, 42659), (469, 42707), (475, 42725), (498, 42773), (550, 42917), (571, 42977), (603, 43082), (637, 43169),

Gene: Badger\_10 Start: 5879, Stop: 6859, Start Num: 164

Candidate Starts for Badger\_10:

(123, 5819), (134, 5837), (Start: 164 @5879 has 109 MA's), (Start: 166 @5882 has 14 MA's), (178, 5906), (Start: 190 @5927 has 1 MA's), (Start: 192 @5930 has 2 MA's), (330, 6179), (362, 6230), (365, 6236), (368, 6248), (387, 6278), (416, 6320), (437, 6368), (464, 6398), (474, 6425), (551, 6575), (601, 6698), (604, 6710), (607, 6719), (627, 6776), (652, 6851),

Gene: Baehexic\_12 Start: 6944, Stop: 7921, Start Num: 163

Candidate Starts for Baehexic\_12:

(Start: 163 @6944 has 304 MA's), (Start: 192 @6998 has 2 MA's), (234, 7055), (312, 7187), (330, 7235), (365, 7292), (382, 7328), (415, 7376), (430, 7415), (470, 7487), (474, 7502), (497, 7547), (507, 7565), (528, 7607), (538, 7655), (549, 7682), (554, 7697), (559, 7715), (561, 7718), (597, 7808),

Gene: BaghaKamala\_31 Start: 26423, Stop: 27295, Start Num: 221

Candidate Starts for BaghaKamala\_31:

(76, 26093), (151, 26321), (195, 26396), (Start: 221 @26423 has 188 MA's), (Start: 227 @26435 has 1 MA's), (258, 26504), (275, 26531), (287, 26561), (293, 26570), (309, 26606), (313, 26615), (323, 26648), (331, 26666), (347, 26696), (379, 26756), (447, 26891), (469, 26918), (476, 26939), (487, 26963), (521, 27014), (578, 27116), (598, 27152), (604, 27176), (640, 27275), (643, 27284),

Gene: Bagrid\_48 Start: 42037, Stop: 42882, Start Num: 97

Candidate Starts for Bagrid\_48:

(Start: 89 @42010 has 30 MA's), (Start: 97 @42037 has 1 MA's), (115, 42097), (Start: 138 @42145 has 44 MA's), (174, 42211), (189, 42232), (206, 42253), (233, 42307), (274, 42388), (403, 42667), (405, 42670), (413, 42694), (424, 42730), (432, 42745), (438, 42757), (444, 42778),

Gene: Balomoji\_34 Start: 31584, Stop: 32441, Start Num: 198

Candidate Starts for Balomoji\_34:

(Start: 198 @31584 has 122 MA's), (220, 31623), (232, 31653), (242, 31674), (257, 31710), (275, 31740), (309, 31815), (334, 31863), (336, 31866), (345, 31890), (347, 31893), (356, 31908), (426, 32079), (487, 32193), (495, 32208), (498, 32214), (575, 32256), (576, 32259), (601, 32313), (624,

32391), (641, 32424),

Gene: Baloo\_47 Start: 41535, Stop: 42599, Start Num: 138

Candidate Starts for Baloo\_47:

(Start: 138 @41535 has 44 MA's), (173, 41598), (219, 41679), (252, 41745), (260, 41760), (269, 41772), (280, 41799), (311, 41856), (314, 41865), (391, 42012), (401, 42027), (422, 42081), (439, 42114), (463, 42153), (470, 42165), (512, 42246), (520, 42264), (523, 42267), (578, 42423), (617, 42534), (626, 42555), (641, 42588),

Gene: BananaFence\_250 Start: 144475, Stop: 145503, Start Num: 142

Candidate Starts for BananaFence\_250:

(Start: 142 @144475 has 200 MA's), (Start: 163 @144505 has 304 MA's), (170, 144517), (Start: 192 @144559 has 2 MA's), (229, 144622), (239, 144643), (Start: 279 @144727 has 1 MA's), (302, 144769), (306, 144781), (312, 144796), (344, 144865), (365, 144892), (393, 144946), (411, 144991), (414, 144994), (449, 145072), (462, 145093), (520, 145204), (554, 145294), (559, 145312), (590, 145384), (601, 145417),

Gene: BangNhom\_9 Start: 5858, Stop: 6838, Start Num: 164

Candidate Starts for BangNhom\_9:

(Start: 164 @5858 has 109 MA's), (178, 5885), (Start: 190 @5906 has 1 MA's), (Start: 192 @5909 has 2 MA's), (330, 6158), (365, 6215), (368, 6227), (401, 6278), (416, 6299), (437, 6347), (474, 6404), (551, 6554), (601, 6677), (604, 6689), (627, 6755),

Gene: Bangla1971\_253 Start: 144502, Stop: 145530, Start Num: 142

Candidate Starts for Bangla1971\_253:

(Start: 142 @144502 has 200 MA's), (Start: 163 @144532 has 304 MA's), (170, 144544), (Start: 192 @144586 has 2 MA's), (229, 144649), (239, 144670), (Start: 279 @144754 has 1 MA's), (302, 144796), (306, 144808), (312, 144823), (344, 144892), (365, 144919), (393, 144973), (411, 145018), (414, 145021), (449, 145099), (462, 145120), (520, 145231), (554, 145321), (559, 145339), (590, 145411), (601, 145444),

Gene: Banjo\_48 Start: 41389, Stop: 42744, Start Num: 82

Candidate Starts for Banjo\_48:

(Start: 82 @41389 has 255 MA's), (98, 41440), (108, 41473), (168, 41602), (170, 41605), (Start: 180 @41620 has 5 MA's), (235, 41716), (251, 41755), (269, 41785), (284, 41821), (333, 41932), (345, 41962), (347, 41965), (379, 42031), (440, 42190), (469, 42238), (475, 42256), (498, 42304), (550, 42448), (571, 42508), (603, 42613), (637, 42700),

Gene: Baoshan\_27 Start: 26124, Stop: 27095, Start Num: 102

Candidate Starts for Baoshan\_27:

(Start: 102 @26124 has 88 MA's), (120, 26178), (179, 26298), (188, 26313), (Start: 198 @26328 has 122 MA's), (208, 26343), (Start: 227 @26376 has 1 MA's), (232, 26388), (242, 26409), (275, 26472), (293, 26499), (305, 26523), (345, 26604), (352, 26616), (367, 26643), (386, 26679), (392, 26694), (396, 26709), (415, 26754), (419, 26769), (469, 26850), (475, 26868), (476, 26871), (478, 26874), (491, 26901), (579, 26925), (601, 26970), (613, 27012), (628, 27054),

Gene: Barbarian\_34 Start: 30719, Stop: 31576, Start Num: 198

Candidate Starts for Barbarian\_34:

(Start: 198 @30719 has 122 MA's), (220, 30758), (232, 30788), (242, 30809), (257, 30845), (275, 30875), (309, 30950), (334, 30998), (336, 31001), (345, 31025), (347, 31028), (356, 31043), (426, 31214), (487, 31328), (495, 31343), (498, 31349), (575, 31391), (576, 31394), (601, 31448), (624, 31526), (641, 31559),

Gene: Barkley26\_28 Start: 25223, Stop: 26431, Start Num: 88

Candidate Starts for Barkley26\_28:

(38, 24851), (57, 25079), (65, 25130), (Start: 88 @25223 has 62 MA's), (154, 25397), (202, 25469), (251, 25568), (255, 25577), (263, 25589), (270, 25601), (275, 25610), (284, 25634), (295, 25655), (309, 25682), (314, 25694), (342, 25766), (361, 25805), (440, 25994), (459, 26018), (469, 26033), (476, 26054), (498, 26099), (500, 26102), (534, 26153),

Gene: Barnyard\_40 Start: 32393, Stop: 33475, Start Num: 116

Candidate Starts for Barnyard\_40:

(Start: 116 @32393 has 3 MA's), (267, 32687), (271, 32693), (278, 32711), (283, 32720), (314, 32783), (327, 32819), (336, 32837), (342, 32843), (401, 32930), (407, 32936), (448, 33032), (484, 33104), (491, 33119), (599, 33359), (603, 33377), (604, 33380), (610, 33395), (616, 33416),

Gene: BarrelRoll\_31 Start: 26446, Stop: 27318, Start Num: 221

Candidate Starts for BarrelRoll\_31:

(195, 26419), (Start: 221 @26446 has 188 MA's), (Start: 227 @26458 has 1 MA's), (258, 26527), (275, 26554), (287, 26584), (293, 26593), (309, 26629), (313, 26638), (323, 26671), (331, 26689), (347, 26719), (378, 26776), (379, 26779), (447, 26914), (469, 26941), (476, 26962), (487, 26986), (521, 27037), (578, 27139), (598, 27175), (604, 27199), (640, 27298), (643, 27307),

Gene: Barriga\_10 Start: 5869, Stop: 6837, Start Num: 163

Candidate Starts for Barriga\_10:

(Start: 163 @5869 has 304 MA's), (Start: 180 @5902 has 5 MA's), (Start: 190 @5920 has 1 MA's), (Start: 192 @5923 has 2 MA's), (335, 6190), (365, 6241), (368, 6253), (415, 6328), (442, 6391), (450, 6403), (462, 6424), (474, 6454), (484, 6472), (496, 6496), (520, 6535), (551, 6616), (559, 6640), (561, 6643), (563, 6646), (567, 6655), (600, 6742), (614, 6787), (629, 6829),

Gene: Bartholomew\_26 Start: 24052, Stop: 25218, Start Num: 102

Candidate Starts for Bartholomew\_26:

(Start: 102 @24052 has 88 MA's), (123, 24109), (168, 24196), (Start: 198 @24241 has 122 MA's), (235, 24316), (245, 24337), (284, 24421), (305, 24460), (333, 24526), (345, 24556), (359, 24577), (379, 24622), (417, 24718), (434, 24757), (440, 24772), (447, 24784), (469, 24811), (510, 24898), (527, 24916), (530, 24922), (553, 24970), (571, 24991), (598, 25063), (620, 25138),

Gene: Bartimeaus\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Bartimeaus\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Basato\_50 Start: 41974, Stop: 43329, Start Num: 82

Candidate Starts for Basato\_50:

(Start: 82 @41974 has 255 MA's), (98, 42025), (108, 42058), (168, 42187), (170, 42190), (Start: 180 @42205 has 5 MA's), (235, 42301), (251, 42340), (269, 42370), (284, 42406), (333, 42517), (345, 42547), (347, 42550), (379, 42616), (440, 42775), (469, 42823), (475, 42841), (498, 42889), (550, 43033), (571, 43093), (603, 43198), (637, 43285),

Gene: Bask21\_35 Start: 31036, Stop: 31893, Start Num: 198

Candidate Starts for Bask21\_35:

(Start: 198 @31036 has 122 MA's), (220, 31075), (232, 31105), (242, 31126), (257, 31162), (275, 31192), (309, 31267), (334, 31315), (336, 31318), (345, 31342), (347, 31345), (356, 31360), (426, 31531), (487, 31645), (495, 31660), (498, 31666), (575, 31708), (576, 31711), (601, 31765), (624, 31843), (641, 31876),

Gene: Basquiat\_250 Start: 142761, Stop: 143789, Start Num: 142

Candidate Starts for Basquiat\_250:

(Start: 142 @142761 has 200 MA's), (Start: 163 @142791 has 304 MA's), (170, 142803), (Start: 192 @142845 has 2 MA's), (229, 142908), (239, 142929), (Start: 279 @143013 has 1 MA's), (302, 143055), (306, 143067), (312, 143082), (344, 143151), (365, 143178), (393, 143232), (411, 143277), (414, 143280), (415, 143283), (449, 143358), (462, 143379), (520, 143490), (554, 143580), (559, 143598), (590, 143670), (601, 143703),

Gene: Batiatus\_31 Start: 27509, Stop: 28507, Start Num: 149

Candidate Starts for Batiatus\_31:

(Start: 149 @27509 has 225 MA's), (Start: 192 @27584 has 2 MA's), (229, 27644), (239, 27665), (Start: 279 @27749 has 1 MA's), (306, 27800), (312, 27815), (365, 27911), (415, 27998), (422, 28022), (433, 28043), (454, 28082), (462, 28094), (484, 28142), (497, 28169), (511, 28193), (520, 28208), (559, 28316), (578, 28364), (604, 28433), (614, 28463),

Gene: BatteryCK\_48 Start: 41332, Stop: 42687, Start Num: 82

Candidate Starts for BatteryCK\_48:

(Start: 82 @41332 has 255 MA's), (98, 41383), (108, 41416), (168, 41545), (170, 41548), (Start: 180 @41563 has 5 MA's), (235, 41659), (251, 41698), (269, 41728), (284, 41764), (333, 41875), (345, 41905), (347, 41908), (379, 41974), (440, 42133), (469, 42181), (475, 42199), (498, 42247), (550, 42391), (571, 42451), (603, 42556), (637, 42643),

Gene: Baudelaire\_29 Start: 25621, Stop: 26718, Start Num: 82

Candidate Starts for Baudelaire\_29:

(Start: 82 @25621 has 255 MA's), (93, 25648), (Start: 102 @25693 has 88 MA's), (128, 25756), (185, 25852), (191, 25861), (Start: 227 @25915 has 1 MA's), (245, 25954), (289, 26035), (293, 26041), (313, 26086), (316, 26092), (341, 26155), (349, 26173), (352, 26179), (355, 26185), (379, 26230), (392, 26257), (452, 26374), (469, 26398), (489, 26449), (499, 26470), (570, 26488), (603, 26575), (611, 26599), (640, 26680), (648, 26707),

Gene: Bazzle\_28 Start: 26483, Stop: 27511, Start Num: 142

Candidate Starts for Bazzle\_28:

(Start: 142 @26483 has 200 MA's), (231, 26627), (233, 26633), (Start: 288 @26747 has 1 MA's), (291, 26753), (301, 26771), (330, 26846), (365, 26903), (422, 27014), (425, 27020), (430, 27029), (431, 27032), (439, 27047), (474, 27122), (537, 27251), (548, 27278), (557, 27305), (561, 27320), (567, 27332), (595, 27398), (604, 27434),

Gene: Beaglebox\_48 Start: 41410, Stop: 42765, Start Num: 82

Candidate Starts for Beaglebox\_48:

(Start: 82 @41410 has 255 MA's), (98, 41461), (108, 41494), (168, 41623), (170, 41626), (Start: 180 @41641 has 5 MA's), (235, 41737), (251, 41776), (269, 41806), (284, 41842), (333, 41953), (345, 41983), (347, 41986), (379, 42052), (440, 42211), (469, 42259), (475, 42277), (498, 42325), (550, 42469), (571, 42529), (603, 42634), (637, 42721),

Gene: Beakin\_32 Start: 27414, Stop: 28415, Start Num: 149

Candidate Starts for Beakin\_32:

(107, 27315), (137, 27387), (Start: 149 @27414 has 225 MA's), (Start: 192 @27489 has 2 MA's), (210, 27522), (229, 27552), (239, 27573), (251, 27603), (Start: 279 @27657 has 1 MA's), (292, 27681), (302, 27696), (306, 27708), (312, 27723), (365, 27819), (423, 27933), (433, 27951), (454, 27990), (469, 28014), (484, 28050), (497, 28077), (520, 28116), (559, 28224), (578, 28272), (585, 28284), (601, 28329), (604, 28341), (614, 28371),

Gene: BeanWater\_245 Start: 143638, Stop: 144666, Start Num: 142

Candidate Starts for BeanWater\_245:

(Start: 142 @143638 has 200 MA's), (Start: 163 @143668 has 304 MA's), (170, 143680), (Start: 192 @143722 has 2 MA's), (229, 143785), (239, 143806), (Start: 279 @143890 has 1 MA's), (302, 143932), (306, 143944), (312, 143959), (344, 144028), (365, 144055), (393, 144109), (411, 144154), (414, 144157), (449, 144235), (462, 144256), (520, 144367), (554, 144457), (559, 144475), (590, 144547), (601, 144580),

Gene: Beatrix\_9 Start: 5686, Stop: 6654, Start Num: 163

Candidate Starts for Beatrix\_9:

(Start: 163 @5686 has 304 MA's), (Start: 180 @5719 has 5 MA's), (Start: 190 @5737 has 1 MA's), (Start: 192 @5740 has 2 MA's), (335, 6007), (365, 6058), (368, 6070), (415, 6145), (442, 6208), (462, 6241), (469, 6253), (474, 6271), (484, 6289), (520, 6352), (551, 6433), (559, 6457), (561, 6460), (563, 6463), (567, 6472), (600, 6559), (629, 6646),

Gene: Beauxregard13\_12 Start: 5962, Stop: 6927, Start Num: 153

Candidate Starts for Beauxregard13\_12:

(Start: 153 @5962 has 92 MA's), (Start: 180 @6007 has 5 MA's), (Start: 192 @6028 has 2 MA's), (256, 6148), (330, 6286), (365, 6343), (371, 6358), (422, 6439), (430, 6454), (439, 6472), (469, 6523), (474, 6541), (497, 6586), (538, 6682), (561, 6745), (575, 6784), (597, 6835),

Gene: Beem\_49 Start: 42576, Stop: 43448, Start Num: 89

Candidate Starts for Beem\_49:

(Start: 89 @42576 has 30 MA's), (Start: 97 @42603 has 1 MA's), (115, 42663), (Start: 138 @42711 has 44 MA's), (174, 42777), (189, 42798), (206, 42819), (233, 42873), (274, 42954), (403, 43233), (405, 43236), (413, 43260), (424, 43296), (432, 43311), (438, 43323), (444, 43344),

Gene: BeesKnees\_10 Start: 5730, Stop: 6698, Start Num: 163

Candidate Starts for BeesKnees\_10:

(Start: 163 @5730 has 304 MA's), (Start: 180 @5763 has 5 MA's), (Start: 190 @5781 has 1 MA's), (Start: 192 @5784 has 2 MA's), (335, 6051), (365, 6102), (368, 6114), (415, 6189), (442, 6252), (450, 6264), (462, 6285), (469, 6297), (474, 6315), (484, 6333), (496, 6357), (520, 6396), (551, 6477), (559, 6501), (561, 6504), (563, 6507), (567, 6516), (600, 6603), (614, 6648), (629, 6690),

Gene: Beezoo\_31 Start: 26471, Stop: 27343, Start Num: 221

Candidate Starts for Beezoo\_31:

(195, 26444), (Start: 221 @26471 has 188 MA's), (Start: 227 @26483 has 1 MA's), (258, 26552), (275, 26579), (287, 26609), (293, 26618), (309, 26654), (313, 26663), (323, 26696), (331, 26714), (347, 26744), (379, 26804), (447, 26939), (469, 26966), (476, 26987), (487, 27011), (521, 27062), (578, 27164), (598, 27200), (604, 27224), (616, 27272), (640, 27323), (643, 27332),

Gene: Bella96\_31 Start: 26364, Stop: 27236, Start Num: 221

Candidate Starts for Bella96\_31:

(195, 26337), (Start: 221 @26364 has 188 MA's), (Start: 227 @26376 has 1 MA's), (258, 26445), (275, 26472), (287, 26502), (293, 26511), (309, 26547), (313, 26556), (323, 26589), (379, 26697), (447, 26832), (469, 26859), (476, 26880), (487, 26904), (578, 27057), (598, 27093), (604, 27117), (640, 27216), (643, 27225),

Gene: Belladonna\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for Belladonna\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487,

27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: Bellis\_28 Start: 26907, Stop: 27896, Start Num: 120

Candidate Starts for Bellis\_28:

(Start: 102 @26853 has 88 MA's), (Start: 103 @26859 has 3 MA's), (112, 26886), (120, 26907), (143, 26958), (186, 27039), (245, 27144), (289, 27225), (293, 27231), (341, 27327), (349, 27345), (352, 27351), (355, 27357), (392, 27429), (418, 27486), (420, 27489), (452, 27546), (489, 27621), (499, 27642), (572, 27666), (576, 27681), (580, 27693), (604, 27750), (640, 27852), (645, 27873),

Gene: BellusTerra\_10 Start: 5884, Stop: 6861, Start Num: 166

Candidate Starts for BellusTerra\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (Start: 192 @5932 has 2 MA's), (273, 6067), (284, 6091), (330, 6181), (365, 6238), (401, 6301), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (601, 6700), (604, 6712), (644, 6823),

Gene: Ben11\_46 Start: 41355, Stop: 42419, Start Num: 138

Candidate Starts for Ben11\_46:

(Start: 138 @41355 has 44 MA's), (173, 41418), (219, 41499), (252, 41565), (260, 41580), (269, 41592), (280, 41619), (311, 41676), (314, 41685), (391, 41832), (401, 41847), (422, 41901), (439, 41934), (463, 41973), (470, 41985), (512, 42066), (520, 42084), (523, 42087), (538, 42132), (578, 42243), (617, 42354), (626, 42375), (641, 42408),

Gene: Bench\_37 Start: 31718, Stop: 32575, Start Num: 198

Candidate Starts for Bench\_37:

(Start: 198 @31718 has 122 MA's), (220, 31757), (232, 31787), (242, 31808), (257, 31844), (275, 31874), (309, 31949), (334, 31997), (336, 32000), (345, 32024), (347, 32027), (356, 32042), (426, 32213), (487, 32327), (495, 32342), (498, 32348), (575, 32390), (576, 32393), (601, 32447), (624, 32525), (641, 32558),

Gene: Benedict\_8 Start: 5182, Stop: 5991, Start Num: 221

Candidate Starts for Benedict\_8:

(Start: 221 @5182 has 188 MA's), (245, 5227), (284, 5311), (293, 5326), (309, 5359), (420, 5629), (440, 5671), (469, 5710), (475, 5728), (489, 5758), (640, 5956),

Gene: BengiVuitton\_12 Start: 6865, Stop: 7842, Start Num: 163

Candidate Starts for BengiVuitton\_12:

(Start: 163 @6865 has 304 MA's), (Start: 192 @6919 has 2 MA's), (312, 7108), (325, 7144), (330, 7156), (365, 7213), (382, 7249), (415, 7297), (430, 7336), (474, 7423), (507, 7486), (528, 7528), (538, 7576), (549, 7603), (554, 7618), (559, 7636), (561, 7639), (575, 7678), (597, 7729), (626, 7828),

Gene: Benvolio\_11 Start: 6541, Stop: 7518, Start Num: 163

Candidate Starts for Benvolio\_11:

(Start: 163 @6541 has 304 MA's), (Start: 192 @6595 has 2 MA's), (312, 6784), (325, 6820), (330, 6832), (365, 6889), (382, 6925), (415, 6973), (430, 7012), (454, 7060), (467, 7078), (470, 7084), (474, 7099), (497, 7144), (507, 7162), (528, 7204), (538, 7252), (549, 7279), (554, 7294), (559, 7312), (561, 7315), (597, 7405), (626, 7504),

Gene: Bernardo\_48 Start: 42081, Stop: 43145, Start Num: 138

Candidate Starts for Bernardo\_48:

(Start: 138 @42081 has 44 MA's), (173, 42144), (219, 42225), (252, 42291), (260, 42306), (269, 42318), (280, 42345), (311, 42402), (314, 42411), (391, 42558), (401, 42573), (422, 42627), (439, 42660), (463, 42699), (470, 42711), (512, 42792), (520, 42810), (523, 42813), (578, 42969), (617, 43080), (626, 43101), (641, 43134),

Gene: Bethlehem\_10 Start: 6272, Stop: 7240, Start Num: 163

Candidate Starts for Bethlehem\_10:

(Start: 163 @6272 has 304 MA's), (Start: 180 @6305 has 5 MA's), (Start: 190 @6323 has 1 MA's), (Start: 192 @6326 has 2 MA's), (335, 6593), (365, 6644), (368, 6656), (415, 6731), (462, 6827), (474, 6857), (520, 6938), (551, 7019), (559, 7043), (561, 7046), (563, 7049), (567, 7058), (600, 7145), (629, 7232),

Gene: Bexan\_9 Start: 5686, Stop: 6654, Start Num: 163

Candidate Starts for Bexan\_9:

(Start: 163 @5686 has 304 MA's), (Start: 180 @5719 has 5 MA's), (Start: 190 @5737 has 1 MA's), (Start: 192 @5740 has 2 MA's), (335, 6007), (365, 6058), (368, 6070), (415, 6145), (442, 6208), (462, 6241), (469, 6253), (474, 6271), (484, 6289), (520, 6352), (551, 6433), (559, 6457), (561, 6460), (563, 6463), (567, 6472), (600, 6559), (629, 6646),

Gene: BiancaTri92\_13 Start: 8213, Stop: 9196, Start Num: 163

Candidate Starts for BiancaTri92\_13:

(Start: 163 @8213 has 304 MA's), (Start: 190 @8264 has 1 MA's), (Start: 192 @8267 has 2 MA's), (365, 8591), (371, 8606), (415, 8675), (422, 8699), (430, 8714), (469, 8783), (474, 8801), (538, 8945), (561, 9008), (575, 9047), (587, 9071), (595, 9089),

Gene: Big3\_10 Start: 5629, Stop: 6597, Start Num: 163

Candidate Starts for Big3\_10:

(Start: 163 @5629 has 304 MA's), (Start: 180 @5662 has 5 MA's), (Start: 190 @5680 has 1 MA's), (Start: 192 @5683 has 2 MA's), (335, 5950), (365, 6001), (368, 6013), (415, 6088), (442, 6151), (450, 6163), (462, 6184), (469, 6196), (474, 6214), (484, 6232), (496, 6256), (520, 6295), (551, 6376), (559, 6400), (561, 6403), (563, 6406), (567, 6415), (600, 6502), (614, 6547), (629, 6589),

Gene: BigBubba\_36 Start: 31621, Stop: 32478, Start Num: 198

Candidate Starts for BigBubba\_36:

(Start: 198 @31621 has 122 MA's), (220, 31660), (232, 31690), (242, 31711), (257, 31747), (275, 31777), (309, 31852), (334, 31900), (336, 31903), (345, 31927), (347, 31930), (356, 31945), (426, 32116), (487, 32230), (495, 32245), (498, 32251), (575, 32293), (576, 32296), (601, 32350), (624, 32428), (641, 32461),

Gene: BigCheese\_28 Start: 26303, Stop: 27274, Start Num: 102

Candidate Starts for BigCheese\_28:

(Start: 102 @26303 has 88 MA's), (120, 26357), (Start: 198 @26507 has 122 MA's), (203, 26516), (208, 26522), (Start: 227 @26555 has 1 MA's), (228, 26558), (232, 26567), (242, 26588), (275, 26651), (293, 26678), (305, 26702), (345, 26783), (352, 26795), (386, 26858), (392, 26873), (415, 26933), (419, 26948), (469, 27029), (475, 27047), (476, 27050), (478, 27053), (579, 27104), (601, 27149), (613, 27191), (628, 27233),

Gene: BigCity\_260 Start: 146393, Stop: 147421, Start Num: 142

Candidate Starts for BigCity\_260:

(Start: 142 @146393 has 200 MA's), (Start: 163 @146423 has 304 MA's), (170, 146435), (Start: 192 @146477 has 2 MA's), (229, 146540), (239, 146561), (Start: 279 @146645 has 1 MA's), (302, 146687), (306, 146699), (312, 146714), (344, 146783), (365, 146810), (393, 146864), (411, 146909), (414, 146912), (449, 146990), (462, 147011), (520, 147122), (554, 147212), (559, 147230), (590, 147302), (601, 147335),

Gene: BigMau\_11 Start: 5731, Stop: 6699, Start Num: 163

Candidate Starts for BigMau\_11:

(Start: 163 @5731 has 304 MA's), (Start: 180 @5764 has 5 MA's), (Start: 190 @5782 has 1 MA's), (Start: 192 @5785 has 2 MA's), (335, 6052), (365, 6103), (368, 6115), (415, 6190), (442, 6253), (450, 6265), (462, 6286), (469, 6298), (474, 6316), (484, 6334), (496, 6358), (520, 6397), (551, 6478), (559, 6502), (561, 6505), (563, 6508), (567, 6517), (600, 6604), (629, 6691),

Gene: BigPaolini\_11 Start: 6658, Stop: 7626, Start Num: 163

Candidate Starts for BigPaolini\_11:

(Start: 163 @6658 has 304 MA's), (Start: 180 @6691 has 5 MA's), (Start: 190 @6709 has 1 MA's), (Start: 192 @6712 has 2 MA's), (335, 6979), (365, 7030), (368, 7042), (415, 7117), (442, 7180), (450, 7192), (462, 7213), (469, 7225), (474, 7243), (484, 7261), (496, 7285), (520, 7324), (551, 7405), (559, 7429), (561, 7432), (563, 7435), (567, 7444), (600, 7531), (629, 7618),

Gene: BigPhil\_27 Start: 23733, Stop: 24731, Start Num: 149

Candidate Starts for BigPhil\_27:

(Start: 149 @23733 has 225 MA's), (Start: 192 @23808 has 2 MA's), (229, 23868), (239, 23889), (Start: 279 @23973 has 1 MA's), (306, 24024), (312, 24039), (365, 24135), (415, 24222), (422, 24246), (433, 24267), (454, 24306), (462, 24318), (484, 24366), (497, 24393), (511, 24417), (520, 24432), (559, 24540), (578, 24588), (604, 24657), (614, 24687),

Gene: Bigfoot\_9 Start: 5757, Stop: 6725, Start Num: 163

Candidate Starts for Bigfoot\_9:

(Start: 163 @5757 has 304 MA's), (Start: 180 @5790 has 5 MA's), (Start: 190 @5808 has 1 MA's), (Start: 192 @5811 has 2 MA's), (335, 6078), (365, 6129), (368, 6141), (415, 6216), (442, 6279), (450, 6291), (462, 6312), (474, 6342), (484, 6360), (496, 6384), (520, 6423), (551, 6504), (559, 6528), (561, 6531), (563, 6534), (567, 6543), (600, 6630), (614, 6675), (629, 6717),

Gene: Biglebops\_27 Start: 25978, Stop: 26736, Start Num: 221

Candidate Starts for Biglebops\_27:

(151, 25876), (183, 25930), (195, 25951), (Start: 221 @25978 has 188 MA's), (242, 26023), (258, 26059), (289, 26119), (293, 26125), (307, 26155), (323, 26203), (343, 26245), (379, 26311), (395, 26347), (447, 26446), (469, 26473), (476, 26494), (480, 26500), (573, 26539), (576, 26551), (578, 26557), (595, 26581), (601, 26605), (640, 26716), (643, 26725),

Gene: Bigswole\_257 Start: 146304, Stop: 147332, Start Num: 142

Candidate Starts for Bigswole\_257:

(Start: 142 @146304 has 200 MA's), (Start: 163 @146334 has 304 MA's), (170, 146346), (Start: 192 @146388 has 2 MA's), (229, 146451), (239, 146472), (Start: 279 @146556 has 1 MA's), (302, 146598), (306, 146610), (312, 146625), (344, 146694), (365, 146721), (393, 146775), (411, 146820), (414, 146823), (449, 146901), (462, 146922), (520, 147033), (554, 147123), (559, 147141), (590, 147213), (601, 147246),

Gene: BilboSwaggins\_35 Start: 31858, Stop: 32715, Start Num: 198

Candidate Starts for BilboSwaggins\_35:

(Start: 198 @31858 has 122 MA's), (220, 31897), (232, 31927), (242, 31948), (257, 31984), (275, 32014), (309, 32089), (334, 32137), (336, 32140), (345, 32164), (347, 32167), (356, 32182), (426, 32353), (481, 32452), (487, 32467), (495, 32482), (498, 32488), (575, 32530), (576, 32533), (601, 32587), (624, 32665), (641, 32698),

Gene: BillKnuckles\_11 Start: 6674, Stop: 7642, Start Num: 163

Candidate Starts for BillKnuckles\_11:

(Start: 163 @6674 has 304 MA's), (Start: 180 @6707 has 5 MA's), (Start: 190 @6725 has 1 MA's), (Start: 192 @6728 has 2 MA's), (335, 6995), (365, 7046), (368, 7058), (415, 7133), (442, 7196), (450, 7208), (462, 7229), (469, 7241), (474, 7259), (484, 7277), (496, 7301), (520, 7340), (551, 7421), (559,



7445), (561, 7448), (563, 7451), (567, 7460), (595, 7526), (600, 7547), (629, 7634),

Gene: Bipolar\_28 Start: 26593, Stop: 27594, Start Num: 149

Candidate Starts for Bipolar\_28:

(Start: 149 @26593 has 225 MA's), (Start: 192 @26668 has 2 MA's), (210, 26701), (229, 26731), (239, 26752), (Start: 279 @26836 has 1 MA's), (292, 26860), (302, 26875), (306, 26887), (365, 26998), (422, 27109), (433, 27130), (454, 27169), (469, 27193), (484, 27229), (497, 27256), (511, 27280), (520, 27295), (559, 27403), (578, 27451), (604, 27520), (614, 27550),

Gene: Bipolarisk\_250 Start: 144521, Stop: 145549, Start Num: 142

Candidate Starts for Bipolarisk\_250:

(Start: 142 @144521 has 200 MA's), (Start: 163 @144551 has 304 MA's), (170, 144563), (Start: 192 @144605 has 2 MA's), (229, 144668), (239, 144689), (Start: 279 @144773 has 1 MA's), (302, 144815), (306, 144827), (312, 144842), (344, 144911), (365, 144938), (393, 144992), (411, 145037), (414, 145040), (449, 145118), (462, 145139), (520, 145250), (554, 145340), (559, 145358), (590, 145430), (601, 145463),

Gene: Bircsak\_10 Start: 6218, Stop: 7186, Start Num: 163

Candidate Starts for Bircsak\_10:

(Start: 163 @6218 has 304 MA's), (Start: 180 @6251 has 5 MA's), (Start: 190 @6269 has 1 MA's), (Start: 192 @6272 has 2 MA's), (335, 6539), (365, 6590), (368, 6602), (415, 6677), (442, 6740), (462, 6773), (469, 6785), (474, 6803), (484, 6821), (496, 6845), (520, 6884), (551, 6965), (559, 6989), (561, 6992), (563, 6995), (567, 7004), (600, 7091), (629, 7178),

Gene: BirdsNest\_51 Start: 41335, Stop: 42336, Start Num: 164

Candidate Starts for BirdsNest\_51:

(Start: 164 @41335 has 109 MA's), (178, 41362), (Start: 192 @41386 has 2 MA's), (362, 41692), (365, 41698), (382, 41734), (401, 41761), (474, 41893), (491, 41923), (509, 41953), (533, 41989), (551, 42043), (562, 42067), (565, 42073), (578, 42109), (650, 42310),

Gene: Bishoperium\_48 Start: 41404, Stop: 42759, Start Num: 82

Candidate Starts for Bishoperium\_48:

(Start: 82 @41404 has 255 MA's), (98, 41455), (108, 41488), (168, 41617), (170, 41620), (Start: 180 @41635 has 5 MA's), (235, 41731), (251, 41770), (269, 41800), (284, 41836), (333, 41947), (345, 41977), (347, 41980), (379, 42046), (440, 42205), (469, 42253), (475, 42271), (498, 42319), (550, 42463), (571, 42523), (603, 42628), (637, 42715),

Gene: BlackStallion\_50 Start: 41843, Stop: 43219, Start Num: 82

Candidate Starts for BlackStallion\_50:

(Start: 82 @41843 has 255 MA's), (98, 41894), (108, 41927), (168, 42056), (170, 42059), (Start: 180 @42074 has 5 MA's), (235, 42170), (251, 42209), (269, 42239), (284, 42275), (333, 42386), (345, 42416), (347, 42419), (379, 42485), (440, 42644), (469, 42692), (475, 42710), (498, 42758), (550, 42923), (571, 42983), (603, 43088), (637, 43175),

Gene: Blackbrain\_251 Start: 144538, Stop: 145566, Start Num: 142

Candidate Starts for Blackbrain\_251:

(Start: 142 @144538 has 200 MA's), (Start: 163 @144568 has 304 MA's), (170, 144580), (Start: 192 @144622 has 2 MA's), (229, 144685), (239, 144706), (Start: 279 @144790 has 1 MA's), (302, 144832), (306, 144844), (312, 144859), (344, 144928), (365, 144955), (393, 145009), (411, 145054), (414, 145057), (449, 145135), (462, 145156), (520, 145267), (554, 145357), (559, 145375), (590, 145447), (601, 145480),

Gene: Blackdragon\_247 Start: 144086, Stop: 145114, Start Num: 142

Candidate Starts for Blackdragon\_247:

(Start: 142 @144086 has 200 MA's), (Start: 163 @144116 has 304 MA's), (Start: 192 @144170 has 2 MA's), (229, 144233), (239, 144254), (Start: 279 @144338 has 1 MA's), (302, 144380), (306, 144392), (312, 144407), (344, 144476), (365, 144503), (393, 144557), (411, 144602), (414, 144605), (449, 144683), (462, 144704), (520, 144815), (554, 144905), (559, 144923), (590, 144995), (601, 145028),

Gene: Blackmoor\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Blackmoor\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Blarby\_39 Start: 27985, Stop: 28986, Start Num: 149

Candidate Starts for Blarby\_39:

(Start: 149 @27985 has 225 MA's), (Start: 163 @28006 has 304 MA's), (170, 28018), (Start: 192 @28060 has 2 MA's), (229, 28123), (239, 28144), (251, 28174), (259, 28186), (Start: 279 @28228 has 1 MA's), (292, 28252), (302, 28267), (306, 28279), (365, 28390), (423, 28504), (433, 28522), (454, 28561), (469, 28585), (484, 28621), (497, 28648), (511, 28672), (520, 28687), (559, 28795), (578, 28843), (604, 28912), (614, 28942),

Gene: Blessica\_68 Start: 43732, Stop: 44772, Start Num: 148

Candidate Starts for Blessica\_68:

(Start: 148 @43732 has 26 MA's), (Start: 192 @43807 has 2 MA's), (229, 43888), (232, 43894), (239, 43909), (278, 43990), (Start: 279 @43993 has 1 MA's), (306, 44047), (312, 44062), (365, 44158), (385, 44197), (397, 44227), (411, 44257), (414, 44260), (425, 44293), (462, 44359), (484, 44407), (497, 44434), (520, 44473), (589, 44647), (604, 44698),

Gene: Blexus\_31 Start: 27836, Stop: 28837, Start Num: 149

Candidate Starts for Blexus\_31:

(137, 27809), (Start: 149 @27836 has 225 MA's), (Start: 192 @27911 has 2 MA's), (210, 27944), (229, 27974), (239, 27995), (251, 28025), (259, 28037), (Start: 279 @28079 has 1 MA's), (306, 28130), (312, 28145), (365, 28241), (422, 28352), (433, 28373), (454, 28412), (462, 28424), (484, 28472), (497, 28499), (511, 28523), (520, 28538), (559, 28646), (578, 28694), (604, 28763), (614, 28793),

Gene: Blizzard\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for Blizzard\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: BluSpix\_10 Start: 6017, Stop: 6985, Start Num: 163

Candidate Starts for BluSpix\_10:

(Start: 163 @6017 has 304 MA's), (Start: 180 @6050 has 5 MA's), (Start: 190 @6068 has 1 MA's), (Start: 192 @6071 has 2 MA's), (335, 6338), (365, 6389), (368, 6401), (415, 6476), (442, 6539), (450, 6551), (462, 6572), (469, 6584), (474, 6602), (484, 6620), (520, 6683), (551, 6764), (559, 6788), (561, 6791), (563, 6794), (567, 6803), (600, 6890), (614, 6935), (629, 6977),

Gene: Blubba\_247 Start: 147265, Stop: 148299, Start Num: 142

Candidate Starts for Blubba\_247:

(Start: 142 @147265 has 200 MA's), (Start: 163 @147295 has 304 MA's), (Start: 192 @147349 has 2 MA's), (229, 147412), (239, 147433), (Start: 279 @147517 has 1 MA's), (302, 147559), (306, 147571), (312, 147586), (344, 147655), (365, 147682), (393, 147736), (411, 147781), (414, 147784), (449,

147862), (462, 147883), (520, 147994), (554, 148084), (559, 148102), (590, 148174), (601, 148207), (632, 148294),

Gene: Blue\_10 Start: 6124, Stop: 7092, Start Num: 163

Candidate Starts for Blue\_10:

(Start: 163 @6124 has 304 MA's), (Start: 180 @6157 has 5 MA's), (Start: 190 @6175 has 1 MA's), (Start: 192 @6178 has 2 MA's), (335, 6445), (365, 6496), (368, 6508), (415, 6583), (462, 6679), (469, 6691), (474, 6709), (484, 6727), (496, 6751), (520, 6790), (551, 6871), (559, 6895), (561, 6898), (563, 6901), (567, 6910), (600, 6997), (629, 7084),

Gene: BlueBird\_11 Start: 5739, Stop: 6479, Start Num: 285

Candidate Starts for BlueBird\_11:

(209, 5622), (Start: 285 @5739 has 17 MA's), (330, 5826), (365, 5883), (368, 5895), (371, 5898), (385, 5922), (400, 5937), (408, 5955), (422, 5985), (425, 5991), (430, 6000), (439, 6018), (469, 6069), (474, 6087), (512, 6159), (535, 6201), (538, 6228), (549, 6255), (559, 6288), (561, 6291), (575, 6330), (631, 6471),

Gene: BlueCrab\_31 Start: 27687, Stop: 28688, Start Num: 149

Candidate Starts for BlueCrab\_31:

(107, 27588), (Start: 149 @27687 has 225 MA's), (Start: 163 @27708 has 304 MA's), (170, 27720), (Start: 192 @27762 has 2 MA's), (229, 27825), (239, 27846), (Start: 279 @27930 has 1 MA's), (292, 27954), (302, 27969), (306, 27981), (365, 28092), (423, 28206), (433, 28224), (454, 28263), (469, 28287), (484, 28323), (497, 28350), (520, 28389), (538, 28437), (559, 28497), (578, 28545), (585, 28557), (601, 28602), (604, 28614),

Gene: BlueHusk\_49 Start: 41210, Stop: 42565, Start Num: 82

Candidate Starts for BlueHusk\_49:

(Start: 82 @41210 has 255 MA's), (98, 41261), (108, 41294), (114, 41312), (168, 41423), (170, 41426), (Start: 180 @41441 has 5 MA's), (235, 41537), (251, 41576), (269, 41606), (284, 41642), (333, 41753), (345, 41783), (347, 41786), (379, 41852), (440, 42011), (469, 42059), (475, 42077), (498, 42125), (550, 42269), (571, 42329), (603, 42434), (637, 42521),

Gene: Bluefalcon\_7 Start: 5433, Stop: 6242, Start Num: 221

Candidate Starts for Bluefalcon\_7:

(Start: 221 @5433 has 188 MA's), (251, 5496), (255, 5505), (269, 5526), (284, 5562), (309, 5610), (329, 5667), (339, 5691), (420, 5880), (440, 5922), (475, 5979), (645, 6228),

Gene: Bluephacebaby\_48 Start: 41407, Stop: 42762, Start Num: 82

Candidate Starts for Bluephacebaby\_48:

(Start: 82 @41407 has 255 MA's), (98, 41458), (108, 41491), (168, 41620), (170, 41623), (Start: 180 @41638 has 5 MA's), (235, 41734), (251, 41773), (269, 41803), (284, 41839), (333, 41950), (345, 41980), (347, 41983), (379, 42049), (440, 42208), (469, 42256), (475, 42274), (498, 42322), (550, 42466), (571, 42526), (603, 42631), (637, 42718),

Gene: Bob3\_9 Start: 5573, Stop: 6541, Start Num: 163

Candidate Starts for Bob3\_9:

(Start: 163 @5573 has 304 MA's), (Start: 180 @5606 has 5 MA's), (Start: 190 @5624 has 1 MA's), (Start: 192 @5627 has 2 MA's), (335, 5894), (365, 5945), (368, 5957), (415, 6032), (442, 6095), (450, 6107), (462, 6128), (469, 6140), (474, 6158), (484, 6176), (496, 6200), (520, 6239), (551, 6320), (559, 6344), (561, 6347), (563, 6350), (567, 6359), (600, 6446), (629, 6533),

Gene: BobSwaget\_14 Start: 8111, Stop: 9097, Start Num: 163

Candidate Starts for BobSwaget\_14:

(Start: 163 @8111 has 304 MA's), (178, 8141), (Start: 190 @8162 has 1 MA's), (Start: 192 @8165 has 2 MA's), (212, 8198), (330, 8414), (362, 8465), (365, 8471), (368, 8483), (381, 8504), (437, 8594), (474, 8660), (551, 8810), (560, 8831), (604, 8945), (627, 9017),

Gene: BobaPhett\_31 Start: 27708, Stop: 28709, Start Num: 149

Candidate Starts for BobaPhett\_31:

(Start: 149 @27708 has 225 MA's), (Start: 192 @27783 has 2 MA's), (229, 27846), (239, 27867), (Start: 279 @27951 has 1 MA's), (292, 27975), (302, 27990), (306, 28002), (365, 28113), (423, 28227), (433, 28245), (454, 28284), (469, 28308), (484, 28344), (520, 28410), (559, 28518), (578, 28566), (585, 28578), (601, 28623), (604, 28635), (614, 28665),

Gene: Bobby\_48 Start: 41009, Stop: 42013, Start Num: 100

Candidate Starts for Bobby\_48:

(Start: 100 @41009 has 10 MA's), (117, 41063), (141, 41114), (181, 41183), (184, 41186), (212, 41228), (287, 41366), (293, 41375), (313, 41420), (345, 41489), (363, 41513), (364, 41516), (384, 41561), (392, 41579), (469, 41741), (473, 41756), (478, 41765), (637, 41966),

Gene: Bobi\_33 Start: 28223, Stop: 29221, Start Num: 149

Candidate Starts for Bobi\_33:

(Start: 149 @28223 has 225 MA's), (Start: 192 @28298 has 2 MA's), (229, 28358), (239, 28379), (Start: 279 @28463 has 1 MA's), (306, 28514), (312, 28529), (365, 28625), (422, 28736), (433, 28757), (454, 28796), (462, 28808), (484, 28856), (497, 28883), (511, 28907), (520, 28922), (559, 29030), (578, 29078), (604, 29147), (614, 29177),

Gene: BobsGarage\_28 Start: 26303, Stop: 27274, Start Num: 102

Candidate Starts for BobsGarage\_28:

(Start: 102 @26303 has 88 MA's), (120, 26357), (Start: 198 @26507 has 122 MA's), (203, 26516), (208, 26522), (Start: 227 @26555 has 1 MA's), (228, 26558), (232, 26567), (242, 26588), (275, 26651), (293, 26678), (305, 26702), (345, 26783), (352, 26795), (386, 26858), (392, 26873), (415, 26933), (419, 26948), (469, 27029), (475, 27047), (476, 27050), (478, 27053), (579, 27104), (601, 27149), (613, 27191), (628, 27233),

Gene: BodEinwohner17\_31 Start: 27906, Stop: 28907, Start Num: 149

Candidate Starts for BodEinwohner17\_31:

(Start: 149 @27906 has 225 MA's), (Start: 192 @27981 has 2 MA's), (210, 28014), (229, 28044), (239, 28065), (251, 28095), (259, 28107), (Start: 279 @28149 has 1 MA's), (292, 28173), (302, 28188), (306, 28200), (365, 28311), (423, 28425), (433, 28443), (454, 28482), (462, 28494), (484, 28542), (497, 28569), (511, 28593), (520, 28608), (559, 28716), (578, 28764), (604, 28833), (614, 28863),

Gene: Boehler\_49 Start: 41713, Stop: 43068, Start Num: 82

Candidate Starts for Boehler\_49:

(Start: 82 @41713 has 255 MA's), (98, 41764), (108, 41797), (168, 41926), (170, 41929), (Start: 180 @41944 has 5 MA's), (235, 42040), (251, 42079), (269, 42109), (284, 42145), (333, 42256), (345, 42286), (347, 42289), (379, 42355), (440, 42514), (469, 42562), (475, 42580), (498, 42628), (550, 42772), (571, 42832), (603, 42937), (637, 43024),

Gene: Bogie\_29 Start: 25888, Stop: 27054, Start Num: 102

Candidate Starts for Bogie\_29:

(31, 25354), (36, 25402), (41, 25507), (Start: 102 @25888 has 88 MA's), (106, 25897), (122, 25942), (123, 25945), (168, 26032), (Start: 198 @26077 has 122 MA's), (235, 26152), (245, 26173), (251, 26191), (284, 26257), (305, 26296), (309, 26308), (333, 26362), (345, 26392), (359, 26413), (379, 26458), (417, 26554), (434, 26593), (440, 26608), (447, 26620), (469, 26647), (510, 26734), (527, 26752), (530, 26758), (553, 26806), (578, 26851), (598, 26899), (620, 26974),

Gene: Boiiii\_31 Start: 26496, Stop: 27368, Start Num: 221

Candidate Starts for Boiiii\_31:

(76, 26166), (151, 26394), (195, 26469), (Start: 221 @26496 has 188 MA's), (Start: 227 @26508 has 1 MA's), (258, 26577), (275, 26604), (287, 26634), (293, 26643), (309, 26679), (313, 26688), (323, 26721), (331, 26739), (347, 26769), (379, 26829), (447, 26964), (469, 26991), (476, 27012), (487, 27036), (521, 27087), (578, 27189), (598, 27225), (604, 27249), (640, 27348), (643, 27357),

Gene: Boilgate\_28 Start: 28389, Stop: 29168, Start Num: 200

Candidate Starts for Boilgate\_28:

(165, 28332), (Start: 200 @28389 has 20 MA's), (Start: 227 @28422 has 1 MA's), (242, 28455), (270, 28509), (275, 28518), (293, 28545), (309, 28581), (313, 28590), (350, 28662), (447, 28869), (469, 28896), (476, 28917), (489, 28944), (574, 28962), (601, 29019), (604, 29031), (612, 29055),

Gene: Bombitas\_46 Start: 42161, Stop: 43027, Start Num: 89

Candidate Starts for Bombitas\_46:

(Start: 89 @42161 has 30 MA's), (Start: 97 @42188 has 1 MA's), (101, 42209), (Start: 138 @42296 has 44 MA's), (Start: 148 @42317 has 26 MA's), (174, 42362), (189, 42383), (206, 42404), (233, 42458), (255, 42509), (281, 42560), (355, 42710), (374, 42752), (400, 42803), (405, 42821), (427, 42887), (434, 42899), (438, 42908), (452, 42938), (486, 43001),

Gene: Bombshell\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Bombshell\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (401, 6301), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Bonamassa\_8 Start: 5355, Stop: 6164, Start Num: 221

Candidate Starts for Bonamassa\_8:

(Start: 221 @5355 has 188 MA's), (251, 5418), (255, 5427), (284, 5484), (309, 5532), (339, 5613), (420, 5802), (440, 5844), (475, 5901), (495, 5943), (645, 6150),

Gene: Bones\_10 Start: 5768, Stop: 6736, Start Num: 163

Candidate Starts for Bones\_10:

(Start: 163 @5768 has 304 MA's), (Start: 180 @5801 has 5 MA's), (Start: 190 @5819 has 1 MA's), (Start: 192 @5822 has 2 MA's), (335, 6089), (365, 6140), (368, 6152), (415, 6227), (442, 6290), (450, 6302), (462, 6323), (469, 6335), (474, 6353), (484, 6371), (496, 6395), (520, 6434), (551, 6515), (559, 6539), (561, 6542), (563, 6545), (567, 6554), (600, 6641), (629, 6728),

Gene: Bongo\_38 Start: 31794, Stop: 32765, Start Num: 169

Candidate Starts for Bongo\_38:

(Start: 169 @31794 has 13 MA's), (183, 31818), (191, 31833), (266, 31971), (281, 31998), (300, 32016), (305, 32028), (308, 32037), (325, 32082), (330, 32094), (346, 32121), (365, 32148), (368, 32160), (397, 32205), (410, 32232), (423, 32262), (428, 32271), (430, 32274), (475, 32361), (485, 32376), (551, 32529), (552, 32532), (574, 32592), (578, 32604), (581, 32613), (598, 32649), (602, 32664), (618, 32703), (632, 32736),

Gene: Bonray\_255 Start: 146338, Stop: 147366, Start Num: 142

Candidate Starts for Bonray\_255:

(Start: 142 @146338 has 200 MA's), (Start: 163 @146368 has 304 MA's), (170, 146380), (Start: 192 @146422 has 2 MA's), (229, 146485), (239, 146506), (Start: 279 @146590 has 1 MA's), (302, 146632), (306, 146644), (312, 146659), (344, 146728), (365, 146755), (393, 146809), (411, 146854),

(414, 146857), (449, 146935), (462, 146956), (520, 147067), (554, 147157), (559, 147175), (590, 147247), (601, 147280),

Gene: Boomer\_33 Start: 27576, Stop: 28577, Start Num: 149

Candidate Starts for Boomer\_33:

(Start: 149 @27576 has 225 MA's), (Start: 192 @27651 has 2 MA's), (210, 27684), (229, 27714), (239, 27735), (251, 27765), (259, 27777), (Start: 279 @27819 has 1 MA's), (292, 27843), (302, 27858), (306, 27870), (365, 27981), (423, 28095), (433, 28113), (454, 28152), (469, 28176), (484, 28212), (497, 28239), (520, 28278), (559, 28386), (578, 28434), (585, 28446), (601, 28491), (604, 28503), (614, 28533),

Gene: BoostSeason\_30 Start: 24885, Stop: 26096, Start Num: 99

Candidate Starts for BoostSeason\_30:

(16, 24174), (19, 24237), (22, 24261), (70, 24762), (73, 24783), (87, 24846), (Start: 99 @24885 has 10 MA's), (104, 24912), (111, 24933), (125, 24969), (150, 25014), (205, 25110), (Start: 227 @25143 has 1 MA's), (228, 25146), (242, 25176), (275, 25242), (293, 25281), (330, 25359), (353, 25404), (384, 25461), (392, 25479), (418, 25551), (469, 25644), (476, 25665), (486, 25686), (487, 25689), (539, 25803), (545, 25818), (575, 25887), (601, 25944), (624, 26025),

Gene: Bora\_65 Start: 43113, Stop: 44153, Start Num: 148

Candidate Starts for Bora\_65:

(Start: 148 @43113 has 26 MA's), (Start: 192 @43188 has 2 MA's), (229, 43269), (239, 43290), (278, 43371), (Start: 279 @43374 has 1 MA's), (306, 43428), (312, 43443), (365, 43539), (385, 43578), (397, 43608), (411, 43638), (414, 43641), (425, 43674), (462, 43740), (484, 43788), (497, 43815), (520, 43854), (589, 44028), (604, 44079),

Gene: BreSam8\_12 Start: 5955, Stop: 6920, Start Num: 153

Candidate Starts for BreSam8\_12:

(Start: 153 @5955 has 92 MA's), (Start: 180 @6000 has 5 MA's), (Start: 192 @6021 has 2 MA's), (256, 6141), (330, 6279), (365, 6336), (371, 6351), (422, 6432), (430, 6447), (439, 6465), (469, 6516), (474, 6534), (497, 6579), (538, 6675), (561, 6738), (575, 6777), (597, 6828),

Gene: Bread\_249 Start: 144305, Stop: 145333, Start Num: 142

Candidate Starts for Bread\_249:

(Start: 142 @144305 has 200 MA's), (Start: 163 @144335 has 304 MA's), (170, 144347), (Start: 192 @144389 has 2 MA's), (229, 144452), (239, 144473), (Start: 279 @144557 has 1 MA's), (302, 144599), (306, 144611), (312, 144626), (344, 144695), (365, 144722), (393, 144776), (411, 144821), (414, 144824), (449, 144902), (462, 144923), (520, 145034), (554, 145124), (559, 145142), (590, 145214), (601, 145247),

Gene: Breeniome\_252 Start: 143293, Stop: 144321, Start Num: 142

Candidate Starts for Breeniome\_252:

(Start: 142 @143293 has 200 MA's), (Start: 163 @143323 has 304 MA's), (170, 143335), (Start: 192 @143377 has 2 MA's), (229, 143440), (239, 143461), (Start: 279 @143545 has 1 MA's), (302, 143587), (306, 143599), (312, 143614), (344, 143683), (365, 143710), (393, 143764), (411, 143809), (414, 143812), (449, 143890), (462, 143911), (520, 144022), (554, 144112), (559, 144130), (590, 144202), (601, 144235),

Gene: Breezona\_28 Start: 26303, Stop: 27274, Start Num: 102

Candidate Starts for Breezona\_28:

(Start: 102 @26303 has 88 MA's), (120, 26357), (Start: 198 @26507 has 122 MA's), (203, 26516), (208, 26522), (Start: 227 @26555 has 1 MA's), (228, 26558), (232, 26567), (242, 26588), (275, 26651), (293, 26678), (305, 26702), (345, 26783), (352, 26795), (386, 26858), (392, 26873), (415,

26933), (419, 26948), (469, 27029), (475, 27047), (476, 27050), (478, 27053), (579, 27104), (601, 27149), (613, 27191), (628, 27233),

Gene: Briakila\_48 Start: 42303, Stop: 43367, Start Num: 138

Candidate Starts for Briakila\_48:

(Start: 138 @42303 has 44 MA's), (173, 42366), (219, 42447), (252, 42513), (260, 42528), (269, 42540), (280, 42567), (311, 42624), (314, 42633), (391, 42780), (401, 42795), (422, 42849), (439, 42882), (463, 42921), (470, 42933), (512, 43014), (520, 43032), (523, 43035), (578, 43191), (617, 43302), (626, 43323), (641, 43356),

Gene: Bricole\_38 Start: 31780, Stop: 32751, Start Num: 169

Candidate Starts for Bricole\_38:

(Start: 169 @31780 has 13 MA's), (183, 31804), (191, 31819), (266, 31957), (281, 31984), (300, 32002), (305, 32014), (308, 32023), (325, 32068), (330, 32080), (346, 32107), (365, 32134), (368, 32146), (397, 32191), (410, 32218), (423, 32248), (428, 32257), (430, 32260), (475, 32347), (485, 32362), (551, 32515), (552, 32518), (574, 32578), (578, 32590), (581, 32599), (598, 32635), (602, 32650), (618, 32689), (632, 32722),

Gene: Brilliant\_49 Start: 41406, Stop: 42761, Start Num: 82

Candidate Starts for Brilliant\_49:

(Start: 82 @41406 has 255 MA's), (98, 41457), (108, 41490), (114, 41508), (168, 41619), (170, 41622), (Start: 180 @41637 has 5 MA's), (235, 41733), (251, 41772), (269, 41802), (284, 41838), (333, 41949), (345, 41979), (347, 41982), (379, 42048), (440, 42207), (469, 42255), (475, 42273), (498, 42321), (550, 42465), (571, 42525), (603, 42630), (637, 42717),

Gene: Briton15\_11 Start: 5784, Stop: 6752, Start Num: 163

Candidate Starts for Briton15\_11:

(Start: 163 @5784 has 304 MA's), (Start: 180 @5817 has 5 MA's), (Start: 190 @5835 has 1 MA's), (Start: 192 @5838 has 2 MA's), (335, 6105), (365, 6156), (368, 6168), (415, 6243), (462, 6339), (474, 6369), (520, 6450), (551, 6531), (559, 6555), (561, 6558), (563, 6561), (567, 6570), (600, 6657), (629, 6744),

Gene: Brocalys\_26 Start: 23309, Stop: 24310, Start Num: 149

Candidate Starts for Brocalys\_26:

(Start: 149 @23309 has 225 MA's), (Start: 192 @23384 has 2 MA's), (229, 23447), (239, 23468), (Start: 279 @23552 has 1 MA's), (292, 23576), (302, 23591), (306, 23603), (365, 23714), (433, 23846), (454, 23885), (462, 23897), (497, 23972), (520, 24011), (604, 24236), (614, 24266),

Gene: Bromden\_28 Start: 25913, Stop: 26935, Start Num: 142

Candidate Starts for Bromden\_28:

(Start: 142 @25913 has 200 MA's), (231, 26057), (233, 26063), (236, 26069), (284, 26171), (286, 26174), (Start: 294 @26189 has 16 MA's), (306, 26213), (314, 26234), (330, 26276), (365, 26333), (423, 26447), (430, 26459), (474, 26552), (516, 26633), (537, 26681), (561, 26744), (567, 26756), (595, 26822), (597, 26831), (604, 26858),

Gene: Broseidon\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Broseidon\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: BruceB\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for BruceB\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: Bruin\_35 Start: 31878, Stop: 32735, Start Num: 198

Candidate Starts for Bruin\_35:

(Start: 198 @31878 has 122 MA's), (220, 31917), (232, 31947), (242, 31968), (257, 32004), (275, 32034), (309, 32109), (334, 32157), (336, 32160), (345, 32184), (347, 32187), (356, 32202), (426, 32373), (487, 32487), (495, 32502), (498, 32508), (575, 32550), (576, 32553), (601, 32607), (624, 32685), (641, 32718),

Gene: Bruiser\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Bruiser\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Brujita\_30 Start: 26243, Stop: 27409, Start Num: 102

Candidate Starts for Brujita\_30:

(31, 25709), (36, 25757), (41, 25862), (Start: 102 @26243 has 88 MA's), (106, 26252), (122, 26297), (123, 26300), (168, 26387), (Start: 198 @26432 has 122 MA's), (235, 26507), (245, 26528), (251, 26546), (284, 26612), (305, 26651), (309, 26663), (333, 26717), (345, 26747), (359, 26768), (379, 26813), (417, 26909), (434, 26948), (440, 26963), (447, 26975), (469, 27002), (510, 27089), (527, 27107), (530, 27113), (553, 27161), (578, 27206), (598, 27254), (620, 27329),

Gene: Bruns\_8 Start: 5434, Stop: 6402, Start Num: 163

Candidate Starts for Bruns\_8:

(Start: 163 @5434 has 304 MA's), (Start: 180 @5467 has 5 MA's), (Start: 190 @5485 has 1 MA's), (Start: 192 @5488 has 2 MA's), (335, 5755), (365, 5806), (368, 5818), (415, 5893), (442, 5956), (456, 5980), (474, 6019), (484, 6037), (520, 6100), (551, 6181), (559, 6205), (561, 6208), (563, 6211), (567, 6220), (600, 6307), (614, 6352), (629, 6394),

Gene: Brusacoram\_27 Start: 24047, Stop: 25213, Start Num: 102

Candidate Starts for Brusacoram\_27:

(5, 22928), (9, 23081), (15, 23294), (36, 23561), (41, 23666), (Start: 102 @24047 has 88 MA's), (106, 24056), (122, 24101), (123, 24104), (168, 24191), (Start: 198 @24236 has 122 MA's), (235, 24311), (245, 24332), (284, 24416), (305, 24455), (333, 24521), (345, 24551), (359, 24572), (379, 24617), (417, 24713), (434, 24752), (440, 24767), (447, 24779), (469, 24806), (508, 24890), (510, 24893), (527, 24911), (530, 24917), (553, 24965), (578, 25010), (598, 25058), (620, 25133),

Gene: Bryler\_31 Start: 25864, Stop: 26607, Start Num: 217

Candidate Starts for Bryler\_31:

(195, 25837), (Start: 217 @25864 has 11 MA's), (228, 25882), (239, 25906), (242, 25912), (258, 25948), (287, 25996), (293, 26005), (309, 26041), (323, 26083), (379, 26191), (447, 26326), (462, 26341), (469, 26353), (476, 26374), (496, 26389), (497, 26392), (538, 26398), (601, 26476), (624, 26557), (637, 26578), (640, 26587),

Gene: BubbleTrouble\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for BubbleTrouble\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),



Gene: Bubbles123\_33 Start: 28498, Stop: 29499, Start Num: 149

Candidate Starts for Bubbles123\_33:

(Start: 149 @28498 has 225 MA's), (Start: 192 @28573 has 2 MA's), (210, 28606), (229, 28636), (239, 28657), (Start: 279 @28741 has 1 MA's), (306, 28792), (312, 28807), (365, 28903), (422, 29014), (433, 29035), (454, 29074), (462, 29086), (484, 29134), (497, 29161), (511, 29185), (520, 29200), (559, 29308), (578, 29356), (604, 29425), (614, 29455),

Gene: Buck\_34 Start: 31814, Stop: 32671, Start Num: 198

Candidate Starts for Buck\_34:

(Start: 198 @31814 has 122 MA's), (220, 31853), (232, 31883), (242, 31904), (257, 31940), (275, 31970), (309, 32045), (334, 32093), (336, 32096), (345, 32120), (347, 32123), (356, 32138), (426, 32309), (481, 32408), (487, 32423), (495, 32438), (498, 32444), (575, 32486), (576, 32489), (601, 32543), (624, 32621), (641, 32654),

Gene: Buckeye\_49 Start: 41727, Stop: 43082, Start Num: 82

Candidate Starts for Buckeye\_49:

(Start: 82 @41727 has 255 MA's), (98, 41778), (108, 41811), (168, 41940), (170, 41943), (Start: 180 @41958 has 5 MA's), (235, 42054), (251, 42093), (269, 42123), (284, 42159), (333, 42270), (345, 42300), (347, 42303), (379, 42369), (440, 42528), (469, 42576), (475, 42594), (498, 42642), (550, 42786), (571, 42846), (603, 42951), (637, 43038),

Gene: Bugatti\_10 Start: 5739, Stop: 6479, Start Num: 285

Candidate Starts for Bugatti\_10:

(209, 5622), (Start: 285 @5739 has 17 MA's), (330, 5826), (365, 5883), (368, 5895), (371, 5898), (385, 5922), (400, 5937), (408, 5955), (422, 5985), (425, 5991), (430, 6000), (439, 6018), (469, 6069), (474, 6087), (512, 6159), (535, 6201), (538, 6228), (549, 6255), (559, 6288), (561, 6291), (575, 6330), (631, 6471),

Gene: BugsBunny\_33 Start: 31447, Stop: 32304, Start Num: 198

Candidate Starts for BugsBunny\_33:

(Start: 198 @31447 has 122 MA's), (220, 31486), (232, 31516), (242, 31537), (257, 31573), (275, 31603), (309, 31678), (334, 31726), (336, 31729), (345, 31753), (347, 31756), (356, 31771), (426, 31942), (487, 32056), (495, 32071), (498, 32077), (575, 32119), (576, 32122), (601, 32176), (624, 32254), (641, 32287),

Gene: Buggy\_13 Start: 6872, Stop: 7864, Start Num: 163

Candidate Starts for Buggy\_13:

(Start: 163 @6872 has 304 MA's), (Start: 190 @6923 has 1 MA's), (Start: 192 @6926 has 2 MA's), (299, 7094), (302, 7100), (312, 7127), (338, 7187), (365, 7232), (412, 7319), (437, 7364), (467, 7403), (494, 7451), (504, 7466), (540, 7532), (555, 7574), (588, 7661), (604, 7709), (624, 7775),

Gene: Bumblebee11\_10 Start: 5887, Stop: 6870, Start Num: 163

Candidate Starts for Bumblebee11\_10:

(Start: 163 @5887 has 304 MA's), (178, 5917), (Start: 190 @5938 has 1 MA's), (Start: 192 @5941 has 2 MA's), (330, 6190), (362, 6241), (365, 6247), (368, 6259), (387, 6289), (416, 6331), (437, 6379), (464, 6409), (474, 6436), (551, 6586), (601, 6709), (604, 6721), (607, 6730), (627, 6787), (652, 6862),

Gene: Bunnies\_27 Start: 24068, Stop: 25234, Start Num: 102

Candidate Starts for Bunnies\_27:

(15, 23315), (36, 23582), (41, 23687), (Start: 102 @24068 has 88 MA's), (106, 24077), (122, 24122), (123, 24125), (168, 24212), (Start: 198 @24257 has 122 MA's), (235, 24332), (245, 24353), (251, 24371), (284, 24437), (305, 24476), (333, 24542), (345, 24572), (359, 24593), (379, 24638), (417,

24734), (434, 24773), (440, 24788), (469, 24827), (510, 24914), (527, 24932), (530, 24938), (553, 24986), (598, 25079), (620, 25154),

Gene: Burger\_9 Start: 5884, Stop: 6861, Start Num: 166

Candidate Starts for Burger\_9:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Burr\_48 Start: 41401, Stop: 42756, Start Num: 82

Candidate Starts for Burr\_48:

(Start: 82 @41401 has 255 MA's), (98, 41452), (108, 41485), (168, 41614), (170, 41617), (Start: 180 @41632 has 5 MA's), (235, 41728), (251, 41767), (269, 41797), (284, 41833), (333, 41944), (345, 41974), (347, 41977), (379, 42043), (440, 42202), (469, 42250), (475, 42268), (498, 42316), (550, 42460), (571, 42520), (603, 42625), (637, 42712),

Gene: Burrough\_253 Start: 145666, Stop: 146694, Start Num: 142

Candidate Starts for Burrough\_253:

(Start: 142 @145666 has 200 MA's), (Start: 163 @145696 has 304 MA's), (170, 145708), (Start: 192 @145750 has 2 MA's), (229, 145813), (239, 145834), (Start: 279 @145918 has 1 MA's), (302, 145960), (306, 145972), (312, 145987), (344, 146056), (365, 146083), (393, 146137), (411, 146182), (414, 146185), (449, 146263), (462, 146284), (520, 146395), (554, 146485), (559, 146503), (590, 146575), (601, 146608),

Gene: Burton\_10 Start: 5634, Stop: 6602, Start Num: 163

Candidate Starts for Burton\_10:

(Start: 163 @5634 has 304 MA's), (Start: 180 @5667 has 5 MA's), (Start: 190 @5685 has 1 MA's), (Start: 192 @5688 has 2 MA's), (335, 5955), (365, 6006), (368, 6018), (415, 6093), (442, 6156), (450, 6168), (462, 6189), (469, 6201), (474, 6219), (484, 6237), (496, 6261), (520, 6300), (551, 6381), (559, 6405), (561, 6408), (563, 6411), (567, 6420), (600, 6507), (629, 6594),

Gene: Burwell21\_31 Start: 27697, Stop: 28698, Start Num: 149

Candidate Starts for Burwell21\_31:

(Start: 149 @27697 has 225 MA's), (Start: 163 @27718 has 304 MA's), (170, 27730), (Start: 192 @27772 has 2 MA's), (229, 27835), (239, 27856), (251, 27886), (Start: 279 @27940 has 1 MA's), (292, 27964), (302, 27979), (306, 27991), (365, 28102), (423, 28216), (433, 28234), (454, 28273), (469, 28297), (484, 28333), (497, 28360), (520, 28399), (538, 28447), (559, 28507), (585, 28567), (604, 28624), (614, 28654),

Gene: Butters\_27 Start: 22757, Stop: 23917, Start Num: 102

Candidate Starts for Butters\_27:

(10, 21803), (15, 21998), (31, 22232), (41, 22385), (Start: 102 @22757 has 88 MA's), (123, 22814), (168, 22901), (235, 23021), (305, 23165), (309, 23177), (333, 23231), (345, 23261), (359, 23282), (379, 23327), (440, 23477), (447, 23489), (469, 23516), (476, 23537), (500, 23585), (510, 23603), (563, 23681), (572, 23696), (598, 23762), (640, 23879),

Gene: Buttons\_11 Start: 6206, Stop: 7174, Start Num: 163

Candidate Starts for Buttons\_11:

(Start: 163 @6206 has 304 MA's), (Start: 180 @6239 has 5 MA's), (Start: 190 @6257 has 1 MA's), (Start: 192 @6260 has 2 MA's), (335, 6527), (365, 6578), (368, 6590), (415, 6665), (442, 6728), (450, 6740), (462, 6761), (469, 6773), (474, 6791), (484, 6809), (520, 6872), (551, 6953), (559, 6977), (561, 6980), (563, 6983), (567, 6992), (600, 7079), (614, 7124), (629, 7166),

Gene: BuzzBuzz\_11 Start: 6046, Stop: 7011, Start Num: 153

Candidate Starts for BuzzBuzz\_11:

(Start: 153 @6046 has 92 MA's), (Start: 180 @6091 has 5 MA's), (Start: 192 @6112 has 2 MA's), (256, 6232), (330, 6370), (365, 6427), (371, 6442), (422, 6523), (430, 6538), (439, 6556), (469, 6607), (474, 6625), (497, 6670), (538, 6766), (561, 6829), (597, 6919),

Gene: BuzzLyseyear\_34 Start: 28312, Stop: 29313, Start Num: 149

Candidate Starts for BuzzLyseyear\_34:

(Start: 149 @28312 has 225 MA's), (Start: 192 @28387 has 2 MA's), (210, 28420), (229, 28450), (239, 28471), (251, 28501), (259, 28513), (Start: 279 @28555 has 1 MA's), (292, 28579), (302, 28594), (306, 28606), (365, 28717), (423, 28831), (433, 28849), (454, 28888), (469, 28912), (484, 28948), (497, 28975), (520, 29014), (559, 29122), (578, 29170), (604, 29239), (614, 29269),

Gene: Bxb1\_9 Start: 6043, Stop: 7011, Start Num: 163

Candidate Starts for Bxb1\_9:

(Start: 163 @6043 has 304 MA's), (Start: 180 @6076 has 5 MA's), (Start: 190 @6094 has 1 MA's), (Start: 192 @6097 has 2 MA's), (335, 6364), (365, 6415), (368, 6427), (415, 6502), (442, 6565), (450, 6577), (462, 6598), (474, 6628), (484, 6646), (496, 6670), (520, 6709), (551, 6790), (559, 6814), (561, 6817), (563, 6820), (567, 6829), (600, 6916), (614, 6961), (629, 7003),

Gene: Bxz1\_238 Start: 145870, Stop: 146898, Start Num: 142

Candidate Starts for Bxz1\_238:

(Start: 142 @145870 has 200 MA's), (Start: 163 @145900 has 304 MA's), (170, 145912), (Start: 192 @145954 has 2 MA's), (229, 146017), (239, 146038), (Start: 279 @146122 has 1 MA's), (302, 146164), (306, 146176), (312, 146191), (344, 146260), (365, 146287), (393, 146341), (411, 146386), (414, 146389), (449, 146467), (462, 146488), (520, 146599), (554, 146689), (559, 146707), (590, 146779), (601, 146812),

Gene: Bxz2\_12 Start: 6056, Stop: 7021, Start Num: 153

Candidate Starts for Bxz2\_12:

(Start: 153 @6056 has 92 MA's), (Start: 180 @6101 has 5 MA's), (Start: 192 @6122 has 2 MA's), (256, 6242), (330, 6380), (365, 6437), (371, 6452), (422, 6533), (430, 6548), (439, 6566), (469, 6617), (474, 6635), (497, 6680), (538, 6776), (561, 6839), (575, 6878), (597, 6929),

Gene: Byougenkin\_31 Start: 27595, Stop: 28596, Start Num: 149

Candidate Starts for Byougenkin\_31:

(Start: 149 @27595 has 225 MA's), (Start: 192 @27670 has 2 MA's), (210, 27703), (229, 27733), (239, 27754), (Start: 279 @27838 has 1 MA's), (292, 27862), (302, 27877), (306, 27889), (365, 28000), (423, 28114), (433, 28132), (454, 28171), (469, 28195), (484, 28231), (497, 28258), (511, 28282), (520, 28297), (559, 28405), (578, 28453), (604, 28522), (614, 28552),

Gene: C3\_09 Start: 6596, Stop: 7345, Start Num: 294

Candidate Starts for C3\_09:

(Start: 294 @6596 has 16 MA's), (298, 6602), (366, 6743), (415, 6830), (422, 6854), (425, 6860), (439, 6887), (469, 6938), (474, 6956), (538, 7100), (561, 7163), (578, 7211), (579, 7214), (595, 7244), (597, 7253),

Gene: CLED96\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for CLED96\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: CRB1\_11 Start: 6408, Stop: 7385, Start Num: 163

Candidate Starts for CRB1\_11:

(Start: 163 @6408 has 304 MA's), (Start: 192 @6462 has 2 MA's), (234, 6519), (312, 6651), (325, 6687), (330, 6699), (365, 6756), (382, 6792), (415, 6840), (430, 6879), (470, 6951), (474, 6966), (507, 7029), (528, 7071), (538, 7119), (549, 7146), (554, 7161), (559, 7179), (561, 7182), (574, 7218), (597, 7272), (626, 7371),

Gene: CREW\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for CREW\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: Cabrinians\_31 Start: 27775, Stop: 28776, Start Num: 149

Candidate Starts for Cabrinians\_31:

(Start: 149 @27775 has 225 MA's), (Start: 192 @27850 has 2 MA's), (210, 27883), (229, 27913), (239, 27934), (251, 27964), (259, 27976), (Start: 279 @28018 has 1 MA's), (292, 28042), (302, 28057), (306, 28069), (365, 28180), (423, 28294), (433, 28312), (454, 28351), (469, 28375), (484, 28411), (520, 28477), (559, 28585), (578, 28633), (585, 28645), (601, 28690), (604, 28702), (614, 28732),

Gene: Cactojaque\_247 Start: 143484, Stop: 144512, Start Num: 142

Candidate Starts for Cactojaque\_247:

(Start: 142 @143484 has 200 MA's), (Start: 163 @143514 has 304 MA's), (170, 143526), (Start: 192 @143568 has 2 MA's), (229, 143631), (239, 143652), (Start: 279 @143736 has 1 MA's), (302, 143778), (306, 143790), (312, 143805), (344, 143874), (365, 143901), (393, 143955), (411, 144000), (414, 144003), (449, 144081), (462, 144102), (520, 144213), (554, 144303), (559, 144321), (590, 144393), (601, 144426),

Gene: Cactus\_36 Start: 31069, Stop: 31926, Start Num: 198

Candidate Starts for Cactus\_36:

(Start: 198 @31069 has 122 MA's), (220, 31108), (232, 31138), (242, 31159), (257, 31195), (275, 31225), (309, 31300), (334, 31348), (336, 31351), (345, 31375), (347, 31378), (356, 31393), (426, 31564), (487, 31678), (495, 31693), (498, 31699), (575, 31741), (576, 31744), (601, 31798), (624, 31876), (641, 31909),

Gene: CactusJack\_27 Start: 24311, Stop: 25477, Start Num: 102

Candidate Starts for CactusJack\_27:

(15, 23558), (26, 23729), (36, 23825), (41, 23930), (Start: 102 @24311 has 88 MA's), (106, 24320), (122, 24365), (123, 24368), (168, 24455), (Start: 198 @24500 has 122 MA's), (235, 24575), (245, 24596), (251, 24614), (284, 24680), (305, 24719), (333, 24785), (345, 24815), (359, 24836), (379, 24881), (417, 24977), (434, 25016), (440, 25031), (469, 25070), (510, 25157), (527, 25175), (530, 25181), (553, 25229), (598, 25322), (620, 25397),

Gene: CactusRose\_9 Start: 5756, Stop: 6724, Start Num: 163

Candidate Starts for CactusRose\_9:

(Start: 163 @5756 has 304 MA's), (Start: 180 @5789 has 5 MA's), (Start: 190 @5807 has 1 MA's), (Start: 192 @5810 has 2 MA's), (335, 6077), (365, 6128), (368, 6140), (415, 6215), (442, 6278), (450, 6290), (462, 6311), (469, 6323), (474, 6341), (484, 6359), (496, 6383), (520, 6422), (551, 6503), (559, 6527), (561, 6530), (563, 6533), (567, 6542), (614, 6674), (629, 6716),

Gene: Caelakin\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Caelakin\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Cain\_31 Start: 25852, Stop: 26595, Start Num: 217

Candidate Starts for Cain\_31:

(195, 25825), (Start: 217 @25852 has 11 MA's), (228, 25870), (239, 25894), (242, 25900), (258, 25936), (287, 25984), (293, 25993), (309, 26029), (323, 26071), (379, 26179), (447, 26314), (462, 26329), (469, 26341), (476, 26362), (496, 26377), (497, 26380), (538, 26386), (601, 26464), (624, 26545), (637, 26566), (640, 26575),

Gene: Cali\_242 Start: 144263, Stop: 145291, Start Num: 142

Candidate Starts for Cali\_242:

(Start: 142 @144263 has 200 MA's), (Start: 163 @144293 has 304 MA's), (Start: 192 @144347 has 2 MA's), (229, 144410), (239, 144431), (Start: 279 @144515 has 1 MA's), (302, 144557), (306, 144569), (312, 144584), (344, 144653), (365, 144680), (393, 144734), (411, 144779), (414, 144782), (449, 144860), (462, 144881), (520, 144992), (554, 145082), (559, 145100), (590, 145172), (601, 145205),

Gene: Calm\_26 Start: 25561, Stop: 26592, Start Num: 142

Candidate Starts for Calm\_26:

(Start: 142 @25561 has 200 MA's), (235, 25714), (236, 25717), (247, 25741), (251, 25753), (261, 25771), (272, 25789), (278, 25807), (281, 25813), (286, 25822), (Start: 294 @25837 has 16 MA's), (303, 25852), (330, 25924), (365, 25981), (385, 26020), (425, 26098), (430, 26107), (431, 26110), (439, 26125), (467, 26179), (474, 26200), (482, 26215), (526, 26299), (537, 26329), (561, 26398), (567, 26410), (575, 26434), (581, 26452), (585, 26455), (590, 26467), (592, 26470), (601, 26500), (604, 26512),

Gene: CamL\_49 Start: 41696, Stop: 43051, Start Num: 82

Candidate Starts for CamL\_49:

(Start: 82 @41696 has 255 MA's), (98, 41747), (108, 41780), (168, 41909), (170, 41912), (Start: 180 @41927 has 5 MA's), (235, 42023), (251, 42062), (269, 42092), (284, 42128), (333, 42239), (345, 42269), (347, 42272), (379, 42338), (440, 42497), (469, 42545), (475, 42563), (498, 42611), (550, 42755), (571, 42815), (603, 42920), (637, 43007),

Gene: CampRoach\_50 Start: 41830, Stop: 43185, Start Num: 82

Candidate Starts for CampRoach\_50:

(Start: 82 @41830 has 255 MA's), (98, 41881), (108, 41914), (168, 42043), (170, 42046), (Start: 180 @42061 has 5 MA's), (235, 42157), (251, 42196), (269, 42226), (284, 42262), (333, 42373), (345, 42403), (347, 42406), (379, 42472), (440, 42631), (469, 42679), (475, 42697), (498, 42745), (550, 42889), (571, 42949), (603, 43054), (637, 43141),

Gene: Camperdownii\_9 Start: 5498, Stop: 6478, Start Num: 164

Candidate Starts for Camperdownii\_9:

(Start: 164 @5498 has 109 MA's), (178, 5525), (Start: 190 @5546 has 1 MA's), (Start: 192 @5549 has 2 MA's), (330, 5798), (365, 5855), (368, 5867), (382, 5891), (401, 5918), (416, 5939), (437, 5987), (474, 6044), (551, 6194), (598, 6305), (601, 6317), (604, 6329), (627, 6395),

Gene: Camri\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Camri\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080),

(534, 26131),

Gene: Camster\_27 Start: 24084, Stop: 25250, Start Num: 102

Candidate Starts for Camster\_27:

(Start: 102 @24084 has 88 MA's), (122, 24138), (123, 24141), (168, 24228), (Start: 198 @24273 has 122 MA's), (214, 24306), (235, 24348), (245, 24369), (251, 24387), (284, 24453), (305, 24492), (333, 24558), (345, 24588), (359, 24609), (379, 24654), (417, 24750), (434, 24789), (440, 24804), (469, 24843), (510, 24930), (527, 24948), (530, 24954), (553, 25002), (571, 25023), (598, 25095), (620, 25170),

Gene: Candle\_39 Start: 35346, Stop: 36395, Start Num: 142

Candidate Starts for Candle\_39:

(Start: 142 @35346 has 200 MA's), (Start: 192 @35430 has 2 MA's), (199, 35439), (211, 35463), (229, 35493), (239, 35514), (248, 35532), (254, 35550), (269, 35571), (274, 35580), (Start: 279 @35598 has 1 MA's), (297, 35625), (314, 35667), (358, 35757), (383, 35799), (394, 35820), (432, 35919), (448, 35946), (484, 36018), (515, 36072), (574, 36222), (587, 36249), (590, 36258), (603, 36300), (604, 36303), (606, 36309), (610, 36318), (622, 36354), (626, 36363), (632, 36372),

Gene: Cane17\_241 Start: 147674, Stop: 148708, Start Num: 142

Candidate Starts for Cane17\_241:

(Start: 142 @147674 has 200 MA's), (Start: 163 @147704 has 304 MA's), (Start: 192 @147758 has 2 MA's), (229, 147821), (239, 147842), (Start: 279 @147926 has 1 MA's), (302, 147968), (306, 147980), (312, 147995), (344, 148064), (365, 148091), (393, 148145), (411, 148190), (414, 148193), (449, 148271), (462, 148292), (520, 148403), (554, 148493), (559, 148511), (590, 148583), (601, 148616), (632, 148703),

Gene: Cannibal\_49 Start: 41679, Stop: 43034, Start Num: 82

Candidate Starts for Cannibal\_49:

(Start: 82 @41679 has 255 MA's), (98, 41730), (108, 41763), (168, 41892), (170, 41895), (Start: 180 @41910 has 5 MA's), (235, 42006), (251, 42045), (269, 42075), (284, 42111), (333, 42222), (345, 42252), (347, 42255), (379, 42321), (440, 42480), (469, 42528), (475, 42546), (498, 42594), (550, 42738), (571, 42798), (603, 42903), (637, 42990),

Gene: Capablanca\_257 Start: 146517, Stop: 147545, Start Num: 142

Candidate Starts for Capablanca\_257:

(Start: 142 @146517 has 200 MA's), (Start: 163 @146547 has 304 MA's), (170, 146559), (Start: 192 @146601 has 2 MA's), (229, 146664), (239, 146685), (Start: 279 @146769 has 1 MA's), (302, 146811), (306, 146823), (312, 146838), (344, 146907), (365, 146934), (393, 146988), (411, 147033), (414, 147036), (449, 147114), (462, 147135), (520, 147246), (554, 147336), (559, 147354), (590, 147426), (601, 147459),

Gene: Capricorn\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for Capricorn\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: CaptainTrips\_32 Start: 27915, Stop: 28916, Start Num: 149

Candidate Starts for CaptainTrips\_32:

(Start: 149 @27915 has 225 MA's), (Start: 163 @27936 has 304 MA's), (170, 27948), (Start: 192 @27990 has 2 MA's), (229, 28053), (239, 28074), (Start: 279 @28158 has 1 MA's), (292, 28182), (302, 28197), (306, 28209), (365, 28320), (423, 28434), (433, 28452), (454, 28491), (469, 28515),

(484, 28551), (497, 28578), (520, 28617), (559, 28725), (578, 28773), (585, 28785), (601, 28830), (604, 28842), (614, 28872),

Gene: Caravan\_242 Start: 144567, Stop: 145595, Start Num: 142

Candidate Starts for Caravan\_242:

(Start: 142 @144567 has 200 MA's), (Start: 163 @144597 has 304 MA's), (170, 144609), (Start: 192 @144651 has 2 MA's), (229, 144714), (239, 144735), (Start: 279 @144819 has 1 MA's), (302, 144861), (306, 144873), (312, 144888), (344, 144957), (365, 144984), (393, 145038), (411, 145083), (414, 145086), (449, 145164), (462, 145185), (520, 145296), (554, 145386), (559, 145404), (590, 145476), (601, 145509),

Gene: Carlyle\_12 Start: 6604, Stop: 7572, Start Num: 163

Candidate Starts for Carlyle\_12:

(Start: 163 @6604 has 304 MA's), (Start: 180 @6637 has 5 MA's), (Start: 190 @6655 has 1 MA's), (Start: 192 @6658 has 2 MA's), (335, 6925), (365, 6976), (368, 6988), (415, 7063), (442, 7126), (450, 7138), (462, 7159), (469, 7171), (474, 7189), (484, 7207), (496, 7231), (520, 7270), (551, 7351), (559, 7375), (561, 7378), (563, 7381), (567, 7390), (600, 7477), (614, 7522), (629, 7564),

Gene: Carthage\_47 Start: 40626, Stop: 41981, Start Num: 82

Candidate Starts for Carthage\_47:

(Start: 82 @40626 has 255 MA's), (98, 40677), (108, 40710), (168, 40839), (170, 40842), (Start: 180 @40857 has 5 MA's), (235, 40953), (251, 40992), (269, 41022), (284, 41058), (333, 41169), (345, 41199), (347, 41202), (379, 41268), (440, 41427), (469, 41475), (475, 41493), (498, 41541), (550, 41685), (571, 41745), (603, 41850), (637, 41937),

Gene: Casbah\_46 Start: 41385, Stop: 42449, Start Num: 138

Candidate Starts for Casbah\_46:

(Start: 138 @41385 has 44 MA's), (173, 41448), (219, 41529), (252, 41595), (260, 41610), (269, 41622), (280, 41649), (311, 41706), (314, 41715), (391, 41862), (401, 41877), (422, 41931), (439, 41964), (463, 42003), (470, 42015), (512, 42096), (520, 42114), (523, 42117), (538, 42162), (578, 42273), (617, 42384), (626, 42405), (641, 42438),

Gene: CaseJules\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for CaseJules\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: CassieYates\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for CassieYates\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: Catdawg\_67 Start: 43468, Stop: 44508, Start Num: 148

Candidate Starts for Catdawg\_67:

(Start: 148 @43468 has 26 MA's), (Start: 192 @43543 has 2 MA's), (229, 43624), (232, 43630), (239, 43645), (278, 43726), (Start: 279 @43729 has 1 MA's), (306, 43783), (312, 43798), (365, 43894), (385, 43933), (397, 43963), (411, 43993), (414, 43996), (425, 44029), (462, 44095), (484, 44143), (497, 44170), (520, 44209), (589, 44383), (604, 44434),

Gene: Catera\_241 Start: 143006, Stop: 144034, Start Num: 142

Candidate Starts for Catera\_241:

(Start: 142 @143006 has 200 MA's), (Start: 163 @143036 has 304 MA's), (170, 143048), (Start: 192 @143090 has 2 MA's), (229, 143153), (239, 143174), (Start: 279 @143258 has 1 MA's), (302, 143300), (306, 143312), (312, 143327), (344, 143396), (365, 143423), (393, 143477), (411, 143522), (414, 143525), (449, 143603), (462, 143624), (520, 143735), (554, 143825), (559, 143843), (590, 143915), (601, 143948),

Gene: Caviar\_11 Start: 6052, Stop: 7017, Start Num: 153

Candidate Starts for Caviar\_11:

(Start: 153 @6052 has 92 MA's), (Start: 180 @6097 has 5 MA's), (Start: 192 @6118 has 2 MA's), (256, 6238), (267, 6253), (Start: 296 @6292 has 2 MA's), (330, 6376), (365, 6433), (371, 6448), (422, 6529), (430, 6544), (439, 6562), (469, 6613), (474, 6631), (497, 6676), (538, 6772), (561, 6835), (575, 6874), (597, 6925),

Gene: Cedasite\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Cedasite\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: Centaur\_13 Start: 6923, Stop: 7900, Start Num: 163

Candidate Starts for Centaur\_13:

(Start: 163 @6923 has 304 MA's), (Start: 192 @6977 has 2 MA's), (234, 7034), (312, 7166), (330, 7214), (365, 7271), (382, 7307), (415, 7355), (430, 7394), (470, 7466), (474, 7481), (497, 7526), (507, 7544), (528, 7586), (538, 7634), (549, 7661), (554, 7676), (559, 7694), (561, 7697), (597, 7787),

Gene: CentreCat\_10 Start: 5882, Stop: 6862, Start Num: 164

Candidate Starts for CentreCat\_10:

(Start: 164 @5882 has 109 MA's), (Start: 166 @5885 has 14 MA's), (178, 5909), (Start: 190 @5930 has 1 MA's), (Start: 192 @5933 has 2 MA's), (330, 6182), (365, 6239), (416, 6323), (422, 6344), (437, 6371), (464, 6401), (474, 6428), (551, 6578), (598, 6689), (601, 6701), (604, 6713), (627, 6779),

Gene: Cerasum\_27 Start: 23733, Stop: 24731, Start Num: 149

Candidate Starts for Cerasum\_27:

(Start: 149 @23733 has 225 MA's), (Start: 192 @23808 has 2 MA's), (229, 23868), (239, 23889), (Start: 279 @23973 has 1 MA's), (306, 24024), (312, 24039), (365, 24135), (415, 24222), (422, 24246), (433, 24267), (454, 24306), (462, 24318), (484, 24366), (497, 24393), (511, 24417), (520, 24432), (559, 24540), (578, 24588), (604, 24657), (614, 24687),

Gene: Cerulean\_10 Start: 5859, Stop: 6839, Start Num: 164

Candidate Starts for Cerulean\_10:

(Start: 164 @5859 has 109 MA's), (178, 5886), (Start: 190 @5907 has 1 MA's), (Start: 192 @5910 has 2 MA's), (330, 6159), (365, 6216), (368, 6228), (401, 6279), (416, 6300), (437, 6348), (474, 6405), (551, 6555), (601, 6678), (604, 6690), (627, 6756),

Gene: ChaChing\_47 Start: 41548, Stop: 42612, Start Num: 138

Candidate Starts for ChaChing\_47:

(Start: 138 @41548 has 44 MA's), (173, 41611), (219, 41692), (252, 41758), (260, 41773), (269, 41785), (280, 41812), (311, 41869), (314, 41878), (391, 42025), (401, 42040), (422, 42094), (439, 42127), (463, 42166), (470, 42178), (512, 42259), (520, 42277), (523, 42280), (538, 42325), (578, 42436), (617, 42547), (626, 42568), (641, 42601),



Gene: Chadwick\_9 Start: 5150, Stop: 5959, Start Num: 221

Candidate Starts for Chadwick\_9:

(177, 5087), (207, 5126), (Start: 221 @5150 has 188 MA's), (251, 5213), (284, 5279), (293, 5294), (309, 5327), (420, 5597), (440, 5639), (469, 5678), (475, 5696), (489, 5726), (640, 5924),

Gene: Chaelin\_49 Start: 41402, Stop: 42757, Start Num: 82

Candidate Starts for Chaelin\_49:

(Start: 82 @41402 has 255 MA's), (98, 41453), (108, 41486), (168, 41615), (170, 41618), (Start: 180 @41633 has 5 MA's), (235, 41729), (251, 41768), (269, 41798), (284, 41834), (333, 41945), (345, 41975), (347, 41978), (379, 42044), (440, 42203), (469, 42251), (475, 42269), (498, 42317), (550, 42461), (571, 42521), (603, 42626), (637, 42713),

Gene: Chah\_51 Start: 41857, Stop: 43212, Start Num: 82

Candidate Starts for Chah\_51:

(Start: 82 @41857 has 255 MA's), (98, 41908), (108, 41941), (168, 42070), (170, 42073), (Start: 180 @42088 has 5 MA's), (235, 42184), (251, 42223), (269, 42253), (284, 42289), (333, 42400), (345, 42430), (347, 42433), (379, 42499), (440, 42658), (469, 42706), (475, 42724), (498, 42772), (550, 42916), (571, 42976), (603, 43081), (637, 43168),

Gene: ChampagnePapi\_10 Start: 5858, Stop: 6838, Start Num: 164

Candidate Starts for ChampagnePapi\_10:

(Start: 164 @5858 has 109 MA's), (178, 5885), (Start: 190 @5906 has 1 MA's), (Start: 192 @5909 has 2 MA's), (330, 6158), (365, 6215), (368, 6227), (401, 6278), (416, 6299), (437, 6347), (474, 6404), (551, 6554), (601, 6677), (604, 6689), (627, 6755),

Gene: Chanagan\_9 Start: 5600, Stop: 6568, Start Num: 163

Candidate Starts for Chanagan\_9:

(Start: 163 @5600 has 304 MA's), (Start: 180 @5633 has 5 MA's), (Start: 190 @5651 has 1 MA's), (Start: 192 @5654 has 2 MA's), (335, 5921), (365, 5972), (368, 5984), (415, 6059), (442, 6122), (450, 6134), (462, 6155), (469, 6167), (474, 6185), (484, 6203), (496, 6227), (520, 6266), (551, 6347), (559, 6371), (561, 6374), (563, 6377), (567, 6386), (600, 6473), (629, 6560),

Gene: Chance64\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Chance64\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (469, 26011), (476, 26032), (495, 26071), (498, 26077),

Gene: Chancellor\_32 Start: 27640, Stop: 28431, Start Num: 200

Candidate Starts for Chancellor\_32:

(Start: 200 @27640 has 20 MA's), (Start: 227 @27673 has 1 MA's), (242, 27706), (251, 27730), (264, 27751), (270, 27760), (283, 27790), (287, 27799), (293, 27808), (309, 27844), (350, 27925), (447, 28132), (469, 28159), (476, 28180), (487, 28204), (576, 28228), (601, 28282), (604, 28294), (625, 28366),

Gene: Chandler\_47 Start: 42316, Stop: 43380, Start Num: 138

Candidate Starts for Chandler\_47:

(Start: 138 @42316 has 44 MA's), (173, 42379), (219, 42460), (252, 42526), (260, 42541), (269, 42553), (280, 42580), (311, 42637), (314, 42646), (391, 42793), (401, 42808), (422, 42862), (439, 42895), (463, 42934), (470, 42946), (512, 43027), (520, 43045), (523, 43048), (578, 43204), (617, 43315), (626, 43336), (641, 43369),

Gene: Changeling\_14 Start: 8284, Stop: 9261, Start Num: 163

Candidate Starts for Changeling\_14:

(Start: 163 @8284 has 304 MA's), (Start: 192 @8338 has 2 MA's), (312, 8527), (325, 8563), (330, 8575), (365, 8632), (382, 8668), (415, 8716), (430, 8755), (469, 8824), (474, 8842), (497, 8887), (507, 8905), (528, 8947), (538, 8995), (549, 9022), (554, 9037), (561, 9058), (574, 9094), (575, 9097), (597, 9148),

Gene: Chaph\_10 Start: 5890, Stop: 6870, Start Num: 164

Candidate Starts for Chaph\_10:

(Start: 164 @5890 has 109 MA's), (Start: 166 @5893 has 14 MA's), (178, 5917), (Start: 190 @5938 has 1 MA's), (Start: 192 @5941 has 2 MA's), (330, 6190), (365, 6247), (416, 6331), (422, 6352), (437, 6379), (464, 6409), (474, 6436), (551, 6586), (598, 6697), (601, 6709), (604, 6721), (627, 6787),

Gene: Chargie21\_250 Start: 142761, Stop: 143789, Start Num: 142

Candidate Starts for Chargie21\_250:

(Start: 142 @142761 has 200 MA's), (Start: 163 @142791 has 304 MA's), (170, 142803), (Start: 192 @142845 has 2 MA's), (229, 142908), (239, 142929), (Start: 279 @143013 has 1 MA's), (302, 143055), (306, 143067), (312, 143082), (344, 143151), (365, 143178), (393, 143232), (411, 143277), (414, 143280), (415, 143283), (449, 143358), (462, 143379), (520, 143490), (554, 143580), (559, 143598), (590, 143670), (601, 143703),

Gene: Charles1\_49 Start: 41687, Stop: 43042, Start Num: 82

Candidate Starts for Charles1\_49:

(Start: 82 @41687 has 255 MA's), (98, 41738), (108, 41771), (168, 41900), (170, 41903), (Start: 180 @41918 has 5 MA's), (235, 42014), (251, 42053), (269, 42083), (284, 42119), (333, 42230), (345, 42260), (347, 42263), (379, 42329), (440, 42488), (469, 42536), (475, 42554), (498, 42602), (550, 42746), (571, 42806), (603, 42911), (637, 42998),

Gene: CharlieB\_247 Start: 144029, Stop: 145057, Start Num: 142

Candidate Starts for CharlieB\_247:

(Start: 142 @144029 has 200 MA's), (Start: 163 @144059 has 304 MA's), (Start: 192 @144113 has 2 MA's), (229, 144176), (239, 144197), (Start: 279 @144281 has 1 MA's), (302, 144323), (306, 144335), (312, 144350), (344, 144419), (365, 144446), (393, 144500), (411, 144545), (414, 144548), (449, 144626), (462, 144647), (520, 144758), (554, 144848), (559, 144866), (590, 144938), (601, 144971),

Gene: CharlieGBrown\_48 Start: 41277, Stop: 42632, Start Num: 82

Candidate Starts for CharlieGBrown\_48:

(Start: 82 @41277 has 255 MA's), (98, 41328), (108, 41361), (168, 41490), (170, 41493), (Start: 180 @41508 has 5 MA's), (235, 41604), (251, 41643), (269, 41673), (284, 41709), (333, 41820), (345, 41850), (347, 41853), (379, 41919), (440, 42078), (469, 42126), (475, 42144), (498, 42192), (550, 42336), (571, 42396), (603, 42501), (637, 42588),

Gene: Chaser\_26 Start: 25327, Stop: 26349, Start Num: 142

Candidate Starts for Chaser\_26:

(Start: 142 @25327 has 200 MA's), (211, 25438), (231, 25471), (233, 25477), (236, 25483), (284, 25585), (286, 25588), (306, 25627), (314, 25648), (330, 25690), (365, 25747), (423, 25861), (430, 25873), (474, 25966), (516, 26047), (518, 26050), (537, 26095), (561, 26158), (567, 26170), (597, 26245), (604, 26272),

Gene: ChaylaJr\_251 Start: 143703, Stop: 144731, Start Num: 142

Candidate Starts for ChaylaJr\_251:

(Start: 142 @143703 has 200 MA's), (Start: 163 @143733 has 304 MA's), (170, 143745), (Start: 192 @143787 has 2 MA's), (229, 143850), (239, 143871), (Start: 279 @143955 has 1 MA's), (302,

143997), (306, 144009), (312, 144024), (344, 144093), (365, 144120), (393, 144174), (411, 144219), (414, 144222), (449, 144300), (462, 144321), (520, 144432), (554, 144522), (559, 144540), (590, 144612), (601, 144645),

Gene: Che8\_33 Start: 27957, Stop: 28958, Start Num: 149

Candidate Starts for Che8\_33:

(107, 27858), (Start: 149 @27957 has 225 MA's), (Start: 192 @28032 has 2 MA's), (210, 28065), (229, 28095), (239, 28116), (251, 28146), (Start: 279 @28200 has 1 MA's), (292, 28224), (302, 28239), (306, 28251), (365, 28362), (423, 28476), (433, 28494), (454, 28533), (469, 28557), (484, 28593), (497, 28620), (520, 28659), (538, 28707), (559, 28767), (578, 28815), (585, 28827), (601, 28872), (604, 28884), (614, 28914),

Gene: Che9d\_36 Start: 26815, Stop: 27888, Start Num: 149

Candidate Starts for Che9d\_36:

(Start: 149 @26815 has 225 MA's), (Start: 166 @26842 has 14 MA's), (182, 26872), (229, 26953), (235, 26965), (244, 26983), (274, 27040), (283, 27064), (284, 27067), (297, 27085), (311, 27118), (314, 27127), (335, 27178), (358, 27220), (367, 27244), (369, 27253), (377, 27265), (391, 27295), (403, 27325), (404, 27328), (422, 27385), (423, 27388), (437, 27415), (442, 27424), (470, 27472), (512, 27553), (538, 27628), (578, 27736), (598, 27781), (599, 27784), (600, 27790), (604, 27805), (627, 27871),

Gene: CheetO\_49 Start: 41719, Stop: 43074, Start Num: 82

Candidate Starts for CheetO\_49:

(Start: 82 @41719 has 255 MA's), (98, 41770), (108, 41803), (168, 41932), (170, 41935), (Start: 180 @41950 has 5 MA's), (235, 42046), (251, 42085), (269, 42115), (284, 42151), (333, 42262), (345, 42292), (347, 42295), (379, 42361), (440, 42520), (469, 42568), (475, 42586), (498, 42634), (550, 42778), (571, 42838), (603, 42943), (620, 42997), (637, 43030),

Gene: CheetoDust\_31 Start: 26471, Stop: 27343, Start Num: 221

Candidate Starts for CheetoDust\_31:

(195, 26444), (Start: 221 @26471 has 188 MA's), (Start: 227 @26483 has 1 MA's), (258, 26552), (275, 26579), (287, 26609), (293, 26618), (309, 26654), (313, 26663), (323, 26696), (331, 26714), (347, 26744), (379, 26804), (447, 26939), (469, 26966), (476, 26987), (487, 27011), (521, 27062), (598, 27200), (604, 27224), (640, 27323), (643, 27332),

Gene: Cheetobro\_32 Start: 27637, Stop: 28428, Start Num: 200

Candidate Starts for Cheetobro\_32:

(Start: 200 @27637 has 20 MA's), (Start: 227 @27670 has 1 MA's), (242, 27703), (251, 27727), (264, 27748), (270, 27757), (283, 27787), (287, 27796), (293, 27805), (309, 27841), (350, 27922), (447, 28129), (469, 28156), (476, 28177), (487, 28201), (576, 28225), (601, 28279), (604, 28291), (625, 28363),

Gene: Cher\_48 Start: 41424, Stop: 42779, Start Num: 82

Candidate Starts for Cher\_48:

(Start: 82 @41424 has 255 MA's), (98, 41475), (108, 41508), (168, 41637), (170, 41640), (Start: 180 @41655 has 5 MA's), (235, 41751), (251, 41790), (269, 41820), (284, 41856), (333, 41967), (345, 41997), (347, 42000), (379, 42066), (440, 42225), (469, 42273), (475, 42291), (498, 42339), (550, 42483), (571, 42543), (603, 42648), (637, 42735),

Gene: Cherrybomb426\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Cherrybomb426\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744),

(361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: Chevrolet\_30 Start: 27820, Stop: 29067, Start Num: 74

Candidate Starts for Chevrolet\_30:

(74, 27820), (75, 27823), (83, 27871), (126, 28006), (132, 28015), (Start: 149 @28051 has 225 MA's), (Start: 221 @28183 has 188 MA's), (229, 28204), (239, 28225), (251, 28255), (259, 28267), (Start: 279 @28309 has 1 MA's), (306, 28360), (365, 28471), (423, 28585), (433, 28603), (454, 28642), (469, 28666), (484, 28702), (497, 28729), (520, 28768), (559, 28876), (578, 28924), (585, 28936), (601, 28981), (604, 28993), (614, 29023),

Gene: ChickenDinner\_33 Start: 28140, Stop: 29141, Start Num: 149

Candidate Starts for ChickenDinner\_33:

(69, 27879), (107, 28041), (Start: 149 @28140 has 225 MA's), (Start: 192 @28215 has 2 MA's), (229, 28278), (239, 28299), (Start: 279 @28383 has 1 MA's), (292, 28407), (302, 28422), (306, 28434), (365, 28545), (423, 28659), (433, 28677), (454, 28716), (469, 28740), (484, 28776), (497, 28803), (520, 28842), (559, 28950), (578, 28998), (585, 29010), (604, 29067), (614, 29097),

Gene: ChickenPhender\_248 Start: 142459, Stop: 143487, Start Num: 142

Candidate Starts for ChickenPhender\_248:

(Start: 142 @142459 has 200 MA's), (Start: 163 @142489 has 304 MA's), (170, 142501), (Start: 192 @142543 has 2 MA's), (229, 142606), (239, 142627), (Start: 279 @142711 has 1 MA's), (302, 142753), (306, 142765), (312, 142780), (344, 142849), (365, 142876), (393, 142930), (411, 142975), (414, 142978), (449, 143056), (462, 143077), (520, 143188), (554, 143278), (559, 143296), (590, 143368), (601, 143401),

Gene: Childish\_48 Start: 41427, Stop: 42782, Start Num: 82

Candidate Starts for Childish\_48:

(Start: 82 @41427 has 255 MA's), (98, 41478), (108, 41511), (168, 41640), (170, 41643), (Start: 180 @41658 has 5 MA's), (235, 41754), (251, 41793), (269, 41823), (284, 41859), (333, 41970), (345, 42000), (347, 42003), (379, 42069), (440, 42228), (469, 42276), (475, 42294), (498, 42342), (550, 42486), (571, 42546), (603, 42651), (637, 42738),

Gene: ChipMunk\_13 Start: 6810, Stop: 7802, Start Num: 163

Candidate Starts for ChipMunk\_13:

(Start: 163 @6810 has 304 MA's), (Start: 190 @6861 has 1 MA's), (Start: 192 @6864 has 2 MA's), (299, 7032), (312, 7065), (338, 7125), (365, 7170), (412, 7257), (437, 7302), (467, 7341), (494, 7389), (504, 7404), (540, 7470), (549, 7494), (555, 7512), (588, 7599), (604, 7647), (624, 7713), (651, 7788),

Gene: Chomp\_250 Start: 145895, Stop: 146923, Start Num: 142

Candidate Starts for Chomp\_250:

(Start: 142 @145895 has 200 MA's), (Start: 163 @145925 has 304 MA's), (170, 145937), (Start: 192 @145979 has 2 MA's), (229, 146042), (239, 146063), (Start: 279 @146147 has 1 MA's), (302, 146189), (306, 146201), (312, 146216), (344, 146285), (365, 146312), (393, 146366), (411, 146411), (414, 146414), (449, 146492), (462, 146513), (520, 146624), (554, 146714), (559, 146732), (590, 146804), (601, 146837),

Gene: Chorkpop\_49 Start: 41435, Stop: 42790, Start Num: 82

Candidate Starts for Chorkpop\_49:

(Start: 82 @41435 has 255 MA's), (98, 41486), (108, 41519), (114, 41537), (168, 41648), (170, 41651), (Start: 180 @41666 has 5 MA's), (235, 41762), (251, 41801), (269, 41831), (284, 41867), (333, 41978), (345, 42008), (347, 42011), (379, 42077), (440, 42236), (469, 42284), (475, 42302), (498, 42350), (550, 42494), (571, 42554), (603, 42659), (637, 42746),

Gene: ChosenOne\_35 Start: 31066, Stop: 31923, Start Num: 198

Candidate Starts for ChosenOne\_35:

(Start: 198 @31066 has 122 MA's), (220, 31105), (232, 31135), (242, 31156), (257, 31192), (275, 31222), (309, 31297), (334, 31345), (336, 31348), (345, 31372), (347, 31375), (356, 31390), (426, 31561), (487, 31675), (495, 31690), (498, 31696), (575, 31738), (576, 31741), (601, 31795), (624, 31873), (641, 31906),

Gene: ChotaBhai\_35 Start: 31104, Stop: 31961, Start Num: 198

Candidate Starts for ChotaBhai\_35:

(Start: 198 @31104 has 122 MA's), (220, 31143), (232, 31173), (242, 31194), (257, 31230), (275, 31260), (309, 31335), (334, 31383), (336, 31386), (345, 31410), (347, 31413), (356, 31428), (426, 31599), (487, 31713), (495, 31728), (498, 31734), (575, 31776), (576, 31779), (601, 31833), (624, 31911), (641, 31944),

Gene: Chris\_30 Start: 25746, Stop: 26486, Start Num: 221

Candidate Starts for Chris\_30:

(195, 25719), (Start: 221 @25746 has 188 MA's), (228, 25761), (242, 25791), (258, 25827), (293, 25884), (309, 25920), (323, 25962), (379, 26070), (469, 26232), (480, 26259), (487, 26277), (493, 26289), (576, 26301), (598, 26343), (603, 26364), (604, 26367), (640, 26466), (643, 26475),

Gene: Chuckly\_31 Start: 27691, Stop: 28692, Start Num: 149

Candidate Starts for Chuckly\_31:

(Start: 149 @27691 has 225 MA's), (Start: 163 @27712 has 304 MA's), (170, 27724), (Start: 192 @27766 has 2 MA's), (229, 27829), (239, 27850), (251, 27880), (Start: 279 @27934 has 1 MA's), (292, 27958), (306, 27985), (365, 28096), (423, 28210), (433, 28228), (454, 28267), (469, 28291), (484, 28327), (497, 28354), (520, 28393), (538, 28441), (559, 28501), (585, 28561), (604, 28618), (614, 28648),

Gene: Chunky\_49 Start: 41722, Stop: 43086, Start Num: 82

Candidate Starts for Chunky\_49:

(Start: 82 @41722 has 255 MA's), (98, 41773), (108, 41806), (168, 41935), (170, 41938), (Start: 180 @41953 has 5 MA's), (235, 42049), (251, 42088), (269, 42118), (284, 42154), (333, 42265), (345, 42295), (347, 42298), (379, 42364), (440, 42523), (469, 42571), (475, 42589), (498, 42637), (550, 42781), (571, 42841), (603, 42946), (637, 43033),

Gene: Chupacabra\_10 Start: 5710, Stop: 6684, Start Num: 163

Candidate Starts for Chupacabra\_10:

(139, 5671), (Start: 163 @5710 has 304 MA's), (Start: 192 @5764 has 2 MA's), (276, 5917), (365, 6079), (371, 6094), (382, 6115), (415, 6163), (422, 6187), (425, 6193), (430, 6202), (469, 6271), (474, 6289), (497, 6334), (507, 6352), (538, 6430), (549, 6457), (554, 6472), (561, 6493), (597, 6583), (609, 6625), (632, 6676),

Gene: Chute\_48 Start: 41751, Stop: 43106, Start Num: 82

Candidate Starts for Chute\_48:

(Start: 82 @41751 has 255 MA's), (98, 41802), (108, 41835), (168, 41964), (170, 41967), (Start: 180 @41982 has 5 MA's), (235, 42078), (251, 42117), (269, 42147), (284, 42183), (333, 42294), (345, 42324), (347, 42327), (379, 42393), (440, 42552), (469, 42600), (475, 42618), (498, 42666), (550, 42810), (571, 42870), (603, 42975), (637, 43062),

Gene: Ciao\_10 Start: 5986, Stop: 6954, Start Num: 163

Candidate Starts for Ciao\_10:

(Start: 163 @5986 has 304 MA's), (Start: 180 @6019 has 5 MA's), (Start: 190 @6037 has 1 MA's), (Start: 192 @6040 has 2 MA's), (335, 6307), (365, 6358), (368, 6370), (415, 6445), (442, 6508), (450, 6520), (462, 6541), (469, 6553), (474, 6571), (484, 6589), (496, 6613), (520, 6652), (551, 6733), (559, 6757), (561, 6760), (563, 6763), (567, 6772), (614, 6904), (629, 6946),

Gene: CicholasNage\_26 Start: 25549, Stop: 26580, Start Num: 142

Candidate Starts for CicholasNage\_26:

(Start: 142 @25549 has 200 MA's), (235, 25702), (236, 25705), (247, 25729), (251, 25741), (261, 25759), (272, 25777), (278, 25795), (281, 25801), (286, 25810), (Start: 294 @25825 has 16 MA's), (303, 25840), (330, 25912), (365, 25969), (385, 26008), (425, 26086), (430, 26095), (431, 26098), (439, 26113), (467, 26167), (474, 26188), (482, 26203), (526, 26287), (537, 26317), (561, 26386), (567, 26398), (575, 26422), (581, 26440), (585, 26443), (590, 26455), (592, 26458), (601, 26488), (604, 26500),

Gene: Cici\_10 Start: 5878, Stop: 6858, Start Num: 164

Candidate Starts for Cici\_10:

(123, 5818), (134, 5836), (Start: 164 @5878 has 109 MA's), (Start: 166 @5881 has 14 MA's), (178, 5905), (Start: 190 @5926 has 1 MA's), (Start: 192 @5929 has 2 MA's), (330, 6178), (362, 6229), (365, 6235), (368, 6247), (387, 6277), (416, 6319), (437, 6367), (464, 6397), (474, 6424), (551, 6574), (601, 6697), (604, 6709), (607, 6718), (627, 6775), (652, 6850),

Gene: Cindaradix\_9 Start: 5587, Stop: 6567, Start Num: 164

Candidate Starts for Cindaradix\_9:

(Start: 164 @5587 has 109 MA's), (178, 5614), (Start: 190 @5635 has 1 MA's), (Start: 192 @5638 has 2 MA's), (304, 5818), (330, 5887), (344, 5914), (365, 5944), (368, 5956), (401, 6007), (416, 6028), (422, 6049), (437, 6076), (464, 6106), (474, 6133), (551, 6283), (604, 6418), (607, 6427), (627, 6484), (652, 6559),

Gene: CindyLou\_253 Start: 146155, Stop: 147183, Start Num: 142

Candidate Starts for CindyLou\_253:

(Start: 142 @146155 has 200 MA's), (Start: 163 @146185 has 304 MA's), (170, 146197), (Start: 192 @146239 has 2 MA's), (229, 146302), (239, 146323), (Start: 279 @146407 has 1 MA's), (302, 146449), (306, 146461), (312, 146476), (344, 146545), (365, 146572), (393, 146626), (411, 146671), (414, 146674), (449, 146752), (462, 146773), (520, 146884), (554, 146974), (559, 146992), (590, 147064), (601, 147097),

Gene: Cintron\_10 Start: 5926, Stop: 6906, Start Num: 164

Candidate Starts for Cintron\_10:

(Start: 164 @5926 has 109 MA's), (178, 5953), (Start: 190 @5974 has 1 MA's), (Start: 192 @5977 has 2 MA's), (330, 6226), (362, 6277), (365, 6283), (368, 6295), (409, 6358), (416, 6367), (437, 6415), (474, 6472), (551, 6622), (562, 6646), (575, 6679), (599, 6736), (604, 6757), (627, 6823), (652, 6898),

Gene: Citius\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Citius\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Cjw1\_35 Start: 32618, Stop: 33475, Start Num: 198

Candidate Starts for Cjw1\_35:

(Start: 198 @32618 has 122 MA's), (220, 32657), (232, 32687), (242, 32708), (257, 32744), (275, 32774), (309, 32849), (334, 32897), (336, 32900), (345, 32924), (347, 32927), (356, 32942), (426, 33113), (487, 33227), (495, 33242), (498, 33248), (575, 33290), (576, 33293), (601, 33347), (624,

33425), (641, 33458),

Gene: Clarenza\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Clarenza\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Claus\_28 Start: 26280, Stop: 27251, Start Num: 102

Candidate Starts for Claus\_28:

(Start: 102 @26280 has 88 MA's), (120, 26334), (179, 26454), (188, 26469), (Start: 198 @26484 has 122 MA's), (208, 26499), (Start: 227 @26532 has 1 MA's), (242, 26565), (275, 26628), (293, 26655), (305, 26679), (345, 26760), (352, 26772), (367, 26799), (386, 26835), (392, 26850), (396, 26865), (415, 26910), (419, 26925), (469, 27006), (475, 27024), (476, 27027), (478, 27030), (491, 27057), (601, 27126), (613, 27168), (628, 27210),

Gene: Clautastrophe\_28 Start: 26850, Stop: 27893, Start Num: 102

Candidate Starts for Clautastrophe\_28:

(Start: 102 @26850 has 88 MA's), (Start: 103 @26856 has 3 MA's), (112, 26883), (120, 26904), (143, 26955), (186, 27036), (245, 27141), (289, 27222), (293, 27228), (341, 27324), (349, 27342), (352, 27348), (355, 27354), (392, 27426), (418, 27483), (452, 27543), (489, 27618), (499, 27639), (572, 27663), (576, 27678), (580, 27690), (604, 27747), (640, 27849), (645, 27870),

Gene: Clifton\_25 Start: 23661, Stop: 24662, Start Num: 149

Candidate Starts for Clifton\_25:

(Start: 149 @23661 has 225 MA's), (Start: 163 @23682 has 304 MA's), (170, 23694), (Start: 192 @23736 has 2 MA's), (229, 23799), (239, 23820), (251, 23850), (Start: 279 @23904 has 1 MA's), (292, 23928), (302, 23943), (306, 23955), (365, 24066), (423, 24180), (433, 24198), (454, 24237), (469, 24261), (484, 24297), (497, 24324), (520, 24363), (538, 24411), (559, 24471), (585, 24531), (604, 24588), (614, 24618),

Gene: Cobra\_49 Start: 41708, Stop: 43063, Start Num: 82

Candidate Starts for Cobra\_49:

(Start: 82 @41708 has 255 MA's), (98, 41759), (108, 41792), (168, 41921), (170, 41924), (Start: 180 @41939 has 5 MA's), (235, 42035), (251, 42074), (269, 42104), (284, 42140), (333, 42251), (345, 42281), (347, 42284), (379, 42350), (440, 42509), (469, 42557), (475, 42575), (498, 42623), (550, 42767), (571, 42827), (603, 42932), (637, 43019),

Gene: Coco12\_31 Start: 27582, Stop: 28580, Start Num: 149

Candidate Starts for Coco12\_31:

(Start: 149 @27582 has 225 MA's), (Start: 192 @27657 has 2 MA's), (229, 27717), (239, 27738), (Start: 279 @27822 has 1 MA's), (306, 27873), (312, 27888), (365, 27984), (415, 28071), (422, 28095), (433, 28116), (454, 28155), (462, 28167), (484, 28215), (497, 28242), (511, 28266), (520, 28281), (559, 28389), (578, 28437), (604, 28506), (614, 28536),

Gene: Cocoaberry\_10 Start: 5885, Stop: 6865, Start Num: 164

Candidate Starts for Cocoaberry\_10:

(Start: 164 @5885 has 109 MA's), (Start: 166 @5888 has 14 MA's), (178, 5912), (Start: 190 @5933 has 1 MA's), (Start: 192 @5936 has 2 MA's), (330, 6185), (365, 6242), (416, 6326), (422, 6347), (437, 6374), (464, 6404), (474, 6431), (551, 6581), (598, 6692), (601, 6704), (604, 6716), (627, 6782),

Gene: Colbert\_49 Start: 41775, Stop: 43130, Start Num: 82

Candidate Starts for Colbert\_49:

(Start: 82 @41775 has 255 MA's), (98, 41826), (108, 41859), (168, 41988), (170, 41991), (Start: 180 @42006 has 5 MA's), (235, 42102), (251, 42141), (269, 42171), (284, 42207), (333, 42318), (345, 42348), (347, 42351), (379, 42417), (440, 42576), (469, 42624), (475, 42642), (498, 42690), (550, 42834), (571, 42894), (603, 42999), (620, 43053), (637, 43086),

Gene: Colbster\_12 Start: 5962, Stop: 6927, Start Num: 153

Candidate Starts for Colbster\_12:

(Start: 153 @5962 has 92 MA's), (Start: 180 @6007 has 5 MA's), (Start: 192 @6028 has 2 MA's), (256, 6148), (330, 6286), (365, 6343), (371, 6358), (422, 6439), (430, 6454), (439, 6472), (469, 6523), (474, 6541), (497, 6586), (538, 6682), (561, 6745), (575, 6784), (597, 6835),

Gene: Coleslaw\_28 Start: 25192, Stop: 26400, Start Num: 88

Candidate Starts for Coleslaw\_28:

(65, 25099), (Start: 88 @25192 has 62 MA's), (154, 25366), (202, 25438), (251, 25537), (255, 25546), (270, 25570), (275, 25579), (284, 25603), (295, 25624), (309, 25651), (314, 25663), (342, 25735), (361, 25774), (440, 25963), (459, 25987), (469, 26002), (476, 26023), (498, 26068), (500, 26071), (534, 26122),

Gene: Coletti\_48 Start: 41751, Stop: 43106, Start Num: 82

Candidate Starts for Coletti\_48:

(Start: 82 @41751 has 255 MA's), (98, 41802), (108, 41835), (168, 41964), (170, 41967), (Start: 180 @41982 has 5 MA's), (235, 42078), (251, 42117), (269, 42147), (284, 42183), (333, 42294), (345, 42324), (347, 42327), (379, 42393), (440, 42552), (469, 42600), (475, 42618), (498, 42666), (550, 42810), (571, 42870), (603, 42975), (637, 43062),

Gene: Colin\_15 Start: 8102, Stop: 9079, Start Num: 163

Candidate Starts for Colin\_15:

(131, 8060), (Start: 163 @8102 has 304 MA's), (Start: 192 @8156 has 2 MA's), (330, 8393), (365, 8450), (415, 8534), (425, 8564), (430, 8573), (469, 8642), (474, 8660), (507, 8723), (528, 8765), (538, 8813), (549, 8840), (554, 8855), (559, 8873), (561, 8876), (575, 8915), (595, 8957), (597, 8966),

Gene: Collard\_30 Start: 27188, Stop: 27949, Start Num: 221

Candidate Starts for Collard\_30:

(183, 27140), (Start: 221 @27188 has 188 MA's), (Start: 227 @27200 has 1 MA's), (228, 27203), (229, 27206), (242, 27233), (258, 27269), (289, 27329), (293, 27335), (307, 27365), (309, 27371), (313, 27380), (323, 27413), (343, 27455), (345, 27458), (352, 27470), (370, 27506), (379, 27521), (395, 27557), (447, 27656), (469, 27683), (476, 27704), (578, 27767), (595, 27791), (601, 27815), (620, 27884), (640, 27929), (643, 27938),

Gene: Colt\_242 Start: 146866, Stop: 147900, Start Num: 142

Candidate Starts for Colt\_242:

(Start: 142 @146866 has 200 MA's), (Start: 163 @146896 has 304 MA's), (Start: 192 @146950 has 2 MA's), (229, 147013), (239, 147034), (Start: 279 @147118 has 1 MA's), (302, 147160), (306, 147172), (312, 147187), (344, 147256), (365, 147283), (393, 147337), (411, 147382), (414, 147385), (449, 147463), (462, 147484), (520, 147595), (554, 147685), (559, 147703), (590, 147775), (601, 147808), (632, 147895),

Gene: Command613\_36 Start: 32125, Stop: 32982, Start Num: 198

Candidate Starts for Command613\_36:

(Start: 198 @32125 has 122 MA's), (220, 32164), (232, 32194), (242, 32215), (257, 32251), (275, 32281), (309, 32356), (334, 32404), (336, 32407), (345, 32431), (347, 32434), (356, 32449), (426, 32620), (487, 32734), (495, 32749), (498, 32755), (575, 32797), (576, 32800), (601, 32854), (624, 32932), (641, 32965),



Gene: Commander\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Commander\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (401, 6301), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Compostia\_48 Start: 41964, Stop: 43028, Start Num: 138

Candidate Starts for Compostia\_48:

(Start: 138 @41964 has 44 MA's), (173, 42027), (219, 42108), (252, 42174), (260, 42189), (269, 42201), (280, 42228), (311, 42285), (314, 42294), (391, 42441), (401, 42456), (422, 42510), (439, 42543), (463, 42582), (470, 42594), (512, 42675), (520, 42693), (523, 42696), (538, 42741), (578, 42852), (617, 42963), (626, 42984), (641, 43017),

Gene: Conceptll\_10 Start: 6237, Stop: 7205, Start Num: 163

Candidate Starts for Conceptll\_10:

(Start: 163 @6237 has 304 MA's), (Start: 180 @6270 has 5 MA's), (Start: 190 @6288 has 1 MA's), (Start: 192 @6291 has 2 MA's), (335, 6558), (365, 6609), (368, 6621), (415, 6696), (442, 6759), (462, 6792), (469, 6804), (474, 6822), (484, 6840), (496, 6864), (520, 6903), (551, 6984), (559, 7008), (561, 7011), (563, 7014), (567, 7023), (600, 7110), (629, 7197),

Gene: Concombres\_258 Start: 146500, Stop: 147528, Start Num: 142

Candidate Starts for Concombres\_258:

(Start: 142 @146500 has 200 MA's), (Start: 163 @146530 has 304 MA's), (170, 146542), (Start: 192 @146584 has 2 MA's), (229, 146647), (239, 146668), (Start: 279 @146752 has 1 MA's), (302, 146794), (306, 146806), (312, 146821), (344, 146890), (365, 146917), (393, 146971), (411, 147016), (414, 147019), (449, 147097), (462, 147118), (520, 147229), (554, 147319), (559, 147337), (590, 147409), (601, 147442),

Gene: Connomayer\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Connomayer\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Conspiracy\_8 Start: 5173, Stop: 5982, Start Num: 221

Candidate Starts for Conspiracy\_8:

(Start: 221 @5173 has 188 MA's), (251, 5236), (255, 5245), (269, 5266), (284, 5302), (309, 5350), (329, 5407), (339, 5431), (440, 5662), (475, 5719), (645, 5968),

Gene: Constella\_41 Start: 38707, Stop: 39573, Start Num: 89

Candidate Starts for Constella\_41:

(Start: 89 @38707 has 30 MA's), (Start: 97 @38734 has 1 MA's), (Start: 138 @38842 has 44 MA's), (Start: 148 @38863 has 26 MA's), (174, 38908), (189, 38929), (206, 38950), (233, 39004), (255, 39055), (281, 39106), (355, 39256), (374, 39298), (400, 39349), (405, 39367), (427, 39433), (434, 39445), (438, 39454), (452, 39484), (486, 39547),

Gene: Contagion\_34 Start: 31362, Stop: 32219, Start Num: 198

Candidate Starts for Contagion\_34:

(Start: 198 @31362 has 122 MA's), (220, 31401), (232, 31431), (242, 31452), (257, 31488), (275, 31518), (309, 31593), (334, 31641), (336, 31644), (345, 31668), (347, 31671), (356, 31686), (426, 31857), (487, 31971), (495, 31986), (498, 31992), (575, 32034), (576, 32037), (601, 32091), (624,

32169), (641, 32202),

Gene: Coog\_8 Start: 5323, Stop: 6132, Start Num: 221

Candidate Starts for Coog\_8:

(Start: 221 @5323 has 188 MA's), (251, 5386), (255, 5395), (284, 5452), (309, 5500), (420, 5770), (440, 5812), (475, 5869), (495, 5911), (645, 6118),

Gene: Cookies\_35 Start: 31727, Stop: 32584, Start Num: 198

Candidate Starts for Cookies\_35:

(Start: 198 @31727 has 122 MA's), (220, 31766), (232, 31796), (242, 31817), (257, 31853), (275, 31883), (309, 31958), (334, 32006), (336, 32009), (345, 32033), (347, 32036), (356, 32051), (426, 32222), (487, 32336), (495, 32351), (498, 32357), (575, 32399), (576, 32402), (601, 32456), (624, 32534), (641, 32567),

Gene: Corndog\_70 Start: 44462, Stop: 45502, Start Num: 148

Candidate Starts for Corndog\_70:

(Start: 148 @44462 has 26 MA's), (Start: 192 @44537 has 2 MA's), (229, 44618), (232, 44624), (239, 44639), (278, 44720), (Start: 279 @44723 has 1 MA's), (306, 44777), (312, 44792), (365, 44888), (385, 44927), (397, 44957), (411, 44987), (414, 44990), (425, 45023), (462, 45089), (479, 45128), (484, 45137), (497, 45164), (520, 45203), (589, 45377), (604, 45428),

Gene: Cornie\_31 Start: 28018, Stop: 29019, Start Num: 149

Candidate Starts for Cornie\_31:

(Start: 149 @28018 has 225 MA's), (Start: 192 @28093 has 2 MA's), (210, 28126), (229, 28156), (239, 28177), (251, 28207), (259, 28219), (Start: 279 @28261 has 1 MA's), (292, 28285), (302, 28300), (306, 28312), (365, 28423), (423, 28537), (433, 28555), (454, 28594), (469, 28618), (484, 28654), (497, 28681), (511, 28705), (520, 28720), (559, 28828), (578, 28876), (604, 28945), (614, 28975),

Gene: Cornobble\_48 Start: 41265, Stop: 42620, Start Num: 82

Candidate Starts for Cornobble\_48:

(Start: 82 @41265 has 255 MA's), (98, 41316), (108, 41349), (168, 41478), (170, 41481), (Start: 180 @41496 has 5 MA's), (235, 41592), (251, 41631), (269, 41661), (284, 41697), (333, 41808), (345, 41838), (347, 41841), (379, 41907), (440, 42066), (469, 42114), (475, 42132), (498, 42180), (550, 42324), (571, 42384), (603, 42489), (620, 42543), (637, 42576),

Gene: Cornucopia\_32 Start: 27534, Stop: 28535, Start Num: 149

Candidate Starts for Cornucopia\_32:

(Start: 149 @27534 has 225 MA's), (Start: 192 @27609 has 2 MA's), (210, 27642), (229, 27672), (239, 27693), (Start: 279 @27777 has 1 MA's), (306, 27828), (365, 27939), (422, 28050), (433, 28071), (454, 28110), (462, 28122), (484, 28170), (497, 28197), (511, 28221), (520, 28236), (559, 28344), (585, 28404), (604, 28461), (614, 28491),

Gene: Corofin\_47 Start: 41559, Stop: 42623, Start Num: 138

Candidate Starts for Corofin\_47:

(Start: 138 @41559 has 44 MA's), (173, 41622), (219, 41703), (252, 41769), (260, 41784), (269, 41796), (280, 41823), (311, 41880), (314, 41889), (391, 42036), (401, 42051), (422, 42105), (439, 42138), (463, 42177), (470, 42189), (512, 42270), (520, 42288), (523, 42291), (578, 42447), (617, 42558), (626, 42579), (641, 42612),

Gene: Corvo\_10 Start: 6181, Stop: 7149, Start Num: 163

Candidate Starts for Corvo\_10:

(Start: 163 @6181 has 304 MA's), (Start: 180 @6214 has 5 MA's), (Start: 190 @6232 has 1 MA's), (Start: 192 @6235 has 2 MA's), (335, 6502), (365, 6553), (368, 6565), (415, 6640), (442, 6703), (450,

6715), (462, 6736), (469, 6748), (474, 6766), (484, 6784), (496, 6808), (520, 6847), (551, 6928), (559, 6952), (561, 6955), (563, 6958), (567, 6967), (600, 7054), (629, 7141),

Gene: Cosmo\_52 Start: 38381, Stop: 39346, Start Num: 149

Candidate Starts for Cosmo\_52:

(Start: 149 @38381 has 225 MA's), (185, 38444), (231, 38504), (238, 38519), (239, 38522), (246, 38534), (249, 38540), (269, 38576), (270, 38579), (306, 38651), (312, 38666), (314, 38672), (344, 38735), (365, 38765), (381, 38798), (422, 38861), (423, 38864), (442, 38903), (462, 38936), (474, 38963), (479, 38972), (496, 39005), (557, 39140), (561, 39155), (578, 39200), (597, 39242), (604, 39269), (617, 39311),

Gene: Cosmolli16\_48 Start: 41415, Stop: 42770, Start Num: 82

Candidate Starts for Cosmolli16\_48:

(Start: 82 @41415 has 255 MA's), (98, 41466), (108, 41499), (168, 41628), (170, 41631), (Start: 180 @41646 has 5 MA's), (235, 41742), (251, 41781), (269, 41811), (284, 41847), (333, 41958), (345, 41988), (347, 41991), (379, 42057), (440, 42216), (469, 42264), (475, 42282), (498, 42330), (550, 42474), (571, 42534), (603, 42639), (637, 42726),

Gene: Courthouse\_48 Start: 39086, Stop: 40090, Start Num: 100

Candidate Starts for Courthouse\_48:

(Start: 100 @39086 has 10 MA's), (117, 39140), (141, 39191), (184, 39263), (232, 39338), (293, 39452), (300, 39464), (313, 39497), (345, 39566), (352, 39578), (363, 39590), (364, 39593), (384, 39638), (392, 39656), (469, 39818), (473, 39833), (478, 39842), (637, 40043),

Gene: Craff\_50 Start: 41843, Stop: 43198, Start Num: 82

Candidate Starts for Craff\_50:

(Start: 82 @41843 has 255 MA's), (98, 41894), (108, 41927), (168, 42056), (170, 42059), (Start: 180 @42074 has 5 MA's), (235, 42170), (251, 42209), (269, 42239), (284, 42275), (333, 42386), (345, 42416), (347, 42419), (379, 42485), (440, 42644), (469, 42692), (475, 42710), (498, 42758), (550, 42902), (571, 42962), (603, 43067), (637, 43154),

Gene: Crespo\_28 Start: 25202, Stop: 26410, Start Num: 88

Candidate Starts for Crespo\_28:

(65, 25109), (Start: 88 @25202 has 62 MA's), (154, 25376), (202, 25448), (251, 25547), (255, 25556), (270, 25580), (275, 25589), (284, 25613), (295, 25634), (309, 25661), (314, 25673), (342, 25745), (361, 25784), (440, 25973), (459, 25997), (469, 26012), (476, 26033), (498, 26078), (500, 26081), (534, 26132),

Gene: CrimD\_31 Start: 26431, Stop: 27303, Start Num: 221

Candidate Starts for CrimD\_31:

(195, 26404), (Start: 221 @26431 has 188 MA's), (Start: 227 @26443 has 1 MA's), (258, 26512), (275, 26539), (287, 26569), (293, 26578), (309, 26614), (313, 26623), (323, 26656), (331, 26674), (379, 26764), (447, 26899), (469, 26926), (476, 26947), (487, 26971), (521, 27022), (578, 27124), (598, 27160), (604, 27184), (640, 27283), (643, 27292),

Gene: Crispicous1\_9 Start: 5465, Stop: 6433, Start Num: 163

Candidate Starts for Crispicous1\_9:

(Start: 163 @5465 has 304 MA's), (Start: 180 @5498 has 5 MA's), (Start: 190 @5516 has 1 MA's), (Start: 192 @5519 has 2 MA's), (335, 5786), (365, 5837), (368, 5849), (415, 5924), (442, 5987), (450, 5999), (462, 6020), (469, 6032), (474, 6050), (484, 6068), (496, 6092), (520, 6131), (551, 6212), (559, 6236), (561, 6239), (563, 6242), (567, 6251), (600, 6338), (614, 6383), (629, 6425),

Gene: Crossroads\_28 Start: 26303, Stop: 27274, Start Num: 102

Candidate Starts for Crossroads\_28:

(Start: 102 @26303 has 88 MA's), (120, 26357), (179, 26477), (Start: 198 @26507 has 122 MA's), (208, 26522), (Start: 227 @26555 has 1 MA's), (228, 26558), (232, 26567), (242, 26588), (275, 26651), (293, 26678), (305, 26702), (319, 26732), (345, 26783), (352, 26795), (386, 26858), (392, 26873), (415, 26933), (419, 26948), (469, 27029), (475, 27047), (476, 27050), (478, 27053), (579, 27104), (601, 27149), (613, 27191), (628, 27233),

Gene: Crownjwl\_49 Start: 41484, Stop: 42839, Start Num: 82

Candidate Starts for Crownjwl\_49:

(Start: 82 @41484 has 255 MA's), (98, 41535), (108, 41568), (114, 41586), (168, 41697), (170, 41700), (Start: 180 @41715 has 5 MA's), (235, 41811), (251, 41850), (269, 41880), (284, 41916), (333, 42027), (345, 42057), (347, 42060), (379, 42126), (440, 42285), (469, 42333), (475, 42351), (498, 42399), (550, 42543), (571, 42603), (603, 42708), (637, 42795),

Gene: Crucio\_11 Start: 6372, Stop: 7364, Start Num: 163

Candidate Starts for Crucio\_11:

(Start: 163 @6372 has 304 MA's), (Start: 190 @6423 has 1 MA's), (Start: 192 @6426 has 2 MA's), (212, 6459), (223, 6474), (299, 6594), (302, 6600), (338, 6687), (365, 6732), (437, 6864), (467, 6903), (494, 6951), (540, 7032), (555, 7074), (588, 7161), (604, 7209), (624, 7275), (651, 7350),

Gene: Crumble\_25 Start: 23705, Stop: 24706, Start Num: 149

Candidate Starts for Crumble\_25:

(Start: 149 @23705 has 225 MA's), (Start: 192 @23780 has 2 MA's), (210, 23813), (229, 23843), (239, 23864), (251, 23894), (259, 23906), (Start: 279 @23948 has 1 MA's), (292, 23972), (302, 23987), (306, 23999), (365, 24110), (423, 24224), (433, 24242), (454, 24281), (469, 24305), (484, 24341), (520, 24407), (559, 24515), (578, 24563), (585, 24575), (601, 24620), (604, 24632), (614, 24662),

Gene: CrystalP\_35 Start: 31858, Stop: 32715, Start Num: 198

Candidate Starts for CrystalP\_35:

(Start: 198 @31858 has 122 MA's), (220, 31897), (232, 31927), (242, 31948), (257, 31984), (275, 32014), (309, 32089), (334, 32137), (336, 32140), (345, 32164), (347, 32167), (356, 32182), (426, 32353), (481, 32452), (487, 32467), (495, 32482), (498, 32488), (575, 32530), (576, 32533), (601, 32587), (624, 32665), (641, 32698),

Gene: Cuco\_8 Start: 5354, Stop: 6163, Start Num: 221

Candidate Starts for Cuco\_8:

(Start: 221 @5354 has 188 MA's), (251, 5417), (255, 5426), (284, 5483), (309, 5531), (339, 5612), (420, 5801), (440, 5843), (475, 5900), (495, 5942), (645, 6149),

Gene: Cueylyss\_10 Start: 6167, Stop: 7102, Start Num: 180

Candidate Starts for Cueylyss\_10:

(Start: 163 @6134 has 304 MA's), (Start: 180 @6167 has 5 MA's), (Start: 190 @6185 has 1 MA's), (Start: 192 @6188 has 2 MA's), (335, 6455), (365, 6506), (368, 6518), (415, 6593), (442, 6656), (450, 6668), (462, 6689), (469, 6701), (474, 6719), (484, 6737), (496, 6761), (520, 6800), (551, 6881), (559, 6905), (561, 6908), (563, 6911), (567, 6920), (614, 7052), (629, 7094),

Gene: Cullens\_12 Start: 5960, Stop: 6925, Start Num: 153

Candidate Starts for Cullens\_12:

(Start: 153 @5960 has 92 MA's), (Start: 180 @6005 has 5 MA's), (Start: 192 @6026 has 2 MA's), (256, 6146), (365, 6341), (371, 6356), (422, 6437), (430, 6452), (439, 6470), (469, 6521), (474, 6539), (497, 6584), (538, 6680), (561, 6743), (575, 6782), (597, 6833),

Gene: Curiosium\_32 Start: 26281, Stop: 27129, Start Num: 221

Candidate Starts for Curiosium\_32:

(183, 26233), (195, 26254), (Start: 221 @26281 has 188 MA's), (Start: 227 @26293 has 1 MA's), (239, 26320), (242, 26326), (253, 26356), (293, 26425), (313, 26470), (323, 26503), (331, 26521), (370, 26596), (416, 26683), (447, 26746), (469, 26773), (476, 26794), (487, 26818), (506, 26854), (578, 26950), (598, 26986), (604, 27010), (643, 27118),

Gene: Czyszczone1\_36 Start: 31603, Stop: 32460, Start Num: 198

Candidate Starts for Czyszczone1\_36:

(Start: 198 @31603 has 122 MA's), (220, 31642), (232, 31672), (242, 31693), (257, 31729), (275, 31759), (309, 31834), (334, 31882), (336, 31885), (345, 31909), (347, 31912), (356, 31927), (426, 32098), (487, 32212), (495, 32227), (498, 32233), (575, 32275), (576, 32278), (601, 32332), (624, 32410), (641, 32443),

Gene: D29\_12 Start: 6597, Stop: 7361, Start Num: 294

Candidate Starts for D29\_12:

(Start: 294 @6597 has 16 MA's), (365, 6741), (415, 6828), (423, 6855), (430, 6867), (474, 6954), (538, 7095), (559, 7155), (561, 7158), (574, 7194), (597, 7248), (611, 7296),

Gene: D32\_14 Start: 6597, Stop: 7361, Start Num: 294

Candidate Starts for D32\_14:

(Start: 294 @6597 has 16 MA's), (365, 6741), (415, 6828), (423, 6855), (430, 6867), (474, 6954), (538, 7095), (559, 7155), (561, 7158), (574, 7194), (597, 7248), (611, 7296),

Gene: DBQu4n\_14 Start: 6597, Stop: 7361, Start Num: 294

Candidate Starts for DBQu4n\_14:

(Start: 294 @6597 has 16 MA's), (365, 6741), (415, 6828), (423, 6855), (430, 6867), (474, 6954), (535, 7068), (538, 7095), (559, 7155), (561, 7158), (574, 7194), (597, 7248), (611, 7296),

Gene: DD5\_11 Start: 6716, Stop: 7684, Start Num: 163

Candidate Starts for DD5\_11:

(Start: 163 @6716 has 304 MA's), (Start: 180 @6749 has 5 MA's), (Start: 190 @6767 has 1 MA's), (Start: 192 @6770 has 2 MA's), (335, 7037), (365, 7088), (368, 7100), (415, 7175), (442, 7238), (450, 7250), (462, 7271), (469, 7283), (474, 7301), (484, 7319), (496, 7343), (520, 7382), (551, 7463), (559, 7487), (561, 7490), (563, 7493), (567, 7502), (600, 7589), (629, 7676),

Gene: DLane\_31 Start: 27486, Stop: 28484, Start Num: 149

Candidate Starts for DLane\_31:

(Start: 149 @27486 has 225 MA's), (Start: 192 @27561 has 2 MA's), (229, 27621), (239, 27642), (Start: 279 @27726 has 1 MA's), (306, 27777), (312, 27792), (365, 27888), (422, 27999), (433, 28020), (454, 28059), (462, 28071), (484, 28119), (497, 28146), (511, 28170), (520, 28185), (559, 28293), (578, 28341), (604, 28410), (614, 28440),

Gene: DMoney\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for DMoney\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: DNAIII\_0028 Start: 24952, Stop: 26160, Start Num: 88

Candidate Starts for DNAIII\_0028:

(65, 24859), (Start: 88 @24952 has 62 MA's), (154, 25126), (202, 25198), (251, 25297), (255, 25306), (270, 25330), (275, 25339), (284, 25363), (295, 25384), (309, 25411), (314, 25423), (342, 25495),

(361, 25534), (440, 25723), (459, 25747), (469, 25762), (476, 25783), (498, 25828), (500, 25831), (534, 25882),

Gene: DRBy19\_31 Start: 27617, Stop: 28618, Start Num: 149

Candidate Starts for DRBy19\_31:

(Start: 149 @27617 has 225 MA's), (Start: 192 @27692 has 2 MA's), (210, 27725), (229, 27755), (239, 27776), (251, 27806), (259, 27818), (Start: 279 @27860 has 1 MA's), (292, 27884), (302, 27899), (306, 27911), (365, 28022), (423, 28136), (433, 28154), (454, 28193), (469, 28217), (484, 28253), (520, 28319), (559, 28427), (578, 28475), (585, 28487), (601, 28532), (604, 28544), (614, 28574),

Gene: DS6A\_31 Start: 26756, Stop: 27793, Start Num: 158

Candidate Starts for DS6A\_31:

(127, 26702), (144, 26738), (Start: 158 @26756 has 1 MA's), (173, 26783), (222, 26864), (233, 26888), (270, 26954), (278, 26975), (286, 26990), (306, 27032), (313, 27047), (317, 27053), (365, 27146), (381, 27179), (423, 27260), (425, 27263), (430, 27272), (445, 27305), (448, 27308), (462, 27329), (469, 27341), (474, 27359), (499, 27407), (506, 27419), (552, 27545), (556, 27551), (559, 27566), (561, 27569), (567, 27581), (581, 27623), (585, 27626), (604, 27683), (614, 27716), (629, 27758),

Gene: DTDevon\_253 Start: 146534, Stop: 147562, Start Num: 142

Candidate Starts for DTDevon\_253:

(Start: 142 @146534 has 200 MA's), (Start: 163 @146564 has 304 MA's), (170, 146576), (Start: 192 @146618 has 2 MA's), (229, 146681), (239, 146702), (Start: 279 @146786 has 1 MA's), (302, 146828), (306, 146840), (312, 146855), (344, 146924), (365, 146951), (393, 147005), (411, 147050), (414, 147053), (449, 147131), (462, 147152), (520, 147263), (554, 147353), (559, 147371), (590, 147443), (601, 147476),

Gene: DaHudson\_12 Start: 5954, Stop: 6919, Start Num: 153

Candidate Starts for DaHudson\_12:

(Start: 153 @5954 has 92 MA's), (Start: 180 @5999 has 5 MA's), (Start: 192 @6020 has 2 MA's), (256, 6140), (330, 6278), (365, 6335), (371, 6350), (422, 6431), (430, 6446), (439, 6464), (469, 6515), (474, 6533), (497, 6578), (538, 6674), (561, 6737), (575, 6776), (597, 6827),

Gene: DaWorst\_33 Start: 28055, Stop: 29056, Start Num: 149

Candidate Starts for DaWorst\_33:

(34, 27434), (40, 27512), (43, 27575), (48, 27614), (62, 27767), (69, 27803), (Start: 149 @28055 has 225 MA's), (Start: 163 @28076 has 304 MA's), (170, 28088), (Start: 192 @28130 has 2 MA's), (229, 28193), (239, 28214), (251, 28244), (Start: 279 @28298 has 1 MA's), (292, 28322), (306, 28349), (365, 28460), (423, 28574), (433, 28592), (454, 28631), (469, 28655), (484, 28691), (497, 28718), (520, 28757), (538, 28805), (559, 28865), (585, 28925), (604, 28982), (614, 29012),

Gene: DaddyDaniels\_49 Start: 41396, Stop: 42751, Start Num: 82

Candidate Starts for DaddyDaniels\_49:

(Start: 82 @41396 has 255 MA's), (98, 41447), (108, 41480), (168, 41609), (170, 41612), (Start: 180 @41627 has 5 MA's), (235, 41723), (251, 41762), (269, 41792), (284, 41828), (333, 41939), (345, 41969), (347, 41972), (379, 42038), (440, 42197), (469, 42245), (475, 42263), (498, 42311), (550, 42455), (571, 42515), (603, 42620), (637, 42707),

Gene: DaddyRickover\_31 Start: 27698, Stop: 28699, Start Num: 149

Candidate Starts for DaddyRickover\_31:

(Start: 149 @27698 has 225 MA's), (Start: 163 @27719 has 304 MA's), (Start: 192 @27773 has 2 MA's), (210, 27806), (229, 27836), (239, 27857), (251, 27887), (259, 27899), (Start: 279 @27941 has 1 MA's), (292, 27965), (302, 27980), (306, 27992), (365, 28103), (423, 28217), (433, 28235), (454,

28274), (469, 28298), (484, 28334), (497, 28361), (520, 28400), (538, 28448), (559, 28508), (578, 28556), (585, 28568), (601, 28613), (604, 28625), (614, 28655),

Gene: Dadosky\_31 Start: 27159, Stop: 27920, Start Num: 221

Candidate Starts for Dadosky\_31:

(183, 27111), (Start: 221 @27159 has 188 MA's), (Start: 227 @27171 has 1 MA's), (229, 27177), (242, 27204), (258, 27240), (289, 27300), (293, 27306), (307, 27336), (309, 27342), (313, 27351), (323, 27384), (343, 27426), (345, 27429), (352, 27441), (370, 27477), (379, 27492), (395, 27528), (447, 27627), (469, 27654), (476, 27675), (578, 27738), (595, 27762), (601, 27786), (620, 27855), (640, 27900), (643, 27909),

Gene: Daegal\_34 Start: 28633, Stop: 29868, Start Num: 84

Candidate Starts for Daegal\_34:

(Start: 84 @28633 has 24 MA's), (110, 28726), (115, 28738), (122, 28759), (128, 28771), (136, 28783), (Start: 138 @28786 has 44 MA's), (Start: 180 @28867 has 5 MA's), (204, 28900), (235, 28960), (251, 28999), (255, 29008), (257, 29011), (269, 29029), (284, 29065), (309, 29113), (314, 29125), (318, 29131), (339, 29194), (342, 29197), (354, 29224), (361, 29236), (388, 29293), (403, 29338), (440, 29425), (447, 29437), (469, 29464), (476, 29485), (483, 29500), (522, 29554), (534, 29584), (553, 29617), (561, 29626), (564, 29632), (573, 29644), (575, 29653), (601, 29716), (620, 29785), (633, 29812),

Gene: Daenerys\_31 Start: 27519, Stop: 28520, Start Num: 149

Candidate Starts for Daenerys\_31:

(91, 27357), (Start: 149 @27519 has 225 MA's), (Start: 192 @27594 has 2 MA's), (210, 27627), (229, 27657), (239, 27678), (251, 27708), (259, 27720), (Start: 279 @27762 has 1 MA's), (292, 27786), (302, 27801), (306, 27813), (365, 27924), (423, 28038), (433, 28056), (454, 28095), (469, 28119), (484, 28155), (497, 28182), (520, 28221), (538, 28269), (559, 28329), (578, 28377), (585, 28389), (601, 28434), (604, 28446), (614, 28476),

Gene: Daffodil\_258 Start: 144821, Stop: 145849, Start Num: 142

Candidate Starts for Daffodil\_258:

(Start: 142 @144821 has 200 MA's), (Start: 163 @144851 has 304 MA's), (170, 144863), (Start: 192 @144905 has 2 MA's), (229, 144968), (239, 144989), (Start: 279 @145073 has 1 MA's), (302, 145115), (306, 145127), (312, 145142), (344, 145211), (365, 145238), (393, 145292), (411, 145337), (414, 145340), (449, 145418), (462, 145439), (520, 145550), (554, 145640), (559, 145658), (590, 145730), (601, 145763),

Gene: Daffy\_49 Start: 41421, Stop: 42776, Start Num: 82

Candidate Starts for Daffy\_49:

(Start: 82 @41421 has 255 MA's), (98, 41472), (108, 41505), (168, 41634), (170, 41637), (Start: 180 @41652 has 5 MA's), (235, 41748), (251, 41787), (269, 41817), (284, 41853), (333, 41964), (345, 41994), (347, 41997), (379, 42063), (440, 42222), (469, 42270), (475, 42288), (498, 42336), (550, 42480), (571, 42540), (603, 42645), (637, 42732),

Gene: Daikon\_34 Start: 31596, Stop: 32453, Start Num: 198

Candidate Starts for Daikon\_34:

(Start: 198 @31596 has 122 MA's), (220, 31635), (232, 31665), (242, 31686), (257, 31722), (275, 31752), (309, 31827), (334, 31875), (336, 31878), (345, 31902), (347, 31905), (356, 31920), (426, 32091), (487, 32205), (495, 32220), (498, 32226), (575, 32268), (576, 32271), (601, 32325), (624, 32403), (641, 32436),

Gene: Daishi\_11 Start: 4878, Stop: 5852, Start Num: 163

Candidate Starts for Daishi\_11:

(Start: 163 @4878 has 304 MA's), (Start: 192 @4932 has 2 MA's), (194, 4935), (284, 5106), (312, 5163), (330, 5211), (360, 5259), (365, 5268), (422, 5364), (430, 5379), (439, 5397), (467, 5445), (469, 5448), (474, 5466), (538, 5607), (549, 5634), (559, 5667), (561, 5670), (575, 5709), (581, 5727),

Gene: Daisy\_47 Start: 41560, Stop: 42624, Start Num: 138

Candidate Starts for Daisy\_47:

(Start: 138 @41560 has 44 MA's), (173, 41623), (219, 41704), (252, 41770), (260, 41785), (269, 41797), (280, 41824), (311, 41881), (314, 41890), (391, 42037), (401, 42052), (422, 42106), (439, 42139), (463, 42178), (470, 42190), (512, 42271), (520, 42289), (523, 42292), (538, 42337), (578, 42448), (617, 42559), (626, 42580), (641, 42613),

Gene: Daka\_50 Start: 41700, Stop: 43055, Start Num: 82

Candidate Starts for Daka\_50:

(Start: 82 @41700 has 255 MA's), (98, 41751), (108, 41784), (114, 41802), (168, 41913), (170, 41916), (Start: 180 @41931 has 5 MA's), (235, 42027), (251, 42066), (269, 42096), (284, 42132), (333, 42243), (345, 42273), (347, 42276), (379, 42342), (440, 42501), (469, 42549), (475, 42567), (498, 42615), (550, 42759), (571, 42819), (603, 42924), (620, 42978), (637, 43011),

Gene: Dallas\_51 Start: 42101, Stop: 42973, Start Num: 89

Candidate Starts for Dallas\_51:

(Start: 89 @42101 has 30 MA's), (Start: 97 @42128 has 1 MA's), (Start: 148 @42257 has 26 MA's), (174, 42302), (189, 42323), (206, 42344), (233, 42398), (274, 42479), (403, 42758), (405, 42761), (413, 42785), (424, 42821), (432, 42836), (438, 42848), (444, 42869),

Gene: Dalmatian\_11 Start: 6522, Stop: 7514, Start Num: 163

Candidate Starts for Dalmatian\_11:

(Start: 163 @6522 has 304 MA's), (Start: 180 @6555 has 5 MA's), (Start: 190 @6573 has 1 MA's), (Start: 192 @6576 has 2 MA's), (212, 6609), (223, 6624), (299, 6744), (302, 6750), (312, 6777), (338, 6837), (365, 6882), (437, 7014), (467, 7053), (494, 7101), (540, 7182), (555, 7224), (588, 7311), (601, 7347), (608, 7371), (620, 7413), (624, 7425), (651, 7500),

Gene: Dalmuri\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for Dalmuri\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: Dandelion\_258 Start: 147355, Stop: 148383, Start Num: 142

Candidate Starts for Dandelion\_258:

(Start: 142 @147355 has 200 MA's), (Start: 163 @147385 has 304 MA's), (170, 147397), (Start: 192 @147439 has 2 MA's), (229, 147502), (239, 147523), (Start: 279 @147607 has 1 MA's), (302, 147649), (306, 147661), (312, 147676), (344, 147745), (365, 147772), (393, 147826), (411, 147871), (414, 147874), (449, 147952), (462, 147973), (520, 148084), (554, 148174), (559, 148192), (590, 148264), (601, 148297),

Gene: Danforth\_7 Start: 4852, Stop: 5661, Start Num: 221

Candidate Starts for Danforth\_7:

(Start: 221 @4852 has 188 MA's), (263, 4936), (284, 4981), (314, 5041), (337, 5107), (440, 5341), (469, 5380), (475, 5398), (490, 5431), (500, 5449), (578, 5494), (602, 5518), (645, 5647),

Gene: Dante\_31 Start: 27637, Stop: 28638, Start Num: 149

Candidate Starts for Dante\_31:



(Start: 149 @27637 has 225 MA's), (Start: 192 @27712 has 2 MA's), (210, 27745), (229, 27775), (239, 27796), (Start: 279 @27880 has 1 MA's), (292, 27904), (302, 27919), (306, 27931), (365, 28042), (423, 28156), (433, 28174), (454, 28213), (469, 28237), (484, 28273), (497, 28300), (520, 28339), (559, 28447), (585, 28507), (604, 28564), (614, 28594),

Gene: Darionha\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Darionha\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: Darko\_252 Start: 144479, Stop: 145507, Start Num: 142

Candidate Starts for Darko\_252:

(Start: 142 @144479 has 200 MA's), (Start: 163 @144509 has 304 MA's), (170, 144521), (Start: 192 @144563 has 2 MA's), (229, 144626), (239, 144647), (Start: 279 @144731 has 1 MA's), (302, 144773), (306, 144785), (312, 144800), (344, 144869), (365, 144896), (393, 144950), (411, 144995), (414, 144998), (449, 145076), (462, 145097), (520, 145208), (554, 145298), (559, 145316), (590, 145388), (601, 145421),

Gene: DarthP\_30 Start: 26891, Stop: 27631, Start Num: 221

Candidate Starts for DarthP\_30:

(72, 26546), (151, 26792), (Start: 162 @26813 has 2 MA's), (183, 26846), (195, 26867), (Start: 221 @26891 has 188 MA's), (Start: 227 @26903 has 1 MA's), (239, 26930), (242, 26936), (287, 27020), (293, 27029), (300, 27041), (313, 27074), (323, 27107), (379, 27215), (392, 27242), (447, 27350), (469, 27377), (476, 27398), (487, 27422), (573, 27434), (575, 27443), (601, 27500), (604, 27512), (640, 27611),

Gene: Dati\_49 Start: 41424, Stop: 42779, Start Num: 82

Candidate Starts for Dati\_49:

(Start: 82 @41424 has 255 MA's), (98, 41475), (108, 41508), (170, 41640), (Start: 180 @41655 has 5 MA's), (235, 41751), (251, 41790), (269, 41820), (284, 41856), (333, 41967), (345, 41997), (347, 42000), (379, 42066), (440, 42225), (469, 42273), (475, 42291), (498, 42339), (550, 42483), (571, 42543), (603, 42648), (620, 42702), (637, 42735),

Gene: Datway\_10 Start: 5887, Stop: 6870, Start Num: 163

Candidate Starts for Datway\_10:

(Start: 163 @5887 has 304 MA's), (178, 5917), (Start: 190 @5938 has 1 MA's), (Start: 192 @5941 has 2 MA's), (330, 6190), (365, 6247), (368, 6259), (387, 6289), (401, 6310), (416, 6331), (437, 6379), (464, 6409), (474, 6436), (551, 6586), (601, 6709), (604, 6721), (607, 6730), (627, 6787), (652, 6862),

Gene: DeadP\_31 Start: 27683, Stop: 28681, Start Num: 149

Candidate Starts for DeadP\_31:

(Start: 149 @27683 has 225 MA's), (Start: 192 @27758 has 2 MA's), (229, 27818), (239, 27839), (Start: 279 @27923 has 1 MA's), (306, 27974), (312, 27989), (365, 28085), (422, 28196), (433, 28217), (454, 28256), (462, 28268), (484, 28316), (497, 28343), (511, 28367), (520, 28382), (559, 28490), (578, 28538), (604, 28607), (614, 28637),

Gene: Deano\_10 Start: 5887, Stop: 6867, Start Num: 164

Candidate Starts for Deano\_10:

(Start: 164 @5887 has 109 MA's), (Start: 166 @5890 has 14 MA's), (178, 5914), (Start: 190 @5935 has 1 MA's), (Start: 192 @5938 has 2 MA's), (330, 6187), (365, 6244), (387, 6286), (416, 6328), (422, 6349), (437, 6376), (474, 6433), (551, 6583), (598, 6694), (601, 6706), (604, 6718), (627, 6784),

Gene: Deb65\_31 Start: 27521, Stop: 28522, Start Num: 149

Candidate Starts for Deb65\_31:

(107, 27422), (Start: 149 @27521 has 225 MA's), (Start: 163 @27542 has 304 MA's), (170, 27554), (Start: 192 @27596 has 2 MA's), (229, 27659), (239, 27680), (Start: 279 @27764 has 1 MA's), (292, 27788), (302, 27803), (306, 27815), (365, 27926), (423, 28040), (433, 28058), (454, 28097), (469, 28121), (484, 28157), (497, 28184), (520, 28223), (538, 28271), (559, 28331), (578, 28379), (585, 28391), (601, 28436), (604, 28448),

Gene: Deby\_31 Start: 26428, Stop: 27300, Start Num: 221

Candidate Starts for Deby\_31:

(76, 26098), (151, 26326), (195, 26401), (Start: 221 @26428 has 188 MA's), (Start: 227 @26440 has 1 MA's), (258, 26509), (275, 26536), (287, 26566), (293, 26575), (309, 26611), (313, 26620), (323, 26653), (331, 26671), (347, 26701), (379, 26761), (447, 26896), (469, 26923), (476, 26944), (487, 26968), (521, 27019), (578, 27121), (598, 27157), (604, 27181), (640, 27280), (643, 27289),

Gene: Deenasa\_47 Start: 42295, Stop: 43359, Start Num: 138

Candidate Starts for Deenasa\_47:

(Start: 138 @42295 has 44 MA's), (173, 42358), (219, 42439), (252, 42505), (260, 42520), (269, 42532), (280, 42559), (311, 42616), (314, 42625), (391, 42772), (401, 42787), (422, 42841), (439, 42874), (463, 42913), (470, 42925), (512, 43006), (520, 43024), (523, 43027), (538, 43072), (578, 43183), (617, 43294), (626, 43315), (641, 43348),

Gene: DeepSoil15\_33 Start: 28339, Stop: 29574, Start Num: 84

Candidate Starts for DeepSoil15\_33:

(Start: 84 @28339 has 24 MA's), (110, 28432), (115, 28444), (122, 28465), (128, 28477), (136, 28489), (Start: 138 @28492 has 44 MA's), (170, 28555), (Start: 180 @28573 has 5 MA's), (204, 28606), (235, 28666), (251, 28705), (255, 28714), (257, 28717), (269, 28735), (284, 28771), (309, 28819), (314, 28831), (318, 28837), (339, 28900), (342, 28903), (354, 28930), (361, 28942), (403, 29044), (440, 29131), (469, 29170), (476, 29191), (522, 29260), (534, 29290), (553, 29323), (561, 29332), (564, 29338), (573, 29350), (575, 29359), (601, 29422), (620, 29491),

Gene: DelRivs\_48 Start: 41428, Stop: 42783, Start Num: 82

Candidate Starts for DelRivs\_48:

(Start: 82 @41428 has 255 MA's), (98, 41479), (108, 41512), (168, 41641), (170, 41644), (Start: 180 @41659 has 5 MA's), (235, 41755), (251, 41794), (269, 41824), (284, 41860), (333, 41971), (345, 42001), (347, 42004), (379, 42070), (440, 42229), (469, 42277), (475, 42295), (498, 42343), (550, 42487), (571, 42547), (603, 42652), (637, 42739),

Gene: Delilah\_250 Start: 144914, Stop: 145942, Start Num: 142

Candidate Starts for Delilah\_250:

(Start: 142 @144914 has 200 MA's), (Start: 163 @144944 has 304 MA's), (170, 144956), (Start: 192 @144998 has 2 MA's), (229, 145061), (239, 145082), (Start: 279 @145166 has 1 MA's), (302, 145208), (306, 145220), (312, 145235), (344, 145304), (365, 145331), (393, 145385), (411, 145430), (414, 145433), (449, 145511), (462, 145532), (520, 145643), (554, 145733), (559, 145751), (590, 145823), (601, 145856),

Gene: Deloris\_12 Start: 6865, Stop: 7842, Start Num: 163

Candidate Starts for Deloris\_12:

(Start: 163 @6865 has 304 MA's), (Start: 192 @6919 has 2 MA's), (312, 7108), (330, 7156), (365, 7213), (382, 7249), (415, 7297), (430, 7336), (474, 7423), (507, 7486), (528, 7528), (538, 7576), (549, 7603), (554, 7618), (559, 7636), (561, 7639), (575, 7678), (597, 7729), (626, 7828),

Gene: Delylah\_254 Start: 145191, Stop: 146219, Start Num: 142

Candidate Starts for Delylah\_254:

(Start: 142 @145191 has 200 MA's), (Start: 163 @145221 has 304 MA's), (170, 145233), (Start: 192 @145275 has 2 MA's), (229, 145338), (239, 145359), (Start: 279 @145443 has 1 MA's), (302, 145485), (306, 145497), (312, 145512), (344, 145581), (365, 145608), (393, 145662), (411, 145707), (414, 145710), (449, 145788), (462, 145809), (520, 145920), (554, 146010), (559, 146028), (590, 146100), (601, 146133),

Gene: Demsculpinboyz\_36 Start: 26749, Stop: 27822, Start Num: 149

Candidate Starts for Demsculpinboyz\_36:

(Start: 149 @26749 has 225 MA's), (Start: 166 @26776 has 14 MA's), (182, 26806), (235, 26899), (239, 26908), (244, 26917), (274, 26974), (297, 27019), (311, 27052), (314, 27061), (335, 27112), (358, 27154), (367, 27178), (369, 27187), (377, 27199), (391, 27229), (403, 27259), (404, 27262), (422, 27319), (423, 27322), (431, 27337), (437, 27349), (442, 27358), (455, 27382), (470, 27406), (512, 27487), (538, 27562), (579, 27673), (598, 27715), (599, 27718), (600, 27724), (604, 27739), (627, 27805),

Gene: Derek\_248 Start: 145172, Stop: 146200, Start Num: 142

Candidate Starts for Derek\_248:

(Start: 142 @145172 has 200 MA's), (Start: 163 @145202 has 304 MA's), (170, 145214), (Start: 192 @145256 has 2 MA's), (229, 145319), (239, 145340), (Start: 279 @145424 has 1 MA's), (302, 145466), (306, 145478), (312, 145493), (344, 145562), (365, 145589), (393, 145643), (411, 145688), (414, 145691), (449, 145769), (462, 145790), (520, 145901), (554, 145991), (559, 146009), (590, 146081), (601, 146114),

Gene: Derpp\_48 Start: 41266, Stop: 42621, Start Num: 82

Candidate Starts for Derpp\_48:

(Start: 82 @41266 has 255 MA's), (98, 41317), (108, 41350), (168, 41479), (170, 41482), (Start: 180 @41497 has 5 MA's), (235, 41593), (251, 41632), (269, 41662), (284, 41698), (333, 41809), (345, 41839), (347, 41842), (379, 41908), (440, 42067), (469, 42115), (475, 42133), (498, 42181), (550, 42325), (571, 42385), (603, 42490), (637, 42577),

Gene: Devera\_31 Start: 26468, Stop: 27340, Start Num: 221

Candidate Starts for Devera\_31:

(195, 26441), (Start: 221 @26468 has 188 MA's), (Start: 227 @26480 has 1 MA's), (258, 26549), (275, 26576), (287, 26606), (293, 26615), (309, 26651), (313, 26660), (323, 26693), (331, 26711), (379, 26801), (447, 26936), (469, 26963), (476, 26984), (487, 27008), (547, 27110), (578, 27161), (598, 27197), (604, 27221), (640, 27320), (643, 27329),

Gene: Devonte\_47 Start: 41524, Stop: 42588, Start Num: 138

Candidate Starts for Devonte\_47:

(Start: 138 @41524 has 44 MA's), (173, 41587), (219, 41668), (252, 41734), (260, 41749), (269, 41761), (280, 41788), (311, 41845), (314, 41854), (391, 42001), (401, 42016), (422, 42070), (439, 42103), (463, 42142), (470, 42154), (512, 42235), (520, 42253), (523, 42256), (538, 42301), (578, 42412), (617, 42523), (626, 42544), (641, 42577),

Gene: Dewey\_32 Start: 28339, Stop: 29574, Start Num: 84

Candidate Starts for Dewey\_32:

(Start: 84 @28339 has 24 MA's), (110, 28432), (122, 28465), (128, 28477), (136, 28489), (Start: 138 @28492 has 44 MA's), (170, 28555), (Start: 180 @28573 has 5 MA's), (204, 28606), (235, 28666), (251, 28705), (255, 28714), (257, 28717), (269, 28735), (284, 28771), (309, 28819), (314, 28831), (318, 28837), (339, 28900), (342, 28903), (354, 28930), (361, 28942), (403, 29044), (440, 29131), (469, 29170), (476, 29191), (522, 29260), (534, 29290), (553, 29323), (561, 29332), (564, 29338),

(573, 29350), (575, 29359), (601, 29422), (620, 29491),

Gene: Dexes\_11 Start: 6621, Stop: 7589, Start Num: 163

Candidate Starts for Dexes\_11:

(Start: 163 @6621 has 304 MA's), (Start: 180 @6654 has 5 MA's), (Start: 190 @6672 has 1 MA's), (Start: 192 @6675 has 2 MA's), (335, 6942), (365, 6993), (368, 7005), (415, 7080), (442, 7143), (462, 7176), (469, 7188), (474, 7206), (484, 7224), (496, 7248), (520, 7287), (551, 7368), (559, 7392), (561, 7395), (563, 7398), (567, 7407), (600, 7494), (614, 7539), (629, 7581),

Gene: Dhanush\_10 Start: 5884, Stop: 6864, Start Num: 164

Candidate Starts for Dhanush\_10:

(Start: 164 @5884 has 109 MA's), (Start: 166 @5887 has 14 MA's), (178, 5911), (Start: 190 @5932 has 1 MA's), (Start: 192 @5935 has 2 MA's), (330, 6184), (365, 6241), (416, 6325), (422, 6346), (437, 6373), (464, 6403), (474, 6430), (551, 6580), (598, 6691), (601, 6703), (604, 6715), (627, 6781),

Gene: Dice\_51 Start: 41392, Stop: 42747, Start Num: 82

Candidate Starts for Dice\_51:

(Start: 82 @41392 has 255 MA's), (98, 41443), (108, 41476), (168, 41605), (170, 41608), (Start: 180 @41623 has 5 MA's), (235, 41719), (251, 41758), (269, 41788), (284, 41824), (333, 41935), (345, 41965), (347, 41968), (379, 42034), (440, 42193), (469, 42241), (475, 42259), (498, 42307), (550, 42451), (571, 42511), (603, 42616), (637, 42703),

Gene: Dieselweasel\_12 Start: 5963, Stop: 6928, Start Num: 153

Candidate Starts for Dieselweasel\_12:

(Start: 153 @5963 has 92 MA's), (Start: 180 @6008 has 5 MA's), (Start: 192 @6029 has 2 MA's), (256, 6149), (330, 6287), (365, 6344), (371, 6359), (422, 6440), (430, 6455), (439, 6473), (469, 6524), (474, 6542), (497, 6587), (538, 6683), (561, 6746), (575, 6785), (597, 6836),

Gene: Dietrick\_241 Start: 143035, Stop: 144063, Start Num: 142

Candidate Starts for Dietrick\_241:

(Start: 142 @143035 has 200 MA's), (Start: 163 @143065 has 304 MA's), (170, 143077), (Start: 192 @143119 has 2 MA's), (229, 143182), (239, 143203), (Start: 279 @143287 has 1 MA's), (302, 143329), (306, 143341), (312, 143356), (344, 143425), (365, 143452), (393, 143506), (411, 143551), (414, 143554), (449, 143632), (462, 143653), (520, 143764), (554, 143854), (559, 143872), (590, 143944), (601, 143977),

Gene: Dignity\_13 Start: 6817, Stop: 7809, Start Num: 163

Candidate Starts for Dignity\_13:

(Start: 163 @6817 has 304 MA's), (Start: 190 @6868 has 1 MA's), (Start: 192 @6871 has 2 MA's), (299, 7039), (302, 7045), (312, 7072), (338, 7132), (365, 7177), (412, 7264), (437, 7309), (467, 7348), (494, 7396), (504, 7411), (540, 7477), (555, 7519), (588, 7606), (624, 7720),

Gene: DillTech15\_31 Start: 27607, Stop: 28608, Start Num: 149

Candidate Starts for DillTech15\_31:

(Start: 149 @27607 has 225 MA's), (Start: 163 @27628 has 304 MA's), (Start: 192 @27682 has 2 MA's), (210, 27715), (229, 27745), (239, 27766), (Start: 279 @27850 has 1 MA's), (292, 27874), (306, 27901), (312, 27916), (365, 28012), (423, 28126), (433, 28144), (454, 28183), (469, 28207), (484, 28243), (497, 28270), (520, 28309), (538, 28357), (559, 28417), (585, 28477), (600, 28519), (601, 28522), (604, 28534), (614, 28564),

Gene: Diminimus\_39 Start: 31793, Stop: 32764, Start Num: 169

Candidate Starts for Diminimus\_39:

(Start: 169 @31793 has 13 MA's), (183, 31817), (191, 31832), (266, 31970), (281, 31997), (300, 32015), (305, 32027), (308, 32036), (325, 32081), (330, 32093), (346, 32120), (365, 32147), (368, 32159), (397, 32204), (410, 32231), (423, 32261), (428, 32270), (430, 32273), (475, 32360), (485, 32375), (551, 32528), (552, 32531), (574, 32591), (578, 32603), (581, 32612), (598, 32648), (602, 32663), (618, 32702), (632, 32735),

Gene: Dingo\_49 Start: 41691, Stop: 43046, Start Num: 82

Candidate Starts for Dingo\_49:

(Start: 82 @41691 has 255 MA's), (98, 41742), (108, 41775), (114, 41793), (168, 41904), (170, 41907), (Start: 180 @41922 has 5 MA's), (235, 42018), (251, 42057), (269, 42087), (284, 42123), (333, 42234), (345, 42264), (347, 42267), (379, 42333), (440, 42492), (469, 42540), (475, 42558), (498, 42606), (550, 42750), (571, 42810), (603, 42915), (637, 43002),

Gene: Dione\_48 Start: 41400, Stop: 42755, Start Num: 82

Candidate Starts for Dione\_48:

(Start: 82 @41400 has 255 MA's), (98, 41451), (108, 41484), (168, 41613), (170, 41616), (Start: 180 @41631 has 5 MA's), (235, 41727), (251, 41766), (269, 41796), (284, 41832), (333, 41943), (345, 41973), (347, 41976), (379, 42042), (440, 42201), (469, 42249), (475, 42267), (498, 42315), (550, 42459), (571, 42519), (603, 42624), (637, 42711),

Gene: DirkDirk\_26 Start: 25530, Stop: 26561, Start Num: 142

Candidate Starts for DirkDirk\_26:

(Start: 142 @25530 has 200 MA's), (236, 25686), (247, 25710), (251, 25722), (261, 25740), (272, 25758), (278, 25776), (281, 25782), (286, 25791), (Start: 294 @25806 has 16 MA's), (303, 25821), (321, 25869), (330, 25893), (365, 25950), (385, 25989), (425, 26067), (430, 26076), (431, 26079), (439, 26094), (467, 26148), (474, 26169), (482, 26184), (526, 26268), (537, 26298), (561, 26367), (567, 26379), (575, 26403), (581, 26421), (585, 26424), (590, 26436), (592, 26439), (601, 26469), (604, 26481),

Gene: DirtJuice\_49 Start: 41690, Stop: 43045, Start Num: 82

Candidate Starts for DirtJuice\_49:

(Start: 82 @41690 has 255 MA's), (98, 41741), (108, 41774), (168, 41903), (170, 41906), (Start: 180 @41921 has 5 MA's), (235, 42017), (251, 42056), (269, 42086), (284, 42122), (333, 42233), (345, 42263), (347, 42266), (379, 42332), (440, 42491), (469, 42539), (475, 42557), (498, 42605), (550, 42749), (571, 42809), (603, 42914), (620, 42968), (637, 43001),

Gene: DirtMcgirt\_32 Start: 27342, Stop: 28343, Start Num: 149

Candidate Starts for DirtMcgirt\_32:

(Start: 149 @27342 has 225 MA's), (Start: 192 @27417 has 2 MA's), (210, 27450), (229, 27480), (239, 27501), (251, 27531), (259, 27543), (Start: 279 @27585 has 1 MA's), (292, 27609), (302, 27624), (306, 27636), (365, 27747), (423, 27861), (433, 27879), (454, 27918), (469, 27942), (484, 27978), (497, 28005), (520, 28044), (559, 28152), (578, 28200), (585, 28212), (600, 28254), (601, 28257), (604, 28269), (614, 28299),

Gene: DirtMonster\_241 Start: 143767, Stop: 144795, Start Num: 142

Candidate Starts for DirtMonster\_241:

(Start: 142 @143767 has 200 MA's), (Start: 163 @143797 has 304 MA's), (170, 143809), (Start: 192 @143851 has 2 MA's), (229, 143914), (239, 143935), (Start: 279 @144019 has 1 MA's), (302, 144061), (306, 144073), (312, 144088), (344, 144157), (365, 144184), (393, 144238), (411, 144283), (414, 144286), (449, 144364), (462, 144385), (520, 144496), (554, 144586), (559, 144604), (590, 144676), (601, 144709),

Gene: DirtyDunning\_10 Start: 5877, Stop: 6857, Start Num: 164

Candidate Starts for DirtyDunning\_10:

(Start: 164 @5877 has 109 MA's), (178, 5904), (Start: 190 @5925 has 1 MA's), (Start: 192 @5928 has 2 MA's), (297, 6093), (330, 6177), (365, 6234), (368, 6246), (401, 6297), (416, 6318), (422, 6339), (437, 6366), (461, 6393), (474, 6423), (551, 6573), (601, 6696), (604, 6708), (627, 6774),

Gene: Discoknowium\_8 Start: 5463, Stop: 6272, Start Num: 221

Candidate Starts for Discoknowium\_8:

(Start: 221 @5463 has 188 MA's), (251, 5526), (255, 5535), (269, 5556), (284, 5592), (309, 5640), (329, 5697), (339, 5721), (420, 5910), (440, 5952), (475, 6009), (645, 6258),

Gene: DismalFunk\_29 Start: 24807, Stop: 26009, Start Num: 99

Candidate Starts for DismalFunk\_29:

(87, 24765), (Start: 99 @24807 has 10 MA's), (104, 24834), (125, 24891), (136, 24912), (150, 24939), (182, 24999), (205, 25035), (Start: 227 @25068 has 1 MA's), (228, 25071), (242, 25101), (275, 25167), (293, 25206), (330, 25284), (353, 25329), (384, 25386), (392, 25404), (469, 25569), (476, 25590), (486, 25611), (539, 25716), (545, 25731), (575, 25800), (601, 25857), (624, 25938),

Gene: DismalStressor\_29 Start: 24807, Stop: 26009, Start Num: 99

Candidate Starts for DismalStressor\_29:

(87, 24765), (Start: 99 @24807 has 10 MA's), (104, 24834), (125, 24891), (136, 24912), (150, 24939), (182, 24999), (205, 25035), (Start: 227 @25068 has 1 MA's), (228, 25071), (242, 25101), (275, 25167), (293, 25206), (330, 25284), (353, 25329), (384, 25386), (392, 25404), (469, 25569), (476, 25590), (486, 25611), (539, 25716), (545, 25731), (575, 25800), (601, 25857), (624, 25938),

Gene: Dixon\_8 Start: 4871, Stop: 5680, Start Num: 221

Candidate Starts for Dixon\_8:

(Start: 221 @4871 has 188 MA's), (263, 4955), (284, 5000), (314, 5060), (337, 5126), (440, 5360), (452, 5378), (469, 5399), (475, 5417), (490, 5450), (500, 5468), (578, 5513), (602, 5537), (645, 5666),

Gene: DmpstrDiver\_50 Start: 42106, Stop: 42978, Start Num: 89

Candidate Starts for DmpstrDiver\_50:

(Start: 89 @42106 has 30 MA's), (Start: 97 @42133 has 1 MA's), (115, 42193), (Start: 138 @42241 has 44 MA's), (174, 42307), (189, 42328), (206, 42349), (233, 42403), (274, 42484), (403, 42763), (405, 42766), (413, 42790), (424, 42826), (432, 42841), (438, 42853), (444, 42874),

Gene: DocMcStuffins\_32 Start: 28140, Stop: 29141, Start Num: 149

Candidate Starts for DocMcStuffins\_32:

(69, 27879), (107, 28041), (Start: 149 @28140 has 225 MA's), (Start: 192 @28215 has 2 MA's), (229, 28278), (239, 28299), (Start: 279 @28383 has 1 MA's), (292, 28407), (302, 28422), (306, 28434), (365, 28545), (423, 28659), (433, 28677), (454, 28716), (469, 28740), (484, 28776), (497, 28803), (520, 28842), (559, 28950), (578, 28998), (585, 29010), (604, 29067), (614, 29097),

Gene: DoctorDiddles\_35 Start: 31020, Stop: 31877, Start Num: 198

Candidate Starts for DoctorDiddles\_35:

(Start: 198 @31020 has 122 MA's), (220, 31059), (232, 31089), (242, 31110), (257, 31146), (275, 31176), (309, 31251), (334, 31299), (336, 31302), (345, 31326), (347, 31329), (356, 31344), (426, 31515), (487, 31629), (492, 31638), (495, 31644), (498, 31650), (575, 31692), (576, 31695), (601, 31749), (624, 31827), (641, 31860),

Gene: Doddsville\_49 Start: 41420, Stop: 42775, Start Num: 82

Candidate Starts for Doddsville\_49:

(Start: 82 @41420 has 255 MA's), (98, 41471), (108, 41504), (168, 41633), (170, 41636), (Start: 180 @41651 has 5 MA's), (235, 41747), (251, 41786), (269, 41816), (284, 41852), (333, 41963), (345,

41993), (347, 41996), (379, 42062), (440, 42221), (469, 42269), (475, 42287), (498, 42335), (550, 42479), (571, 42539), (603, 42644), (637, 42731),

Gene: DoesntMatter\_48 Start: 41693, Stop: 43048, Start Num: 82

Candidate Starts for DoesntMatter\_48:

(Start: 82 @41693 has 255 MA's), (98, 41744), (108, 41777), (168, 41906), (170, 41909), (Start: 180 @41924 has 5 MA's), (235, 42020), (251, 42059), (269, 42089), (284, 42125), (333, 42236), (345, 42266), (347, 42269), (379, 42335), (440, 42494), (469, 42542), (475, 42560), (498, 42608), (550, 42752), (571, 42812), (603, 42917), (637, 43004),

Gene: Dole\_31 Start: 26470, Stop: 27342, Start Num: 221

Candidate Starts for Dole\_31:

(195, 26443), (Start: 221 @26470 has 188 MA's), (Start: 227 @26482 has 1 MA's), (258, 26551), (275, 26578), (287, 26608), (293, 26617), (309, 26653), (313, 26662), (323, 26695), (331, 26713), (379, 26803), (447, 26938), (469, 26965), (476, 26986), (487, 27010), (547, 27112), (578, 27163), (598, 27199), (604, 27223), (640, 27322), (643, 27331),

Gene: DonSanchon\_48 Start: 41403, Stop: 42758, Start Num: 82

Candidate Starts for DonSanchon\_48:

(Start: 82 @41403 has 255 MA's), (98, 41454), (108, 41487), (168, 41616), (170, 41619), (Start: 180 @41634 has 5 MA's), (235, 41730), (251, 41769), (269, 41799), (284, 41835), (333, 41946), (345, 41976), (347, 41979), (379, 42045), (440, 42204), (469, 42252), (475, 42270), (498, 42318), (550, 42462), (571, 42522), (603, 42627), (637, 42714),

Gene: Donkeykong\_31 Start: 27705, Stop: 28706, Start Num: 149

Candidate Starts for Donkeykong\_31:

(Start: 149 @27705 has 225 MA's), (Start: 192 @27780 has 2 MA's), (210, 27813), (229, 27843), (239, 27864), (Start: 279 @27948 has 1 MA's), (306, 27999), (312, 28014), (365, 28110), (422, 28221), (433, 28242), (454, 28281), (462, 28293), (484, 28341), (497, 28368), (511, 28392), (520, 28407), (559, 28515), (578, 28563), (604, 28632), (614, 28662),

Gene: Donovan\_27 Start: 24041, Stop: 25207, Start Num: 102

Candidate Starts for Donovan\_27:

(Start: 102 @24041 has 88 MA's), (123, 24098), (168, 24185), (Start: 198 @24230 has 122 MA's), (235, 24305), (245, 24326), (284, 24410), (305, 24449), (333, 24515), (345, 24545), (359, 24566), (379, 24611), (417, 24707), (434, 24746), (440, 24761), (469, 24800), (510, 24887), (527, 24905), (530, 24911), (553, 24959), (571, 24980), (598, 25052), (620, 25127),

Gene: Doom\_10 Start: 6259, Stop: 7227, Start Num: 163

Candidate Starts for Doom\_10:

(Start: 163 @6259 has 304 MA's), (Start: 180 @6292 has 5 MA's), (Start: 190 @6310 has 1 MA's), (Start: 192 @6313 has 2 MA's), (335, 6580), (365, 6631), (368, 6643), (415, 6718), (442, 6781), (450, 6793), (462, 6814), (469, 6826), (474, 6844), (484, 6862), (496, 6886), (520, 6925), (551, 7006), (559, 7030), (561, 7033), (563, 7036), (567, 7045), (600, 7132), (614, 7177), (629, 7219),

Gene: Doomphist\_31 Start: 27641, Stop: 28642, Start Num: 149

Candidate Starts for Doomphist\_31:

(91, 27479), (Start: 149 @27641 has 225 MA's), (Start: 192 @27716 has 2 MA's), (210, 27749), (229, 27779), (239, 27800), (251, 27830), (259, 27842), (Start: 279 @27884 has 1 MA's), (292, 27908), (302, 27923), (306, 27935), (365, 28046), (423, 28160), (433, 28178), (454, 28217), (469, 28241), (484, 28277), (497, 28304), (520, 28343), (538, 28391), (559, 28451), (578, 28499), (585, 28511), (601, 28556), (604, 28568), (614, 28598),

Gene: Dorothy\_31 Start: 27483, Stop: 28484, Start Num: 149

Candidate Starts for Dorothy\_31:

(Start: 149 @27483 has 225 MA's), (Start: 163 @27504 has 304 MA's), (Start: 192 @27558 has 2 MA's), (210, 27591), (229, 27621), (239, 27642), (251, 27672), (259, 27684), (Start: 279 @27726 has 1 MA's), (292, 27750), (302, 27765), (306, 27777), (365, 27888), (423, 28002), (433, 28020), (454, 28059), (469, 28083), (484, 28119), (497, 28146), (520, 28185), (538, 28233), (559, 28293), (578, 28341), (585, 28353), (601, 28398), (604, 28410), (614, 28440),

Gene: DosHalletts\_33 Start: 27903, Stop: 28904, Start Num: 149

Candidate Starts for DosHalletts\_33:

(Start: 149 @27903 has 225 MA's), (Start: 192 @27978 has 2 MA's), (210, 28011), (229, 28041), (239, 28062), (251, 28092), (259, 28104), (Start: 279 @28146 has 1 MA's), (292, 28170), (302, 28185), (306, 28197), (365, 28308), (414, 28392), (423, 28422), (433, 28440), (454, 28479), (469, 28503), (484, 28539), (497, 28566), (520, 28605), (538, 28653), (559, 28713), (578, 28761), (585, 28773), (601, 28818), (604, 28830), (614, 28860),

Gene: DotProduct\_31 Start: 27508, Stop: 28509, Start Num: 149

Candidate Starts for DotProduct\_31:

(Start: 149 @27508 has 225 MA's), (Start: 192 @27583 has 2 MA's), (210, 27616), (229, 27646), (239, 27667), (Start: 279 @27751 has 1 MA's), (292, 27775), (302, 27790), (306, 27802), (365, 27913), (423, 28027), (433, 28045), (454, 28084), (469, 28108), (484, 28144), (497, 28171), (520, 28210), (538, 28258), (559, 28318), (585, 28378), (600, 28420), (601, 28423), (604, 28435), (614, 28465),

Gene: Doug\_32 Start: 28084, Stop: 29085, Start Num: 149

Candidate Starts for Doug\_32:

(Start: 149 @28084 has 225 MA's), (Start: 192 @28159 has 2 MA's), (210, 28192), (229, 28222), (239, 28243), (Start: 279 @28327 has 1 MA's), (292, 28351), (302, 28366), (306, 28378), (365, 28489), (423, 28603), (433, 28621), (454, 28660), (469, 28684), (484, 28720), (497, 28747), (520, 28786), (559, 28894), (578, 28942), (604, 29011), (614, 29041),

Gene: Douge\_26 Start: 25265, Stop: 26287, Start Num: 142

Candidate Starts for Douge\_26:

(Start: 142 @25265 has 200 MA's), (211, 25376), (231, 25409), (233, 25415), (236, 25421), (284, 25523), (286, 25526), (306, 25565), (314, 25586), (330, 25628), (365, 25685), (423, 25799), (474, 25904), (516, 25985), (518, 25988), (537, 26033), (561, 26096), (567, 26108), (597, 26183), (604, 26210),

Gene: Dove\_48 Start: 41658, Stop: 42497, Start Num: 97

Candidate Starts for Dove\_48:

(Start: 89 @41631 has 30 MA's), (Start: 97 @41658 has 1 MA's), (Start: 138 @41766 has 44 MA's), (Start: 148 @41787 has 26 MA's), (174, 41832), (189, 41853), (206, 41874), (233, 41928), (255, 41979), (281, 42030), (355, 42180), (374, 42222), (400, 42273), (405, 42291), (427, 42357), (434, 42369), (438, 42378), (452, 42408), (486, 42471),

Gene: DrDrey\_36 Start: 32350, Stop: 33207, Start Num: 198

Candidate Starts for DrDrey\_36:

(Start: 198 @32350 has 122 MA's), (220, 32389), (232, 32419), (242, 32440), (257, 32476), (275, 32506), (309, 32581), (334, 32629), (336, 32632), (345, 32656), (347, 32659), (356, 32674), (426, 32845), (487, 32959), (495, 32974), (498, 32980), (575, 33022), (576, 33025), (601, 33079), (624, 33157), (641, 33190),

Gene: DrFeelGood\_9 Start: 5783, Stop: 6751, Start Num: 163

Candidate Starts for DrFeelGood\_9:



(Start: 163 @5783 has 304 MA's), (Start: 180 @5816 has 5 MA's), (Start: 190 @5834 has 1 MA's), (Start: 192 @5837 has 2 MA's), (335, 6104), (365, 6155), (368, 6167), (415, 6242), (442, 6305), (462, 6338), (469, 6350), (474, 6368), (484, 6386), (496, 6410), (520, 6449), (551, 6530), (559, 6554), (561, 6557), (563, 6560), (567, 6569), (600, 6656), (614, 6701), (629, 6743),

Gene: DrHayes\_31 Start: 26382, Stop: 27254, Start Num: 221

Candidate Starts for DrHayes\_31:

(151, 26280), (195, 26355), (Start: 221 @26382 has 188 MA's), (Start: 227 @26394 has 1 MA's), (258, 26463), (275, 26490), (287, 26520), (293, 26529), (309, 26565), (313, 26574), (323, 26607), (331, 26625), (379, 26715), (447, 26850), (469, 26877), (476, 26898), (487, 26922), (521, 26973), (578, 27075), (598, 27111), (604, 27135), (640, 27234), (643, 27243),

Gene: DrLupo\_42 Start: 32782, Stop: 33864, Start Num: 116

Candidate Starts for DrLupo\_42:

(Start: 116 @32782 has 3 MA's), (215, 32974), (239, 33019), (267, 33076), (297, 33130), (314, 33172), (321, 33190), (327, 33208), (334, 33223), (367, 33286), (401, 33319), (407, 33325), (423, 33376), (424, 33379), (484, 33493), (488, 33502), (493, 33511), (558, 33661), (574, 33688), (579, 33703), (595, 33733), (610, 33784), (629, 33838),

Gene: DrPhinkDaddy\_249 Start: 145599, Stop: 146627, Start Num: 142

Candidate Starts for DrPhinkDaddy\_249:

(Start: 142 @145599 has 200 MA's), (Start: 163 @145629 has 304 MA's), (170, 145641), (Start: 192 @145683 has 2 MA's), (229, 145746), (239, 145767), (Start: 279 @145851 has 1 MA's), (302, 145893), (306, 145905), (312, 145920), (344, 145989), (365, 146016), (393, 146070), (411, 146115), (414, 146118), (449, 146196), (462, 146217), (520, 146328), (554, 146418), (559, 146436), (590, 146508), (601, 146541),

Gene: DrSeegs\_28 Start: 26303, Stop: 27274, Start Num: 102

Candidate Starts for DrSeegs\_28:

(Start: 102 @26303 has 88 MA's), (120, 26357), (Start: 198 @26507 has 122 MA's), (203, 26516), (208, 26522), (Start: 227 @26555 has 1 MA's), (228, 26558), (232, 26567), (242, 26588), (275, 26651), (293, 26678), (305, 26702), (345, 26783), (352, 26795), (386, 26858), (392, 26873), (415, 26933), (419, 26948), (469, 27029), (475, 27047), (476, 27050), (478, 27053), (579, 27104), (601, 27149), (613, 27191), (628, 27233),

Gene: Drago\_32 Start: 27335, Stop: 28336, Start Num: 149

Candidate Starts for Drago\_32:

(69, 27083), (107, 27236), (Start: 149 @27335 has 225 MA's), (Start: 163 @27356 has 304 MA's), (170, 27368), (Start: 192 @27410 has 2 MA's), (229, 27473), (239, 27494), (251, 27524), (Start: 279 @27578 has 1 MA's), (292, 27602), (306, 27629), (365, 27740), (423, 27854), (433, 27872), (454, 27911), (469, 27935), (484, 27971), (497, 27998), (520, 28037), (538, 28085), (559, 28145), (585, 28205), (604, 28262), (614, 28292),

Gene: Drake55\_13 Start: 6940, Stop: 7917, Start Num: 163

Candidate Starts for Drake55\_13:

(Start: 163 @6940 has 304 MA's), (Start: 192 @6994 has 2 MA's), (234, 7051), (312, 7183), (330, 7231), (365, 7288), (382, 7324), (415, 7372), (430, 7411), (470, 7483), (474, 7498), (497, 7543), (507, 7561), (528, 7603), (538, 7651), (549, 7678), (554, 7693), (559, 7711), (561, 7714), (597, 7804),

Gene: Drake94\_9 Start: 3773, Stop: 4747, Start Num: 163

Candidate Starts for Drake94\_9:

(115, 3734), (Start: 163 @3773 has 304 MA's), (Start: 180 @3806 has 5 MA's), (Start: 192 @3827 has 2 MA's), (283, 3995), (306, 4037), (312, 4052), (365, 4157), (415, 4229), (423, 4256), (425, 4259),

(430, 4268), (474, 4355), (538, 4502), (561, 4565), (575, 4604), (595, 4646),

Gene: Drazdys\_249 Start: 145179, Stop: 146207, Start Num: 142

Candidate Starts for Drazdys\_249:

(Start: 142 @145179 has 200 MA's), (Start: 163 @145209 has 304 MA's), (170, 145221), (Start: 192 @145263 has 2 MA's), (229, 145326), (239, 145347), (Start: 279 @145431 has 1 MA's), (302, 145473), (306, 145485), (312, 145500), (344, 145569), (365, 145596), (393, 145650), (411, 145695), (414, 145698), (449, 145776), (462, 145797), (520, 145908), (554, 145998), (559, 146016), (590, 146088), (601, 146121),

Gene: DreamCatcher\_11 Start: 6375, Stop: 7343, Start Num: 163

Candidate Starts for DreamCatcher\_11:

(Start: 163 @6375 has 304 MA's), (Start: 180 @6408 has 5 MA's), (Start: 190 @6426 has 1 MA's), (Start: 192 @6429 has 2 MA's), (335, 6696), (365, 6747), (368, 6759), (415, 6834), (462, 6930), (474, 6960), (520, 7041), (551, 7122), (559, 7146), (561, 7149), (563, 7152), (567, 7161), (600, 7248), (629, 7335),

Gene: Dreamboat\_11 Start: 5911, Stop: 6879, Start Num: 163

Candidate Starts for Dreamboat\_11:

(Start: 163 @5911 has 304 MA's), (Start: 180 @5944 has 5 MA's), (Start: 190 @5962 has 1 MA's), (Start: 192 @5965 has 2 MA's), (302, 6154), (335, 6232), (365, 6283), (368, 6295), (415, 6370), (442, 6433), (462, 6466), (469, 6478), (474, 6496), (484, 6514), (496, 6538), (520, 6577), (551, 6658), (559, 6682), (561, 6685), (563, 6688), (567, 6697), (600, 6784), (614, 6829), (629, 6871),

Gene: DroogsArmy\_11 Start: 7064, Stop: 8041, Start Num: 163

Candidate Starts for DroogsArmy\_11:

(Start: 163 @7064 has 304 MA's), (Start: 192 @7118 has 2 MA's), (226, 7172), (241, 7205), (312, 7337), (365, 7442), (415, 7514), (423, 7541), (430, 7553), (439, 7571), (474, 7640), (507, 7703), (538, 7781), (549, 7808), (559, 7841), (561, 7844), (578, 7892), (597, 7934), (603, 7958), (615, 8000),

Gene: Druantia\_10 Start: 5882, Stop: 6862, Start Num: 164

Candidate Starts for Druantia\_10:

(Start: 164 @5882 has 109 MA's), (Start: 166 @5885 has 14 MA's), (178, 5909), (Start: 190 @5930 has 1 MA's), (Start: 192 @5933 has 2 MA's), (330, 6182), (365, 6239), (416, 6323), (422, 6344), (437, 6371), (464, 6401), (474, 6428), (551, 6578), (598, 6689), (601, 6701), (604, 6713), (627, 6779),

Gene: Dublin\_7 Start: 5322, Stop: 6131, Start Num: 221

Candidate Starts for Dublin\_7:

(Start: 221 @5322 has 188 MA's), (251, 5385), (255, 5394), (284, 5451), (309, 5499), (420, 5769), (440, 5811), (475, 5868), (495, 5910), (645, 6117),

Gene: DuchessDung\_48 Start: 40692, Stop: 42047, Start Num: 82

Candidate Starts for DuchessDung\_48:

(Start: 82 @40692 has 255 MA's), (98, 40743), (108, 40776), (168, 40905), (170, 40908), (Start: 180 @40923 has 5 MA's), (235, 41019), (251, 41058), (269, 41088), (284, 41124), (333, 41235), (345, 41265), (347, 41268), (379, 41334), (440, 41493), (469, 41541), (475, 41559), (498, 41607), (550, 41751), (571, 41811), (603, 41916), (637, 42003),

Gene: DudeLittle\_11 Start: 6524, Stop: 7516, Start Num: 163

Candidate Starts for DudeLittle\_11:

(Start: 163 @6524 has 304 MA's), (Start: 180 @6557 has 5 MA's), (Start: 190 @6575 has 1 MA's), (Start: 192 @6578 has 2 MA's), (212, 6611), (223, 6626), (273, 6713), (299, 6746), (302, 6752), (312, 6779), (338, 6839), (365, 6884), (437, 7016), (467, 7055), (494, 7103), (540, 7184), (555, 7226), (588,

7313), (601, 7349), (608, 7373), (620, 7415), (624, 7427), (651, 7502),

Gene: Duggie\_48 Start: 41422, Stop: 42777, Start Num: 82

Candidate Starts for Duggie\_48:

(Start: 82 @41422 has 255 MA's), (98, 41473), (108, 41506), (168, 41635), (170, 41638), (Start: 180 @41653 has 5 MA's), (235, 41749), (251, 41788), (269, 41818), (284, 41854), (333, 41965), (345, 41995), (347, 41998), (379, 42064), (440, 42223), (469, 42271), (475, 42289), (498, 42337), (550, 42481), (571, 42541), (603, 42646), (637, 42733),

Gene: Duke13\_52 Start: 42424, Stop: 43296, Start Num: 89

Candidate Starts for Duke13\_52:

(Start: 89 @42424 has 30 MA's), (Start: 97 @42451 has 1 MA's), (115, 42511), (Start: 138 @42559 has 44 MA's), (174, 42625), (189, 42646), (206, 42667), (233, 42721), (274, 42802), (403, 43081), (405, 43084), (413, 43108), (424, 43144), (432, 43159), (438, 43171), (444, 43192),

Gene: Dulcie\_9 Start: 5658, Stop: 6626, Start Num: 163

Candidate Starts for Dulcie\_9:

(Start: 163 @5658 has 304 MA's), (Start: 180 @5691 has 5 MA's), (Start: 190 @5709 has 1 MA's), (Start: 192 @5712 has 2 MA's), (335, 5979), (365, 6030), (368, 6042), (415, 6117), (462, 6213), (469, 6225), (474, 6243), (484, 6261), (496, 6285), (520, 6324), (551, 6405), (559, 6429), (561, 6432), (563, 6435), (567, 6444), (614, 6576), (629, 6618),

Gene: Dulcita\_39 Start: 31793, Stop: 32764, Start Num: 169

Candidate Starts for Dulcita\_39:

(Start: 169 @31793 has 13 MA's), (183, 31817), (191, 31832), (266, 31970), (281, 31997), (300, 32015), (305, 32027), (308, 32036), (325, 32081), (330, 32093), (346, 32120), (365, 32147), (368, 32159), (397, 32204), (410, 32231), (423, 32261), (428, 32270), (430, 32273), (475, 32360), (485, 32375), (551, 32528), (552, 32531), (574, 32591), (578, 32603), (581, 32612), (598, 32648), (602, 32663), (618, 32702), (632, 32735),

Gene: Dumbo\_35 Start: 31325, Stop: 32182, Start Num: 198

Candidate Starts for Dumbo\_35:

(Start: 198 @31325 has 122 MA's), (220, 31364), (232, 31394), (242, 31415), (257, 31451), (275, 31481), (309, 31556), (334, 31604), (336, 31607), (345, 31631), (347, 31634), (356, 31649), (426, 31820), (487, 31934), (495, 31949), (498, 31955), (575, 31997), (576, 32000), (600, 32051), (601, 32054), (624, 32132), (641, 32165),

Gene: DuncansLeg\_28 Start: 26834, Stop: 27877, Start Num: 102

Candidate Starts for DuncansLeg\_28:

(Start: 102 @26834 has 88 MA's), (Start: 103 @26840 has 3 MA's), (112, 26867), (120, 26888), (143, 26939), (186, 27020), (245, 27125), (293, 27212), (312, 27254), (341, 27308), (349, 27326), (352, 27332), (355, 27338), (392, 27410), (418, 27467), (452, 27527), (489, 27602), (572, 27647), (576, 27662), (578, 27668), (604, 27731), (640, 27833), (645, 27854), (648, 27860),

Gene: Duplo\_14 Start: 6638, Stop: 7402, Start Num: 294

Candidate Starts for Duplo\_14:

(Start: 294 @6638 has 16 MA's), (365, 6782), (415, 6869), (423, 6896), (430, 6908), (474, 6995), (535, 7109), (538, 7136), (559, 7196), (561, 7199), (574, 7235), (597, 7289), (611, 7337),

Gene: Durfee\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for Durfee\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323,

26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: Durga\_50 Start: 41858, Stop: 43213, Start Num: 82

Candidate Starts for Durga\_50:

(Start: 82 @41858 has 255 MA's), (98, 41909), (108, 41942), (168, 42071), (170, 42074), (Start: 180 @42089 has 5 MA's), (235, 42185), (251, 42224), (269, 42254), (284, 42290), (333, 42401), (345, 42431), (347, 42434), (379, 42500), (440, 42659), (469, 42707), (475, 42725), (498, 42773), (550, 42917), (571, 42977), (603, 43082), (637, 43169),

Gene: Dusk\_34 Start: 31510, Stop: 32367, Start Num: 198

Candidate Starts for Dusk\_34:

(Start: 198 @31510 has 122 MA's), (220, 31549), (232, 31579), (242, 31600), (257, 31636), (275, 31666), (309, 31741), (334, 31789), (336, 31792), (345, 31816), (347, 31819), (356, 31834), (426, 32005), (487, 32119), (495, 32134), (498, 32140), (575, 32182), (576, 32185), (601, 32239), (624, 32317), (641, 32350),

Gene: Dussy\_11 Start: 6019, Stop: 6987, Start Num: 163

Candidate Starts for Dussy\_11:

(Start: 163 @6019 has 304 MA's), (Start: 180 @6052 has 5 MA's), (Start: 190 @6070 has 1 MA's), (Start: 192 @6073 has 2 MA's), (335, 6340), (365, 6391), (368, 6403), (415, 6478), (442, 6541), (450, 6553), (462, 6574), (469, 6586), (474, 6604), (484, 6622), (496, 6646), (520, 6685), (551, 6766), (559, 6790), (561, 6793), (563, 6796), (567, 6805), (600, 6892), (614, 6937), (629, 6979),

Gene: Dylan\_67 Start: 43515, Stop: 44555, Start Num: 148

Candidate Starts for Dylan\_67:

(Start: 148 @43515 has 26 MA's), (Start: 192 @43590 has 2 MA's), (229, 43671), (232, 43677), (239, 43692), (278, 43773), (Start: 279 @43776 has 1 MA's), (306, 43830), (312, 43845), (365, 43941), (385, 43980), (397, 44010), (411, 44040), (414, 44043), (425, 44076), (462, 44142), (479, 44181), (484, 44190), (497, 44217), (520, 44256), (589, 44430), (604, 44481),

Gene: Dynamix\_10 Start: 5732, Stop: 6700, Start Num: 163

Candidate Starts for Dynamix\_10:

(Start: 163 @5732 has 304 MA's), (Start: 180 @5765 has 5 MA's), (Start: 190 @5783 has 1 MA's), (Start: 192 @5786 has 2 MA's), (335, 6053), (365, 6104), (368, 6116), (415, 6191), (442, 6254), (462, 6287), (469, 6299), (474, 6317), (484, 6335), (496, 6359), (520, 6398), (551, 6479), (559, 6503), (561, 6506), (563, 6509), (567, 6518), (600, 6605), (629, 6692),

Gene: Dynamo\_27 Start: 24463, Stop: 25629, Start Num: 102

Candidate Starts for Dynamo\_27:

(Start: 102 @24463 has 88 MA's), (123, 24520), (168, 24607), (Start: 198 @24652 has 122 MA's), (235, 24727), (245, 24748), (284, 24832), (305, 24871), (333, 24937), (345, 24967), (359, 24988), (379, 25033), (417, 25129), (434, 25168), (440, 25183), (469, 25222), (510, 25309), (527, 25327), (530, 25333), (553, 25381), (571, 25402), (598, 25474), (620, 25549),

Gene: DyoEdafos\_27 Start: 25472, Stop: 26494, Start Num: 142

Candidate Starts for DyoEdafos\_27:

(Start: 142 @25472 has 200 MA's), (211, 25583), (213, 25586), (231, 25616), (233, 25622), (236, 25628), (261, 25682), (284, 25730), (Start: 294 @25748 has 16 MA's), (303, 25763), (314, 25793), (330, 25835), (365, 25892), (423, 26006), (430, 26018), (474, 26111), (516, 26192), (537, 26240), (544, 26258), (561, 26303), (567, 26315), (597, 26390), (604, 26417),

Gene: ECartman\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for ECartman\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (469, 26011), (476, 26032), (495, 26071), (498, 26077),

Gene: ET08\_238 Start: 143503, Stop: 144531, Start Num: 142

Candidate Starts for ET08\_238:

(Start: 142 @143503 has 200 MA's), (Start: 163 @143533 has 304 MA's), (Start: 192 @143587 has 2 MA's), (229, 143650), (239, 143671), (Start: 279 @143755 has 1 MA's), (302, 143797), (306, 143809), (312, 143824), (344, 143893), (365, 143920), (393, 143974), (411, 144019), (414, 144022), (449, 144100), (462, 144121), (520, 144232), (554, 144322), (559, 144340), (590, 144412), (601, 144445),

Gene: EZMoney23\_15 Start: 8407, Stop: 9384, Start Num: 163

Candidate Starts for EZMoney23\_15:

(Start: 163 @8407 has 304 MA's), (Start: 192 @8461 has 2 MA's), (226, 8500), (312, 8650), (330, 8698), (365, 8755), (382, 8791), (415, 8839), (430, 8878), (469, 8947), (470, 8950), (474, 8965), (497, 9010), (507, 9028), (528, 9070), (538, 9118), (549, 9145), (554, 9160), (559, 9178), (561, 9181), (597, 9271),

Gene: Eagle\_9 Start: 5884, Stop: 6861, Start Num: 166

Candidate Starts for Eagle\_9:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Eaglepride\_11 Start: 5708, Stop: 6676, Start Num: 163

Candidate Starts for Eaglepride\_11:

(139, 5669), (Start: 163 @5708 has 304 MA's), (170, 5720), (Start: 180 @5741 has 5 MA's), (Start: 192 @5762 has 2 MA's), (194, 5765), (276, 5915), (281, 5930), (303, 5948), (365, 6077), (371, 6092), (415, 6161), (422, 6185), (425, 6191), (430, 6200), (469, 6269), (474, 6287), (507, 6350), (538, 6428), (549, 6455), (554, 6470), (561, 6491), (575, 6530), (597, 6581), (600, 6593), (603, 6605), (609, 6623),

Gene: Eapen\_10 Start: 5883, Stop: 6863, Start Num: 164

Candidate Starts for Eapen\_10:

(Start: 164 @5883 has 109 MA's), (Start: 166 @5886 has 14 MA's), (178, 5910), (Start: 190 @5931 has 1 MA's), (Start: 192 @5934 has 2 MA's), (330, 6183), (365, 6240), (416, 6324), (422, 6345), (437, 6372), (464, 6402), (474, 6429), (551, 6579), (598, 6690), (601, 6702), (604, 6714), (627, 6780),

Gene: Easy2Say\_37 Start: 33108, Stop: 33965, Start Num: 198

Candidate Starts for Easy2Say\_37:

(Start: 198 @33108 has 122 MA's), (220, 33147), (232, 33177), (242, 33198), (257, 33234), (275, 33264), (309, 33339), (334, 33387), (336, 33390), (345, 33414), (347, 33417), (356, 33432), (426, 33603), (487, 33717), (495, 33732), (498, 33738), (575, 33780), (576, 33783), (601, 33837), (624, 33915), (641, 33948),

Gene: EasyJones\_253 Start: 143585, Stop: 144583, Start Num: 163

Candidate Starts for EasyJones\_253:

(Start: 142 @143555 has 200 MA's), (Start: 163 @143585 has 304 MA's), (170, 143597), (Start: 192 @143639 has 2 MA's), (229, 143702), (239, 143723), (Start: 279 @143807 has 1 MA's), (302, 143849), (306, 143861), (312, 143876), (344, 143945), (365, 143972), (393, 144026), (411, 144071), (414, 144074), (449, 144152), (462, 144173), (520, 144284), (554, 144374), (559, 144392), (590, 144464), (601, 144497),

Gene: Echild\_11 Start: 6541, Stop: 7518, Start Num: 163

Candidate Starts for Echild\_11:

(Start: 163 @6541 has 304 MA's), (Start: 192 @6595 has 2 MA's), (312, 6784), (325, 6820), (330, 6832), (365, 6889), (382, 6925), (415, 6973), (430, 7012), (454, 7060), (467, 7078), (470, 7084), (474, 7099), (497, 7144), (507, 7162), (528, 7204), (538, 7252), (549, 7279), (554, 7294), (559, 7312), (561, 7315), (597, 7405), (626, 7504),

Gene: Edison31\_10 Start: 5718, Stop: 6692, Start Num: 163

Candidate Starts for Edison31\_10:

(Start: 163 @5718 has 304 MA's), (Start: 166 @5724 has 14 MA's), (Start: 192 @5772 has 2 MA's), (276, 5925), (365, 6087), (371, 6102), (382, 6123), (422, 6195), (425, 6201), (430, 6210), (453, 6252), (469, 6279), (474, 6297), (497, 6342), (507, 6360), (538, 6438), (549, 6465), (554, 6480), (561, 6501), (575, 6540), (597, 6591), (609, 6633), (632, 6684),

Gene: Edtherson\_11 Start: 6516, Stop: 7484, Start Num: 163

Candidate Starts for Edtherson\_11:

(Start: 163 @6516 has 304 MA's), (Start: 180 @6549 has 5 MA's), (Start: 190 @6567 has 1 MA's), (335, 6837), (365, 6888), (368, 6900), (415, 6975), (442, 7038), (450, 7050), (462, 7071), (469, 7083), (474, 7101), (484, 7119), (496, 7143), (520, 7182), (551, 7263), (559, 7287), (561, 7290), (563, 7293), (567, 7302), (600, 7389), (607, 7413), (614, 7434), (629, 7476),

Gene: Edugator\_30 Start: 27158, Stop: 27919, Start Num: 221

Candidate Starts for Edugator\_30:

(183, 27110), (Start: 221 @27158 has 188 MA's), (Start: 227 @27170 has 1 MA's), (229, 27176), (242, 27203), (258, 27239), (289, 27299), (293, 27305), (307, 27335), (309, 27341), (313, 27350), (323, 27383), (343, 27425), (345, 27428), (352, 27440), (370, 27476), (379, 27491), (395, 27527), (447, 27626), (469, 27653), (476, 27674), (578, 27737), (595, 27761), (601, 27785), (620, 27854), (640, 27899), (643, 27908),

Gene: Efra2\_31 Start: 25702, Stop: 26571, Start Num: 221

Candidate Starts for Efra2\_31:

(183, 25654), (195, 25675), (Start: 221 @25702 has 188 MA's), (Start: 227 @25714 has 1 MA's), (239, 25741), (242, 25747), (253, 25777), (258, 25783), (293, 25846), (309, 25882), (313, 25891), (323, 25924), (347, 25972), (384, 26041), (469, 26194), (476, 26215), (487, 26239), (496, 26257), (507, 26278), (538, 26317), (578, 26392), (624, 26521), (640, 26551), (643, 26560),

Gene: EggyFarm\_260 Start: 146394, Stop: 147422, Start Num: 142

Candidate Starts for EggyFarm\_260:

(Start: 142 @146394 has 200 MA's), (Start: 163 @146424 has 304 MA's), (170, 146436), (Start: 192 @146478 has 2 MA's), (229, 146541), (239, 146562), (Start: 279 @146646 has 1 MA's), (302, 146688), (306, 146700), (312, 146715), (344, 146784), (365, 146811), (393, 146865), (411, 146910), (414, 146913), (449, 146991), (462, 147012), (520, 147123), (554, 147213), (559, 147231), (590, 147303), (601, 147336),

Gene: Ein37\_33 Start: 28339, Stop: 29574, Start Num: 84

Candidate Starts for Ein37\_33:

(Start: 84 @28339 has 24 MA's), (110, 28432), (122, 28465), (128, 28477), (136, 28489), (Start: 138 @28492 has 44 MA's), (170, 28555), (Start: 180 @28573 has 5 MA's), (204, 28606), (235, 28666), (251, 28705), (255, 28714), (257, 28717), (269, 28735), (284, 28771), (309, 28819), (314, 28831), (318, 28837), (339, 28900), (342, 28903), (354, 28930), (361, 28942), (403, 29044), (440, 29131), (469, 29170), (476, 29191), (522, 29260), (534, 29290), (553, 29323), (561, 29332), (564, 29338), (573, 29350), (575, 29359), (601, 29422), (620, 29491),

Gene: Eish\_31 Start: 27924, Stop: 29228, Start Num: 63

Candidate Starts for Eish\_31:

(58, 27894), (59, 27900), (60, 27912), (Start: 63 @27924 has 1 MA's), (64, 27936), (Start: 149 @28212 has 225 MA's), (Start: 221 @28344 has 188 MA's), (229, 28365), (239, 28386), (251, 28416), (259, 28428), (Start: 279 @28470 has 1 MA's), (292, 28494), (302, 28509), (306, 28521), (365, 28632), (423, 28746), (433, 28764), (454, 28803), (469, 28827), (484, 28863), (497, 28890), (520, 28929), (559, 29037), (578, 29085), (585, 29097), (601, 29142), (604, 29154), (614, 29184),

Gene: Ejimix\_49 Start: 43361, Stop: 44233, Start Num: 89

Candidate Starts for Ejimix\_49:

(Start: 89 @43361 has 30 MA's), (Start: 97 @43388 has 1 MA's), (115, 43448), (Start: 138 @43496 has 44 MA's), (174, 43562), (189, 43583), (206, 43604), (233, 43658), (274, 43739), (403, 44018), (405, 44021), (413, 44045), (424, 44081), (432, 44096), (438, 44108), (444, 44129),

Gene: Ekdilam\_28 Start: 26650, Stop: 27390, Start Num: 221

Candidate Starts for Ekdilam\_28:

(151, 26551), (Start: 162 @26572 has 2 MA's), (183, 26605), (195, 26626), (Start: 221 @26650 has 188 MA's), (Start: 227 @26662 has 1 MA's), (242, 26695), (287, 26779), (293, 26788), (300, 26800), (313, 26833), (323, 26866), (379, 26974), (392, 27001), (469, 27136), (476, 27157), (487, 27181), (573, 27193), (575, 27202), (601, 27259), (604, 27271), (624, 27340), (640, 27370),

Gene: EITiger69\_8 Start: 5180, Stop: 5989, Start Num: 221

Candidate Starts for EITiger69\_8:

(Start: 221 @5180 has 188 MA's), (245, 5225), (284, 5309), (293, 5324), (309, 5357), (420, 5627), (440, 5669), (469, 5708), (475, 5726), (489, 5756), (640, 5954),

Gene: EleanorGeorge\_32 Start: 28150, Stop: 29220, Start Num: 149

Candidate Starts for EleanorGeorge\_32:

(122, 28096), (Start: 149 @28150 has 225 MA's), (269, 28366), (270, 28369), (297, 28420), (314, 28462), (335, 28513), (391, 28627), (404, 28660), (431, 28735), (442, 28756), (512, 28885), (538, 28957), (574, 29053), (578, 29065), (604, 29134), (623, 29191), (627, 29200),

Gene: Elite2014\_34 Start: 31065, Stop: 31922, Start Num: 198

Candidate Starts for Elite2014\_34:

(Start: 198 @31065 has 122 MA's), (220, 31104), (232, 31134), (242, 31155), (257, 31191), (275, 31221), (309, 31296), (334, 31344), (336, 31347), (345, 31371), (347, 31374), (356, 31389), (426, 31560), (487, 31674), (495, 31689), (498, 31695), (575, 31737), (576, 31740), (601, 31794), (624, 31872), (641, 31905),

Gene: Ellie\_28 Start: 26652, Stop: 27389, Start Num: 221

Candidate Starts for Ellie\_28:

(151, 26541), (Start: 162 @26562 has 2 MA's), (183, 26601), (195, 26622), (Start: 221 @26652 has 188 MA's), (Start: 227 @26664 has 1 MA's), (242, 26697), (258, 26733), (287, 26781), (293, 26790), (300, 26802), (309, 26826), (323, 26868), (379, 26976), (392, 27003), (436, 27090), (447, 27108), (462, 27123), (469, 27135), (476, 27156), (487, 27180), (573, 27192), (575, 27201), (578, 27210), (601, 27258), (640, 27369), (642, 27378),

Gene: Ellson\_28 Start: 26821, Stop: 27864, Start Num: 102

Candidate Starts for Ellson\_28:

(Start: 102 @26821 has 88 MA's), (Start: 103 @26827 has 3 MA's), (112, 26854), (120, 26875), (143, 26926), (186, 27007), (245, 27112), (289, 27193), (293, 27199), (312, 27241), (341, 27295), (349, 27313), (352, 27319), (355, 27325), (392, 27397), (418, 27454), (452, 27514), (489, 27589), (572, 27634), (576, 27649), (578, 27655), (604, 27718), (640, 27820), (645, 27841), (648, 27847),

Gene: Elph10\_36 Start: 31328, Stop: 32185, Start Num: 198

Candidate Starts for Elph10\_36:

(Start: 198 @31328 has 122 MA's), (220, 31367), (232, 31397), (242, 31418), (257, 31454), (275, 31484), (309, 31559), (334, 31607), (336, 31610), (345, 31634), (347, 31637), (356, 31652), (426, 31823), (487, 31937), (495, 31952), (498, 31958), (575, 32000), (576, 32003), (601, 32057), (624, 32135), (641, 32168),

Gene: EmToTheThree\_253 Start: 145387, Stop: 146415, Start Num: 142

Candidate Starts for EmToTheThree\_253:

(Start: 142 @145387 has 200 MA's), (Start: 163 @145417 has 304 MA's), (170, 145429), (Start: 192 @145471 has 2 MA's), (229, 145534), (239, 145555), (Start: 279 @145639 has 1 MA's), (302, 145681), (306, 145693), (312, 145708), (344, 145777), (365, 145804), (393, 145858), (411, 145903), (414, 145906), (449, 145984), (462, 146005), (520, 146116), (554, 146206), (559, 146224), (590, 146296), (601, 146329),

Gene: Emerson\_31 Start: 26454, Stop: 27326, Start Num: 221

Candidate Starts for Emerson\_31:

(195, 26427), (Start: 221 @26454 has 188 MA's), (Start: 227 @26466 has 1 MA's), (258, 26535), (275, 26562), (287, 26592), (293, 26601), (309, 26637), (313, 26646), (323, 26679), (331, 26697), (347, 26727), (378, 26784), (379, 26787), (447, 26922), (469, 26949), (476, 26970), (487, 26994), (521, 27045), (578, 27147), (598, 27183), (616, 27255), (640, 27306), (643, 27315),

Gene: Emiris\_50 Start: 41826, Stop: 43181, Start Num: 82

Candidate Starts for Emiris\_50:

(Start: 82 @41826 has 255 MA's), (98, 41877), (108, 41910), (168, 42039), (170, 42042), (Start: 180 @42057 has 5 MA's), (235, 42153), (251, 42192), (269, 42222), (284, 42258), (333, 42369), (345, 42399), (347, 42402), (379, 42468), (440, 42627), (469, 42675), (475, 42693), (498, 42741), (550, 42885), (571, 42945), (603, 43050), (637, 43137),

Gene: Emma\_33 Start: 28128, Stop: 29126, Start Num: 149

Candidate Starts for Emma\_33:

(Start: 149 @28128 has 225 MA's), (Start: 192 @28203 has 2 MA's), (229, 28263), (239, 28284), (Start: 279 @28368 has 1 MA's), (306, 28419), (312, 28434), (365, 28530), (422, 28641), (433, 28662), (454, 28701), (462, 28713), (484, 28761), (497, 28788), (511, 28812), (520, 28827), (559, 28935), (578, 28983), (604, 29052), (614, 29082),

Gene: EmmaElysia\_257 Start: 146050, Stop: 147078, Start Num: 142

Candidate Starts for EmmaElysia\_257:

(Start: 142 @146050 has 200 MA's), (Start: 163 @146080 has 304 MA's), (170, 146092), (Start: 192 @146134 has 2 MA's), (229, 146197), (239, 146218), (Start: 279 @146302 has 1 MA's), (302, 146344), (306, 146356), (312, 146371), (344, 146440), (365, 146467), (393, 146521), (411, 146566), (414, 146569), (449, 146647), (462, 146668), (520, 146779), (554, 146869), (559, 146887), (590, 146959), (601, 146992),

Gene: Emmina\_36 Start: 31686, Stop: 32543, Start Num: 198

Candidate Starts for Emmina\_36:

(Start: 198 @31686 has 122 MA's), (220, 31725), (232, 31755), (242, 31776), (257, 31812), (275, 31842), (309, 31917), (334, 31965), (336, 31968), (345, 31992), (347, 31995), (356, 32010), (426, 32181), (487, 32295), (495, 32310), (498, 32316), (575, 32358), (576, 32361), (601, 32415), (624, 32493), (641, 32526),

Gene: EmpTee\_49 Start: 41706, Stop: 43061, Start Num: 82



Candidate Starts for EmpTee\_49:

(Start: 82 @41706 has 255 MA's), (98, 41757), (108, 41790), (114, 41808), (168, 41919), (170, 41922), (Start: 180 @41937 has 5 MA's), (235, 42033), (251, 42072), (269, 42102), (284, 42138), (333, 42249), (345, 42279), (347, 42282), (379, 42348), (440, 42507), (469, 42555), (475, 42573), (498, 42621), (550, 42765), (571, 42825), (603, 42930), (637, 43017),

Gene: Empress\_32 Start: 28933, Stop: 29934, Start Num: 149

Candidate Starts for Empress\_32:

(Start: 149 @28933 has 225 MA's), (Start: 192 @29008 has 2 MA's), (210, 29041), (229, 29071), (239, 29092), (Start: 279 @29176 has 1 MA's), (292, 29200), (302, 29215), (306, 29227), (365, 29338), (423, 29452), (433, 29470), (454, 29509), (469, 29533), (484, 29569), (497, 29596), (520, 29635), (559, 29743), (585, 29803), (604, 29860), (614, 29890),

Gene: Enby\_33 Start: 27679, Stop: 28749, Start Num: 149

Candidate Starts for Enby\_33:

(122, 27625), (Start: 149 @27679 has 225 MA's), (269, 27895), (270, 27898), (297, 27949), (314, 27991), (335, 28042), (391, 28156), (404, 28189), (431, 28264), (442, 28285), (512, 28414), (538, 28486), (574, 28582), (578, 28594), (604, 28663), (623, 28720), (627, 28729),

Gene: Enceladus\_26 Start: 25531, Stop: 26562, Start Num: 142

Candidate Starts for Enceladus\_26:

(Start: 142 @25531 has 200 MA's), (236, 25687), (247, 25711), (251, 25723), (261, 25741), (272, 25759), (278, 25777), (281, 25783), (286, 25792), (Start: 294 @25807 has 16 MA's), (303, 25822), (321, 25870), (330, 25894), (365, 25951), (385, 25990), (425, 26068), (430, 26077), (431, 26080), (439, 26095), (467, 26149), (474, 26170), (482, 26185), (526, 26269), (537, 26299), (561, 26368), (567, 26380), (575, 26404), (581, 26422), (585, 26425), (590, 26437), (592, 26440), (601, 26470), (604, 26482),

Gene: EniyanLRS\_49 Start: 38079, Stop: 39044, Start Num: 149

Candidate Starts for EniyanLRS\_49:

(Start: 149 @38079 has 225 MA's), (185, 38142), (231, 38202), (238, 38217), (239, 38220), (246, 38232), (249, 38238), (269, 38274), (270, 38277), (306, 38349), (312, 38364), (314, 38370), (344, 38433), (365, 38463), (381, 38496), (422, 38559), (423, 38562), (442, 38601), (462, 38634), (474, 38661), (479, 38670), (496, 38703), (557, 38838), (561, 38853), (578, 38898), (597, 38940), (604, 38967), (617, 39009),

Gene: Enkosi\_27 Start: 25978, Stop: 26736, Start Num: 221

Candidate Starts for Enkosi\_27:

(151, 25876), (183, 25930), (195, 25951), (Start: 221 @25978 has 188 MA's), (242, 26023), (258, 26059), (289, 26119), (293, 26125), (307, 26155), (323, 26203), (343, 26245), (379, 26311), (395, 26347), (447, 26446), (469, 26473), (476, 26494), (480, 26500), (573, 26539), (576, 26551), (578, 26557), (595, 26581), (601, 26605), (640, 26716), (643, 26725),

Gene: EpicPhail\_12 Start: 5962, Stop: 6927, Start Num: 153

Candidate Starts for EpicPhail\_12:

(Start: 153 @5962 has 92 MA's), (Start: 180 @6007 has 5 MA's), (Start: 192 @6028 has 2 MA's), (256, 6148), (330, 6286), (365, 6343), (371, 6358), (422, 6439), (430, 6454), (439, 6472), (469, 6523), (474, 6541), (497, 6586), (538, 6682), (561, 6745), (575, 6784), (597, 6835),

Gene: Eponine\_34 Start: 28394, Stop: 29185, Start Num: 200

Candidate Starts for Eponine\_34:

(Start: 200 @28394 has 20 MA's), (Start: 227 @28427 has 1 MA's), (242, 28460), (251, 28484), (264, 28505), (270, 28514), (283, 28544), (287, 28553), (293, 28562), (309, 28598), (350, 28679), (447,

28886), (469, 28913), (476, 28934), (483, 28949), (487, 28958), (576, 28982), (601, 29036), (604, 29048), (625, 29120),

Gene: Equemioh13\_13 Start: 6926, Stop: 7903, Start Num: 163

Candidate Starts for Equemioh13\_13:

(Start: 163 @6926 has 304 MA's), (Start: 192 @6980 has 2 MA's), (234, 7037), (312, 7169), (330, 7217), (365, 7274), (382, 7310), (415, 7358), (430, 7397), (470, 7469), (474, 7484), (497, 7529), (507, 7547), (528, 7589), (538, 7637), (549, 7664), (554, 7679), (559, 7697), (561, 7700), (597, 7790),

Gene: Eradicator\_31 Start: 27626, Stop: 28627, Start Num: 149

Candidate Starts for Eradicator\_31:

(Start: 149 @27626 has 225 MA's), (Start: 192 @27701 has 2 MA's), (229, 27764), (239, 27785), (Start: 279 @27869 has 1 MA's), (292, 27893), (302, 27908), (306, 27920), (365, 28031), (423, 28145), (433, 28163), (454, 28202), (469, 28226), (484, 28262), (497, 28289), (520, 28328), (538, 28376), (559, 28436), (585, 28496), (601, 28541), (604, 28553), (614, 28583),

Gene: Erdmann\_254 Start: 145355, Stop: 146383, Start Num: 142

Candidate Starts for Erdmann\_254:

(Start: 142 @145355 has 200 MA's), (Start: 163 @145385 has 304 MA's), (170, 145397), (Start: 192 @145439 has 2 MA's), (229, 145502), (239, 145523), (Start: 279 @145607 has 1 MA's), (302, 145649), (306, 145661), (312, 145676), (344, 145745), (365, 145772), (393, 145826), (411, 145871), (414, 145874), (449, 145952), (462, 145973), (520, 146084), (554, 146174), (559, 146192), (590, 146264), (601, 146297),

Gene: Eremos\_49 Start: 41699, Stop: 43054, Start Num: 82

Candidate Starts for Eremos\_49:

(Start: 82 @41699 has 255 MA's), (98, 41750), (108, 41783), (168, 41912), (170, 41915), (Start: 180 @41930 has 5 MA's), (235, 42026), (251, 42065), (269, 42095), (284, 42131), (333, 42242), (345, 42272), (347, 42275), (379, 42341), (440, 42500), (469, 42548), (475, 42566), (498, 42614), (550, 42758), (571, 42818), (603, 42923), (637, 43010),

Gene: EricMillard\_49 Start: 42862, Stop: 43734, Start Num: 89

Candidate Starts for EricMillard\_49:

(Start: 89 @42862 has 30 MA's), (Start: 97 @42889 has 1 MA's), (115, 42949), (Start: 138 @42997 has 44 MA's), (174, 43063), (189, 43084), (206, 43105), (233, 43159), (274, 43240), (403, 43519), (405, 43522), (413, 43546), (424, 43582), (432, 43597), (438, 43609), (444, 43630),

Gene: Eris\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Eris\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (401, 6301), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: ErnieJ\_246 Start: 142183, Stop: 143211, Start Num: 142

Candidate Starts for ErnieJ\_246:

(Start: 142 @142183 has 200 MA's), (Start: 163 @142213 has 304 MA's), (Start: 192 @142267 has 2 MA's), (229, 142330), (239, 142351), (Start: 279 @142435 has 1 MA's), (302, 142477), (306, 142489), (312, 142504), (344, 142573), (365, 142600), (393, 142654), (411, 142699), (414, 142702), (449, 142780), (462, 142801), (520, 142912), (554, 143002), (559, 143020), (590, 143092), (601, 143125),

Gene: Eros\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Eros\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Espresso\_10 Start: 6112, Stop: 7080, Start Num: 163

Candidate Starts for Espresso\_10:

(Start: 163 @6112 has 304 MA's), (Start: 180 @6145 has 5 MA's), (Start: 190 @6163 has 1 MA's), (Start: 192 @6166 has 2 MA's), (335, 6433), (365, 6484), (368, 6496), (415, 6571), (442, 6634), (462, 6667), (474, 6697), (484, 6715), (496, 6739), (520, 6778), (551, 6859), (559, 6883), (561, 6886), (563, 6889), (567, 6898), (568, 6901), (600, 6985), (614, 7030), (629, 7072),

Gene: Essence\_250 Start: 144391, Stop: 145419, Start Num: 142

Candidate Starts for Essence\_250:

(Start: 142 @144391 has 200 MA's), (Start: 163 @144421 has 304 MA's), (170, 144433), (Start: 192 @144475 has 2 MA's), (229, 144538), (239, 144559), (Start: 279 @144643 has 1 MA's), (302, 144685), (306, 144697), (312, 144712), (344, 144781), (365, 144808), (393, 144862), (411, 144907), (414, 144910), (449, 144988), (462, 145009), (520, 145120), (554, 145210), (559, 145228), (590, 145300), (601, 145333),

Gene: Estave1\_29 Start: 27038, Stop: 28039, Start Num: 149

Candidate Starts for Estave1\_29:

(Start: 149 @27038 has 225 MA's), (Start: 192 @27113 has 2 MA's), (210, 27146), (229, 27176), (239, 27197), (Start: 279 @27281 has 1 MA's), (292, 27305), (302, 27320), (306, 27332), (365, 27443), (423, 27557), (433, 27575), (454, 27614), (469, 27638), (484, 27674), (497, 27701), (520, 27740), (559, 27848), (578, 27896), (585, 27908), (600, 27950), (601, 27953), (604, 27965), (614, 27995),

Gene: Estes\_44 Start: 33069, Stop: 34046, Start Num: 167

Candidate Starts for Estes\_44:

(Start: 167 @33069 has 7 MA's), (183, 33096), (193, 33114), (223, 33162), (237, 33192), (250, 33219), (266, 33249), (305, 33306), (308, 33315), (325, 33360), (330, 33372), (348, 33402), (365, 33426), (373, 33444), (389, 33471), (410, 33510), (428, 33549), (430, 33552), (485, 33654), (551, 33807), (552, 33810), (557, 33819), (559, 33831), (564, 33840), (572, 33861), (578, 33882), (606, 33957),

Gene: Etaye\_49 Start: 41693, Stop: 43048, Start Num: 82

Candidate Starts for Etaye\_49:

(Start: 82 @41693 has 255 MA's), (98, 41744), (108, 41777), (168, 41906), (170, 41909), (Start: 180 @41924 has 5 MA's), (235, 42020), (251, 42059), (269, 42089), (284, 42125), (333, 42236), (345, 42266), (347, 42269), (379, 42335), (440, 42494), (469, 42542), (475, 42560), (498, 42608), (550, 42752), (571, 42812), (603, 42917), (620, 42971), (637, 43004),

Gene: Eugenia\_49 Start: 41703, Stop: 43058, Start Num: 82

Candidate Starts for Eugenia\_49:

(Start: 82 @41703 has 255 MA's), (98, 41754), (108, 41787), (168, 41916), (170, 41919), (Start: 180 @41934 has 5 MA's), (235, 42030), (251, 42069), (269, 42099), (284, 42135), (333, 42246), (345, 42276), (347, 42279), (379, 42345), (440, 42504), (469, 42552), (475, 42570), (498, 42618), (550, 42762), (571, 42822), (603, 42927), (637, 43014),

Gene: Euphoria\_10 Start: 6008, Stop: 6976, Start Num: 163

Candidate Starts for Euphoria\_10:

(Start: 163 @6008 has 304 MA's), (Start: 180 @6041 has 5 MA's), (Start: 190 @6059 has 1 MA's), (Start: 192 @6062 has 2 MA's), (302, 6251), (335, 6329), (344, 6347), (365, 6380), (368, 6392), (415, 6467), (442, 6530), (462, 6563), (474, 6593), (484, 6611), (496, 6635), (520, 6674), (551, 6755), (559,

6779), (561, 6782), (563, 6785), (567, 6794), (600, 6881), (614, 6926), (629, 6968),

Gene: Eureka\_35 Start: 31841, Stop: 32698, Start Num: 198

Candidate Starts for Eureka\_35:

(Start: 198 @31841 has 122 MA's), (220, 31880), (232, 31910), (242, 31931), (257, 31967), (275, 31997), (309, 32072), (334, 32120), (336, 32123), (345, 32147), (347, 32150), (356, 32165), (426, 32336), (487, 32450), (495, 32465), (498, 32471), (575, 32513), (576, 32516), (601, 32570), (624, 32648), (641, 32681),

Gene: Eurydice\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Eurydice\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (273, 6067), (284, 6091), (330, 6181), (365, 6238), (401, 6301), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (601, 6700), (604, 6712), (644, 6823),

Gene: Evanesce\_32 Start: 28339, Stop: 29574, Start Num: 84

Candidate Starts for Evanesce\_32:

(Start: 84 @28339 has 24 MA's), (110, 28432), (122, 28465), (128, 28477), (136, 28489), (Start: 138 @28492 has 44 MA's), (170, 28555), (Start: 180 @28573 has 5 MA's), (204, 28606), (235, 28666), (251, 28705), (255, 28714), (257, 28717), (269, 28735), (284, 28771), (309, 28819), (314, 28831), (318, 28837), (339, 28900), (342, 28903), (354, 28930), (361, 28942), (403, 29044), (440, 29131), (469, 29170), (476, 29191), (522, 29260), (534, 29290), (553, 29323), (561, 29332), (564, 29338), (573, 29350), (575, 29359), (601, 29422), (620, 29491),

Gene: EvilGenius\_13 Start: 6871, Stop: 7812, Start Num: 190

Candidate Starts for EvilGenius\_13:

(Start: 163 @6820 has 304 MA's), (Start: 190 @6871 has 1 MA's), (Start: 192 @6874 has 2 MA's), (223, 6922), (302, 7048), (312, 7075), (338, 7135), (365, 7180), (376, 7204), (437, 7312), (467, 7351), (494, 7399), (504, 7414), (540, 7480), (555, 7522), (588, 7609), (604, 7657), (624, 7723), (651, 7798),

Gene: Ewok\_251 Start: 144849, Stop: 145877, Start Num: 142

Candidate Starts for Ewok\_251:

(Start: 142 @144849 has 200 MA's), (Start: 163 @144879 has 304 MA's), (170, 144891), (Start: 192 @144933 has 2 MA's), (229, 144996), (239, 145017), (Start: 279 @145101 has 1 MA's), (302, 145143), (306, 145155), (312, 145170), (344, 145239), (365, 145266), (393, 145320), (411, 145365), (414, 145368), (449, 145446), (462, 145467), (520, 145578), (554, 145668), (559, 145686), (590, 145758), (601, 145791),

Gene: Expelliarmus\_7 Start: 4838, Stop: 5647, Start Num: 221

Candidate Starts for Expelliarmus\_7:

(Start: 221 @4838 has 188 MA's), (263, 4922), (284, 4967), (314, 5027), (337, 5093), (440, 5327), (469, 5366), (475, 5384), (490, 5417), (500, 5435), (578, 5480), (602, 5504), (645, 5633),

Gene: Eyeball\_10 Start: 5755, Stop: 6723, Start Num: 163

Candidate Starts for Eyeball\_10:

(Start: 163 @5755 has 304 MA's), (Start: 180 @5788 has 5 MA's), (Start: 190 @5806 has 1 MA's), (Start: 192 @5809 has 2 MA's), (335, 6076), (365, 6127), (368, 6139), (415, 6214), (442, 6277), (450, 6289), (462, 6310), (469, 6322), (474, 6340), (484, 6358), (496, 6382), (520, 6421), (551, 6502), (559, 6526), (561, 6529), (563, 6532), (567, 6541), (614, 6673), (629, 6715),

Gene: Faith1\_28 Start: 26303, Stop: 27274, Start Num: 102

Candidate Starts for Faith1\_28:

(Start: 102 @26303 has 88 MA's), (120, 26357), (Start: 198 @26507 has 122 MA's), (203, 26516), (208, 26522), (Start: 227 @26555 has 1 MA's), (228, 26558), (232, 26567), (242, 26588), (275, 26651), (293, 26678), (305, 26702), (345, 26783), (352, 26795), (386, 26858), (392, 26873), (415, 26933), (419, 26948), (469, 27029), (475, 27047), (476, 27050), (478, 27053), (579, 27104), (601, 27149), (613, 27191), (628, 27233),

Gene: Fajezeel\_11 Start: 5830, Stop: 6798, Start Num: 163

Candidate Starts for Fajezeel\_11:

(Start: 163 @5830 has 304 MA's), (Start: 180 @5863 has 5 MA's), (Start: 190 @5881 has 1 MA's), (Start: 192 @5884 has 2 MA's), (335, 6151), (365, 6202), (368, 6214), (415, 6289), (442, 6352), (450, 6364), (462, 6385), (469, 6397), (474, 6415), (484, 6433), (496, 6457), (520, 6496), (551, 6577), (559, 6601), (561, 6604), (563, 6607), (567, 6616), (600, 6703), (629, 6790),

Gene: Fameo\_11 Start: 6448, Stop: 7431, Start Num: 163

Candidate Starts for Fameo\_11:

(134, 6406), (Start: 163 @6448 has 304 MA's), (178, 6478), (Start: 180 @6481 has 5 MA's), (Start: 190 @6499 has 1 MA's), (Start: 192 @6502 has 2 MA's), (325, 6739), (330, 6751), (365, 6808), (368, 6820), (410, 6886), (474, 6997), (551, 7144), (592, 7237), (604, 7279), (627, 7351), (646, 7405),

Gene: Familton\_68 Start: 43425, Stop: 44465, Start Num: 148

Candidate Starts for Familton\_68:

(Start: 148 @43425 has 26 MA's), (Start: 192 @43500 has 2 MA's), (229, 43581), (232, 43587), (239, 43602), (278, 43683), (Start: 279 @43686 has 1 MA's), (306, 43740), (312, 43755), (365, 43851), (385, 43890), (397, 43920), (411, 43950), (414, 43953), (425, 43986), (462, 44052), (484, 44100), (497, 44127), (520, 44166), (589, 44340), (604, 44391),

Gene: Fancypants\_31 Start: 27528, Stop: 28529, Start Num: 149

Candidate Starts for Fancypants\_31:

(107, 27429), (Start: 149 @27528 has 225 MA's), (Start: 163 @27549 has 304 MA's), (170, 27561), (Start: 192 @27603 has 2 MA's), (210, 27636), (229, 27666), (239, 27687), (251, 27717), (259, 27729), (Start: 279 @27771 has 1 MA's), (292, 27795), (302, 27810), (306, 27822), (365, 27933), (414, 28017), (423, 28047), (433, 28065), (454, 28104), (469, 28128), (484, 28164), (497, 28191), (520, 28230), (559, 28338), (578, 28386), (585, 28398), (601, 28443), (604, 28455), (614, 28485),

Gene: Fang\_50 Start: 41851, Stop: 43206, Start Num: 82

Candidate Starts for Fang\_50:

(Start: 82 @41851 has 255 MA's), (98, 41902), (108, 41935), (168, 42064), (170, 42067), (Start: 180 @42082 has 5 MA's), (235, 42178), (251, 42217), (269, 42247), (284, 42283), (333, 42394), (345, 42424), (347, 42427), (379, 42493), (440, 42652), (469, 42700), (475, 42718), (498, 42766), (550, 42910), (571, 42970), (603, 43075), (637, 43162),

Gene: Farber\_12 Start: 5955, Stop: 6920, Start Num: 153

Candidate Starts for Farber\_12:

(Start: 153 @5955 has 92 MA's), (Start: 180 @6000 has 5 MA's), (Start: 192 @6021 has 2 MA's), (256, 6141), (330, 6279), (365, 6336), (371, 6351), (422, 6432), (430, 6447), (439, 6465), (469, 6516), (474, 6534), (497, 6579), (538, 6675), (561, 6738), (575, 6777), (597, 6828),

Gene: Fascinus\_9 Start: 5758, Stop: 6726, Start Num: 163

Candidate Starts for Fascinus\_9:

(Start: 163 @5758 has 304 MA's), (Start: 180 @5791 has 5 MA's), (Start: 190 @5809 has 1 MA's), (Start: 192 @5812 has 2 MA's), (335, 6079), (365, 6130), (368, 6142), (415, 6217), (442, 6280), (450, 6292), (462, 6313), (469, 6325), (474, 6343), (484, 6361), (496, 6385), (520, 6424), (551, 6505), (559, 6529), (561, 6532), (563, 6535), (567, 6544), (614, 6676), (629, 6718),

Gene: Fastidio\_33 Start: 27836, Stop: 28837, Start Num: 149

Candidate Starts for Fastidio\_33:

(Start: 149 @27836 has 225 MA's), (Start: 163 @27857 has 304 MA's), (Start: 192 @27911 has 2 MA's), (210, 27944), (229, 27974), (239, 27995), (Start: 279 @28079 has 1 MA's), (292, 28103), (306, 28130), (312, 28145), (365, 28241), (423, 28355), (433, 28373), (454, 28412), (469, 28436), (484, 28472), (497, 28499), (520, 28538), (538, 28586), (559, 28646), (585, 28706), (600, 28748), (601, 28751), (604, 28763), (614, 28793),

Gene: Fefferhead\_30 Start: 26852, Stop: 27589, Start Num: 221

Candidate Starts for Fefferhead\_30:

(151, 26741), (Start: 162 @26762 has 2 MA's), (183, 26801), (195, 26822), (Start: 221 @26852 has 188 MA's), (Start: 227 @26864 has 1 MA's), (242, 26897), (258, 26933), (287, 26981), (293, 26990), (309, 27026), (323, 27068), (379, 27176), (392, 27203), (436, 27290), (447, 27308), (469, 27335), (476, 27356), (487, 27380), (573, 27392), (575, 27401), (578, 27410), (601, 27458), (640, 27569), (642, 27578),

Gene: Fenn\_10 Start: 5962, Stop: 6930, Start Num: 163

Candidate Starts for Fenn\_10:

(Start: 163 @5962 has 304 MA's), (Start: 180 @5995 has 5 MA's), (Start: 190 @6013 has 1 MA's), (Start: 192 @6016 has 2 MA's), (335, 6283), (365, 6334), (368, 6346), (415, 6421), (442, 6484), (462, 6517), (474, 6547), (520, 6628), (551, 6709), (559, 6733), (561, 6736), (563, 6739), (567, 6748), (600, 6835), (629, 6922),

Gene: Fernando\_12 Start: 5960, Stop: 6925, Start Num: 153

Candidate Starts for Fernando\_12:

(Start: 153 @5960 has 92 MA's), (Start: 180 @6005 has 5 MA's), (Start: 192 @6026 has 2 MA's), (256, 6146), (365, 6341), (371, 6356), (422, 6437), (430, 6452), (439, 6470), (469, 6521), (474, 6539), (497, 6584), (538, 6680), (561, 6743), (575, 6782), (597, 6833),

Gene: Feyre\_30 Start: 26964, Stop: 27836, Start Num: 221

Candidate Starts for Feyre\_30:

(Start: 221 @26964 has 188 MA's), (Start: 227 @26976 has 1 MA's), (229, 26982), (242, 27009), (253, 27039), (258, 27045), (287, 27099), (293, 27108), (300, 27120), (313, 27153), (323, 27186), (347, 27234), (469, 27456), (475, 27474), (476, 27477), (506, 27537), (521, 27555), (538, 27582), (578, 27654), (593, 27669), (598, 27690), (599, 27693), (604, 27714), (637, 27807), (640, 27816), (643, 27825),

Gene: Filch\_36 Start: 31616, Stop: 32473, Start Num: 198

Candidate Starts for Filch\_36:

(Start: 198 @31616 has 122 MA's), (220, 31655), (232, 31685), (242, 31706), (257, 31742), (275, 31772), (309, 31847), (334, 31895), (336, 31898), (345, 31922), (347, 31925), (356, 31940), (426, 32111), (487, 32225), (495, 32240), (498, 32246), (575, 32288), (576, 32291), (601, 32345), (624, 32423), (641, 32456),

Gene: Filuzino\_31 Start: 27478, Stop: 28476, Start Num: 149

Candidate Starts for Filuzino\_31:

(Start: 149 @27478 has 225 MA's), (Start: 192 @27553 has 2 MA's), (229, 27613), (239, 27634), (Start: 279 @27718 has 1 MA's), (306, 27769), (312, 27784), (365, 27880), (422, 27991), (433, 28012), (454, 28051), (462, 28063), (484, 28111), (497, 28138), (511, 28162), (520, 28177), (559, 28285), (578, 28333), (604, 28402), (614, 28432),

Gene: Findley\_29 Start: 24799, Stop: 26001, Start Num: 99

Candidate Starts for Findley\_29:

(87, 24757), (Start: 99 @24799 has 10 MA's), (104, 24826), (111, 24847), (125, 24883), (136, 24904), (150, 24931), (182, 24991), (205, 25027), (Start: 227 @25060 has 1 MA's), (228, 25063), (242, 25093), (275, 25159), (293, 25198), (330, 25276), (353, 25321), (384, 25378), (392, 25396), (469, 25561), (476, 25582), (486, 25603), (539, 25708), (545, 25723), (575, 25792), (601, 25849), (624, 25930),

Gene: Finemlucis\_28 Start: 26525, Stop: 27553, Start Num: 142

Candidate Starts for Finemlucis\_28:

(Start: 142 @26525 has 200 MA's), (231, 26669), (Start: 296 @26804 has 2 MA's), (365, 26945), (425, 27062), (430, 27071), (431, 27074), (439, 27089), (474, 27164), (537, 27293), (548, 27320), (559, 27359), (561, 27362), (567, 27374), (590, 27431), (595, 27440), (601, 27464),

Gene: Finnry\_28 Start: 26854, Stop: 27897, Start Num: 102

Candidate Starts for Finnry\_28:

(Start: 102 @26854 has 88 MA's), (Start: 103 @26860 has 3 MA's), (112, 26887), (120, 26908), (143, 26959), (186, 27040), (245, 27145), (289, 27226), (293, 27232), (341, 27328), (349, 27346), (352, 27352), (355, 27358), (392, 27430), (418, 27487), (420, 27490), (452, 27547), (489, 27622), (499, 27643), (572, 27667), (576, 27682), (580, 27694), (604, 27751), (640, 27853), (645, 27874),

Gene: Fionnbharth\_32 Start: 27630, Stop: 28421, Start Num: 200

Candidate Starts for Fionnbharth\_32:

(Start: 200 @27630 has 20 MA's), (Start: 227 @27663 has 1 MA's), (242, 27696), (251, 27720), (264, 27741), (287, 27789), (293, 27798), (309, 27834), (350, 27915), (447, 28122), (469, 28149), (471, 28155), (476, 28170), (487, 28194), (576, 28218), (593, 28239), (601, 28272), (604, 28284), (625, 28356),

Gene: FireRed\_35 Start: 31886, Stop: 32743, Start Num: 198

Candidate Starts for FireRed\_35:

(Start: 198 @31886 has 122 MA's), (220, 31925), (232, 31955), (242, 31976), (257, 32012), (275, 32042), (309, 32117), (334, 32165), (336, 32168), (345, 32192), (347, 32195), (356, 32210), (426, 32381), (481, 32480), (487, 32495), (495, 32510), (498, 32516), (575, 32558), (576, 32561), (601, 32615), (624, 32693), (641, 32726),

Gene: Firecracker\_69 Start: 43815, Stop: 44855, Start Num: 148

Candidate Starts for Firecracker\_69:

(Start: 148 @43815 has 26 MA's), (Start: 192 @43890 has 2 MA's), (229, 43971), (232, 43977), (239, 43992), (278, 44073), (Start: 279 @44076 has 1 MA's), (306, 44130), (312, 44145), (365, 44241), (385, 44280), (397, 44310), (411, 44340), (414, 44343), (425, 44376), (462, 44442), (479, 44481), (484, 44490), (497, 44517), (520, 44556), (589, 44730), (604, 44781),

Gene: Firehouse51\_32 Start: 28314, Stop: 29315, Start Num: 149

Candidate Starts for Firehouse51\_32:

(Start: 149 @28314 has 225 MA's), (Start: 192 @28389 has 2 MA's), (210, 28422), (229, 28452), (239, 28473), (251, 28503), (259, 28515), (Start: 279 @28557 has 1 MA's), (292, 28581), (302, 28596), (306, 28608), (312, 28623), (365, 28719), (422, 28830), (433, 28851), (454, 28890), (462, 28902), (484, 28950), (497, 28977), (511, 29001), (520, 29016), (559, 29124), (578, 29172), (604, 29241), (614, 29271),

Gene: FiringLine\_11 Start: 6372, Stop: 7364, Start Num: 163

Candidate Starts for FiringLine\_11:

(Start: 163 @6372 has 304 MA's), (Start: 190 @6423 has 1 MA's), (Start: 192 @6426 has 2 MA's), (212, 6459), (223, 6474), (299, 6594), (302, 6600), (338, 6687), (365, 6732), (437, 6864), (467, 6903),

(494, 6951), (540, 7032), (555, 7074), (588, 7161), (604, 7209), (624, 7275), (651, 7350),

Gene: First\_0011 Start: 6443, Stop: 7420, Start Num: 163

Candidate Starts for First\_0011:

(Start: 163 @6443 has 304 MA's), (Start: 192 @6497 has 2 MA's), (312, 6686), (325, 6722), (330, 6734), (365, 6791), (382, 6827), (415, 6875), (430, 6914), (470, 6986), (474, 7001), (507, 7064), (528, 7106), (538, 7154), (549, 7181), (554, 7196), (559, 7214), (561, 7217), (575, 7256), (597, 7307), (626, 7406),

Gene: FirstPlacePfu\_27 Start: 24052, Stop: 25218, Start Num: 102

Candidate Starts for FirstPlacePfu\_27:

(Start: 102 @24052 has 88 MA's), (123, 24109), (168, 24196), (Start: 198 @24241 has 122 MA's), (235, 24316), (245, 24337), (284, 24421), (305, 24460), (333, 24526), (345, 24556), (359, 24577), (379, 24622), (417, 24718), (434, 24757), (440, 24772), (447, 24784), (469, 24811), (510, 24898), (527, 24916), (530, 24922), (553, 24970), (571, 24991), (598, 25063), (620, 25138),

Gene: Fishburne\_27 Start: 24052, Stop: 25218, Start Num: 102

Candidate Starts for Fishburne\_27:

(Start: 102 @24052 has 88 MA's), (123, 24109), (168, 24196), (Start: 198 @24241 has 122 MA's), (235, 24316), (245, 24337), (284, 24421), (305, 24460), (333, 24526), (345, 24556), (359, 24577), (379, 24622), (417, 24718), (434, 24757), (440, 24772), (447, 24784), (469, 24811), (510, 24898), (527, 24916), (530, 24922), (553, 24970), (571, 24991), (598, 25063), (620, 25138),

Gene: Flabslab\_247 Start: 141448, Stop: 142476, Start Num: 142

Candidate Starts for Flabslab\_247:

(Start: 142 @141448 has 200 MA's), (Start: 163 @141478 has 304 MA's), (Start: 192 @141532 has 2 MA's), (229, 141595), (239, 141616), (Start: 279 @141700 has 1 MA's), (302, 141742), (306, 141754), (312, 141769), (344, 141838), (365, 141865), (393, 141919), (411, 141964), (414, 141967), (449, 142045), (462, 142066), (520, 142177), (554, 142267), (559, 142285), (590, 142357), (601, 142390),

Gene: Flare16\_11 Start: 6484, Stop: 7461, Start Num: 163

Candidate Starts for Flare16\_11:

(Start: 163 @6484 has 304 MA's), (Start: 192 @6538 has 2 MA's), (234, 6595), (312, 6727), (318, 6739), (330, 6775), (365, 6832), (382, 6868), (415, 6916), (430, 6955), (470, 7027), (474, 7042), (497, 7087), (507, 7105), (528, 7147), (538, 7195), (549, 7222), (554, 7237), (559, 7255), (561, 7258), (597, 7348),

Gene: Flathead\_31 Start: 28105, Stop: 29121, Start Num: 149

Candidate Starts for Flathead\_31:

(74, 27874), (75, 27877), (83, 27925), (126, 28060), (132, 28069), (Start: 149 @28105 has 225 MA's), (Start: 221 @28237 has 188 MA's), (229, 28258), (239, 28279), (251, 28309), (259, 28321), (Start: 279 @28363 has 1 MA's), (306, 28414), (312, 28429), (365, 28525), (422, 28636), (433, 28657), (454, 28696), (462, 28708), (484, 28756), (497, 28783), (511, 28807), (520, 28822), (559, 28930), (578, 28978), (604, 29047), (614, 29077),

Gene: Florean\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Florean\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Florinda\_31 Start: 27520, Stop: 28521, Start Num: 149

Candidate Starts for Florinda\_31:



(Start: 149 @27520 has 225 MA's), (Start: 192 @27595 has 2 MA's), (210, 27628), (229, 27658), (239, 27679), (Start: 279 @27763 has 1 MA's), (292, 27787), (302, 27802), (306, 27814), (365, 27925), (423, 28039), (433, 28057), (454, 28096), (469, 28120), (484, 28156), (497, 28183), (520, 28222), (538, 28270), (559, 28330), (578, 28378), (585, 28390), (601, 28435), (604, 28447), (614, 28477),

Gene: Fludd\_252 Start: 143267, Stop: 144295, Start Num: 142

Candidate Starts for Fludd\_252:

(Start: 142 @143267 has 200 MA's), (Start: 163 @143297 has 304 MA's), (170, 143309), (Start: 192 @143351 has 2 MA's), (229, 143414), (239, 143435), (Start: 279 @143519 has 1 MA's), (302, 143561), (306, 143573), (312, 143588), (344, 143657), (365, 143684), (393, 143738), (411, 143783), (414, 143786), (449, 143864), (462, 143885), (520, 143996), (554, 144086), (559, 144104), (590, 144176), (601, 144209),

Gene: FluffyNinja\_50 Start: 41844, Stop: 43220, Start Num: 82

Candidate Starts for FluffyNinja\_50:

(Start: 82 @41844 has 255 MA's), (98, 41895), (108, 41928), (168, 42057), (170, 42060), (Start: 180 @42075 has 5 MA's), (235, 42171), (251, 42210), (269, 42240), (284, 42276), (333, 42387), (345, 42417), (347, 42420), (379, 42486), (440, 42645), (469, 42693), (475, 42711), (498, 42759), (550, 42924), (571, 42984), (603, 43089), (637, 43176),

Gene: Flux\_10 Start: 5884, Stop: 6861, Start Num: 166

Candidate Starts for Flux\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Flypotenuse\_33 Start: 31454, Stop: 32311, Start Num: 198

Candidate Starts for Flypotenuse\_33:

(Start: 198 @31454 has 122 MA's), (220, 31493), (232, 31523), (242, 31544), (257, 31580), (275, 31610), (309, 31685), (334, 31733), (336, 31736), (345, 31760), (347, 31763), (356, 31778), (426, 31949), (487, 32063), (495, 32078), (498, 32084), (575, 32126), (576, 32129), (601, 32183), (624, 32261), (641, 32294),

Gene: ForGetIt\_8 Start: 5199, Stop: 6008, Start Num: 221

Candidate Starts for ForGetIt\_8:

(Start: 221 @5199 has 188 MA's), (251, 5262), (255, 5271), (269, 5292), (284, 5328), (309, 5376), (329, 5433), (339, 5457), (440, 5688), (475, 5745), (645, 5994),

Gene: Forge\_32 Start: 28339, Stop: 29574, Start Num: 84

Candidate Starts for Forge\_32:

(Start: 84 @28339 has 24 MA's), (110, 28432), (122, 28465), (128, 28477), (136, 28489), (Start: 138 @28492 has 44 MA's), (170, 28555), (Start: 180 @28573 has 5 MA's), (204, 28606), (235, 28666), (251, 28705), (255, 28714), (257, 28717), (269, 28735), (284, 28771), (309, 28819), (314, 28831), (318, 28837), (339, 28900), (342, 28903), (354, 28930), (361, 28942), (403, 29044), (440, 29131), (469, 29170), (476, 29191), (522, 29260), (534, 29290), (553, 29323), (561, 29332), (564, 29338), (573, 29350), (575, 29359), (601, 29422), (620, 29491),

Gene: Forsytheast\_9 Start: 6022, Stop: 6990, Start Num: 163

Candidate Starts for Forsytheast\_9:

(Start: 163 @6022 has 304 MA's), (Start: 180 @6055 has 5 MA's), (Start: 190 @6073 has 1 MA's), (Start: 192 @6076 has 2 MA's), (335, 6343), (365, 6394), (368, 6406), (415, 6481), (442, 6544), (462, 6577), (469, 6589), (474, 6607), (484, 6625), (496, 6649), (520, 6688), (551, 6769), (559, 6793), (561, 6796), (563, 6799), (567, 6808), (600, 6895), (614, 6940), (629, 6982),

Gene: FoulBall\_64 Start: 43419, Stop: 44459, Start Num: 148

Candidate Starts for FoulBall\_64:

(Start: 148 @43419 has 26 MA's), (Start: 192 @43494 has 2 MA's), (229, 43575), (232, 43581), (239, 43596), (278, 43677), (Start: 279 @43680 has 1 MA's), (306, 43734), (312, 43749), (365, 43845), (385, 43884), (397, 43914), (411, 43944), (414, 43947), (425, 43980), (462, 44046), (479, 44085), (484, 44094), (497, 44121), (520, 44160), (589, 44334), (604, 44385),

Gene: FoxtrotP1\_251 Start: 145941, Stop: 146969, Start Num: 142

Candidate Starts for FoxtrotP1\_251:

(Start: 142 @145941 has 200 MA's), (Start: 163 @145971 has 304 MA's), (170, 145983), (Start: 192 @146025 has 2 MA's), (229, 146088), (239, 146109), (Start: 279 @146193 has 1 MA's), (302, 146235), (306, 146247), (312, 146262), (344, 146331), (365, 146358), (393, 146412), (411, 146457), (414, 146460), (449, 146538), (462, 146559), (520, 146670), (554, 146760), (559, 146778), (590, 146850), (601, 146883),

Gene: Fozzie\_48 Start: 41728, Stop: 43083, Start Num: 82

Candidate Starts for Fozzie\_48:

(Start: 82 @41728 has 255 MA's), (98, 41779), (108, 41812), (168, 41941), (170, 41944), (Start: 180 @41959 has 5 MA's), (235, 42055), (251, 42094), (269, 42124), (284, 42160), (333, 42271), (345, 42301), (347, 42304), (379, 42370), (440, 42529), (469, 42577), (475, 42595), (498, 42643), (550, 42787), (571, 42847), (603, 42952), (637, 43039),

Gene: Francis47\_10 Start: 6259, Stop: 7227, Start Num: 163

Candidate Starts for Francis47\_10:

(Start: 163 @6259 has 304 MA's), (Start: 180 @6292 has 5 MA's), (Start: 190 @6310 has 1 MA's), (Start: 192 @6313 has 2 MA's), (335, 6580), (365, 6631), (368, 6643), (415, 6718), (442, 6781), (450, 6793), (462, 6814), (469, 6826), (474, 6844), (484, 6862), (520, 6925), (551, 7006), (559, 7030), (561, 7033), (563, 7036), (567, 7045), (600, 7132), (629, 7219),

Gene: Frankicide\_49 Start: 41730, Stop: 43085, Start Num: 82

Candidate Starts for Frankicide\_49:

(Start: 82 @41730 has 255 MA's), (98, 41781), (108, 41814), (168, 41943), (170, 41946), (Start: 180 @41961 has 5 MA's), (235, 42057), (251, 42096), (269, 42126), (284, 42162), (333, 42273), (345, 42303), (347, 42306), (379, 42372), (440, 42531), (469, 42579), (475, 42597), (498, 42645), (550, 42789), (571, 42849), (603, 42954), (637, 43041),

Gene: Frankie\_35 Start: 28662, Stop: 29663, Start Num: 149

Candidate Starts for Frankie\_35:

(Start: 149 @28662 has 225 MA's), (Start: 192 @28737 has 2 MA's), (229, 28800), (239, 28821), (Start: 279 @28905 has 1 MA's), (292, 28929), (302, 28944), (306, 28956), (365, 29067), (423, 29181), (433, 29199), (454, 29238), (469, 29262), (484, 29298), (497, 29325), (520, 29364), (538, 29412), (559, 29472), (578, 29520), (585, 29532), (601, 29577), (604, 29589), (614, 29619),

Gene: FrayBell\_255 Start: 143398, Stop: 144426, Start Num: 142

Candidate Starts for FrayBell\_255:

(Start: 142 @143398 has 200 MA's), (Start: 163 @143428 has 304 MA's), (170, 143440), (Start: 192 @143482 has 2 MA's), (229, 143545), (239, 143566), (Start: 279 @143650 has 1 MA's), (302, 143692), (306, 143704), (312, 143719), (344, 143788), (365, 143815), (393, 143869), (411, 143914), (414, 143917), (449, 143995), (462, 144016), (520, 144127), (554, 144217), (559, 144235), (590, 144307), (601, 144340),

Gene: Fred313\_10 Start: 5440, Stop: 6180, Start Num: 285

Candidate Starts for Fred313\_10:

(Start: 285 @5440 has 17 MA's), (330, 5527), (365, 5584), (368, 5596), (371, 5599), (385, 5623), (400, 5638), (422, 5686), (425, 5692), (439, 5719), (474, 5788), (512, 5860), (535, 5902), (538, 5929), (549, 5956), (559, 5989), (561, 5992), (575, 6031), (631, 6172),

Gene: FreddyB\_31 Start: 27784, Stop: 28785, Start Num: 149

Candidate Starts for FreddyB\_31:

(Start: 149 @27784 has 225 MA's), (Start: 192 @27859 has 2 MA's), (210, 27892), (229, 27922), (239, 27943), (251, 27973), (259, 27985), (Start: 279 @28027 has 1 MA's), (292, 28051), (302, 28066), (306, 28078), (365, 28189), (423, 28303), (433, 28321), (454, 28360), (469, 28384), (484, 28420), (520, 28486), (559, 28594), (578, 28642), (585, 28654), (601, 28699), (604, 28711), (614, 28741),

Gene: Freya\_48 Start: 41391, Stop: 42746, Start Num: 82

Candidate Starts for Freya\_48:

(Start: 82 @41391 has 255 MA's), (98, 41442), (108, 41475), (168, 41604), (170, 41607), (Start: 180 @41622 has 5 MA's), (235, 41718), (251, 41757), (269, 41787), (284, 41823), (333, 41934), (345, 41964), (347, 41967), (379, 42033), (440, 42192), (469, 42240), (475, 42258), (498, 42306), (550, 42450), (571, 42510), (603, 42615), (637, 42702),

Gene: FriarPreacher\_48 Start: 41742, Stop: 43097, Start Num: 82

Candidate Starts for FriarPreacher\_48:

(Start: 82 @41742 has 255 MA's), (98, 41793), (108, 41826), (168, 41955), (170, 41958), (Start: 180 @41973 has 5 MA's), (235, 42069), (251, 42108), (269, 42138), (284, 42174), (333, 42285), (345, 42315), (347, 42318), (379, 42384), (440, 42543), (469, 42591), (475, 42609), (498, 42657), (550, 42801), (571, 42861), (603, 42966), (637, 43053),

Gene: Fringe\_50 Start: 41827, Stop: 43182, Start Num: 82

Candidate Starts for Fringe\_50:

(Start: 82 @41827 has 255 MA's), (98, 41878), (108, 41911), (168, 42040), (170, 42043), (Start: 180 @42058 has 5 MA's), (235, 42154), (251, 42193), (269, 42223), (284, 42259), (333, 42370), (345, 42400), (347, 42403), (379, 42469), (440, 42628), (469, 42676), (475, 42694), (498, 42742), (550, 42886), (571, 42946), (603, 43051), (637, 43138),

Gene: Froghopper\_11 Start: 5734, Stop: 6669, Start Num: 180

Candidate Starts for Froghopper\_11:

(Start: 163 @5701 has 304 MA's), (Start: 180 @5734 has 5 MA's), (Start: 190 @5752 has 1 MA's), (Start: 192 @5755 has 2 MA's), (335, 6022), (365, 6073), (368, 6085), (415, 6160), (442, 6223), (450, 6235), (462, 6256), (469, 6268), (474, 6286), (484, 6304), (496, 6328), (520, 6367), (551, 6448), (559, 6472), (561, 6475), (563, 6478), (567, 6487), (600, 6574), (614, 6619), (629, 6661),

Gene: Frosty24\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Frosty24\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: Fruitloop\_30 Start: 27672, Stop: 28670, Start Num: 149

Candidate Starts for Fruitloop\_30:

(Start: 149 @27672 has 225 MA's), (Start: 192 @27747 has 2 MA's), (229, 27807), (239, 27828), (Start: 279 @27912 has 1 MA's), (306, 27963), (312, 27978), (365, 28074), (415, 28161), (422, 28185), (433, 28206), (454, 28245), (462, 28257), (484, 28305), (497, 28332), (511, 28356), (520, 28371), (559, 28479), (578, 28527), (604, 28596), (614, 28626),

Gene: FudgeTart\_248 Start: 144445, Stop: 145473, Start Num: 142

Candidate Starts for FudgeTart\_248:

(Start: 142 @144445 has 200 MA's), (Start: 163 @144475 has 304 MA's), (170, 144487), (Start: 192 @144529 has 2 MA's), (229, 144592), (239, 144613), (Start: 279 @144697 has 1 MA's), (302, 144739), (306, 144751), (312, 144766), (344, 144835), (365, 144862), (393, 144916), (411, 144961), (414, 144964), (449, 145042), (462, 145063), (520, 145174), (554, 145264), (559, 145282), (590, 145354), (601, 145387),

Gene: FugateOSU\_48 Start: 41405, Stop: 42760, Start Num: 82

Candidate Starts for FugateOSU\_48:

(Start: 82 @41405 has 255 MA's), (98, 41456), (108, 41489), (168, 41618), (170, 41621), (Start: 180 @41636 has 5 MA's), (235, 41732), (251, 41771), (269, 41801), (284, 41837), (333, 41948), (345, 41978), (347, 41981), (379, 42047), (440, 42206), (469, 42254), (475, 42272), (498, 42320), (550, 42464), (571, 42524), (603, 42629), (637, 42716),

Gene: Funsized\_52 Start: 45288, Stop: 46286, Start Num: 161

Candidate Starts for Funsized\_52:

(Start: 161 @45288 has 8 MA's), (178, 45318), (Start: 190 @45339 has 1 MA's), (Start: 192 @45342 has 2 MA's), (197, 45348), (241, 45429), (273, 45477), (277, 45486), (362, 45642), (365, 45648), (382, 45684), (401, 45711), (416, 45732), (474, 45843), (491, 45873), (533, 45939), (560, 46014), (562, 46017), (604, 46128),

Gene: Funston\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Funston\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (401, 6301), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Fushigi\_10 Start: 5921, Stop: 6889, Start Num: 163

Candidate Starts for Fushigi\_10:

(Start: 163 @5921 has 304 MA's), (Start: 180 @5954 has 5 MA's), (Start: 190 @5972 has 1 MA's), (Start: 192 @5975 has 2 MA's), (335, 6242), (365, 6293), (368, 6305), (415, 6380), (454, 6464), (462, 6476), (469, 6488), (474, 6506), (484, 6524), (496, 6548), (520, 6587), (551, 6668), (559, 6692), (561, 6695), (563, 6698), (567, 6707), (600, 6794), (629, 6881),

Gene: GUmbie\_31 Start: 27537, Stop: 28538, Start Num: 149

Candidate Starts for GUmbie\_31:

(34, 26916), (40, 26994), (43, 27057), (48, 27096), (62, 27249), (69, 27285), (Start: 149 @27537 has 225 MA's), (Start: 163 @27558 has 304 MA's), (170, 27570), (Start: 192 @27612 has 2 MA's), (229, 27675), (239, 27696), (251, 27726), (Start: 279 @27780 has 1 MA's), (292, 27804), (306, 27831), (365, 27942), (423, 28056), (433, 28074), (454, 28113), (469, 28137), (484, 28173), (497, 28200), (520, 28239), (538, 28287), (559, 28347), (585, 28407), (604, 28464), (614, 28494),

Gene: Gabriel\_255 Start: 143426, Stop: 144454, Start Num: 142

Candidate Starts for Gabriel\_255:

(Start: 142 @143426 has 200 MA's), (Start: 163 @143456 has 304 MA's), (170, 143468), (Start: 192 @143510 has 2 MA's), (229, 143573), (239, 143594), (Start: 279 @143678 has 1 MA's), (302, 143720), (306, 143732), (312, 143747), (344, 143816), (365, 143843), (393, 143897), (411, 143942), (414, 143945), (449, 144023), (462, 144044), (520, 144155), (554, 144245), (559, 144263), (590, 144335), (601, 144368),

Gene: Gabriela\_28 Start: 26517, Stop: 27545, Start Num: 142

Candidate Starts for Gabriela\_28:

(Start: 142 @26517 has 200 MA's), (233, 26667), (Start: 296 @26796 has 2 MA's), (301, 26805), (365, 26937), (425, 27054), (430, 27063), (431, 27066), (439, 27081), (474, 27156), (482, 27171), (537, 27285), (548, 27312), (557, 27339), (561, 27354), (567, 27366), (595, 27432),

Gene: Gadjet\_48 Start: 41547, Stop: 42611, Start Num: 138

Candidate Starts for Gadjet\_48:

(Start: 138 @41547 has 44 MA's), (173, 41610), (219, 41691), (252, 41757), (260, 41772), (269, 41784), (280, 41811), (311, 41868), (314, 41877), (391, 42024), (401, 42039), (422, 42093), (439, 42126), (463, 42165), (470, 42177), (512, 42258), (520, 42276), (523, 42279), (578, 42435), (617, 42546), (626, 42567), (641, 42600),

Gene: Gadost\_10 Start: 5885, Stop: 6865, Start Num: 164

Candidate Starts for Gadost\_10:

(Start: 164 @5885 has 109 MA's), (Start: 166 @5888 has 14 MA's), (178, 5912), (Start: 190 @5933 has 1 MA's), (Start: 192 @5936 has 2 MA's), (330, 6185), (365, 6242), (416, 6326), (422, 6347), (437, 6374), (464, 6404), (474, 6431), (551, 6581), (598, 6692), (601, 6704), (604, 6716), (627, 6782),

Gene: Gage\_37 Start: 31848, Stop: 32705, Start Num: 198

Candidate Starts for Gage\_37:

(Start: 198 @31848 has 122 MA's), (220, 31887), (232, 31917), (242, 31938), (257, 31974), (275, 32004), (309, 32079), (334, 32127), (336, 32130), (345, 32154), (347, 32157), (356, 32172), (426, 32343), (487, 32457), (495, 32472), (498, 32478), (575, 32520), (576, 32523), (601, 32577), (624, 32655), (641, 32688),

Gene: GageAP\_11 Start: 6246, Stop: 7214, Start Num: 163

Candidate Starts for GageAP\_11:

(Start: 163 @6246 has 304 MA's), (Start: 180 @6279 has 5 MA's), (Start: 190 @6297 has 1 MA's), (Start: 192 @6300 has 2 MA's), (335, 6567), (365, 6618), (368, 6630), (415, 6705), (442, 6768), (450, 6780), (462, 6801), (469, 6813), (474, 6831), (484, 6849), (496, 6873), (520, 6912), (551, 6993), (559, 7017), (561, 7020), (563, 7023), (567, 7032), (600, 7119), (614, 7164), (629, 7206),

Gene: Gaia\_34 Start: 30705, Stop: 31589, Start Num: 89

Candidate Starts for Gaia\_34:

(Start: 89 @30705 has 30 MA's), (92, 30714), (Start: 97 @30735 has 1 MA's), (Start: 148 @30864 has 26 MA's), (152, 30870), (Start: 169 @30900 has 13 MA's), (174, 30909), (206, 30951), (240, 31020), (310, 31167), (315, 31179), (343, 31236), (355, 31257), (374, 31299), (400, 31350), (403, 31365), (405, 31368), (413, 31392), (432, 31443), (444, 31476), (476, 31527), (503, 31581),

Gene: Galactic\_33 Start: 28347, Stop: 29363, Start Num: 149

Candidate Starts for Galactic\_33:

(74, 28116), (75, 28119), (83, 28167), (126, 28302), (132, 28311), (Start: 149 @28347 has 225 MA's), (Start: 221 @28479 has 188 MA's), (229, 28500), (239, 28521), (251, 28551), (259, 28563), (Start: 279 @28605 has 1 MA's), (306, 28656), (312, 28671), (365, 28767), (422, 28878), (433, 28899), (454, 28938), (462, 28950), (484, 28998), (497, 29025), (511, 29049), (520, 29064), (559, 29172), (578, 29220), (604, 29289), (614, 29319),

Gene: Gamgam\_254 Start: 143783, Stop: 144811, Start Num: 142

Candidate Starts for Gamgam\_254:

(Start: 142 @143783 has 200 MA's), (Start: 163 @143813 has 304 MA's), (170, 143825), (Start: 192 @143867 has 2 MA's), (229, 143930), (239, 143951), (Start: 279 @144035 has 1 MA's), (302, 144077), (306, 144089), (312, 144104), (344, 144173), (365, 144200), (393, 144254), (411, 144299),

(414, 144302), (449, 144380), (462, 144401), (520, 144512), (554, 144602), (559, 144620), (590, 144692), (601, 144725),

Gene: Gancho\_32 Start: 28062, Stop: 29297, Start Num: 84

Candidate Starts for Gancho\_32:

(Start: 84 @28062 has 24 MA's), (110, 28155), (115, 28167), (122, 28188), (128, 28200), (136, 28212), (Start: 138 @28215 has 44 MA's), (170, 28278), (Start: 180 @28296 has 5 MA's), (204, 28329), (235, 28389), (251, 28428), (255, 28437), (257, 28440), (269, 28458), (284, 28494), (309, 28542), (314, 28554), (318, 28560), (339, 28623), (342, 28626), (361, 28665), (403, 28767), (440, 28854), (469, 28893), (476, 28914), (483, 28929), (522, 28983), (534, 29013), (553, 29046), (561, 29055), (564, 29061), (573, 29073), (575, 29082), (601, 29145), (620, 29214), (633, 29241),

Gene: Gandalf20\_11 Start: 6816, Stop: 7784, Start Num: 163

Candidate Starts for Gandalf20\_11:

(Start: 163 @6816 has 304 MA's), (Start: 180 @6849 has 5 MA's), (Start: 190 @6867 has 1 MA's), (Start: 192 @6870 has 2 MA's), (335, 7137), (365, 7188), (368, 7200), (415, 7275), (442, 7338), (450, 7350), (462, 7371), (469, 7383), (474, 7401), (484, 7419), (496, 7443), (520, 7482), (551, 7563), (559, 7587), (561, 7590), (563, 7593), (567, 7602), (600, 7689), (614, 7734), (629, 7776),

Gene: Gandalph\_32 Start: 27860, Stop: 28861, Start Num: 149

Candidate Starts for Gandalph\_32:

(Start: 149 @27860 has 225 MA's), (Start: 163 @27881 has 304 MA's), (170, 27893), (Start: 192 @27935 has 2 MA's), (229, 27998), (239, 28019), (251, 28049), (Start: 279 @28103 has 1 MA's), (292, 28127), (306, 28154), (365, 28265), (423, 28379), (433, 28397), (454, 28436), (469, 28460), (484, 28496), (497, 28523), (520, 28562), (559, 28670), (578, 28718), (604, 28787), (614, 28817),

Gene: Ganymede\_32 Start: 26474, Stop: 27346, Start Num: 221

Candidate Starts for Ganymede\_32:

(195, 26447), (Start: 221 @26474 has 188 MA's), (Start: 227 @26486 has 1 MA's), (258, 26555), (275, 26582), (287, 26612), (293, 26621), (309, 26657), (313, 26666), (323, 26699), (331, 26717), (347, 26747), (379, 26807), (447, 26942), (469, 26969), (476, 26990), (487, 27014), (521, 27065), (578, 27167), (598, 27203), (604, 27227), (640, 27326), (643, 27335),

Gene: Gardann\_28 Start: 26305, Stop: 27276, Start Num: 102

Candidate Starts for Gardann\_28:

(Start: 102 @26305 has 88 MA's), (120, 26359), (179, 26479), (Start: 198 @26509 has 122 MA's), (208, 26524), (Start: 227 @26557 has 1 MA's), (228, 26560), (232, 26569), (242, 26590), (275, 26653), (293, 26680), (305, 26704), (319, 26734), (345, 26785), (352, 26797), (386, 26860), (392, 26875), (415, 26935), (419, 26950), (469, 27031), (475, 27049), (476, 27052), (478, 27055), (579, 27106), (601, 27151), (613, 27193), (628, 27235),

Gene: GardenSalsa\_43 Start: 32893, Stop: 33870, Start Num: 167

Candidate Starts for GardenSalsa\_43:

(Start: 167 @32893 has 7 MA's), (183, 32920), (250, 33043), (266, 33073), (305, 33130), (308, 33139), (325, 33184), (330, 33196), (348, 33226), (365, 33250), (373, 33268), (389, 33295), (410, 33334), (428, 33373), (430, 33376), (475, 33463), (485, 33478), (551, 33631), (552, 33634), (557, 33643), (559, 33655), (564, 33664), (572, 33685), (578, 33706), (606, 33781),

Gene: Gareth\_48 Start: 41399, Stop: 42754, Start Num: 82

Candidate Starts for Gareth\_48:

(Start: 82 @41399 has 255 MA's), (98, 41450), (108, 41483), (168, 41612), (170, 41615), (Start: 180 @41630 has 5 MA's), (235, 41726), (251, 41765), (269, 41795), (284, 41831), (333, 41942), (345, 41972), (347, 41975), (379, 42041), (440, 42200), (469, 42248), (475, 42266), (498, 42314), (550,

42458), (571, 42518), (603, 42623), (637, 42710),

Gene: Gator\_33 Start: 31466, Stop: 32323, Start Num: 198

Candidate Starts for Gator\_33:

(Start: 198 @31466 has 122 MA's), (220, 31505), (232, 31535), (242, 31556), (257, 31592), (275, 31622), (309, 31697), (334, 31745), (336, 31748), (345, 31772), (347, 31775), (356, 31790), (426, 31961), (487, 32075), (495, 32090), (498, 32096), (575, 32138), (576, 32141), (601, 32195), (624, 32273), (641, 32306),

Gene: GaugeLDP\_13 Start: 7785, Stop: 8762, Start Num: 163

Candidate Starts for GaugeLDP\_13:

(Start: 163 @7785 has 304 MA's), (178, 7815), (Start: 190 @7836 has 1 MA's), (Start: 192 @7839 has 2 MA's), (212, 7872), (273, 7974), (284, 7998), (325, 8076), (330, 8088), (365, 8145), (368, 8157), (435, 8274), (474, 8334), (524, 8418), (551, 8481), (604, 8616), (627, 8682), (646, 8736),

Gene: Gemini\_38 Start: 32365, Stop: 33222, Start Num: 198

Candidate Starts for Gemini\_38:

(Start: 198 @32365 has 122 MA's), (220, 32404), (232, 32434), (242, 32455), (257, 32491), (275, 32521), (309, 32596), (334, 32644), (336, 32647), (345, 32671), (347, 32674), (356, 32689), (426, 32860), (487, 32974), (495, 32989), (498, 32995), (575, 33037), (576, 33040), (601, 33094), (624, 33172), (641, 33205),

Gene: Gemma\_12 Start: 6033, Stop: 6998, Start Num: 153

Candidate Starts for Gemma\_12:

(Start: 153 @6033 has 92 MA's), (Start: 192 @6099 has 2 MA's), (226, 6153), (265, 6231), (330, 6354), (365, 6411), (415, 6483), (430, 6522), (439, 6540), (474, 6609), (535, 6726), (538, 6753), (561, 6816), (597, 6906), (599, 6912),

Gene: GeneCoco\_49 Start: 41714, Stop: 43069, Start Num: 82

Candidate Starts for GeneCoco\_49:

(Start: 82 @41714 has 255 MA's), (98, 41765), (108, 41798), (168, 41927), (170, 41930), (Start: 180 @41945 has 5 MA's), (235, 42041), (251, 42080), (269, 42110), (284, 42146), (333, 42257), (345, 42287), (347, 42290), (379, 42356), (440, 42515), (469, 42563), (475, 42581), (498, 42629), (550, 42773), (571, 42833), (603, 42938), (637, 43025),

Gene: GenevaB15\_43 Start: 32938, Stop: 33918, Start Num: 167

Candidate Starts for GenevaB15\_43:

(Start: 167 @32938 has 7 MA's), (183, 32965), (237, 33061), (250, 33088), (266, 33118), (305, 33175), (308, 33184), (365, 33295), (428, 33418), (430, 33421), (475, 33511), (485, 33526), (551, 33679), (552, 33682), (557, 33691), (559, 33703), (564, 33712), (572, 33733), (578, 33754), (606, 33829),

Gene: Gengar\_30 Start: 27074, Stop: 27946, Start Num: 221

Candidate Starts for Gengar\_30:

(Start: 221 @27074 has 188 MA's), (Start: 227 @27086 has 1 MA's), (229, 27092), (242, 27119), (253, 27149), (258, 27155), (287, 27209), (293, 27218), (300, 27230), (313, 27263), (323, 27296), (347, 27344), (469, 27566), (475, 27584), (476, 27587), (506, 27647), (521, 27665), (538, 27692), (578, 27764), (593, 27779), (598, 27800), (599, 27803), (604, 27824), (637, 27917), (640, 27926), (643, 27935),

Gene: George\_7 Start: 5355, Stop: 6164, Start Num: 221

Candidate Starts for George\_7:

(Start: 221 @5355 has 188 MA's), (251, 5418), (255, 5427), (284, 5484), (309, 5532), (339, 5613), (420, 5802), (440, 5844), (475, 5901), (495, 5943), (645, 6150),

Gene: Georgie2\_12 Start: 6373, Stop: 7365, Start Num: 163

Candidate Starts for Georgie2\_12:

(Start: 163 @6373 has 304 MA's), (Start: 190 @6424 has 1 MA's), (Start: 192 @6427 has 2 MA's), (212, 6460), (223, 6475), (299, 6595), (302, 6601), (338, 6688), (365, 6733), (437, 6865), (467, 6904), (494, 6952), (540, 7033), (555, 7075), (588, 7162), (604, 7210), (624, 7276), (651, 7351),

Gene: Geraldini\_31 Start: 26471, Stop: 27343, Start Num: 221

Candidate Starts for Geraldini\_31:

(195, 26444), (Start: 221 @26471 has 188 MA's), (Start: 227 @26483 has 1 MA's), (258, 26552), (275, 26579), (287, 26609), (293, 26618), (309, 26654), (313, 26663), (323, 26696), (331, 26714), (347, 26744), (379, 26804), (447, 26939), (469, 26966), (476, 26987), (487, 27011), (521, 27062), (578, 27164), (598, 27200), (604, 27224), (640, 27323), (643, 27332),

Gene: Geralt\_31 Start: 27520, Stop: 28521, Start Num: 149

Candidate Starts for Geralt\_31:

(107, 27421), (Start: 149 @27520 has 225 MA's), (Start: 163 @27541 has 304 MA's), (170, 27553), (Start: 192 @27595 has 2 MA's), (229, 27658), (239, 27679), (Start: 279 @27763 has 1 MA's), (292, 27787), (302, 27802), (306, 27814), (365, 27925), (423, 28039), (433, 28057), (454, 28096), (469, 28120), (484, 28156), (497, 28183), (520, 28222), (538, 28270), (559, 28330), (578, 28378), (585, 28390), (601, 28435), (604, 28447),

Gene: Gervas\_47 Start: 41514, Stop: 42578, Start Num: 138

Candidate Starts for Gervas\_47:

(Start: 138 @41514 has 44 MA's), (173, 41577), (219, 41658), (252, 41724), (260, 41739), (269, 41751), (280, 41778), (311, 41835), (314, 41844), (391, 41991), (401, 42006), (422, 42060), (439, 42093), (463, 42132), (470, 42144), (512, 42225), (520, 42243), (523, 42246), (538, 42291), (578, 42402), (617, 42513), (626, 42534), (641, 42567),

Gene: Ghost\_252 Start: 144407, Stop: 145435, Start Num: 142

Candidate Starts for Ghost\_252:

(Start: 142 @144407 has 200 MA's), (Start: 163 @144437 has 304 MA's), (170, 144449), (Start: 192 @144491 has 2 MA's), (229, 144554), (239, 144575), (Start: 279 @144659 has 1 MA's), (302, 144701), (306, 144713), (312, 144728), (344, 144797), (365, 144824), (393, 144878), (411, 144923), (414, 144926), (449, 145004), (462, 145025), (520, 145136), (554, 145226), (559, 145244), (590, 145316), (601, 145349),

Gene: Ghoulboy\_8 Start: 5432, Stop: 6241, Start Num: 221

Candidate Starts for Ghoulboy\_8:

(Start: 221 @5432 has 188 MA's), (251, 5495), (255, 5504), (284, 5561), (309, 5609), (329, 5666), (339, 5690), (420, 5879), (440, 5921), (475, 5978), (645, 6227),

Gene: Gideon\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Gideon\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: GigiOuiOui\_31 Start: 27649, Stop: 28650, Start Num: 149

Candidate Starts for GigiOuiOui\_31:



(34, 27028), (40, 27106), (43, 27169), (48, 27208), (62, 27361), (69, 27397), (Start: 149 @27649 has 225 MA's), (Start: 163 @27670 has 304 MA's), (170, 27682), (Start: 192 @27724 has 2 MA's), (229, 27787), (239, 27808), (251, 27838), (Start: 279 @27892 has 1 MA's), (292, 27916), (306, 27943), (365, 28054), (423, 28168), (433, 28186), (454, 28225), (469, 28249), (484, 28285), (497, 28312), (520, 28351), (538, 28399), (559, 28459), (585, 28519), (604, 28576), (614, 28606),

Gene: Giles\_32 Start: 28339, Stop: 29574, Start Num: 84

Candidate Starts for Giles\_32:

(Start: 84 @28339 has 24 MA's), (110, 28432), (122, 28465), (128, 28477), (136, 28489), (Start: 138 @28492 has 44 MA's), (170, 28555), (Start: 180 @28573 has 5 MA's), (204, 28606), (235, 28666), (251, 28705), (255, 28714), (257, 28717), (269, 28735), (284, 28771), (309, 28819), (314, 28831), (318, 28837), (339, 28900), (342, 28903), (354, 28930), (361, 28942), (403, 29044), (440, 29131), (469, 29170), (476, 29191), (522, 29260), (534, 29290), (553, 29323), (561, 29332), (564, 29338), (573, 29350), (575, 29359), (601, 29422), (620, 29491),

Gene: GingkoMaracino\_12 Start: 5848, Stop: 6813, Start Num: 153

Candidate Starts for GingkoMaracino\_12:

(Start: 153 @5848 has 92 MA's), (Start: 159 @5860 has 1 MA's), (Start: 180 @5893 has 5 MA's), (Start: 192 @5914 has 2 MA's), (312, 6124), (365, 6229), (422, 6325), (430, 6340), (439, 6358), (467, 6406), (469, 6409), (470, 6412), (474, 6427), (516, 6511), (538, 6568), (561, 6631), (575, 6670), (626, 6802),

Gene: Girafales\_32 Start: 27328, Stop: 28329, Start Num: 149

Candidate Starts for Girafales\_32:

(Start: 149 @27328 has 225 MA's), (Start: 192 @27403 has 2 MA's), (210, 27436), (229, 27466), (239, 27487), (Start: 279 @27571 has 1 MA's), (292, 27595), (302, 27610), (306, 27622), (365, 27733), (423, 27847), (433, 27865), (454, 27904), (469, 27928), (484, 27964), (497, 27991), (520, 28030), (538, 28078), (559, 28138), (578, 28186), (585, 28198), (601, 28243), (604, 28255), (614, 28285),

Gene: Giraffe\_49 Start: 41423, Stop: 42778, Start Num: 82

Candidate Starts for Giraffe\_49:

(Start: 82 @41423 has 255 MA's), (98, 41474), (108, 41507), (114, 41525), (168, 41636), (170, 41639), (Start: 180 @41654 has 5 MA's), (235, 41750), (251, 41789), (269, 41819), (284, 41855), (333, 41966), (345, 41996), (347, 41999), (379, 42065), (440, 42224), (469, 42272), (475, 42290), (498, 42338), (550, 42482), (571, 42542), (603, 42647), (637, 42734),

Gene: Giroux\_10 Start: 5739, Stop: 6479, Start Num: 285

Candidate Starts for Giroux\_10:

(209, 5622), (Start: 285 @5739 has 17 MA's), (330, 5826), (365, 5883), (368, 5895), (371, 5898), (385, 5922), (400, 5937), (408, 5955), (422, 5985), (425, 5991), (430, 6000), (439, 6018), (469, 6069), (474, 6087), (512, 6159), (535, 6201), (538, 6228), (549, 6255), (559, 6288), (561, 6291), (575, 6330), (631, 6471),

Gene: Girr\_33 Start: 28455, Stop: 29525, Start Num: 149

Candidate Starts for Girr\_33:

(122, 28404), (Start: 149 @28455 has 225 MA's), (Start: 163 @28476 has 304 MA's), (Start: 166 @28482 has 14 MA's), (Start: 180 @28509 has 5 MA's), (185, 28518), (219, 28578), (235, 28605), (269, 28671), (297, 28725), (314, 28767), (335, 28818), (377, 28902), (391, 28932), (404, 28965), (431, 29040), (442, 29061), (512, 29190), (538, 29262), (574, 29358), (578, 29370), (604, 29439), (623, 29496), (627, 29505),

Gene: Gizmo\_258 Start: 147272, Stop: 148300, Start Num: 142

Candidate Starts for Gizmo\_258:

(Start: 142 @147272 has 200 MA's), (Start: 163 @147302 has 304 MA's), (170, 147314), (Start: 192 @147356 has 2 MA's), (229, 147419), (239, 147440), (Start: 279 @147524 has 1 MA's), (302, 147566), (306, 147578), (312, 147593), (344, 147662), (365, 147689), (393, 147743), (411, 147788), (414, 147791), (449, 147869), (462, 147890), (520, 148001), (554, 148091), (559, 148109), (590, 148181), (601, 148214),

Gene: Glaske\_27 Start: 24311, Stop: 25477, Start Num: 102

Candidate Starts for Glaske\_27:

(15, 23558), (26, 23729), (36, 23825), (41, 23930), (Start: 102 @24311 has 88 MA's), (106, 24320), (122, 24365), (123, 24368), (168, 24455), (Start: 198 @24500 has 122 MA's), (235, 24575), (245, 24596), (251, 24614), (284, 24680), (305, 24719), (333, 24785), (345, 24815), (359, 24836), (379, 24881), (417, 24977), (434, 25016), (440, 25031), (469, 25070), (510, 25157), (527, 25175), (530, 25181), (553, 25229), (598, 25322), (620, 25397),

Gene: Glaske16\_39 Start: 31793, Stop: 32764, Start Num: 169

Candidate Starts for Glaske16\_39:

(Start: 169 @31793 has 13 MA's), (183, 31817), (191, 31832), (266, 31970), (281, 31997), (300, 32015), (305, 32027), (308, 32036), (325, 32081), (330, 32093), (346, 32120), (365, 32147), (368, 32159), (397, 32204), (410, 32231), (423, 32261), (428, 32270), (430, 32273), (475, 32360), (485, 32375), (551, 32528), (552, 32531), (574, 32591), (578, 32603), (581, 32612), (598, 32648), (602, 32663), (618, 32702), (632, 32735),

Gene: GlenHope\_48 Start: 41527, Stop: 42591, Start Num: 138

Candidate Starts for GlenHope\_48:

(Start: 138 @41527 has 44 MA's), (173, 41590), (219, 41671), (252, 41737), (260, 41752), (269, 41764), (280, 41791), (311, 41848), (314, 41857), (391, 42004), (401, 42019), (422, 42073), (439, 42106), (463, 42145), (470, 42157), (512, 42238), (520, 42256), (523, 42259), (578, 42415), (617, 42526), (626, 42547), (641, 42580),

Gene: Glexan\_33 Start: 31454, Stop: 32311, Start Num: 198

Candidate Starts for Glexan\_33:

(Start: 198 @31454 has 122 MA's), (220, 31493), (232, 31523), (242, 31544), (257, 31580), (275, 31610), (309, 31685), (334, 31733), (336, 31736), (345, 31760), (347, 31763), (356, 31778), (426, 31949), (487, 32063), (495, 32078), (498, 32084), (575, 32126), (576, 32129), (601, 32183), (624, 32261), (641, 32294),

Gene: Goku\_35 Start: 31570, Stop: 32427, Start Num: 198

Candidate Starts for Goku\_35:

(Start: 198 @31570 has 122 MA's), (220, 31609), (232, 31639), (242, 31660), (257, 31696), (275, 31726), (309, 31801), (334, 31849), (336, 31852), (345, 31876), (347, 31879), (356, 31894), (426, 32065), (487, 32179), (495, 32194), (498, 32200), (575, 32242), (576, 32245), (601, 32299), (624, 32377), (641, 32410),

Gene: GoldenAsh\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for GoldenAsh\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (263, 25567), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: GoldenSpark\_37 Start: 31848, Stop: 32705, Start Num: 198

Candidate Starts for GoldenSpark\_37:

(Start: 198 @31848 has 122 MA's), (220, 31887), (232, 31917), (242, 31938), (257, 31974), (275, 32004), (309, 32079), (334, 32127), (336, 32130), (345, 32154), (347, 32157), (356, 32172), (426, 32343), (487, 32457), (495, 32472), (498, 32478), (575, 32520), (576, 32523), (601, 32577), (624, 32655), (641, 32688),

Gene: Goldilocks\_36 Start: 31268, Stop: 32125, Start Num: 198

Candidate Starts for Goldilocks\_36:

(Start: 198 @31268 has 122 MA's), (220, 31307), (232, 31337), (242, 31358), (257, 31394), (275, 31424), (309, 31499), (334, 31547), (336, 31550), (345, 31574), (347, 31577), (356, 31592), (426, 31763), (487, 31877), (495, 31892), (498, 31898), (575, 31940), (576, 31943), (601, 31997), (624, 32075), (641, 32108),

Gene: Gomashi\_28 Start: 25202, Stop: 26410, Start Num: 88

Candidate Starts for Gomashi\_28:

(65, 25109), (Start: 88 @25202 has 62 MA's), (154, 25376), (202, 25448), (251, 25547), (255, 25556), (270, 25580), (275, 25589), (284, 25613), (295, 25634), (309, 25661), (314, 25673), (342, 25745), (361, 25784), (440, 25973), (459, 25997), (469, 26012), (476, 26033), (498, 26078), (500, 26081), (534, 26132),

Gene: Gompeii16\_10 Start: 6219, Stop: 7187, Start Num: 163

Candidate Starts for Gompeii16\_10:

(Start: 163 @6219 has 304 MA's), (Start: 180 @6252 has 5 MA's), (Start: 190 @6270 has 1 MA's), (Start: 192 @6273 has 2 MA's), (335, 6540), (365, 6591), (368, 6603), (415, 6678), (442, 6741), (462, 6774), (469, 6786), (474, 6804), (484, 6822), (496, 6846), (520, 6885), (551, 6966), (559, 6990), (561, 6993), (563, 6996), (567, 7005), (600, 7092), (629, 7179),

Gene: Gonephishing\_50 Start: 40364, Stop: 41368, Start Num: 100

Candidate Starts for Gonephishing\_50:

(Start: 100 @40364 has 10 MA's), (117, 40418), (141, 40469), (184, 40541), (232, 40616), (293, 40730), (300, 40742), (313, 40775), (345, 40844), (352, 40856), (363, 40868), (364, 40871), (384, 40916), (392, 40934), (469, 41096), (473, 41111), (478, 41120), (637, 41321),

Gene: GooberAzure\_37 Start: 31848, Stop: 32705, Start Num: 198

Candidate Starts for GooberAzure\_37:

(Start: 198 @31848 has 122 MA's), (220, 31887), (232, 31917), (242, 31938), (257, 31974), (275, 32004), (309, 32079), (334, 32127), (336, 32130), (345, 32154), (347, 32157), (356, 32172), (426, 32343), (487, 32457), (495, 32472), (498, 32478), (575, 32520), (576, 32523), (601, 32577), (624, 32655), (641, 32688),

Gene: Goose\_10 Start: 5711, Stop: 6685, Start Num: 163

Candidate Starts for Goose\_10:

(139, 5672), (Start: 163 @5711 has 304 MA's), (Start: 192 @5765 has 2 MA's), (276, 5918), (365, 6080), (371, 6095), (415, 6164), (422, 6188), (425, 6194), (430, 6203), (469, 6272), (474, 6290), (497, 6335), (507, 6353), (538, 6431), (549, 6458), (554, 6473), (561, 6494), (597, 6584), (609, 6626), (632, 6677),

Gene: Gophee\_49 Start: 41697, Stop: 43052, Start Num: 82

Candidate Starts for Gophee\_49:

(Start: 82 @41697 has 255 MA's), (98, 41748), (108, 41781), (168, 41910), (170, 41913), (Start: 180 @41928 has 5 MA's), (235, 42024), (251, 42063), (269, 42093), (284, 42129), (333, 42240), (345, 42270), (347, 42273), (379, 42339), (440, 42498), (469, 42546), (475, 42564), (498, 42612), (550, 42756), (571, 42816), (603, 42921), (637, 43008),

Gene: Gorge\_31 Start: 27751, Stop: 28752, Start Num: 149

Candidate Starts for Gorge\_31:

(Start: 149 @27751 has 225 MA's), (Start: 192 @27826 has 2 MA's), (210, 27859), (229, 27889), (239, 27910), (251, 27940), (259, 27952), (Start: 279 @27994 has 1 MA's), (292, 28018), (302, 28033), (306, 28045), (365, 28156), (423, 28270), (433, 28288), (454, 28327), (469, 28351), (484, 28387), (520, 28453), (559, 28561), (578, 28609), (585, 28621), (601, 28666), (604, 28678), (614, 28708),

Gene: Graduation\_12 Start: 6781, Stop: 7749, Start Num: 163

Candidate Starts for Graduation\_12:

(Start: 163 @6781 has 304 MA's), (Start: 180 @6814 has 5 MA's), (Start: 190 @6832 has 1 MA's), (Start: 192 @6835 has 2 MA's), (335, 7102), (365, 7153), (368, 7165), (415, 7240), (442, 7303), (462, 7336), (469, 7348), (474, 7366), (484, 7384), (520, 7447), (551, 7528), (559, 7552), (561, 7555), (563, 7558), (567, 7567), (600, 7654), (614, 7699), (629, 7741),

Gene: Grand2040\_48 Start: 41417, Stop: 42772, Start Num: 82

Candidate Starts for Grand2040\_48:

(Start: 82 @41417 has 255 MA's), (98, 41468), (108, 41501), (168, 41630), (170, 41633), (Start: 180 @41648 has 5 MA's), (235, 41744), (251, 41783), (269, 41813), (284, 41849), (333, 41960), (345, 41990), (347, 41993), (379, 42059), (440, 42218), (469, 42266), (475, 42284), (498, 42332), (550, 42476), (571, 42536), (603, 42641), (637, 42728),

Gene: Grasshills\_259 Start: 146393, Stop: 147421, Start Num: 142

Candidate Starts for Grasshills\_259:

(Start: 142 @146393 has 200 MA's), (Start: 163 @146423 has 304 MA's), (170, 146435), (Start: 192 @146477 has 2 MA's), (229, 146540), (239, 146561), (Start: 279 @146645 has 1 MA's), (302, 146687), (306, 146699), (312, 146714), (344, 146783), (365, 146810), (393, 146864), (411, 146909), (414, 146912), (449, 146990), (462, 147011), (520, 147122), (554, 147212), (559, 147230), (590, 147302), (601, 147335),

Gene: Gravaillia\_32 Start: 28068, Stop: 29303, Start Num: 84

Candidate Starts for Gravaillia\_32:

(Start: 84 @28068 has 24 MA's), (115, 28173), (122, 28194), (128, 28206), (136, 28218), (Start: 138 @28221 has 44 MA's), (170, 28284), (Start: 180 @28302 has 5 MA's), (204, 28335), (235, 28395), (251, 28434), (255, 28443), (257, 28446), (269, 28464), (284, 28500), (309, 28548), (314, 28560), (318, 28566), (339, 28629), (342, 28632), (354, 28659), (361, 28671), (388, 28728), (440, 28860), (447, 28872), (469, 28899), (476, 28920), (483, 28935), (522, 28989), (534, 29019), (553, 29052), (561, 29061), (573, 29079), (575, 29088), (578, 29097), (601, 29151), (620, 29220), (628, 29241), (633, 29247),

Gene: GreaseLightnin\_27 Start: 24303, Stop: 25469, Start Num: 102

Candidate Starts for GreaseLightnin\_27:

(14, 23460), (15, 23550), (26, 23721), (36, 23817), (41, 23922), (Start: 102 @24303 has 88 MA's), (106, 24312), (122, 24357), (123, 24360), (168, 24447), (Start: 198 @24492 has 122 MA's), (235, 24567), (245, 24588), (251, 24606), (284, 24672), (305, 24711), (333, 24777), (345, 24807), (359, 24828), (379, 24873), (417, 24969), (434, 25008), (440, 25023), (469, 25062), (510, 25149), (527, 25167), (530, 25173), (553, 25221), (598, 25314), (620, 25389),

Gene: GrecoEtereo\_11 Start: 6325, Stop: 7287, Start Num: 163

Candidate Starts for GrecoEtereo\_11:

(Start: 163 @6325 has 304 MA's), (Start: 180 @6358 has 5 MA's), (Start: 190 @6376 has 1 MA's), (Start: 192 @6379 has 2 MA's), (306, 6580), (335, 6646), (365, 6691), (416, 6781), (454, 6862), (462, 6874), (469, 6886), (474, 6904), (484, 6922), (496, 6946), (520, 6985), (551, 7066), (559, 7090), (561, 7093), (563, 7096), (567, 7105), (600, 7192), (614, 7237), (629, 7279),

Gene: Greg\_11 Start: 5830, Stop: 6798, Start Num: 163

Candidate Starts for Greg\_11:

(Start: 163 @5830 has 304 MA's), (Start: 180 @5863 has 5 MA's), (Start: 190 @5881 has 1 MA's), (Start: 192 @5884 has 2 MA's), (335, 6151), (365, 6202), (368, 6214), (415, 6289), (442, 6352), (450, 6364), (462, 6385), (469, 6397), (474, 6415), (484, 6433), (496, 6457), (520, 6496), (551, 6577), (559, 6601), (561, 6604), (563, 6607), (567, 6616), (600, 6703), (629, 6790),

Gene: Grif\_12 Start: 6045, Stop: 7010, Start Num: 153

Candidate Starts for Grif\_12:

(Start: 153 @6045 has 92 MA's), (Start: 180 @6090 has 5 MA's), (Start: 192 @6111 has 2 MA's), (256, 6231), (330, 6369), (365, 6426), (371, 6441), (422, 6522), (430, 6537), (439, 6555), (469, 6606), (474, 6624), (497, 6669), (538, 6765), (561, 6828), (575, 6867), (597, 6918),

Gene: Grizzly\_28 Start: 25205, Stop: 26413, Start Num: 88

Candidate Starts for Grizzly\_28:

(65, 25112), (Start: 88 @25205 has 62 MA's), (154, 25379), (202, 25451), (235, 25511), (251, 25550), (255, 25559), (270, 25583), (275, 25592), (284, 25616), (295, 25637), (309, 25664), (314, 25676), (342, 25748), (361, 25787), (440, 25976), (469, 26015), (476, 26036), (495, 26075), (498, 26081),

Gene: Groundhog\_7 Start: 4839, Stop: 5648, Start Num: 221

Candidate Starts for Groundhog\_7:

(Start: 221 @4839 has 188 MA's), (263, 4923), (284, 4968), (314, 5028), (337, 5094), (440, 5328), (469, 5367), (475, 5385), (490, 5418), (500, 5436), (578, 5481), (602, 5505), (645, 5634),

Gene: Groupthink\_13 Start: 6033, Stop: 6998, Start Num: 153

Candidate Starts for Groupthink\_13:

(Start: 153 @6033 has 92 MA's), (Start: 192 @6099 has 2 MA's), (226, 6153), (265, 6231), (330, 6354), (365, 6411), (415, 6483), (430, 6522), (439, 6540), (474, 6609), (535, 6726), (538, 6753), (561, 6816), (597, 6906), (599, 6912),

Gene: Grub\_12 Start: 5954, Stop: 6919, Start Num: 153

Candidate Starts for Grub\_12:

(Start: 153 @5954 has 92 MA's), (Start: 180 @5999 has 5 MA's), (Start: 192 @6020 has 2 MA's), (256, 6140), (330, 6278), (365, 6335), (371, 6350), (422, 6431), (430, 6446), (439, 6464), (469, 6515), (474, 6533), (497, 6578), (538, 6674), (561, 6737), (575, 6776), (597, 6827),

Gene: Grum1\_12 Start: 5955, Stop: 6920, Start Num: 153

Candidate Starts for Grum1\_12:

(Start: 153 @5955 has 92 MA's), (Start: 180 @6000 has 5 MA's), (Start: 192 @6021 has 2 MA's), (256, 6141), (330, 6279), (365, 6336), (371, 6351), (422, 6432), (430, 6447), (439, 6465), (469, 6516), (474, 6534), (497, 6579), (538, 6675), (561, 6738), (575, 6777), (597, 6828),

Gene: Grungle\_234 Start: 141672, Stop: 142700, Start Num: 142

Candidate Starts for Grungle\_234:

(Start: 142 @141672 has 200 MA's), (Start: 163 @141702 has 304 MA's), (170, 141714), (Start: 192 @141756 has 2 MA's), (229, 141819), (239, 141840), (Start: 279 @141924 has 1 MA's), (302, 141966), (306, 141978), (312, 141993), (344, 142062), (365, 142089), (393, 142143), (411, 142188), (414, 142191), (449, 142269), (462, 142290), (520, 142401), (554, 142491), (559, 142509), (590, 142581), (601, 142614),

Gene: GtownJaz\_12 Start: 5963, Stop: 6928, Start Num: 153

Candidate Starts for GtownJaz\_12:

(Start: 153 @5963 has 92 MA's), (Start: 180 @6008 has 5 MA's), (Start: 192 @6029 has 2 MA's), (256, 6149), (330, 6287), (365, 6344), (371, 6359), (422, 6440), (430, 6455), (439, 6473), (469, 6524), (474, 6542), (497, 6587), (538, 6683), (561, 6746), (575, 6785), (597, 6836),

Gene: Guanica15\_31 Start: 25719, Stop: 26588, Start Num: 221

Candidate Starts for Guanica15\_31:

(183, 25671), (195, 25692), (Start: 221 @25719 has 188 MA's), (Start: 227 @25731 has 1 MA's), (239, 25758), (242, 25764), (253, 25794), (258, 25800), (293, 25863), (309, 25899), (313, 25908), (323, 25941), (347, 25989), (384, 26058), (469, 26211), (476, 26232), (487, 26256), (496, 26274), (507, 26295), (538, 26334), (578, 26409), (598, 26445), (624, 26538), (640, 26568), (643, 26577),

Gene: Guillsminger\_30 Start: 27046, Stop: 27918, Start Num: 221

Candidate Starts for Guillsminger\_30:

(Start: 221 @27046 has 188 MA's), (Start: 227 @27058 has 1 MA's), (229, 27064), (242, 27091), (253, 27121), (258, 27127), (287, 27181), (293, 27190), (300, 27202), (313, 27235), (323, 27268), (347, 27316), (384, 27385), (469, 27538), (475, 27556), (476, 27559), (506, 27619), (521, 27637), (538, 27664), (578, 27736), (598, 27772), (599, 27775), (604, 27796), (620, 27853), (637, 27889), (640, 27898), (643, 27907),

Gene: Guppsters\_33 Start: 28042, Stop: 29043, Start Num: 149

Candidate Starts for Guppsters\_33:

(Start: 149 @28042 has 225 MA's), (Start: 192 @28117 has 2 MA's), (210, 28150), (229, 28180), (239, 28201), (Start: 279 @28285 has 1 MA's), (306, 28336), (312, 28351), (365, 28447), (422, 28558), (433, 28579), (454, 28618), (462, 28630), (484, 28678), (497, 28705), (511, 28729), (520, 28744), (559, 28852), (578, 28900), (604, 28969), (614, 28999),

Gene: GuuelaD\_28 Start: 26337, Stop: 27308, Start Num: 102

Candidate Starts for GuuelaD\_28:

(Start: 102 @26337 has 88 MA's), (120, 26391), (179, 26511), (Start: 198 @26541 has 122 MA's), (208, 26556), (Start: 227 @26589 has 1 MA's), (228, 26592), (232, 26601), (242, 26622), (275, 26685), (293, 26712), (305, 26736), (319, 26766), (345, 26817), (352, 26829), (386, 26892), (392, 26907), (415, 26967), (419, 26982), (469, 27063), (475, 27081), (476, 27084), (478, 27087), (579, 27138), (601, 27183), (613, 27225), (628, 27267),

Gene: Guwapp\_248 Start: 143241, Stop: 144269, Start Num: 142

Candidate Starts for Guwapp\_248:

(Start: 142 @143241 has 200 MA's), (Start: 163 @143271 has 304 MA's), (170, 143283), (Start: 192 @143325 has 2 MA's), (229, 143388), (239, 143409), (Start: 279 @143493 has 1 MA's), (302, 143535), (306, 143547), (312, 143562), (344, 143631), (365, 143658), (393, 143712), (411, 143757), (414, 143760), (449, 143838), (462, 143859), (520, 143970), (554, 144060), (559, 144078), (590, 144150), (601, 144183),

Gene: Gwendoluna\_11 Start: 6701, Stop: 7669, Start Num: 163

Candidate Starts for Gwendoluna\_11:

(Start: 163 @6701 has 304 MA's), (Start: 180 @6734 has 5 MA's), (Start: 190 @6752 has 1 MA's), (Start: 192 @6755 has 2 MA's), (335, 7022), (365, 7073), (368, 7085), (415, 7160), (442, 7223), (450, 7235), (462, 7256), (469, 7268), (474, 7286), (484, 7304), (496, 7328), (520, 7367), (551, 7448), (559, 7472), (561, 7475), (563, 7478), (567, 7487), (600, 7574),

Gene: Gwilliam\_50 Start: 41703, Stop: 43058, Start Num: 82

Candidate Starts for Gwilliam\_50:

(Start: 82 @41703 has 255 MA's), (98, 41754), (108, 41787), (114, 41805), (168, 41916), (170, 41919), (Start: 180 @41934 has 5 MA's), (235, 42030), (251, 42069), (269, 42099), (284, 42135),

(333, 42246), (345, 42276), (347, 42279), (379, 42345), (440, 42504), (469, 42552), (475, 42570), (498, 42618), (550, 42762), (571, 42822), (603, 42927), (620, 42981), (637, 43014),

Gene: Gyarad\_0049 Start: 41717, Stop: 43072, Start Num: 82

Candidate Starts for Gyarad\_0049:

(Start: 82 @41717 has 255 MA's), (98, 41768), (108, 41801), (168, 41930), (170, 41933), (Start: 180 @41948 has 5 MA's), (235, 42044), (251, 42083), (269, 42113), (284, 42149), (333, 42260), (345, 42290), (347, 42293), (379, 42359), (440, 42518), (469, 42566), (475, 42584), (498, 42632), (550, 42776), (571, 42836), (603, 42941), (637, 43028),

Gene: Gyzlar\_11 Start: 6460, Stop: 7428, Start Num: 163

Candidate Starts for Gyzlar\_11:

(Start: 163 @6460 has 304 MA's), (Start: 180 @6493 has 5 MA's), (Start: 190 @6511 has 1 MA's), (Start: 192 @6514 has 2 MA's), (335, 6781), (365, 6832), (368, 6844), (415, 6919), (442, 6982), (450, 6994), (462, 7015), (469, 7027), (474, 7045), (484, 7063), (496, 7087), (520, 7126), (551, 7207), (559, 7231), (561, 7234), (563, 7237), (567, 7246), (600, 7333), (614, 7378), (629, 7420),

Gene: HC\_28 Start: 24164, Stop: 25342, Start Num: 102

Candidate Starts for HC\_28:

(Start: 102 @24164 has 88 MA's), (117, 24206), (168, 24311), (Start: 198 @24365 has 122 MA's), (235, 24440), (245, 24461), (284, 24545), (305, 24584), (333, 24650), (345, 24680), (359, 24701), (379, 24746), (417, 24842), (434, 24881), (440, 24896), (469, 24935), (510, 25022), (527, 25040), (530, 25046), (553, 25094), (571, 25115), (598, 25187), (620, 25262), (640, 25304), (645, 25325), (648, 25331),

Gene: HH92\_32 Start: 28339, Stop: 29574, Start Num: 84

Candidate Starts for HH92\_32:

(Start: 84 @28339 has 24 MA's), (110, 28432), (122, 28465), (128, 28477), (136, 28489), (Start: 138 @28492 has 44 MA's), (170, 28555), (Start: 180 @28573 has 5 MA's), (204, 28606), (235, 28666), (251, 28705), (255, 28714), (257, 28717), (269, 28735), (284, 28771), (309, 28819), (314, 28831), (318, 28837), (339, 28900), (342, 28903), (354, 28930), (361, 28942), (403, 29044), (440, 29131), (469, 29170), (476, 29191), (522, 29260), (534, 29290), (553, 29323), (561, 29332), (564, 29338), (573, 29350), (575, 29359), (601, 29422), (620, 29491),

Gene: HINdeR\_10 Start: 7162, Stop: 8142, Start Num: 163

Candidate Starts for HINdeR\_10:

(Start: 163 @7162 has 304 MA's), (Start: 192 @7216 has 2 MA's), (226, 7270), (241, 7303), (259, 7339), (312, 7438), (365, 7543), (415, 7615), (423, 7642), (439, 7672), (474, 7741), (507, 7804), (538, 7882), (549, 7909), (554, 7924), (561, 7945), (578, 7993), (597, 8035), (615, 8101),

Gene: HSavage\_49 Start: 41709, Stop: 43064, Start Num: 82

Candidate Starts for HSavage\_49:

(Start: 82 @41709 has 255 MA's), (98, 41760), (108, 41793), (114, 41811), (168, 41922), (170, 41925), (Start: 180 @41940 has 5 MA's), (235, 42036), (251, 42075), (269, 42105), (284, 42141), (333, 42252), (345, 42282), (347, 42285), (379, 42351), (440, 42510), (469, 42558), (475, 42576), (498, 42624), (550, 42768), (571, 42828), (603, 42933), (620, 42987), (637, 43020),

Gene: HUHilltop\_27 Start: 24052, Stop: 25218, Start Num: 102

Candidate Starts for HUHilltop\_27:

(Start: 102 @24052 has 88 MA's), (123, 24109), (168, 24196), (Start: 198 @24241 has 122 MA's), (235, 24316), (245, 24337), (284, 24421), (305, 24460), (333, 24526), (345, 24556), (359, 24577), (379, 24622), (417, 24718), (434, 24757), (440, 24772), (447, 24784), (469, 24811), (510, 24898), (527, 24916), (530, 24922), (553, 24970), (571, 24991), (598, 25063), (620, 25138),

Gene: Hades\_32 Start: 27853, Stop: 28854, Start Num: 149

Candidate Starts for Hades\_32:

(33, 27232), (39, 27310), (42, 27373), (47, 27412), (58, 27544), (62, 27565), (69, 27601), (107, 27754), (137, 27826), (Start: 149 @27853 has 225 MA's), (Start: 192 @27928 has 2 MA's), (210, 27961), (229, 27991), (239, 28012), (Start: 279 @28096 has 1 MA's), (292, 28120), (302, 28135), (306, 28147), (365, 28258), (423, 28372), (433, 28390), (454, 28429), (469, 28453), (484, 28489), (497, 28516), (520, 28555), (538, 28603), (559, 28663), (585, 28723), (604, 28780), (614, 28810),

Gene: Hadrien\_33 Start: 28339, Stop: 29574, Start Num: 84

Candidate Starts for Hadrien\_33:

(Start: 84 @28339 has 24 MA's), (110, 28432), (122, 28465), (128, 28477), (136, 28489), (Start: 138 @28492 has 44 MA's), (170, 28555), (Start: 180 @28573 has 5 MA's), (204, 28606), (235, 28666), (251, 28705), (255, 28714), (257, 28717), (269, 28735), (284, 28771), (309, 28819), (314, 28831), (318, 28837), (339, 28900), (342, 28903), (354, 28930), (361, 28942), (403, 29044), (440, 29131), (469, 29170), (476, 29191), (522, 29260), (534, 29290), (553, 29323), (561, 29332), (564, 29338), (573, 29350), (575, 29359), (601, 29422), (620, 29491),

Gene: Hafay\_28 Start: 26336, Stop: 27307, Start Num: 102

Candidate Starts for Hafay\_28:

(Start: 102 @26336 has 88 MA's), (120, 26390), (179, 26510), (Start: 198 @26540 has 122 MA's), (208, 26555), (Start: 227 @26588 has 1 MA's), (228, 26591), (232, 26600), (242, 26621), (275, 26684), (293, 26711), (305, 26735), (319, 26765), (345, 26816), (352, 26828), (386, 26891), (392, 26906), (415, 26966), (419, 26981), (469, 27062), (475, 27080), (476, 27083), (478, 27086), (579, 27137), (601, 27182), (613, 27224), (628, 27266),

Gene: Hail\_32 Start: 28339, Stop: 29574, Start Num: 84

Candidate Starts for Hail\_32:

(Start: 84 @28339 has 24 MA's), (110, 28432), (122, 28465), (128, 28477), (136, 28489), (Start: 138 @28492 has 44 MA's), (170, 28555), (Start: 180 @28573 has 5 MA's), (204, 28606), (235, 28666), (251, 28705), (255, 28714), (257, 28717), (269, 28735), (284, 28771), (309, 28819), (314, 28831), (318, 28837), (339, 28900), (342, 28903), (354, 28930), (361, 28942), (403, 29044), (440, 29131), (469, 29170), (476, 29191), (522, 29260), (534, 29290), (553, 29323), (561, 29332), (564, 29338), (573, 29350), (575, 29359), (601, 29422), (620, 29491),

Gene: Haimas\_49 Start: 41703, Stop: 43058, Start Num: 82

Candidate Starts for Haimas\_49:

(Start: 82 @41703 has 255 MA's), (98, 41754), (108, 41787), (170, 41919), (Start: 180 @41934 has 5 MA's), (235, 42030), (251, 42069), (269, 42099), (284, 42135), (333, 42246), (345, 42276), (347, 42279), (379, 42345), (440, 42504), (469, 42552), (475, 42570), (498, 42618), (550, 42762), (571, 42822), (603, 42927), (637, 43014),

Gene: Haleema\_48 Start: 41417, Stop: 42772, Start Num: 82

Candidate Starts for Haleema\_48:

(Start: 82 @41417 has 255 MA's), (98, 41468), (108, 41501), (168, 41630), (170, 41633), (Start: 180 @41648 has 5 MA's), (235, 41744), (251, 41783), (269, 41813), (284, 41849), (333, 41960), (345, 41990), (347, 41993), (379, 42059), (440, 42218), (469, 42266), (475, 42284), (498, 42332), (550, 42476), (571, 42536), (603, 42641), (637, 42728),

Gene: Halena\_26 Start: 25558, Stop: 26589, Start Num: 142

Candidate Starts for Halena\_26:

(Start: 142 @25558 has 200 MA's), (235, 25711), (236, 25714), (247, 25738), (251, 25750), (261, 25768), (272, 25786), (278, 25804), (281, 25810), (286, 25819), (303, 25849), (330, 25921), (365,



25978), (385, 26017), (425, 26095), (430, 26104), (431, 26107), (439, 26122), (467, 26176), (474, 26197), (482, 26212), (526, 26296), (537, 26326), (561, 26395), (567, 26407), (575, 26431), (581, 26449), (585, 26452), (590, 26464), (592, 26467), (601, 26497), (604, 26509),

Gene: Halfpint\_46 Start: 41352, Stop: 42416, Start Num: 138

Candidate Starts for Halfpint\_46:

(Start: 138 @41352 has 44 MA's), (173, 41415), (219, 41496), (252, 41562), (260, 41577), (269, 41589), (280, 41616), (311, 41673), (314, 41682), (391, 41829), (401, 41844), (422, 41898), (439, 41931), (463, 41970), (470, 41982), (512, 42063), (520, 42081), (523, 42084), (538, 42129), (578, 42240), (617, 42351), (626, 42372), (641, 42405),

Gene: Halldule\_244 Start: 142854, Stop: 143882, Start Num: 142

Candidate Starts for Halldule\_244:

(Start: 142 @142854 has 200 MA's), (Start: 163 @142884 has 304 MA's), (170, 142896), (Start: 192 @142938 has 2 MA's), (229, 143001), (239, 143022), (Start: 279 @143106 has 1 MA's), (302, 143148), (306, 143160), (312, 143175), (344, 143244), (365, 143271), (393, 143325), (411, 143370), (414, 143373), (449, 143451), (462, 143472), (520, 143583), (554, 143673), (559, 143691), (590, 143763), (601, 143796),

Gene: Halley\_49 Start: 42575, Stop: 43447, Start Num: 89

Candidate Starts for Halley\_49:

(Start: 89 @42575 has 30 MA's), (Start: 97 @42602 has 1 MA's), (115, 42662), (Start: 138 @42710 has 44 MA's), (174, 42776), (189, 42797), (206, 42818), (233, 42872), (274, 42953), (403, 43232), (405, 43235), (413, 43259), (424, 43295), (432, 43310), (438, 43322), (444, 43343),

Gene: Halo\_28 Start: 25196, Stop: 26404, Start Num: 88

Candidate Starts for Halo\_28:

(65, 25103), (Start: 88 @25196 has 62 MA's), (154, 25370), (202, 25442), (251, 25541), (255, 25550), (263, 25562), (270, 25574), (275, 25583), (284, 25607), (295, 25628), (309, 25655), (314, 25667), (342, 25739), (361, 25778), (440, 25967), (459, 25991), (469, 26006), (476, 26027), (498, 26072), (500, 26075), (534, 26126),

Gene: HamSlice\_9 Start: 5885, Stop: 6862, Start Num: 166

Candidate Starts for HamSlice\_9:

(Start: 164 @5882 has 109 MA's), (Start: 166 @5885 has 14 MA's), (178, 5909), (Start: 190 @5930 has 1 MA's), (Start: 192 @5933 has 2 MA's), (330, 6182), (365, 6239), (416, 6323), (422, 6344), (437, 6371), (464, 6401), (474, 6428), (551, 6578), (598, 6689), (601, 6701), (604, 6713), (627, 6779),

Gene: Hami1\_11 Start: 6230, Stop: 7198, Start Num: 163

Candidate Starts for Hami1\_11:

(Start: 163 @6230 has 304 MA's), (Start: 180 @6263 has 5 MA's), (Start: 190 @6281 has 1 MA's), (Start: 192 @6284 has 2 MA's), (335, 6551), (365, 6602), (368, 6614), (415, 6689), (442, 6752), (450, 6764), (462, 6785), (469, 6797), (474, 6815), (484, 6833), (520, 6896), (551, 6977), (559, 7001), (561, 7004), (563, 7007), (567, 7016), (568, 7019), (614, 7148), (629, 7190),

Gene: Hamish\_49 Start: 41695, Stop: 43050, Start Num: 82

Candidate Starts for Hamish\_49:

(Start: 82 @41695 has 255 MA's), (98, 41746), (108, 41779), (170, 41911), (Start: 180 @41926 has 5 MA's), (235, 42022), (251, 42061), (269, 42091), (284, 42127), (333, 42238), (345, 42268), (347, 42271), (379, 42337), (440, 42496), (469, 42544), (475, 42562), (498, 42610), (550, 42754), (571, 42814), (603, 42919), (637, 43006),

Gene: Hammy\_30 Start: 26882, Stop: 27622, Start Num: 221

Candidate Starts for Hammy\_30:

(72, 26537), (151, 26783), (Start: 162 @26804 has 2 MA's), (183, 26837), (195, 26858), (Start: 221 @26882 has 188 MA's), (Start: 227 @26894 has 1 MA's), (239, 26921), (242, 26927), (287, 27011), (293, 27020), (300, 27032), (313, 27065), (323, 27098), (379, 27206), (392, 27233), (447, 27341), (469, 27368), (476, 27389), (487, 27413), (573, 27425), (575, 27434), (601, 27491), (604, 27503), (640, 27602),

Gene: Hamulus\_32 Start: 28436, Stop: 29479, Start Num: 166

Candidate Starts for Hamulus\_32:

(122, 28358), (Start: 149 @28409 has 225 MA's), (Start: 163 @28430 has 304 MA's), (Start: 166 @28436 has 14 MA's), (Start: 180 @28463 has 5 MA's), (185, 28472), (219, 28532), (235, 28559), (269, 28625), (297, 28679), (314, 28721), (335, 28772), (377, 28856), (391, 28886), (404, 28919), (431, 28994), (442, 29015), (512, 29144), (538, 29216), (574, 29312), (578, 29324), (604, 29393), (623, 29450), (627, 29459),

Gene: HanKaySha\_36 Start: 31600, Stop: 32457, Start Num: 198

Candidate Starts for HanKaySha\_36:

(Start: 198 @31600 has 122 MA's), (220, 31639), (232, 31669), (242, 31690), (257, 31726), (275, 31756), (309, 31831), (334, 31879), (336, 31882), (345, 31906), (347, 31909), (356, 31924), (426, 32095), (487, 32209), (495, 32224), (498, 32230), (575, 32272), (576, 32275), (601, 32329), (624, 32407), (641, 32440),

Gene: HanShotFirst\_10 Start: 5623, Stop: 6591, Start Num: 163

Candidate Starts for HanShotFirst\_10:

(Start: 163 @5623 has 304 MA's), (Start: 180 @5656 has 5 MA's), (Start: 190 @5674 has 1 MA's), (Start: 192 @5677 has 2 MA's), (335, 5944), (365, 5995), (368, 6007), (415, 6082), (462, 6178), (469, 6190), (474, 6208), (484, 6226), (496, 6250), (520, 6289), (551, 6370), (559, 6394), (561, 6397), (563, 6400), (567, 6409), (600, 6496), (614, 6541), (629, 6583),

Gene: Hannaconda\_45 Start: 37054, Stop: 37926, Start Num: 89

Candidate Starts for Hannaconda\_45:

(56, 36883), (Start: 89 @37054 has 30 MA's), (Start: 97 @37081 has 1 MA's), (115, 37141), (Start: 140 @37198 has 3 MA's), (Start: 148 @37210 has 26 MA's), (174, 37255), (189, 37276), (206, 37297), (233, 37351), (274, 37432), (336, 37573), (403, 37711), (405, 37714), (413, 37738), (424, 37774), (432, 37789), (438, 37801), (444, 37822),

Gene: Happiness\_10 Start: 5886, Stop: 6866, Start Num: 164

Candidate Starts for Happiness\_10:

(Start: 164 @5886 has 109 MA's), (Start: 166 @5889 has 14 MA's), (178, 5913), (Start: 190 @5934 has 1 MA's), (Start: 192 @5937 has 2 MA's), (330, 6186), (365, 6243), (416, 6327), (422, 6348), (437, 6375), (464, 6405), (474, 6432), (551, 6582), (598, 6693), (601, 6705), (604, 6717), (627, 6783),

Gene: Harella\_34 Start: 31970, Stop: 32827, Start Num: 198

Candidate Starts for Harella\_34:

(Start: 198 @31970 has 122 MA's), (220, 32009), (232, 32039), (242, 32060), (257, 32096), (275, 32126), (309, 32201), (334, 32249), (336, 32252), (345, 32276), (347, 32279), (356, 32294), (426, 32465), (487, 32579), (495, 32594), (498, 32600), (575, 32642), (576, 32645), (601, 32699), (624, 32777), (641, 32810),

Gene: Harley\_31 Start: 27457, Stop: 28458, Start Num: 149

Candidate Starts for Harley\_31:

(107, 27358), (Start: 149 @27457 has 225 MA's), (Start: 163 @27478 has 304 MA's), (170, 27490), (Start: 192 @27532 has 2 MA's), (210, 27565), (229, 27595), (239, 27616), (Start: 279 @27700 has 1

MA's), (292, 27724), (302, 27739), (306, 27751), (365, 27862), (423, 27976), (433, 27994), (454, 28033), (469, 28057), (484, 28093), (497, 28120), (520, 28159), (538, 28207), (559, 28267), (578, 28315), (585, 28327), (601, 28372), (604, 28384), (614, 28414),

Gene: HarryHoudini\_13 Start: 6940, Stop: 7917, Start Num: 163

Candidate Starts for HarryHoudini\_13:

(Start: 163 @6940 has 304 MA's), (Start: 192 @6994 has 2 MA's), (234, 7051), (312, 7183), (330, 7231), (365, 7288), (382, 7324), (415, 7372), (430, 7411), (470, 7483), (474, 7498), (497, 7543), (507, 7561), (528, 7603), (538, 7651), (549, 7678), (554, 7693), (559, 7711), (561, 7714), (597, 7804),

Gene: HarryOW\_11 Start: 6325, Stop: 7287, Start Num: 163

Candidate Starts for HarryOW\_11:

(Start: 163 @6325 has 304 MA's), (Start: 180 @6358 has 5 MA's), (Start: 190 @6376 has 1 MA's), (Start: 192 @6379 has 2 MA's), (306, 6580), (335, 6646), (365, 6691), (416, 6781), (454, 6862), (462, 6874), (469, 6886), (474, 6904), (484, 6922), (496, 6946), (520, 6985), (551, 7066), (559, 7090), (561, 7093), (563, 7096), (567, 7105), (600, 7192), (629, 7279),

Gene: Hartsy\_49 Start: 41746, Stop: 43101, Start Num: 82

Candidate Starts for Hartsy\_49:

(Start: 82 @41746 has 255 MA's), (98, 41797), (108, 41830), (168, 41959), (170, 41962), (Start: 180 @41977 has 5 MA's), (235, 42073), (251, 42112), (269, 42142), (284, 42178), (333, 42289), (345, 42319), (347, 42322), (379, 42388), (440, 42547), (469, 42595), (475, 42613), (498, 42661), (550, 42805), (571, 42865), (603, 42970), (637, 43057),

Gene: Harvey\_49 Start: 41733, Stop: 43088, Start Num: 82

Candidate Starts for Harvey\_49:

(Start: 82 @41733 has 255 MA's), (98, 41784), (108, 41817), (168, 41946), (170, 41949), (Start: 180 @41964 has 5 MA's), (235, 42060), (251, 42099), (269, 42129), (284, 42165), (320, 42240), (333, 42276), (345, 42306), (347, 42309), (379, 42375), (440, 42534), (469, 42582), (475, 42600), (498, 42648), (550, 42792), (571, 42852), (603, 42957), (637, 43044),

Gene: HarveySr\_47 Start: 41520, Stop: 42584, Start Num: 138

Candidate Starts for HarveySr\_47:

(Start: 138 @41520 has 44 MA's), (173, 41583), (219, 41664), (252, 41730), (260, 41745), (269, 41757), (280, 41784), (311, 41841), (314, 41850), (391, 41997), (401, 42012), (422, 42066), (439, 42099), (463, 42138), (470, 42150), (512, 42231), (520, 42249), (523, 42252), (538, 42297), (578, 42408), (617, 42519), (626, 42540), (641, 42573),

Gene: HashRod\_13 Start: 6046, Stop: 7011, Start Num: 153

Candidate Starts for HashRod\_13:

(Start: 153 @6046 has 92 MA's), (Start: 180 @6091 has 5 MA's), (Start: 192 @6112 has 2 MA's), (256, 6232), (330, 6370), (365, 6427), (371, 6442), (422, 6523), (430, 6538), (439, 6556), (469, 6607), (474, 6625), (497, 6670), (538, 6766), (561, 6829), (575, 6868), (597, 6919),

Gene: Hashim76\_52 Start: 41795, Stop: 42796, Start Num: 164

Candidate Starts for Hashim76\_52:

(Start: 164 @41795 has 109 MA's), (178, 41822), (Start: 192 @41846 has 2 MA's), (273, 41987), (362, 42152), (365, 42158), (401, 42221), (416, 42242), (461, 42323), (464, 42326), (474, 42353), (509, 42413), (533, 42449), (560, 42524), (562, 42527), (582, 42581), (604, 42638), (607, 42647), (650, 42770),

Gene: HaveUMetTed\_13 Start: 6033, Stop: 6998, Start Num: 153

Candidate Starts for HaveUMetTed\_13:

(Start: 153 @6033 has 92 MA's), (Start: 192 @6099 has 2 MA's), (226, 6153), (265, 6231), (330, 6354), (365, 6411), (415, 6483), (430, 6522), (439, 6540), (474, 6609), (535, 6726), (538, 6753), (561, 6816), (597, 6906), (599, 6912),

Gene: Heathcliff\_47 Start: 41498, Stop: 42562, Start Num: 138

Candidate Starts for Heathcliff\_47:

(Start: 138 @41498 has 44 MA's), (173, 41561), (219, 41642), (252, 41708), (260, 41723), (269, 41735), (280, 41762), (311, 41819), (314, 41828), (391, 41975), (401, 41990), (422, 42044), (439, 42077), (463, 42116), (470, 42128), (512, 42209), (520, 42227), (523, 42230), (538, 42275), (578, 42386), (617, 42497), (626, 42518), (641, 42551),

Gene: Heathen\_10 Start: 5538, Stop: 6278, Start Num: 285

Candidate Starts for Heathen\_10:

(Start: 285 @5538 has 17 MA's), (330, 5625), (365, 5682), (368, 5694), (371, 5697), (385, 5721), (400, 5736), (408, 5754), (422, 5784), (425, 5790), (439, 5817), (474, 5886), (512, 5958), (535, 6000), (538, 6027), (549, 6054), (559, 6087), (561, 6090), (575, 6129), (631, 6270),

Gene: HedwigODU\_31 Start: 26463, Stop: 27335, Start Num: 221

Candidate Starts for HedwigODU\_31:

(195, 26436), (Start: 221 @26463 has 188 MA's), (Start: 227 @26475 has 1 MA's), (258, 26544), (275, 26571), (287, 26601), (293, 26610), (309, 26646), (313, 26655), (323, 26688), (331, 26706), (347, 26736), (378, 26793), (379, 26796), (447, 26931), (469, 26958), (476, 26979), (487, 27003), (521, 27054), (578, 27156), (598, 27192), (604, 27216), (640, 27315), (643, 27324),

Gene: Heffalump\_13 Start: 8247, Stop: 9230, Start Num: 163

Candidate Starts for Heffalump\_13:

(134, 8205), (Start: 163 @8247 has 304 MA's), (178, 8277), (Start: 180 @8280 has 5 MA's), (Start: 190 @8298 has 1 MA's), (Start: 192 @8301 has 2 MA's), (325, 8538), (330, 8550), (365, 8607), (368, 8619), (410, 8685), (474, 8796), (551, 8943), (592, 9036), (604, 9078), (627, 9150), (646, 9204),

Gene: Heftyboy\_30 Start: 27195, Stop: 28064, Start Num: 221

Candidate Starts for Heftyboy\_30:

(151, 27093), (183, 27147), (Start: 221 @27195 has 188 MA's), (Start: 227 @27207 has 1 MA's), (229, 27213), (242, 27240), (253, 27270), (258, 27276), (287, 27330), (293, 27339), (300, 27351), (313, 27384), (323, 27417), (347, 27465), (372, 27513), (416, 27597), (469, 27687), (475, 27705), (476, 27708), (507, 27771), (521, 27786), (538, 27810), (578, 27882), (598, 27918), (599, 27921), (604, 27942), (620, 27999), (637, 28035), (640, 28044), (643, 28053),

Gene: Hegedechwinu\_32 Start: 27550, Stop: 28551, Start Num: 149

Candidate Starts for Hegedechwinu\_32:

(Start: 149 @27550 has 225 MA's), (Start: 192 @27625 has 2 MA's), (210, 27658), (229, 27688), (239, 27709), (Start: 279 @27793 has 1 MA's), (306, 27844), (312, 27859), (365, 27955), (422, 28066), (433, 28087), (454, 28126), (462, 28138), (484, 28186), (497, 28213), (511, 28237), (520, 28252), (559, 28360), (578, 28408), (604, 28477), (614, 28507),

Gene: HelDan\_10 Start: 5790, Stop: 6530, Start Num: 285

Candidate Starts for HelDan\_10:

(Start: 285 @5790 has 17 MA's), (330, 5877), (365, 5934), (368, 5946), (371, 5949), (385, 5973), (400, 5988), (408, 6006), (422, 6036), (425, 6042), (439, 6069), (474, 6138), (512, 6210), (535, 6252), (538, 6279), (549, 6306), (559, 6339), (561, 6342), (575, 6381), (631, 6522),

Gene: Held\_49 Start: 41422, Stop: 42777, Start Num: 82

Candidate Starts for Held\_49:

(Start: 82 @41422 has 255 MA's), (98, 41473), (108, 41506), (168, 41635), (170, 41638), (Start: 180 @41653 has 5 MA's), (235, 41749), (251, 41788), (269, 41818), (284, 41854), (333, 41965), (345, 41995), (347, 41998), (379, 42064), (440, 42223), (469, 42271), (475, 42289), (498, 42337), (550, 42481), (571, 42541), (603, 42646), (637, 42733),

Gene: Heliosoles\_12 Start: 6033, Stop: 6998, Start Num: 153

Candidate Starts for Heliosoles\_12:

(Start: 153 @6033 has 92 MA's), (Start: 192 @6099 has 2 MA's), (226, 6153), (265, 6231), (330, 6354), (365, 6411), (415, 6483), (430, 6522), (439, 6540), (474, 6609), (535, 6726), (538, 6753), (561, 6816), (597, 6906), (599, 6912),

Gene: Henry\_36 Start: 31858, Stop: 32715, Start Num: 198

Candidate Starts for Henry\_36:

(Start: 198 @31858 has 122 MA's), (220, 31897), (232, 31927), (242, 31948), (257, 31984), (275, 32014), (309, 32089), (334, 32137), (336, 32140), (345, 32164), (347, 32167), (356, 32182), (426, 32353), (487, 32467), (495, 32482), (498, 32488), (575, 32530), (576, 32533), (601, 32587), (624, 32665), (641, 32698),

Gene: HenryJackson\_48 Start: 41417, Stop: 42772, Start Num: 82

Candidate Starts for HenryJackson\_48:

(Start: 82 @41417 has 255 MA's), (98, 41468), (108, 41501), (168, 41630), (170, 41633), (Start: 180 @41648 has 5 MA's), (235, 41744), (251, 41783), (269, 41813), (284, 41849), (333, 41960), (345, 41990), (347, 41993), (379, 42059), (440, 42218), (469, 42266), (475, 42284), (498, 42332), (550, 42476), (571, 42536), (603, 42641), (637, 42728),

Gene: Hercules11\_12 Start: 5969, Stop: 6934, Start Num: 153

Candidate Starts for Hercules11\_12:

(Start: 153 @5969 has 92 MA's), (Start: 180 @6014 has 5 MA's), (Start: 192 @6035 has 2 MA's), (256, 6155), (365, 6350), (371, 6365), (422, 6446), (430, 6461), (439, 6479), (469, 6530), (474, 6548), (497, 6593), (538, 6689), (561, 6752), (575, 6791), (597, 6842),

Gene: Hermia\_12 Start: 6769, Stop: 7731, Start Num: 163

Candidate Starts for Hermia\_12:

(Start: 163 @6769 has 304 MA's), (Start: 180 @6802 has 5 MA's), (Start: 190 @6820 has 1 MA's), (Start: 192 @6823 has 2 MA's), (335, 7090), (365, 7135), (416, 7225), (454, 7306), (462, 7318), (469, 7330), (474, 7348), (484, 7366), (496, 7390), (520, 7429), (551, 7510), (559, 7534), (561, 7537), (563, 7540), (567, 7549), (600, 7636), (614, 7681), (629, 7723),

Gene: HermioneGrange\_11 Start: 5732, Stop: 6700, Start Num: 163

Candidate Starts for HermioneGrange\_11:

(Start: 163 @5732 has 304 MA's), (Start: 180 @5765 has 5 MA's), (Start: 190 @5783 has 1 MA's), (Start: 192 @5786 has 2 MA's), (335, 6053), (344, 6071), (365, 6104), (368, 6116), (415, 6191), (442, 6254), (450, 6266), (462, 6287), (469, 6299), (474, 6317), (484, 6335), (496, 6359), (520, 6398), (551, 6479), (559, 6503), (561, 6506), (563, 6509), (567, 6518), (600, 6605), (629, 6692),

Gene: Hertubise\_49 Start: 41717, Stop: 43072, Start Num: 82

Candidate Starts for Hertubise\_49:

(Start: 82 @41717 has 255 MA's), (98, 41768), (108, 41801), (168, 41930), (170, 41933), (Start: 180 @41948 has 5 MA's), (235, 42044), (251, 42083), (269, 42113), (284, 42149), (333, 42260), (345, 42290), (347, 42293), (379, 42359), (440, 42518), (469, 42566), (475, 42584), (498, 42632), (550, 42776), (571, 42836), (603, 42941), (620, 42995), (637, 43028),

Gene: Hetaeria\_49 Start: 41734, Stop: 43089, Start Num: 82

Candidate Starts for Hetaeria\_49:

(Start: 82 @41734 has 255 MA's), (98, 41785), (108, 41818), (168, 41947), (170, 41950), (Start: 180 @41965 has 5 MA's), (235, 42061), (251, 42100), (269, 42130), (284, 42166), (333, 42277), (345, 42307), (347, 42310), (379, 42376), (440, 42535), (469, 42583), (475, 42601), (498, 42649), (550, 42793), (571, 42853), (603, 42958), (637, 43045),

Gene: HighStump\_49 Start: 41544, Stop: 42899, Start Num: 82

Candidate Starts for HighStump\_49:

(Start: 82 @41544 has 255 MA's), (98, 41595), (108, 41628), (168, 41757), (170, 41760), (Start: 180 @41775 has 5 MA's), (235, 41871), (251, 41910), (269, 41940), (284, 41976), (333, 42087), (345, 42117), (347, 42120), (379, 42186), (440, 42345), (469, 42393), (475, 42411), (498, 42459), (550, 42603), (571, 42663), (603, 42768), (637, 42855),

Gene: Highbury\_36 Start: 31516, Stop: 32373, Start Num: 198

Candidate Starts for Highbury\_36:

(Start: 198 @31516 has 122 MA's), (220, 31555), (232, 31585), (242, 31606), (257, 31642), (275, 31672), (309, 31747), (334, 31795), (336, 31798), (345, 31822), (347, 31825), (356, 31840), (426, 32011), (487, 32125), (495, 32140), (498, 32146), (575, 32188), (576, 32191), (601, 32245), (624, 32323), (641, 32356),

Gene: Hilltopfarm\_32 Start: 29119, Stop: 30342, Start Num: 84

Candidate Starts for Hilltopfarm\_32:

(Start: 84 @29119 has 24 MA's), (95, 29143), (113, 29215), (122, 29239), (133, 29257), (Start: 138 @29266 has 44 MA's), (154, 29299), (170, 29329), (235, 29434), (251, 29473), (255, 29482), (270, 29506), (284, 29539), (309, 29587), (314, 29599), (342, 29671), (367, 29728), (405, 29815), (440, 29902), (447, 29914), (469, 29941), (475, 29959), (476, 29962), (481, 29971), (534, 30061), (593, 30166), (616, 30253), (620, 30262),

Gene: Hlubikazi\_32 Start: 28332, Stop: 29348, Start Num: 149

Candidate Starts for Hlubikazi\_32:

(58, 28014), (59, 28020), (60, 28032), (Start: 63 @28044 has 1 MA's), (64, 28056), (Start: 149 @28332 has 225 MA's), (Start: 221 @28464 has 188 MA's), (229, 28485), (239, 28506), (251, 28536), (259, 28548), (Start: 279 @28590 has 1 MA's), (292, 28614), (302, 28629), (306, 28641), (312, 28656), (365, 28752), (422, 28863), (433, 28884), (454, 28923), (462, 28935), (484, 28983), (497, 29010), (511, 29034), (520, 29049), (559, 29157), (578, 29205), (604, 29274), (614, 29304),

Gene: Hocus\_48 Start: 41406, Stop: 42761, Start Num: 82

Candidate Starts for Hocus\_48:

(Start: 82 @41406 has 255 MA's), (98, 41457), (108, 41490), (168, 41619), (170, 41622), (Start: 180 @41637 has 5 MA's), (235, 41733), (251, 41772), (269, 41802), (284, 41838), (333, 41949), (345, 41979), (347, 41982), (379, 42048), (440, 42207), (469, 42255), (475, 42273), (498, 42321), (550, 42465), (571, 42525), (603, 42630), (637, 42717),

Gene: HokkenD\_42 Start: 40844, Stop: 41716, Start Num: 89

Candidate Starts for HokkenD\_42:

(Start: 89 @40844 has 30 MA's), (Start: 97 @40871 has 1 MA's), (115, 40931), (Start: 138 @40979 has 44 MA's), (174, 41045), (189, 41066), (206, 41087), (233, 41141), (274, 41222), (403, 41501), (405, 41504), (413, 41528), (424, 41564), (432, 41579), (438, 41591), (444, 41612),

Gene: Holli\_10 Start: 5677, Stop: 6654, Start Num: 166

Candidate Starts for Holli\_10:

(Start: 164 @5674 has 109 MA's), (Start: 166 @5677 has 14 MA's), (178, 5701), (Start: 190 @5722 has 1 MA's), (Start: 192 @5725 has 2 MA's), (330, 5974), (365, 6031), (416, 6115), (422, 6136), (437,

6163), (474, 6220), (551, 6370), (598, 6481), (601, 6493), (604, 6505), (627, 6571),

Gene: Holt\_36 Start: 31135, Stop: 31992, Start Num: 198

Candidate Starts for Holt\_36:

(Start: 198 @31135 has 122 MA's), (220, 31174), (232, 31204), (242, 31225), (257, 31261), (275, 31291), (309, 31366), (334, 31414), (336, 31417), (345, 31441), (347, 31444), (356, 31459), (426, 31630), (487, 31744), (495, 31759), (498, 31765), (575, 31807), (576, 31810), (601, 31864), (624, 31942), (641, 31975),

Gene: Homines\_10 Start: 6038, Stop: 7006, Start Num: 163

Candidate Starts for Homines\_10:

(Start: 163 @6038 has 304 MA's), (Start: 180 @6071 has 5 MA's), (Start: 190 @6089 has 1 MA's), (Start: 192 @6092 has 2 MA's), (335, 6359), (365, 6410), (368, 6422), (415, 6497), (442, 6560), (450, 6572), (462, 6593), (469, 6605), (474, 6623), (484, 6641), (496, 6665), (520, 6704), (551, 6785), (559, 6809), (561, 6812), (563, 6815), (567, 6824), (600, 6911), (629, 6998),

Gene: Homura\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for Homura\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: Hookmount\_11 Start: 6052, Stop: 7017, Start Num: 153

Candidate Starts for Hookmount\_11:

(Start: 153 @6052 has 92 MA's), (Start: 180 @6097 has 5 MA's), (Start: 192 @6118 has 2 MA's), (256, 6238), (267, 6253), (Start: 296 @6292 has 2 MA's), (330, 6376), (365, 6433), (371, 6448), (422, 6529), (430, 6544), (439, 6562), (469, 6613), (474, 6631), (497, 6676), (538, 6772), (561, 6835), (575, 6874), (597, 6925),

Gene: Hoonter\_37 Start: 31848, Stop: 32705, Start Num: 198

Candidate Starts for Hoonter\_37:

(Start: 198 @31848 has 122 MA's), (220, 31887), (232, 31917), (242, 31938), (257, 31974), (275, 32004), (309, 32079), (334, 32127), (336, 32130), (345, 32154), (347, 32157), (356, 32172), (426, 32343), (487, 32457), (495, 32472), (498, 32478), (575, 32520), (576, 32523), (601, 32577), (624, 32655), (641, 32688),

Gene: Hope\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Hope\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: Hope4ever\_10 Start: 6140, Stop: 7108, Start Num: 163

Candidate Starts for Hope4ever\_10:

(Start: 163 @6140 has 304 MA's), (Start: 180 @6173 has 5 MA's), (Start: 190 @6191 has 1 MA's), (Start: 192 @6194 has 2 MA's), (335, 6461), (365, 6512), (368, 6524), (415, 6599), (442, 6662), (450, 6674), (462, 6695), (469, 6707), (474, 6725), (484, 6743), (496, 6767), (520, 6806), (551, 6887), (559, 6911), (561, 6914), (563, 6917), (567, 6926), (568, 6929), (614, 7058), (629, 7100),

Gene: Hohey\_37 Start: 32135, Stop: 32992, Start Num: 198

Candidate Starts for Hohey\_37:

(Start: 198 @32135 has 122 MA's), (220, 32174), (232, 32204), (242, 32225), (257, 32261), (275, 32291), (309, 32366), (334, 32414), (336, 32417), (345, 32441), (347, 32444), (356, 32459), (426, 32630), (487, 32744), (495, 32759), (498, 32765), (575, 32807), (576, 32810), (601, 32864), (624, 32942), (641, 32975),

Gene: Horchata\_49 Start: 41709, Stop: 43064, Start Num: 82

Candidate Starts for Horchata\_49:

(Start: 82 @41709 has 255 MA's), (98, 41760), (108, 41793), (168, 41922), (170, 41925), (Start: 180 @41940 has 5 MA's), (235, 42036), (251, 42075), (269, 42105), (284, 42141), (333, 42252), (345, 42282), (347, 42285), (379, 42351), (440, 42510), (469, 42558), (475, 42576), (498, 42624), (550, 42768), (571, 42828), (603, 42933), (637, 43020),

Gene: Hosp\_040 Start: 38571, Stop: 39566, Start Num: 162

Candidate Starts for Hosp\_040:

(Start: 162 @38571 has 2 MA's), (178, 38601), (Start: 190 @38622 has 1 MA's), (Start: 192 @38625 has 2 MA's), (241, 38712), (273, 38760), (299, 38793), (325, 38862), (362, 38925), (365, 38931), (382, 38967), (416, 39015), (474, 39126), (524, 39213), (525, 39216), (551, 39276), (557, 39288), (562, 39300), (565, 39306), (604, 39411), (650, 39543),

Gene: Hotshotbaby7\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Hotshotbaby7\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (469, 26011), (476, 26032), (495, 26071), (498, 26077),

Gene: Houdini22\_10 Start: 5885, Stop: 6865, Start Num: 164

Candidate Starts for Houdini22\_10:

(Start: 164 @5885 has 109 MA's), (Start: 166 @5888 has 14 MA's), (178, 5912), (Start: 190 @5933 has 1 MA's), (Start: 192 @5936 has 2 MA's), (330, 6185), (365, 6242), (416, 6326), (422, 6347), (437, 6374), (464, 6404), (474, 6431), (551, 6581), (598, 6692), (601, 6704), (604, 6716), (627, 6782),

Gene: HuffyPuff\_34 Start: 31842, Stop: 32699, Start Num: 198

Candidate Starts for HuffyPuff\_34:

(Start: 198 @31842 has 122 MA's), (220, 31881), (232, 31911), (242, 31932), (257, 31968), (275, 31998), (309, 32073), (334, 32121), (336, 32124), (345, 32148), (347, 32151), (356, 32166), (426, 32337), (481, 32436), (487, 32451), (495, 32466), (498, 32472), (575, 32514), (576, 32517), (601, 32571), (624, 32649), (641, 32682),

Gene: Hughesyang\_47 Start: 42504, Stop: 43376, Start Num: 89

Candidate Starts for Hughesyang\_47:

(Start: 89 @42504 has 30 MA's), (Start: 97 @42531 has 1 MA's), (115, 42591), (Start: 138 @42639 has 44 MA's), (174, 42705), (189, 42726), (206, 42747), (233, 42801), (274, 42882), (403, 43161), (405, 43164), (413, 43188), (424, 43224), (432, 43239), (438, 43251), (444, 43272),

Gene: HuhtaEnerson15\_8 Start: 5355, Stop: 6164, Start Num: 221

Candidate Starts for HuhtaEnerson15\_8:

(Start: 221 @5355 has 188 MA's), (251, 5418), (255, 5427), (284, 5484), (309, 5532), (339, 5613), (420, 5802), (440, 5844), (475, 5901), (495, 5943), (645, 6150),

Gene: Hurricane\_32 Start: 27396, Stop: 28184, Start Num: 221

Candidate Starts for Hurricane\_32:

(54, 26904), (78, 27066), (165, 27318), (183, 27351), (Start: 221 @27396 has 188 MA's), (242, 27441), (258, 27477), (287, 27534), (293, 27543), (309, 27579), (331, 27633), (343, 27657), (416,



27798), (447, 27861), (469, 27903), (476, 27924), (480, 27930), (487, 27948), (575, 27978), (604, 28047), (625, 28119), (640, 28149),

Gene: HyRo\_237 Start: 143758, Stop: 144786, Start Num: 142

Candidate Starts for HyRo\_237:

(Start: 142 @143758 has 200 MA's), (Start: 163 @143788 has 304 MA's), (Start: 192 @143842 has 2 MA's), (229, 143905), (239, 143926), (Start: 279 @144010 has 1 MA's), (302, 144052), (306, 144064), (312, 144079), (344, 144148), (365, 144175), (393, 144229), (411, 144274), (414, 144277), (449, 144355), (462, 144376), (520, 144487), (554, 144577), (559, 144595), (590, 144667), (601, 144700),

Gene: Hyperbowlee\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for Hyperbowlee\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: I3\_262 Start: 145549, Stop: 146577, Start Num: 142

Candidate Starts for I3\_262:

(Start: 142 @145549 has 200 MA's), (Start: 163 @145579 has 304 MA's), (170, 145591), (Start: 192 @145633 has 2 MA's), (229, 145696), (239, 145717), (Start: 279 @145801 has 1 MA's), (302, 145843), (306, 145855), (312, 145870), (344, 145939), (365, 145966), (393, 146020), (411, 146065), (414, 146068), (449, 146146), (462, 146167), (520, 146278), (554, 146368), (559, 146386), (601, 146491),

Gene: ICleared\_10 Start: 5884, Stop: 6861, Start Num: 166

Candidate Starts for ICleared\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: IHOP\_35 Start: 32035, Stop: 32892, Start Num: 198

Candidate Starts for IHOP\_35:

(Start: 198 @32035 has 122 MA's), (220, 32074), (232, 32104), (242, 32125), (257, 32161), (275, 32191), (309, 32266), (334, 32314), (336, 32317), (345, 32341), (347, 32344), (356, 32359), (426, 32530), (487, 32644), (495, 32659), (498, 32665), (575, 32707), (576, 32710), (601, 32764), (624, 32842), (641, 32875),

Gene: ILeeKay\_12 Start: 6192, Stop: 7160, Start Num: 163

Candidate Starts for ILeeKay\_12:

(Start: 163 @6192 has 304 MA's), (Start: 180 @6225 has 5 MA's), (Start: 190 @6243 has 1 MA's), (Start: 192 @6246 has 2 MA's), (335, 6513), (365, 6564), (368, 6576), (415, 6651), (442, 6714), (462, 6747), (469, 6759), (474, 6777), (484, 6795), (496, 6819), (520, 6858), (551, 6939), (559, 6963), (561, 6966), (563, 6969), (567, 6978), (600, 7065), (629, 7152),

Gene: IPhane7\_38 Start: 31794, Stop: 32765, Start Num: 169

Candidate Starts for IPhane7\_38:

(Start: 169 @31794 has 13 MA's), (183, 31818), (191, 31833), (266, 31971), (281, 31998), (300, 32016), (305, 32028), (308, 32037), (325, 32082), (330, 32094), (346, 32121), (365, 32148), (368, 32160), (397, 32205), (410, 32232), (423, 32262), (428, 32271), (430, 32274), (475, 32361), (485, 32376), (551, 32529), (552, 32532), (574, 32592), (578, 32604), (581, 32613), (598, 32649), (602, 32664), (618, 32703), (632, 32736),

Gene: lbOuu\_33 Start: 28383, Stop: 29102, Start Num: 302

Candidate Starts for lbOuu\_33:

(74, 27855), (75, 27858), (83, 27906), (126, 28041), (132, 28050), (Start: 149 @28086 has 225 MA's), (Start: 221 @28218 has 188 MA's), (229, 28239), (239, 28260), (251, 28290), (259, 28302), (Start: 279 @28344 has 1 MA's), (292, 28368), (302, 28383), (306, 28395), (312, 28410), (365, 28506), (423, 28620), (433, 28638), (454, 28677), (469, 28701), (484, 28737), (497, 28764), (511, 28788), (520, 28803), (559, 28911), (578, 28959), (604, 29028), (614, 29058),

Gene: lbhubesi\_31 Start: 27464, Stop: 28465, Start Num: 149

Candidate Starts for lbhubesi\_31:

(107, 27365), (Start: 149 @27464 has 225 MA's), (Start: 163 @27485 has 304 MA's), (170, 27497), (Start: 192 @27539 has 2 MA's), (210, 27572), (229, 27602), (239, 27623), (Start: 279 @27707 has 1 MA's), (292, 27731), (302, 27746), (306, 27758), (365, 27869), (423, 27983), (433, 28001), (454, 28040), (469, 28064), (484, 28100), (497, 28127), (520, 28166), (538, 28214), (559, 28274), (578, 28322), (585, 28334), (601, 28379), (604, 28391), (614, 28421),

Gene: lcee\_34 Start: 31516, Stop: 32373, Start Num: 198

Candidate Starts for lcee\_34:

(Start: 198 @31516 has 122 MA's), (220, 31555), (232, 31585), (242, 31606), (257, 31642), (275, 31672), (309, 31747), (334, 31795), (336, 31798), (345, 31822), (347, 31825), (356, 31840), (426, 32011), (487, 32125), (495, 32140), (498, 32146), (575, 32188), (576, 32191), (601, 32245), (624, 32323), (641, 32356),

Gene: lceman\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for lceman\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: lchabod\_10 Start: 5749, Stop: 6717, Start Num: 163

Candidate Starts for lchabod\_10:

(Start: 163 @5749 has 304 MA's), (Start: 180 @5782 has 5 MA's), (Start: 190 @5800 has 1 MA's), (Start: 192 @5803 has 2 MA's), (335, 6070), (365, 6121), (368, 6133), (415, 6208), (462, 6304), (474, 6334), (520, 6415), (551, 6496), (559, 6520), (561, 6523), (563, 6526), (567, 6535), (600, 6622), (629, 6709),

Gene: IdentityCrisis\_26 Start: 21810, Stop: 22982, Start Num: 103

Candidate Starts for IdentityCrisis\_26:

(41, 21432), (Start: 82 @21741 has 255 MA's), (Start: 103 @21810 has 3 MA's), (123, 21864), (125, 21867), (168, 21951), (Start: 198 @21996 has 122 MA's), (235, 22071), (245, 22092), (270, 22143), (284, 22176), (305, 22215), (309, 22227), (333, 22281), (359, 22332), (379, 22377), (388, 22392), (417, 22473), (434, 22512), (440, 22527), (447, 22539), (469, 22566), (510, 22653), (527, 22671), (553, 22734), (571, 22755), (578, 22779), (598, 22827), (620, 22902),

Gene: ldergollasper\_67 Start: 43419, Stop: 44459, Start Num: 148

Candidate Starts for ldergollasper\_67:

(Start: 148 @43419 has 26 MA's), (Start: 192 @43494 has 2 MA's), (229, 43575), (232, 43581), (239, 43596), (278, 43677), (Start: 279 @43680 has 1 MA's), (306, 43734), (312, 43749), (365, 43845), (385, 43884), (397, 43914), (411, 43944), (414, 43947), (425, 43980), (462, 44046), (484, 44094), (497, 44121), (520, 44160), (589, 44334), (604, 44385),

Gene: Idleandcovert\_10 Start: 5739, Stop: 6479, Start Num: 285

Candidate Starts for Idleandcovert\_10:

(209, 5622), (Start: 285 @5739 has 17 MA's), (330, 5826), (365, 5883), (368, 5895), (371, 5898), (385, 5922), (400, 5937), (408, 5955), (422, 5985), (425, 5991), (430, 6000), (439, 6018), (469, 6069), (474, 6087), (512, 6159), (535, 6201), (538, 6228), (549, 6255), (559, 6288), (561, 6291), (575, 6330), (631, 6471),

Gene: IgnatiusPatJac\_9 Start: 6018, Stop: 6986, Start Num: 163

Candidate Starts for IgnatiusPatJac\_9:

(Start: 163 @6018 has 304 MA's), (Start: 180 @6051 has 5 MA's), (Start: 190 @6069 has 1 MA's), (Start: 192 @6072 has 2 MA's), (335, 6339), (365, 6390), (368, 6402), (415, 6477), (442, 6540), (450, 6552), (462, 6573), (469, 6585), (474, 6603), (484, 6621), (520, 6684), (551, 6765), (559, 6789), (561, 6792), (563, 6795), (567, 6804), (600, 6891), (614, 6936), (629, 6978),

Gene: IkeLoa\_246 Start: 144139, Stop: 145167, Start Num: 142

Candidate Starts for IkeLoa\_246:

(Start: 142 @144139 has 200 MA's), (Start: 163 @144169 has 304 MA's), (170, 144181), (Start: 192 @144223 has 2 MA's), (229, 144286), (239, 144307), (Start: 279 @144391 has 1 MA's), (302, 144433), (306, 144445), (312, 144460), (344, 144529), (365, 144556), (393, 144610), (411, 144655), (414, 144658), (449, 144736), (462, 144757), (520, 144868), (554, 144958), (559, 144976), (590, 145048), (601, 145081),

Gene: Illumine\_31 Start: 26470, Stop: 27342, Start Num: 221

Candidate Starts for Illumine\_31:

(195, 26443), (Start: 221 @26470 has 188 MA's), (Start: 227 @26482 has 1 MA's), (258, 26551), (275, 26578), (287, 26608), (293, 26617), (309, 26653), (313, 26662), (323, 26695), (331, 26713), (379, 26803), (447, 26938), (469, 26965), (476, 26986), (487, 27010), (547, 27112), (578, 27163), (598, 27199), (604, 27223), (640, 27322), (643, 27331),

Gene: ImtiyazSitla\_49 Start: 41392, Stop: 42747, Start Num: 82

Candidate Starts for ImtiyazSitla\_49:

(Start: 82 @41392 has 255 MA's), (98, 41443), (108, 41476), (168, 41605), (170, 41608), (Start: 180 @41623 has 5 MA's), (235, 41719), (251, 41758), (269, 41788), (284, 41824), (333, 41935), (345, 41965), (347, 41968), (379, 42034), (440, 42193), (469, 42241), (475, 42259), (498, 42307), (550, 42451), (571, 42511), (603, 42616), (637, 42703),

Gene: Imvubu\_41 Start: 39360, Stop: 40367, Start Num: 159

Candidate Starts for Imvubu\_41:

(Start: 159 @39360 has 1 MA's), (Start: 192 @39417 has 2 MA's), (325, 39654), (362, 39717), (365, 39723), (382, 39759), (401, 39786), (443, 39870), (474, 39918), (533, 40014), (557, 40080), (560, 40089), (562, 40092), (604, 40203), (607, 40212), (650, 40335),

Gene: Inca\_34 Start: 30537, Stop: 31394, Start Num: 198

Candidate Starts for Inca\_34:

(Start: 198 @30537 has 122 MA's), (220, 30576), (232, 30606), (242, 30627), (257, 30663), (275, 30693), (309, 30768), (334, 30816), (336, 30819), (345, 30843), (347, 30846), (356, 30861), (426, 31032), (481, 31131), (487, 31146), (495, 31161), (498, 31167), (575, 31209), (576, 31212), (601, 31266), (624, 31344), (641, 31377),

Gene: Inchworm\_50 Start: 41830, Stop: 43185, Start Num: 82

Candidate Starts for Inchworm\_50:

(Start: 82 @41830 has 255 MA's), (98, 41881), (108, 41914), (168, 42043), (170, 42046), (Start: 180 @42061 has 5 MA's), (235, 42157), (251, 42196), (269, 42226), (284, 42262), (333, 42373), (345, 42403), (347, 42406), (379, 42472), (440, 42631), (469, 42679), (475, 42697), (498, 42745), (550, 42889), (571, 42949), (603, 43054), (637, 43141),

Gene: Indlulamithi\_36 Start: 31658, Stop: 32464, Start Num: 268

Candidate Starts for Indlulamithi\_36:

(226, 31580), (Start: 268 @31658 has 1 MA's), (308, 31724), (365, 31844), (382, 31880), (387, 31886), (411, 31925), (423, 31949), (451, 31988), (458, 32009), (490, 32078), (538, 32165), (552, 32204), (556, 32210), (568, 32246), (578, 32276), (635, 32429), (636, 32432),

Gene: InigoMontoya\_256 Start: 144457, Stop: 145485, Start Num: 142

Candidate Starts for InigoMontoya\_256:

(Start: 142 @144457 has 200 MA's), (Start: 163 @144487 has 304 MA's), (170, 144499), (Start: 192 @144541 has 2 MA's), (229, 144604), (239, 144625), (Start: 279 @144709 has 1 MA's), (302, 144751), (306, 144763), (312, 144778), (344, 144847), (365, 144874), (393, 144928), (411, 144973), (414, 144976), (449, 145054), (462, 145075), (520, 145186), (554, 145276), (559, 145294), (590, 145366), (601, 145399),

Gene: Inky\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for Inky\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: InterFolia\_254 Start: 145203, Stop: 146231, Start Num: 142

Candidate Starts for InterFolia\_254:

(Start: 142 @145203 has 200 MA's), (Start: 163 @145233 has 304 MA's), (170, 145245), (Start: 192 @145287 has 2 MA's), (229, 145350), (239, 145371), (Start: 279 @145455 has 1 MA's), (302, 145497), (306, 145509), (312, 145524), (344, 145593), (365, 145620), (393, 145674), (411, 145719), (414, 145722), (449, 145800), (462, 145821), (520, 145932), (554, 146022), (559, 146040), (590, 146112), (601, 146145),

Gene: Inventum\_31 Start: 28184, Stop: 29200, Start Num: 149

Candidate Starts for Inventum\_31:

(74, 27953), (75, 27956), (83, 28004), (126, 28139), (132, 28148), (Start: 149 @28184 has 225 MA's), (Start: 221 @28316 has 188 MA's), (229, 28337), (239, 28358), (251, 28388), (259, 28400), (Start: 279 @28442 has 1 MA's), (306, 28493), (365, 28604), (423, 28718), (433, 28736), (454, 28775), (469, 28799), (484, 28835), (497, 28862), (520, 28901), (538, 28949), (559, 29009), (578, 29057), (585, 29069), (601, 29114), (604, 29126), (614, 29156),

Gene: Inverness\_49 Start: 41718, Stop: 43073, Start Num: 82

Candidate Starts for Inverness\_49:

(Start: 82 @41718 has 255 MA's), (98, 41769), (108, 41802), (168, 41931), (170, 41934), (Start: 180 @41949 has 5 MA's), (235, 42045), (251, 42084), (269, 42114), (284, 42150), (333, 42261), (345, 42291), (347, 42294), (379, 42360), (440, 42519), (469, 42567), (475, 42585), (498, 42633), (550, 42777), (571, 42837), (603, 42942), (620, 42996), (637, 43029),

Gene: InvictusManeo\_30 Start: 27231, Stop: 27992, Start Num: 221

Candidate Starts for InvictusManeo\_30:

(183, 27183), (Start: 221 @27231 has 188 MA's), (Start: 227 @27243 has 1 MA's), (228, 27246), (229, 27249), (242, 27276), (258, 27312), (289, 27372), (293, 27378), (307, 27408), (309, 27414), (313, 27423), (323, 27456), (343, 27498), (345, 27501), (352, 27513), (370, 27549), (379, 27564), (395, 27600), (447, 27699), (469, 27726), (476, 27747), (578, 27810), (595, 27834), (601, 27858), (620, 27927), (640, 27972), (643, 27981),

Gene: Iota\_249 Start: 144169, Stop: 145197, Start Num: 142

Candidate Starts for Iota\_249:

(Start: 142 @144169 has 200 MA's), (Start: 163 @144199 has 304 MA's), (170, 144211), (Start: 192 @144253 has 2 MA's), (229, 144316), (239, 144337), (Start: 279 @144421 has 1 MA's), (302, 144463), (306, 144475), (312, 144490), (344, 144559), (365, 144586), (393, 144640), (411, 144685), (414, 144688), (449, 144766), (462, 144787), (520, 144898), (554, 144988), (559, 145006), (590, 145078), (601, 145111),

Gene: Iracema64\_10 Start: 5858, Stop: 6838, Start Num: 164

Candidate Starts for Iracema64\_10:

(Start: 164 @5858 has 109 MA's), (178, 5885), (Start: 190 @5906 has 1 MA's), (Start: 192 @5909 has 2 MA's), (330, 6158), (365, 6215), (368, 6227), (401, 6278), (416, 6299), (422, 6320), (437, 6347), (461, 6374), (474, 6404), (551, 6554), (601, 6677), (604, 6689), (627, 6755),

Gene: Iridoclysis\_49 Start: 41689, Stop: 43044, Start Num: 82

Candidate Starts for Iridoclysis\_49:

(Start: 82 @41689 has 255 MA's), (98, 41740), (108, 41773), (168, 41902), (170, 41905), (Start: 180 @41920 has 5 MA's), (235, 42016), (251, 42055), (269, 42085), (284, 42121), (333, 42232), (345, 42262), (347, 42265), (379, 42331), (440, 42490), (469, 42538), (475, 42556), (498, 42604), (550, 42748), (571, 42808), (603, 42913), (637, 43000),

Gene: IrishSherpFalk\_33 Start: 29112, Stop: 30113, Start Num: 149

Candidate Starts for IrishSherpFalk\_33:

(107, 29013), (137, 29085), (Start: 149 @29112 has 225 MA's), (Start: 163 @29133 has 304 MA's), (170, 29145), (Start: 192 @29187 has 2 MA's), (210, 29220), (229, 29250), (239, 29271), (Start: 279 @29355 has 1 MA's), (292, 29379), (302, 29394), (306, 29406), (365, 29517), (422, 29628), (433, 29649), (454, 29688), (484, 29748), (497, 29775), (520, 29814), (559, 29922), (567, 29937), (578, 29970), (604, 30039), (614, 30069),

Gene: IronMan\_13 Start: 8151, Stop: 9137, Start Num: 161

Candidate Starts for IronMan\_13:

(Start: 161 @8151 has 8 MA's), (178, 8181), (Start: 192 @8205 has 2 MA's), (273, 8340), (362, 8505), (365, 8511), (409, 8586), (416, 8595), (430, 8631), (474, 8706), (509, 8766), (533, 8802), (551, 8856), (562, 8880), (565, 8886), (604, 8991), (607, 9000),

Gene: IsaacEli\_50 Start: 41848, Stop: 43203, Start Num: 82

Candidate Starts for IsaacEli\_50:

(Start: 82 @41848 has 255 MA's), (98, 41899), (108, 41932), (168, 42061), (170, 42064), (Start: 180 @42079 has 5 MA's), (235, 42175), (251, 42214), (269, 42244), (284, 42280), (333, 42391), (345, 42421), (347, 42424), (379, 42490), (440, 42649), (469, 42697), (475, 42715), (498, 42763), (550, 42907), (571, 42967), (603, 43072), (637, 43159),

Gene: Isca\_10 Start: 5611, Stop: 6351, Start Num: 285

Candidate Starts for Isca\_10:

(Start: 285 @5611 has 17 MA's), (306, 5635), (330, 5698), (365, 5755), (368, 5767), (371, 5770), (385, 5794), (400, 5809), (422, 5857), (425, 5863), (439, 5890), (474, 5959), (512, 6031), (535, 6073), (538, 6100), (549, 6127), (559, 6160), (561, 6163), (575, 6202), (598, 6256), (631, 6343),

Gene: Island3\_30 Start: 26243, Stop: 27409, Start Num: 102

Candidate Starts for Island3\_30:

(31, 25709), (36, 25757), (41, 25862), (Start: 102 @26243 has 88 MA's), (106, 26252), (122, 26297), (123, 26300), (168, 26387), (Start: 198 @26432 has 122 MA's), (235, 26507), (245, 26528), (251, 26546), (284, 26612), (305, 26651), (309, 26663), (333, 26717), (345, 26747), (359, 26768), (379,

26813), (417, 26909), (434, 26948), (440, 26963), (447, 26975), (469, 27002), (510, 27089), (527, 27107), (530, 27113), (553, 27161), (578, 27206), (598, 27254), (620, 27329),

Gene: Issimir\_249 Start: 144544, Stop: 145572, Start Num: 142

Candidate Starts for Issimir\_249:

(Start: 142 @144544 has 200 MA's), (Start: 163 @144574 has 304 MA's), (170, 144586), (Start: 192 @144628 has 2 MA's), (229, 144691), (239, 144712), (Start: 279 @144796 has 1 MA's), (302, 144838), (306, 144850), (312, 144865), (344, 144934), (365, 144961), (393, 145015), (411, 145060), (414, 145063), (449, 145141), (462, 145162), (520, 145273), (554, 145363), (559, 145381), (590, 145453), (601, 145486),

Gene: Itos\_28 Start: 26303, Stop: 27274, Start Num: 102

Candidate Starts for Itos\_28:

(Start: 102 @26303 has 88 MA's), (120, 26357), (Start: 198 @26507 has 122 MA's), (203, 26516), (208, 26522), (Start: 227 @26555 has 1 MA's), (228, 26558), (232, 26567), (242, 26588), (275, 26651), (293, 26678), (305, 26702), (345, 26783), (352, 26795), (386, 26858), (392, 26873), (415, 26933), (419, 26948), (469, 27029), (475, 27047), (476, 27050), (478, 27053), (579, 27104), (601, 27149), (613, 27191), (628, 27233),

Gene: Iwokeuplikedis\_11 Start: 6191, Stop: 7168, Start Num: 163

Candidate Starts for Iwokeuplikedis\_11:

(147, 6170), (Start: 163 @6191 has 304 MA's), (Start: 192 @6245 has 2 MA's), (234, 6302), (312, 6434), (325, 6470), (330, 6482), (365, 6539), (382, 6575), (415, 6623), (430, 6662), (474, 6749), (497, 6794), (507, 6812), (528, 6854), (538, 6902), (549, 6929), (554, 6944), (559, 6962), (561, 6965), (597, 7055),

Gene: Izajani\_248 Start: 145019, Stop: 146017, Start Num: 163

Candidate Starts for Izajani\_248:

(Start: 142 @144989 has 200 MA's), (Start: 163 @145019 has 304 MA's), (170, 145031), (Start: 192 @145073 has 2 MA's), (229, 145136), (239, 145157), (Start: 279 @145241 has 1 MA's), (302, 145283), (306, 145295), (312, 145310), (344, 145379), (365, 145406), (393, 145460), (411, 145505), (414, 145508), (449, 145586), (462, 145607), (520, 145718), (554, 145808), (559, 145826), (590, 145898), (601, 145931),

Gene: JAWS\_31 Start: 26448, Stop: 27320, Start Num: 221

Candidate Starts for JAWS\_31:

(76, 26118), (151, 26346), (195, 26421), (Start: 221 @26448 has 188 MA's), (Start: 227 @26460 has 1 MA's), (258, 26529), (275, 26556), (287, 26586), (293, 26595), (309, 26631), (313, 26640), (323, 26673), (331, 26691), (347, 26721), (379, 26781), (447, 26916), (469, 26943), (476, 26964), (487, 26988), (578, 27141), (598, 27177), (640, 27300), (643, 27309),

Gene: JC27\_12 Start: 6644, Stop: 7612, Start Num: 163

Candidate Starts for JC27\_12:

(Start: 163 @6644 has 304 MA's), (Start: 180 @6677 has 5 MA's), (Start: 190 @6695 has 1 MA's), (Start: 192 @6698 has 2 MA's), (335, 6965), (365, 7016), (368, 7028), (415, 7103), (442, 7166), (450, 7178), (462, 7199), (469, 7211), (474, 7229), (484, 7247), (496, 7271), (520, 7310), (551, 7391), (559, 7415), (561, 7418), (563, 7421), (567, 7430), (600, 7517), (614, 7562), (629, 7604),

Gene: JDog\_48 Start: 41426, Stop: 42781, Start Num: 82

Candidate Starts for JDog\_48:

(Start: 82 @41426 has 255 MA's), (98, 41477), (108, 41510), (170, 41642), (Start: 180 @41657 has 5 MA's), (235, 41753), (251, 41792), (269, 41822), (284, 41858), (333, 41969), (345, 41999), (347, 42002), (379, 42068), (440, 42227), (469, 42275), (475, 42293), (498, 42341), (550, 42485), (571,

42545), (603, 42650), (620, 42704), (637, 42737),

Gene: JF1\_32 Start: 27629, Stop: 28420, Start Num: 200

Candidate Starts for JF1\_32:

(Start: 200 @27629 has 20 MA's), (Start: 227 @27662 has 1 MA's), (242, 27695), (251, 27719), (264, 27740), (287, 27788), (293, 27797), (309, 27833), (350, 27914), (447, 28121), (469, 28148), (471, 28154), (476, 28169), (487, 28193), (576, 28217), (593, 28238), (601, 28271), (604, 28283), (625, 28355),

Gene: JF2\_10 Start: 5376, Stop: 6116, Start Num: 285

Candidate Starts for JF2\_10:

(Start: 285 @5376 has 17 MA's), (330, 5463), (365, 5520), (368, 5532), (371, 5535), (385, 5559), (400, 5574), (422, 5622), (425, 5628), (439, 5655), (474, 5724), (512, 5796), (535, 5838), (538, 5865), (549, 5892), (559, 5925), (561, 5928), (575, 5967), (598, 6021), (631, 6108),

Gene: JF4\_10 Start: 5376, Stop: 6116, Start Num: 285

Candidate Starts for JF4\_10:

(Start: 285 @5376 has 17 MA's), (330, 5463), (365, 5520), (368, 5532), (371, 5535), (385, 5559), (400, 5574), (422, 5622), (425, 5628), (439, 5655), (474, 5724), (512, 5796), (535, 5838), (538, 5865), (549, 5892), (559, 5925), (561, 5928), (575, 5967), (598, 6021), (631, 6108),

Gene: JHC117\_12 Start: 5960, Stop: 6925, Start Num: 153

Candidate Starts for JHC117\_12:

(Start: 153 @5960 has 92 MA's), (Start: 180 @6005 has 5 MA's), (Start: 192 @6026 has 2 MA's), (256, 6146), (365, 6341), (371, 6356), (422, 6437), (430, 6452), (439, 6470), (469, 6521), (474, 6539), (497, 6584), (538, 6680), (561, 6743), (575, 6782), (597, 6833),

Gene: JPickles\_250 Start: 143594, Stop: 144622, Start Num: 142

Candidate Starts for JPickles\_250:

(Start: 142 @143594 has 200 MA's), (Start: 163 @143624 has 304 MA's), (170, 143636), (Start: 192 @143678 has 2 MA's), (229, 143741), (239, 143762), (Start: 279 @143846 has 1 MA's), (302, 143888), (306, 143900), (312, 143915), (344, 143984), (365, 144011), (393, 144065), (411, 144110), (414, 144113), (449, 144191), (462, 144212), (520, 144323), (554, 144413), (559, 144431), (590, 144503), (601, 144536),

Gene: Jaan\_14 Start: 8541, Stop: 9527, Start Num: 161

Candidate Starts for Jaan\_14:

(Start: 161 @8541 has 8 MA's), (178, 8571), (Start: 192 @8595 has 2 MA's), (273, 8730), (365, 8901), (409, 8976), (416, 8985), (474, 9096), (509, 9156), (533, 9192), (551, 9246), (562, 9270), (565, 9276), (581, 9321), (604, 9381), (607, 9390),

Gene: Jabbawokkie\_39 Start: 28197, Stop: 29270, Start Num: 149

Candidate Starts for Jabbawokkie\_39:

(Start: 149 @28197 has 225 MA's), (Start: 166 @28224 has 14 MA's), (182, 28254), (235, 28347), (239, 28356), (244, 28365), (274, 28422), (297, 28467), (311, 28500), (314, 28509), (335, 28560), (358, 28602), (367, 28626), (369, 28635), (377, 28647), (391, 28677), (403, 28707), (404, 28710), (422, 28767), (423, 28770), (431, 28785), (437, 28797), (442, 28806), (455, 28830), (470, 28854), (512, 28935), (538, 29010), (579, 29121), (598, 29163), (599, 29166), (600, 29172), (604, 29187), (627, 29253),

Gene: Jabiru\_8 Start: 5180, Stop: 5989, Start Num: 221

Candidate Starts for Jabiru\_8:

(Start: 221 @5180 has 188 MA's), (245, 5225), (284, 5309), (293, 5324), (309, 5357), (420, 5627), (440, 5669), (469, 5708), (475, 5726), (489, 5756), (522, 5798),

Gene: JacAttac\_50 Start: 41830, Stop: 43185, Start Num: 82

Candidate Starts for JacAttac\_50:

(Start: 82 @41830 has 255 MA's), (98, 41881), (108, 41914), (168, 42043), (170, 42046), (Start: 180 @42061 has 5 MA's), (235, 42157), (251, 42196), (269, 42226), (284, 42262), (333, 42373), (345, 42403), (347, 42406), (379, 42472), (440, 42631), (469, 42679), (475, 42697), (498, 42745), (550, 42889), (571, 42949), (603, 43054), (637, 43141),

Gene: JackSparrow\_10 Start: 6014, Stop: 6982, Start Num: 163

Candidate Starts for JackSparrow\_10:

(Start: 163 @6014 has 304 MA's), (Start: 180 @6047 has 5 MA's), (Start: 190 @6065 has 1 MA's), (Start: 192 @6068 has 2 MA's), (335, 6335), (365, 6386), (368, 6398), (415, 6473), (442, 6536), (462, 6569), (469, 6581), (474, 6599), (484, 6617), (496, 6641), (520, 6680), (551, 6761), (559, 6785), (561, 6788), (563, 6791), (567, 6800), (600, 6887), (629, 6974),

Gene: Jackstina\_44 Start: 41457, Stop: 42521, Start Num: 138

Candidate Starts for Jackstina\_44:

(Start: 138 @41457 has 44 MA's), (173, 41520), (219, 41601), (252, 41667), (260, 41682), (269, 41694), (280, 41721), (311, 41778), (314, 41787), (391, 41934), (401, 41949), (422, 42003), (439, 42036), (463, 42075), (470, 42087), (512, 42168), (520, 42186), (523, 42189), (538, 42234), (578, 42345), (617, 42456), (626, 42477), (641, 42510),

Gene: JakeO\_48 Start: 41425, Stop: 42780, Start Num: 82

Candidate Starts for JakeO\_48:

(Start: 82 @41425 has 255 MA's), (98, 41476), (108, 41509), (114, 41527), (168, 41638), (170, 41641), (Start: 180 @41656 has 5 MA's), (235, 41752), (251, 41791), (269, 41821), (284, 41857), (333, 41968), (345, 41998), (347, 42001), (379, 42067), (440, 42226), (469, 42274), (475, 42292), (498, 42340), (550, 42484), (571, 42544), (603, 42649), (637, 42736),

Gene: JalFarm20\_34 Start: 28603, Stop: 29601, Start Num: 149

Candidate Starts for JalFarm20\_34:

(Start: 149 @28603 has 225 MA's), (Start: 192 @28678 has 2 MA's), (229, 28738), (239, 28759), (Start: 279 @28843 has 1 MA's), (306, 28894), (312, 28909), (365, 29005), (422, 29116), (433, 29137), (454, 29176), (462, 29188), (484, 29236), (497, 29263), (511, 29287), (520, 29302), (559, 29410), (578, 29458), (604, 29527), (614, 29557),

Gene: James\_31 Start: 27708, Stop: 28709, Start Num: 149

Candidate Starts for James\_31:

(Start: 149 @27708 has 225 MA's), (Start: 192 @27783 has 2 MA's), (229, 27846), (239, 27867), (Start: 279 @27951 has 1 MA's), (292, 27975), (302, 27990), (306, 28002), (365, 28113), (423, 28227), (433, 28245), (454, 28284), (469, 28308), (484, 28344), (520, 28410), (559, 28518), (578, 28566), (585, 28578), (601, 28623), (604, 28635), (614, 28665),

Gene: Jane\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Jane\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: JangDynasty\_67 Start: 43505, Stop: 44545, Start Num: 148



Candidate Starts for JangDynasty\_67:

(Start: 148 @43505 has 26 MA's), (Start: 192 @43580 has 2 MA's), (229, 43661), (232, 43667), (239, 43682), (278, 43763), (Start: 279 @43766 has 1 MA's), (306, 43820), (312, 43835), (365, 43931), (385, 43970), (397, 44000), (411, 44030), (414, 44033), (425, 44066), (462, 44132), (484, 44180), (497, 44207), (520, 44246), (589, 44420), (604, 44471),

Gene: JangoPhett\_49 Start: 41700, Stop: 43055, Start Num: 82

Candidate Starts for JangoPhett\_49:

(Start: 82 @41700 has 255 MA's), (98, 41751), (108, 41784), (168, 41913), (170, 41916), (Start: 180 @41931 has 5 MA's), (235, 42027), (251, 42066), (269, 42096), (284, 42132), (333, 42243), (345, 42273), (347, 42276), (379, 42342), (440, 42501), (469, 42549), (475, 42567), (498, 42615), (550, 42759), (571, 42819), (603, 42924), (637, 43011),

Gene: Janiyra\_256 Start: 145131, Stop: 146159, Start Num: 142

Candidate Starts for Janiyra\_256:

(Start: 142 @145131 has 200 MA's), (Start: 163 @145161 has 304 MA's), (170, 145173), (Start: 192 @145215 has 2 MA's), (229, 145278), (239, 145299), (Start: 279 @145383 has 1 MA's), (302, 145425), (306, 145437), (312, 145452), (344, 145521), (365, 145548), (393, 145602), (411, 145647), (414, 145650), (449, 145728), (462, 145749), (520, 145860), (554, 145950), (559, 145968), (590, 146040), (601, 146073),

Gene: Jarcob\_31 Start: 27749, Stop: 28750, Start Num: 149

Candidate Starts for Jarcob\_31:

(Start: 149 @27749 has 225 MA's), (Start: 163 @27770 has 304 MA's), (170, 27782), (Start: 192 @27824 has 2 MA's), (229, 27887), (239, 27908), (251, 27938), (Start: 279 @27992 has 1 MA's), (292, 28016), (302, 28031), (306, 28043), (365, 28154), (423, 28268), (433, 28286), (454, 28325), (469, 28349), (484, 28385), (497, 28412), (520, 28451), (538, 28499), (559, 28559), (585, 28619), (604, 28676), (614, 28706),

Gene: Jarvi\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for Jarvi\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: Jasper\_11 Start: 5855, Stop: 6823, Start Num: 163

Candidate Starts for Jasper\_11:

(Start: 163 @5855 has 304 MA's), (Start: 180 @5888 has 5 MA's), (Start: 190 @5906 has 1 MA's), (Start: 192 @5909 has 2 MA's), (335, 6176), (365, 6227), (368, 6239), (415, 6314), (442, 6377), (450, 6389), (462, 6410), (469, 6422), (474, 6440), (484, 6458), (496, 6482), (520, 6521), (551, 6602), (559, 6626), (561, 6629), (563, 6632), (567, 6641), (600, 6728), (614, 6773), (629, 6815),

Gene: JayJay\_248 Start: 143930, Stop: 144958, Start Num: 142

Candidate Starts for JayJay\_248:

(Start: 142 @143930 has 200 MA's), (Start: 163 @143960 has 304 MA's), (Start: 192 @144014 has 2 MA's), (229, 144077), (239, 144098), (Start: 279 @144182 has 1 MA's), (302, 144224), (306, 144236), (312, 144251), (344, 144320), (365, 144347), (393, 144401), (411, 144446), (414, 144449), (449, 144527), (462, 144548), (520, 144659), (554, 144749), (559, 144767), (590, 144839), (601, 144872),

Gene: Jaygup\_249 Start: 144316, Stop: 145344, Start Num: 142

Candidate Starts for Jaygup\_249:

(Start: 142 @144316 has 200 MA's), (Start: 163 @144346 has 304 MA's), (170, 144358), (Start: 192 @144400 has 2 MA's), (229, 144463), (239, 144484), (Start: 279 @144568 has 1 MA's), (302, 144610), (306, 144622), (312, 144637), (344, 144706), (365, 144733), (393, 144787), (411, 144832), (414, 144835), (449, 144913), (462, 144934), (520, 145045), (554, 145135), (559, 145153), (590, 145225), (601, 145258),

Gene: Jayhawk\_32 Start: 26461, Stop: 27333, Start Num: 221

Candidate Starts for Jayhawk\_32:

(195, 26434), (Start: 221 @26461 has 188 MA's), (Start: 227 @26473 has 1 MA's), (258, 26542), (275, 26569), (287, 26599), (293, 26608), (309, 26644), (313, 26653), (323, 26686), (331, 26704), (347, 26734), (378, 26791), (379, 26794), (447, 26929), (469, 26956), (476, 26977), (487, 27001), (521, 27052), (578, 27154), (598, 27190), (604, 27214), (640, 27313), (643, 27322),

Gene: Jaykayelowell\_10 Start: 5880, Stop: 6860, Start Num: 164

Candidate Starts for Jaykayelowell\_10:

(Start: 164 @5880 has 109 MA's), (Start: 166 @5883 has 14 MA's), (178, 5907), (Start: 190 @5928 has 1 MA's), (Start: 192 @5931 has 2 MA's), (330, 6180), (365, 6237), (416, 6321), (422, 6342), (437, 6369), (464, 6399), (474, 6426), (551, 6576), (598, 6687), (601, 6699), (604, 6711), (627, 6777),

Gene: JeTaime\_37 Start: 32659, Stop: 33516, Start Num: 198

Candidate Starts for JeTaime\_37:

(Start: 198 @32659 has 122 MA's), (220, 32698), (232, 32728), (242, 32749), (257, 32785), (275, 32815), (309, 32890), (334, 32938), (336, 32941), (345, 32965), (347, 32968), (356, 32983), (426, 33154), (487, 33268), (495, 33283), (498, 33289), (575, 33331), (576, 33334), (601, 33388), (624, 33466), (641, 33499),

Gene: Jebeks\_27 Start: 24037, Stop: 25203, Start Num: 102

Candidate Starts for Jebeks\_27:

(Start: 102 @24037 has 88 MA's), (123, 24094), (168, 24181), (Start: 198 @24226 has 122 MA's), (235, 24301), (245, 24322), (284, 24406), (305, 24445), (333, 24511), (345, 24541), (359, 24562), (379, 24607), (417, 24703), (434, 24742), (440, 24757), (469, 24796), (510, 24883), (527, 24901), (530, 24907), (553, 24955), (571, 24976), (598, 25048), (620, 25123),

Gene: Jeckyll\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for Jeckyll\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: Jedediah\_254 Start: 145369, Stop: 146397, Start Num: 142

Candidate Starts for Jedediah\_254:

(Start: 142 @145369 has 200 MA's), (Start: 163 @145399 has 304 MA's), (170, 145411), (Start: 192 @145453 has 2 MA's), (229, 145516), (239, 145537), (Start: 279 @145621 has 1 MA's), (302, 145663), (306, 145675), (312, 145690), (344, 145759), (365, 145786), (393, 145840), (411, 145885), (414, 145888), (449, 145966), (462, 145987), (520, 146098), (554, 146188), (559, 146206), (590, 146278), (601, 146311),

Gene: Jemmno\_252 Start: 144088, Stop: 145116, Start Num: 142

Candidate Starts for Jemmno\_252:

(Start: 142 @144088 has 200 MA's), (Start: 163 @144118 has 304 MA's), (170, 144130), (Start: 192 @144172 has 2 MA's), (229, 144235), (239, 144256), (Start: 279 @144340 has 1 MA's), (302, 144382), (306, 144394), (312, 144409), (344, 144478), (365, 144505), (393, 144559), (411, 144604),

(414, 144607), (449, 144685), (462, 144706), (520, 144817), (554, 144907), (559, 144925), (590, 144997), (601, 145030),

Gene: JenCasNa\_12 Start: 5960, Stop: 6925, Start Num: 153

Candidate Starts for JenCasNa\_12:

(Start: 153 @5960 has 92 MA's), (Start: 180 @6005 has 5 MA's), (Start: 192 @6026 has 2 MA's), (256, 6146), (365, 6341), (371, 6356), (422, 6437), (430, 6452), (439, 6470), (469, 6521), (474, 6539), (497, 6584), (538, 6680), (561, 6743), (575, 6782), (597, 6833),

Gene: JeppNRM\_13 Start: 6031, Stop: 6996, Start Num: 153

Candidate Starts for JeppNRM\_13:

(Start: 153 @6031 has 92 MA's), (Start: 192 @6097 has 2 MA's), (226, 6151), (265, 6229), (330, 6352), (365, 6409), (415, 6481), (430, 6520), (439, 6538), (474, 6607), (514, 6691), (535, 6724), (538, 6751), (561, 6814), (597, 6904), (599, 6910),

Gene: Jerm\_13 Start: 6833, Stop: 7825, Start Num: 163

Candidate Starts for Jerm\_13:

(Start: 163 @6833 has 304 MA's), (Start: 180 @6866 has 5 MA's), (Start: 190 @6884 has 1 MA's), (Start: 192 @6887 has 2 MA's), (299, 7055), (302, 7061), (312, 7088), (338, 7148), (365, 7193), (412, 7280), (437, 7325), (467, 7364), (494, 7412), (504, 7427), (540, 7493), (555, 7535), (588, 7622), (624, 7736),

Gene: Jerm2\_10 Start: 5731, Stop: 6699, Start Num: 163

Candidate Starts for Jerm2\_10:

(Start: 163 @5731 has 304 MA's), (Start: 180 @5764 has 5 MA's), (Start: 190 @5782 has 1 MA's), (Start: 192 @5785 has 2 MA's), (335, 6052), (365, 6103), (368, 6115), (415, 6190), (442, 6253), (462, 6286), (474, 6316), (484, 6334), (496, 6358), (520, 6397), (551, 6478), (559, 6502), (561, 6505), (563, 6508), (567, 6517), (600, 6604), (629, 6691),

Gene: Jessibeth14\_252 Start: 145564, Stop: 146592, Start Num: 142

Candidate Starts for Jessibeth14\_252:

(Start: 142 @145564 has 200 MA's), (Start: 163 @145594 has 304 MA's), (170, 145606), (Start: 192 @145648 has 2 MA's), (229, 145711), (239, 145732), (Start: 279 @145816 has 1 MA's), (302, 145858), (306, 145870), (312, 145885), (344, 145954), (365, 145981), (393, 146035), (411, 146080), (414, 146083), (449, 146161), (462, 146182), (520, 146293), (554, 146383), (559, 146401), (590, 146473), (601, 146506),

Gene: JetBlade\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for JetBlade\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (401, 6301), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (601, 6700), (604, 6712), (627, 6778),

Gene: Jillium\_48 Start: 41419, Stop: 42774, Start Num: 82

Candidate Starts for Jillium\_48:

(Start: 82 @41419 has 255 MA's), (98, 41470), (108, 41503), (168, 41632), (170, 41635), (Start: 180 @41650 has 5 MA's), (235, 41746), (251, 41785), (269, 41815), (284, 41851), (333, 41962), (345, 41992), (347, 41995), (379, 42061), (440, 42220), (469, 42268), (475, 42286), (498, 42334), (550, 42478), (571, 42538), (603, 42643), (637, 42730),

Gene: Jiminy\_48 Start: 41260, Stop: 42615, Start Num: 82

Candidate Starts for Jiminy\_48:

(Start: 82 @41260 has 255 MA's), (98, 41311), (108, 41344), (168, 41473), (170, 41476), (Start: 180 @41491 has 5 MA's), (235, 41587), (251, 41626), (269, 41656), (284, 41692), (333, 41803), (345, 41833), (347, 41836), (379, 41902), (440, 42061), (469, 42109), (475, 42127), (498, 42175), (550, 42319), (571, 42379), (603, 42484), (637, 42571),

Gene: Jinglebell\_31 Start: 27728, Stop: 28729, Start Num: 149

Candidate Starts for Jinglebell\_31:

(33, 27107), (39, 27185), (42, 27248), (47, 27287), (58, 27419), (62, 27440), (69, 27476), (107, 27629), (Start: 149 @27728 has 225 MA's), (Start: 163 @27749 has 304 MA's), (170, 27761), (Start: 192 @27803 has 2 MA's), (210, 27836), (229, 27866), (239, 27887), (Start: 279 @27971 has 1 MA's), (292, 27995), (302, 28010), (306, 28022), (365, 28133), (423, 28247), (433, 28265), (454, 28304), (469, 28328), (484, 28364), (497, 28391), (520, 28430), (559, 28538), (578, 28586), (585, 28598), (600, 28640), (601, 28643), (604, 28655), (614, 28685),

Gene: Jiraiya\_51 Start: 41413, Stop: 42768, Start Num: 82

Candidate Starts for Jiraiya\_51:

(Start: 82 @41413 has 255 MA's), (98, 41464), (108, 41497), (168, 41626), (170, 41629), (Start: 180 @41644 has 5 MA's), (235, 41740), (251, 41779), (269, 41809), (284, 41845), (333, 41956), (345, 41986), (347, 41989), (379, 42055), (440, 42214), (469, 42262), (475, 42280), (498, 42328), (550, 42472), (571, 42532), (603, 42637), (637, 42724),

Gene: Job42\_35 Start: 29517, Stop: 30518, Start Num: 149

Candidate Starts for Job42\_35:

(Start: 149 @29517 has 225 MA's), (Start: 192 @29592 has 2 MA's), (210, 29625), (229, 29655), (239, 29676), (251, 29706), (259, 29718), (Start: 279 @29760 has 1 MA's), (292, 29784), (302, 29799), (306, 29811), (365, 29922), (414, 30006), (423, 30036), (433, 30054), (454, 30093), (469, 30117), (484, 30153), (497, 30180), (520, 30219), (538, 30267), (559, 30327), (578, 30375), (585, 30387), (601, 30432), (604, 30444), (614, 30474),

Gene: Jobu08\_12 Start: 6031, Stop: 6996, Start Num: 153

Candidate Starts for Jobu08\_12:

(Start: 153 @6031 has 92 MA's), (Start: 180 @6076 has 5 MA's), (Start: 192 @6097 has 2 MA's), (256, 6217), (330, 6355), (365, 6412), (371, 6427), (422, 6508), (430, 6523), (439, 6541), (469, 6592), (474, 6610), (497, 6655), (538, 6751), (561, 6814), (575, 6853), (597, 6904),

Gene: Jobypre\_28 Start: 26955, Stop: 27893, Start Num: 143

Candidate Starts for Jobypre\_28:

(Start: 102 @26850 has 88 MA's), (Start: 103 @26856 has 3 MA's), (112, 26883), (120, 26904), (143, 26955), (186, 27036), (245, 27141), (289, 27222), (293, 27228), (341, 27324), (349, 27342), (352, 27348), (355, 27354), (392, 27426), (418, 27483), (452, 27543), (489, 27618), (499, 27639), (572, 27663), (576, 27678), (580, 27690), (604, 27747), (640, 27849), (645, 27870),

Gene: JoeDirt\_26 Start: 25529, Stop: 26560, Start Num: 142

Candidate Starts for JoeDirt\_26:

(Start: 142 @25529 has 200 MA's), (236, 25685), (247, 25709), (251, 25721), (261, 25739), (272, 25757), (278, 25775), (281, 25781), (286, 25790), (Start: 294 @25805 has 16 MA's), (303, 25820), (321, 25868), (330, 25892), (365, 25949), (385, 25988), (425, 26066), (430, 26075), (431, 26078), (439, 26093), (467, 26147), (474, 26168), (482, 26183), (526, 26267), (537, 26297), (561, 26366), (567, 26378), (575, 26402), (581, 26420), (585, 26423), (590, 26435), (592, 26438), (601, 26468), (604, 26480),

Gene: JoeyJr\_31 Start: 27687, Stop: 28688, Start Num: 149

Candidate Starts for JoeyJr\_31:

(91, 27525), (Start: 149 @27687 has 225 MA's), (Start: 192 @27762 has 2 MA's), (210, 27795), (229, 27825), (239, 27846), (251, 27876), (259, 27888), (Start: 279 @27930 has 1 MA's), (292, 27954), (302, 27969), (306, 27981), (365, 28092), (423, 28206), (433, 28224), (454, 28263), (469, 28287), (484, 28323), (497, 28350), (520, 28389), (538, 28437), (559, 28497), (578, 28545), (585, 28557), (601, 28602), (604, 28614), (614, 28644),

Gene: Jolene\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Jolene\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (469, 26011), (476, 26032), (495, 26071), (498, 26077),

Gene: Jolie1\_042 Start: 40346, Stop: 41341, Start Num: 162

Candidate Starts for Jolie1\_042:

(Start: 162 @40346 has 2 MA's), (178, 40376), (Start: 190 @40397 has 1 MA's), (Start: 192 @40400 has 2 MA's), (241, 40487), (273, 40535), (325, 40637), (362, 40700), (365, 40706), (382, 40742), (416, 40790), (469, 40883), (474, 40901), (524, 40988), (525, 40991), (551, 41051), (557, 41063), (562, 41075), (565, 41081), (604, 41186), (650, 41318),

Gene: Jolie2\_28 Start: 25718, Stop: 26938, Start Num: 88

Candidate Starts for Jolie2\_28:

(67, 25637), (75, 25673), (77, 25679), (Start: 88 @25718 has 62 MA's), (170, 25922), (202, 25964), (251, 26072), (270, 26105), (284, 26138), (309, 26186), (342, 26270), (402, 26408), (440, 26498), (459, 26522), (469, 26537), (472, 26546), (476, 26558), (489, 26585), (495, 26597), (498, 26603), (500, 26606), (573, 26717), (601, 26798), (637, 26897), (639, 26900),

Gene: Jonghyun\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Jonghyun\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (469, 26011), (476, 26032), (495, 26071), (498, 26077),

Gene: JoongJeon\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for JoongJeon\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: JorRay\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for JorRay\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: Jorgensen\_10 Start: 5816, Stop: 6784, Start Num: 163

Candidate Starts for Jorgensen\_10:

(Start: 163 @5816 has 304 MA's), (Start: 180 @5849 has 5 MA's), (Start: 190 @5867 has 1 MA's), (Start: 192 @5870 has 2 MA's), (302, 6059), (335, 6137), (365, 6188), (368, 6200), (415, 6275), (442, 6338), (462, 6371), (469, 6383), (474, 6401), (484, 6419), (496, 6443), (520, 6482), (551, 6563), (559, 6587), (561, 6590), (563, 6593), (567, 6602), (600, 6689), (629, 6776),

Gene: JoshKayV\_13 Start: 6822, Stop: 7814, Start Num: 163

Candidate Starts for JoshKayV\_13:

(Start: 163 @6822 has 304 MA's), (Start: 180 @6855 has 5 MA's), (Start: 190 @6873 has 1 MA's), (Start: 192 @6876 has 2 MA's), (212, 6909), (302, 7050), (312, 7077), (338, 7137), (365, 7182), (412, 7269), (437, 7314), (467, 7353), (494, 7401), (504, 7416), (540, 7482), (555, 7524), (588, 7611), (604, 7659), (624, 7725), (651, 7800),

Gene: Journey13\_9 Start: 5628, Stop: 6563, Start Num: 225

Candidate Starts for Journey13\_9:

(Start: 225 @5628 has 4 MA's), (270, 5721), (284, 5754), (307, 5796), (309, 5802), (337, 5880), (339, 5883), (420, 6072), (440, 6114), (469, 6153), (475, 6171), (495, 6213), (500, 6222), (534, 6273), (568, 6336), (598, 6405), (620, 6486), (645, 6549),

Gene: Jovo\_8 Start: 5464, Stop: 6273, Start Num: 221

Candidate Starts for Jovo\_8:

(Start: 221 @5464 has 188 MA's), (251, 5527), (255, 5536), (269, 5557), (284, 5593), (309, 5641), (329, 5698), (339, 5722), (420, 5911), (440, 5953), (475, 6010), (645, 6259),

Gene: Joy99\_31 Start: 26423, Stop: 27295, Start Num: 221

Candidate Starts for Joy99\_31:

(76, 26093), (151, 26321), (195, 26396), (Start: 221 @26423 has 188 MA's), (Start: 227 @26435 has 1 MA's), (258, 26504), (275, 26531), (287, 26561), (293, 26570), (309, 26606), (313, 26615), (323, 26648), (331, 26666), (347, 26696), (379, 26756), (447, 26891), (469, 26918), (476, 26939), (487, 26963), (521, 27014), (578, 27116), (598, 27152), (604, 27176), (640, 27275), (643, 27284),

Gene: Jsquared\_10 Start: 5553, Stop: 6317, Start Num: 294

Candidate Starts for Jsquared\_10:

(Start: 294 @5553 has 16 MA's), (365, 5697), (415, 5784), (423, 5811), (425, 5814), (430, 5823), (469, 5892), (474, 5910), (538, 6051), (549, 6078), (554, 6093), (559, 6111), (561, 6114), (597, 6204), (615, 6273),

Gene: Jubie\_28 Start: 26851, Stop: 27894, Start Num: 102

Candidate Starts for Jubie\_28:

(Start: 102 @26851 has 88 MA's), (Start: 103 @26857 has 3 MA's), (112, 26884), (120, 26905), (143, 26956), (186, 27037), (245, 27142), (289, 27223), (293, 27229), (341, 27325), (349, 27343), (352, 27349), (355, 27355), (392, 27427), (418, 27484), (452, 27544), (489, 27619), (499, 27640), (572, 27664), (576, 27679), (580, 27691), (604, 27748), (640, 27850), (645, 27871),

Gene: Juice456\_32 Start: 28821, Stop: 29822, Start Num: 149

Candidate Starts for Juice456\_32:

(Start: 149 @28821 has 225 MA's), (Start: 192 @28896 has 2 MA's), (210, 28929), (229, 28959), (239, 28980), (Start: 279 @29064 has 1 MA's), (306, 29115), (312, 29130), (365, 29226), (422, 29337), (433, 29358), (454, 29397), (462, 29409), (484, 29457), (497, 29484), (511, 29508), (520, 29523), (559, 29631), (578, 29679), (604, 29748), (614, 29778),

Gene: JuicyJay\_51 Start: 44324, Stop: 45190, Start Num: 89

Candidate Starts for JuicyJay\_51:

(Start: 89 @44324 has 30 MA's), (Start: 97 @44351 has 1 MA's), (101, 44372), (Start: 138 @44459 has 44 MA's), (Start: 148 @44480 has 26 MA's), (174, 44525), (189, 44546), (206, 44567), (233, 44621), (255, 44672), (281, 44723), (355, 44873), (374, 44915), (400, 44966), (405, 44984), (427, 45050), (434, 45062), (438, 45071), (452, 45101), (486, 45164),

Gene: JuliaChild\_12 Start: 6491, Stop: 7459, Start Num: 163

Candidate Starts for JuliaChild\_12:

(Start: 163 @6491 has 304 MA's), (Start: 180 @6524 has 5 MA's), (Start: 190 @6542 has 1 MA's), (Start: 192 @6545 has 2 MA's), (335, 6812), (365, 6863), (368, 6875), (415, 6950), (442, 7013), (450, 7025), (462, 7046), (474, 7076), (484, 7094), (496, 7118), (520, 7157), (551, 7238), (559, 7262), (561, 7265), (563, 7268), (567, 7277), (600, 7364), (614, 7409), (629, 7451),

Gene: JulietS\_244 Start: 141668, Stop: 142696, Start Num: 142

Candidate Starts for JulietS\_244:

(Start: 142 @141668 has 200 MA's), (Start: 163 @141698 has 304 MA's), (Start: 192 @141752 has 2 MA's), (229, 141815), (239, 141836), (Start: 279 @141920 has 1 MA's), (302, 141962), (306, 141974), (312, 141989), (344, 142058), (365, 142085), (393, 142139), (411, 142184), (414, 142187), (449, 142265), (462, 142286), (520, 142397), (554, 142487), (559, 142505), (590, 142577), (601, 142610),

Gene: Juliette\_34 Start: 27788, Stop: 28579, Start Num: 200

Candidate Starts for Juliette\_34:

(Start: 200 @27788 has 20 MA's), (Start: 227 @27821 has 1 MA's), (242, 27854), (251, 27878), (264, 27899), (270, 27908), (283, 27938), (287, 27947), (293, 27956), (309, 27992), (350, 28073), (447, 28280), (469, 28307), (476, 28328), (487, 28352), (576, 28376), (601, 28430), (604, 28442), (625, 28514),

Gene: Jung\_26 Start: 24014, Stop: 25180, Start Num: 102

Candidate Starts for Jung\_26:

(Start: 102 @24014 has 88 MA's), (106, 24023), (122, 24068), (123, 24071), (168, 24158), (Start: 198 @24203 has 122 MA's), (214, 24236), (235, 24278), (245, 24299), (284, 24383), (305, 24422), (333, 24488), (345, 24518), (359, 24539), (379, 24584), (417, 24680), (434, 24719), (440, 24734), (447, 24746), (469, 24773), (510, 24860), (527, 24878), (530, 24884), (553, 24932), (598, 25025), (620, 25100),

Gene: Juniormint\_27 Start: 24090, Stop: 25256, Start Num: 102

Candidate Starts for Juniormint\_27:

(15, 23337), (36, 23604), (41, 23709), (Start: 102 @24090 has 88 MA's), (106, 24099), (122, 24144), (123, 24147), (168, 24234), (Start: 198 @24279 has 122 MA's), (235, 24354), (245, 24375), (251, 24393), (284, 24459), (305, 24498), (333, 24564), (345, 24594), (359, 24615), (379, 24660), (417, 24756), (434, 24795), (440, 24810), (469, 24849), (510, 24936), (527, 24954), (530, 24960), (553, 25008), (598, 25101), (620, 25176),

Gene: Juniper1\_31 Start: 27486, Stop: 28487, Start Num: 149

Candidate Starts for Juniper1\_31:

(107, 27387), (Start: 149 @27486 has 225 MA's), (Start: 192 @27561 has 2 MA's), (210, 27594), (229, 27624), (239, 27645), (Start: 279 @27729 has 1 MA's), (292, 27753), (302, 27768), (306, 27780), (365, 27891), (423, 28005), (433, 28023), (454, 28062), (469, 28086), (484, 28122), (497, 28149), (520, 28188), (538, 28236), (559, 28296), (585, 28356), (601, 28401), (604, 28413), (614, 28443),

Gene: JustASigh\_26 Start: 26068, Stop: 27300, Start Num: 88

Candidate Starts for JustASigh\_26:

(53, 25912), (55, 25930), (61, 25975), (Start: 88 @26068 has 62 MA's), (146, 26224), (154, 26236), (Start: 180 @26281 has 5 MA's), (204, 26314), (235, 26365), (255, 26413), (284, 26470), (293, 26485), (309, 26521), (314, 26533), (354, 26632), (404, 26749), (435, 26830), (440, 26854), (469, 26893), (500, 26962), (503, 26968), (505, 26971), (531, 27004), (556, 27052), (620, 27220), (624, 27232),

Gene: JustHall\_246 Start: 143618, Stop: 144646, Start Num: 142

Candidate Starts for JustHall\_246:

(Start: 142 @143618 has 200 MA's), (Start: 163 @143648 has 304 MA's), (170, 143660), (Start: 192 @143702 has 2 MA's), (229, 143765), (239, 143786), (Start: 279 @143870 has 1 MA's), (302, 143912), (306, 143924), (312, 143939), (344, 144008), (365, 144035), (393, 144089), (411, 144134), (414, 144137), (449, 144215), (462, 144236), (520, 144347), (554, 144437), (559, 144455), (590, 144527), (601, 144560),

Gene: KADY\_13 Start: 6046, Stop: 7011, Start Num: 153

Candidate Starts for KADY\_13:

(Start: 153 @6046 has 92 MA's), (Start: 180 @6091 has 5 MA's), (Start: 192 @6112 has 2 MA's), (256, 6232), (330, 6370), (365, 6427), (371, 6442), (422, 6523), (430, 6538), (439, 6556), (469, 6607), (474, 6625), (497, 6670), (538, 6766), (561, 6829), (597, 6919),

Gene: KBG\_11 Start: 6924, Stop: 7892, Start Num: 163

Candidate Starts for KBG\_11:

(Start: 163 @6924 has 304 MA's), (Start: 180 @6957 has 5 MA's), (Start: 190 @6975 has 1 MA's), (Start: 192 @6978 has 2 MA's), (335, 7245), (365, 7296), (368, 7308), (415, 7383), (442, 7446), (450, 7458), (462, 7479), (469, 7491), (474, 7509), (484, 7527), (496, 7551), (520, 7590), (551, 7671), (559, 7695), (561, 7698), (563, 7701), (567, 7710), (600, 7797), (629, 7884),

Gene: KFPoly\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for KFPoly\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: KLUcky39\_49 Start: 41716, Stop: 43071, Start Num: 82

Candidate Starts for KLUcky39\_49:

(Start: 82 @41716 has 255 MA's), (98, 41767), (108, 41800), (168, 41929), (170, 41932), (Start: 180 @41947 has 5 MA's), (235, 42043), (251, 42082), (269, 42112), (284, 42148), (333, 42259), (345, 42289), (347, 42292), (379, 42358), (440, 42517), (469, 42565), (475, 42583), (498, 42631), (550, 42775), (571, 42835), (603, 42940), (637, 43027),

Gene: KSSJEB\_9 Start: 5491, Stop: 6459, Start Num: 163

Candidate Starts for KSSJEB\_9:

(Start: 163 @5491 has 304 MA's), (Start: 180 @5524 has 5 MA's), (Start: 190 @5542 has 1 MA's), (Start: 192 @5545 has 2 MA's), (335, 5812), (344, 5830), (365, 5863), (368, 5875), (415, 5950), (442, 6013), (462, 6046), (469, 6058), (474, 6076), (482, 6091), (484, 6094), (496, 6118), (520, 6157), (551, 6238), (559, 6262), (561, 6265), (563, 6268), (567, 6277), (600, 6364), (629, 6451),

Gene: Kahlid\_28 Start: 26308, Stop: 27279, Start Num: 102

Candidate Starts for Kahlid\_28:

(Start: 102 @26308 has 88 MA's), (120, 26362), (179, 26482), (Start: 198 @26512 has 122 MA's), (208, 26527), (Start: 227 @26560 has 1 MA's), (228, 26563), (232, 26572), (242, 26593), (275, 26656), (293, 26683), (305, 26707), (319, 26737), (345, 26788), (352, 26800), (386, 26863), (392, 26878), (415, 26938), (419, 26953), (469, 27034), (475, 27052), (476, 27055), (478, 27058), (579, 27109), (601, 27154), (613, 27196), (628, 27238),

Gene: Kahve\_48 Start: 41414, Stop: 42769, Start Num: 82

Candidate Starts for Kahve\_48:

(Start: 82 @41414 has 255 MA's), (98, 41465), (108, 41498), (134, 41561), (168, 41627), (170, 41630), (Start: 180 @41645 has 5 MA's), (235, 41741), (251, 41780), (269, 41810), (284, 41846), (333, 41957), (345, 41987), (347, 41990), (379, 42056), (440, 42215), (469, 42263), (475, 42281), (498, 42329), (550, 42473), (571, 42533), (603, 42638), (637, 42725),



Gene: Kailash\_49 Start: 41776, Stop: 43131, Start Num: 82

Candidate Starts for Kailash\_49:

(Start: 82 @41776 has 255 MA's), (98, 41827), (108, 41860), (168, 41989), (170, 41992), (Start: 180 @42007 has 5 MA's), (235, 42103), (251, 42142), (269, 42172), (284, 42208), (333, 42319), (345, 42349), (347, 42352), (379, 42418), (440, 42577), (469, 42625), (475, 42643), (498, 42691), (550, 42835), (571, 42895), (603, 43000), (637, 43087),

Gene: Kalah2\_49 Start: 42912, Stop: 43784, Start Num: 89

Candidate Starts for Kalah2\_49:

(Start: 89 @42912 has 30 MA's), (Start: 97 @42939 has 1 MA's), (115, 42999), (Start: 138 @43047 has 44 MA's), (174, 43113), (189, 43134), (206, 43155), (233, 43209), (274, 43290), (403, 43569), (405, 43572), (413, 43596), (424, 43632), (432, 43647), (438, 43659), (444, 43680),

Gene: Kalb97\_13 Start: 6031, Stop: 6996, Start Num: 153

Candidate Starts for Kalb97\_13:

(Start: 153 @6031 has 92 MA's), (Start: 192 @6097 has 2 MA's), (226, 6151), (265, 6229), (330, 6352), (365, 6409), (415, 6481), (430, 6520), (439, 6538), (474, 6607), (535, 6724), (538, 6751), (561, 6814), (597, 6904), (599, 6910),

Gene: Kalnoky\_13 Start: 6033, Stop: 6998, Start Num: 153

Candidate Starts for Kalnoky\_13:

(Start: 153 @6033 has 92 MA's), (Start: 192 @6099 has 2 MA's), (226, 6153), (265, 6231), (330, 6354), (365, 6411), (415, 6483), (430, 6522), (439, 6540), (474, 6609), (535, 6726), (538, 6753), (561, 6816), (597, 6906), (599, 6912),

Gene: Kalpine\_14 Start: 8215, Stop: 9192, Start Num: 163

Candidate Starts for Kalpine\_14:

(131, 8173), (Start: 163 @8215 has 304 MA's), (Start: 192 @8269 has 2 MA's), (330, 8506), (365, 8563), (415, 8647), (430, 8686), (469, 8755), (470, 8758), (474, 8773), (507, 8836), (528, 8878), (538, 8926), (549, 8953), (554, 8968), (559, 8986), (561, 8989),

Gene: Kamiyu\_47 Start: 41505, Stop: 42569, Start Num: 138

Candidate Starts for Kamiyu\_47:

(Start: 138 @41505 has 44 MA's), (173, 41568), (219, 41649), (252, 41715), (260, 41730), (269, 41742), (280, 41769), (311, 41826), (314, 41835), (391, 41982), (401, 41997), (422, 42051), (439, 42084), (463, 42123), (470, 42135), (512, 42216), (520, 42234), (523, 42237), (578, 42393), (617, 42504), (626, 42525), (641, 42558),

Gene: Kamy\_10 Start: 5882, Stop: 6862, Start Num: 164

Candidate Starts for Kamy\_10:

(Start: 164 @5882 has 109 MA's), (Start: 166 @5885 has 14 MA's), (178, 5909), (Start: 190 @5930 has 1 MA's), (Start: 192 @5933 has 2 MA's), (330, 6182), (365, 6239), (416, 6323), (422, 6344), (437, 6371), (464, 6401), (474, 6428), (551, 6578), (598, 6689), (601, 6701), (604, 6713), (627, 6779),

Gene: Kamryn\_251 Start: 145208, Stop: 146236, Start Num: 142

Candidate Starts for Kamryn\_251:

(Start: 142 @145208 has 200 MA's), (Start: 163 @145238 has 304 MA's), (170, 145250), (Start: 192 @145292 has 2 MA's), (229, 145355), (239, 145376), (Start: 279 @145460 has 1 MA's), (302, 145502), (306, 145514), (312, 145529), (344, 145598), (365, 145625), (393, 145679), (411, 145724), (414, 145727), (449, 145805), (462, 145826), (520, 145937), (554, 146027), (559, 146045), (590, 146117), (601, 146150),

Gene: Kanely\_11 Start: 6601, Stop: 7569, Start Num: 163

Candidate Starts for Kanely\_11:

(Start: 163 @6601 has 304 MA's), (Start: 180 @6634 has 5 MA's), (Start: 190 @6652 has 1 MA's), (Start: 192 @6655 has 2 MA's), (335, 6922), (365, 6973), (368, 6985), (415, 7060), (442, 7123), (462, 7156), (469, 7168), (474, 7186), (484, 7204), (496, 7228), (520, 7267), (551, 7348), (559, 7372), (561, 7375), (563, 7378), (567, 7387), (600, 7474), (629, 7561),

Gene: Kanye\_37 Start: 32844, Stop: 33701, Start Num: 198

Candidate Starts for Kanye\_37:

(Start: 198 @32844 has 122 MA's), (220, 32883), (232, 32913), (242, 32934), (257, 32970), (275, 33000), (309, 33075), (334, 33123), (336, 33126), (345, 33150), (347, 33153), (356, 33168), (426, 33339), (487, 33453), (495, 33468), (498, 33474), (575, 33516), (576, 33519), (601, 33573), (624, 33651), (641, 33684),

Gene: Kareem\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Kareem\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: Karhdo\_31 Start: 27651, Stop: 28652, Start Num: 149

Candidate Starts for Karhdo\_31:

(34, 27030), (40, 27108), (43, 27171), (48, 27210), (62, 27363), (69, 27399), (Start: 149 @27651 has 225 MA's), (Start: 163 @27672 has 304 MA's), (170, 27684), (Start: 192 @27726 has 2 MA's), (229, 27789), (239, 27810), (251, 27840), (Start: 279 @27894 has 1 MA's), (292, 27918), (306, 27945), (365, 28056), (423, 28170), (433, 28188), (454, 28227), (469, 28251), (484, 28287), (497, 28314), (520, 28353), (538, 28401), (559, 28461), (585, 28521), (604, 28578), (614, 28608),

Gene: Kari\_27 Start: 24049, Stop: 25215, Start Num: 102

Candidate Starts for Kari\_27:

(Start: 102 @24049 has 88 MA's), (123, 24106), (168, 24193), (Start: 198 @24238 has 122 MA's), (235, 24313), (245, 24334), (284, 24418), (305, 24457), (333, 24523), (345, 24553), (359, 24574), (379, 24619), (417, 24715), (434, 24754), (440, 24769), (447, 24781), (469, 24808), (510, 24895), (527, 24913), (530, 24919), (553, 24967), (571, 24988), (598, 25060), (620, 25135),

Gene: Kasen3\_28 Start: 25202, Stop: 26410, Start Num: 88

Candidate Starts for Kasen3\_28:

(65, 25109), (Start: 88 @25202 has 62 MA's), (154, 25376), (202, 25448), (251, 25547), (255, 25556), (263, 25568), (270, 25580), (275, 25589), (284, 25613), (295, 25634), (309, 25661), (314, 25673), (342, 25745), (361, 25784), (440, 25973), (459, 25997), (469, 26012), (476, 26033), (498, 26078), (500, 26081), (534, 26132),

Gene: KashFlow\_42 Start: 36675, Stop: 37547, Start Num: 89

Candidate Starts for KashFlow\_42:

(56, 36504), (Start: 89 @36675 has 30 MA's), (Start: 97 @36702 has 1 MA's), (115, 36762), (Start: 140 @36819 has 3 MA's), (Start: 148 @36831 has 26 MA's), (174, 36876), (189, 36897), (206, 36918), (233, 36972), (274, 37053), (336, 37194), (403, 37332), (405, 37335), (413, 37359), (424, 37395), (432, 37410), (438, 37422), (444, 37443),

Gene: Katalie136\_10 Start: 5887, Stop: 6870, Start Num: 163

Candidate Starts for Katalie136\_10:

(Start: 163 @5887 has 304 MA's), (178, 5917), (Start: 190 @5938 has 1 MA's), (Start: 192 @5941 has 2 MA's), (330, 6190), (362, 6241), (365, 6247), (368, 6259), (387, 6289), (416, 6331), (437, 6379), (464, 6409), (474, 6436), (551, 6586), (601, 6709), (604, 6721), (607, 6730), (627, 6787), (652, 6862),

Gene: Katniss\_50 Start: 41857, Stop: 43212, Start Num: 82

Candidate Starts for Katniss\_50:

(Start: 82 @41857 has 255 MA's), (98, 41908), (108, 41941), (168, 42070), (170, 42073), (Start: 180 @42088 has 5 MA's), (235, 42184), (251, 42223), (269, 42253), (284, 42289), (333, 42400), (345, 42430), (347, 42433), (379, 42499), (440, 42658), (469, 42706), (475, 42724), (498, 42772), (550, 42916), (571, 42976), (603, 43081), (637, 43168),

Gene: KayaCho\_42 Start: 40350, Stop: 41360, Start Num: 162

Candidate Starts for KayaCho\_42:

(Start: 162 @40350 has 2 MA's), (178, 40380), (Start: 190 @40401 has 1 MA's), (Start: 192 @40404 has 2 MA's), (241, 40491), (362, 40704), (365, 40710), (398, 40767), (401, 40773), (416, 40794), (457, 40884), (474, 40920), (524, 41007), (551, 41070), (557, 41082), (562, 41094), (579, 41139), (601, 41193), (604, 41205), (650, 41337),

Gene: Kboogie\_256 Start: 144247, Stop: 145275, Start Num: 142

Candidate Starts for Kboogie\_256:

(Start: 142 @144247 has 200 MA's), (Start: 163 @144277 has 304 MA's), (170, 144289), (Start: 192 @144331 has 2 MA's), (229, 144394), (239, 144415), (Start: 279 @144499 has 1 MA's), (302, 144541), (306, 144553), (312, 144568), (344, 144637), (365, 144664), (393, 144718), (411, 144763), (414, 144766), (449, 144844), (462, 144865), (520, 144976), (554, 145066), (559, 145084), (590, 145156), (601, 145189),

Gene: Keitherie\_49 Start: 41760, Stop: 43115, Start Num: 82

Candidate Starts for Keitherie\_49:

(Start: 82 @41760 has 255 MA's), (98, 41811), (108, 41844), (168, 41973), (170, 41976), (Start: 180 @41991 has 5 MA's), (235, 42087), (251, 42126), (269, 42156), (284, 42192), (333, 42303), (345, 42333), (347, 42336), (379, 42402), (440, 42561), (469, 42609), (475, 42627), (498, 42675), (550, 42819), (571, 42879), (603, 42984), (637, 43071),

Gene: Kenmech\_12 Start: 6603, Stop: 7571, Start Num: 163

Candidate Starts for Kenmech\_12:

(Start: 163 @6603 has 304 MA's), (Start: 180 @6636 has 5 MA's), (Start: 190 @6654 has 1 MA's), (Start: 192 @6657 has 2 MA's), (335, 6924), (365, 6975), (368, 6987), (415, 7062), (462, 7158), (474, 7188), (484, 7206), (496, 7230), (520, 7269), (551, 7350), (559, 7374), (561, 7377), (563, 7380), (567, 7389), (600, 7476), (614, 7521), (629, 7563),

Gene: Kenuha5\_28 Start: 26636, Stop: 27637, Start Num: 149

Candidate Starts for Kenuha5\_28:

(Start: 149 @26636 has 225 MA's), (Start: 192 @26711 has 2 MA's), (210, 26744), (229, 26774), (239, 26795), (251, 26825), (259, 26837), (Start: 279 @26879 has 1 MA's), (306, 26930), (312, 26945), (365, 27041), (422, 27152), (433, 27173), (454, 27212), (462, 27224), (484, 27272), (497, 27299), (511, 27323), (520, 27338), (559, 27446), (578, 27494), (604, 27563), (614, 27593),

Gene: Kerberos\_14 Start: 6597, Stop: 7361, Start Num: 294

Candidate Starts for Kerberos\_14:

(Start: 294 @6597 has 16 MA's), (365, 6741), (415, 6828), (423, 6855), (430, 6867), (474, 6954), (535, 7068), (538, 7095), (559, 7155), (561, 7158), (574, 7194), (597, 7248), (611, 7296),

Gene: Kersh\_30 Start: 28727, Stop: 29728, Start Num: 149

Candidate Starts for Kersh\_30:

(107, 28628), (Start: 149 @28727 has 225 MA's), (Start: 163 @28748 has 304 MA's), (170, 28760), (Start: 192 @28802 has 2 MA's), (210, 28835), (229, 28865), (239, 28886), (Start: 279 @28970 has 1 MA's), (292, 28994), (302, 29009), (306, 29021), (365, 29132), (423, 29246), (433, 29264), (454, 29303), (469, 29327), (484, 29363), (497, 29390), (520, 29429), (538, 29477), (559, 29537), (578, 29585), (585, 29597), (601, 29642), (604, 29654), (614, 29684),

Gene: Keshu\_32 Start: 27384, Stop: 28172, Start Num: 221

Candidate Starts for Keshu\_32:

(195, 27360), (Start: 221 @27384 has 188 MA's), (242, 27429), (258, 27465), (287, 27522), (293, 27531), (309, 27567), (331, 27621), (343, 27645), (416, 27786), (447, 27849), (469, 27891), (476, 27912), (480, 27918), (487, 27936), (575, 27966), (604, 28035), (625, 28107), (640, 28137),

Gene: Kevin1\_27 Start: 22755, Stop: 23915, Start Num: 102

Candidate Starts for Kevin1\_27:

(10, 21801), (15, 21996), (31, 22230), (41, 22383), (Start: 102 @22755 has 88 MA's), (123, 22812), (168, 22899), (235, 23019), (305, 23163), (309, 23175), (333, 23229), (343, 23256), (345, 23259), (359, 23280), (379, 23325), (406, 23388), (440, 23475), (447, 23487), (469, 23514), (476, 23535), (500, 23583), (510, 23601), (563, 23679), (572, 23694), (598, 23760),

Gene: Khaleesi\_251 Start: 145031, Stop: 146059, Start Num: 142

Candidate Starts for Khaleesi\_251:

(Start: 142 @145031 has 200 MA's), (Start: 163 @145061 has 304 MA's), (170, 145073), (Start: 192 @145115 has 2 MA's), (229, 145178), (239, 145199), (Start: 279 @145283 has 1 MA's), (302, 145325), (306, 145337), (312, 145352), (344, 145421), (365, 145448), (393, 145502), (411, 145547), (414, 145550), (449, 145628), (462, 145649), (520, 145760), (554, 145850), (559, 145868), (590, 145940), (601, 145973),

Gene: KiSi\_30 Start: 25623, Stop: 26363, Start Num: 221

Candidate Starts for KiSi\_30:

(151, 25521), (Start: 162 @25542 has 2 MA's), (183, 25575), (195, 25596), (Start: 221 @25623 has 188 MA's), (242, 25668), (258, 25704), (293, 25761), (309, 25797), (323, 25839), (347, 25887), (379, 25947), (447, 26082), (469, 26109), (480, 26136), (487, 26154), (576, 26178), (598, 26220), (603, 26241), (604, 26244), (640, 26343),

Gene: Kikipoo\_50 Start: 41848, Stop: 43203, Start Num: 82

Candidate Starts for Kikipoo\_50:

(Start: 82 @41848 has 255 MA's), (98, 41899), (108, 41932), (168, 42061), (170, 42064), (Start: 180 @42079 has 5 MA's), (235, 42175), (251, 42214), (269, 42244), (284, 42280), (333, 42391), (345, 42421), (347, 42424), (379, 42490), (440, 42649), (469, 42697), (475, 42715), (498, 42763), (550, 42907), (571, 42967), (603, 43072), (637, 43159),

Gene: KilKor\_27 Start: 24311, Stop: 25477, Start Num: 102

Candidate Starts for KilKor\_27:

(15, 23558), (26, 23729), (36, 23825), (41, 23930), (Start: 102 @24311 has 88 MA's), (106, 24320), (122, 24365), (123, 24368), (168, 24455), (Start: 198 @24500 has 122 MA's), (235, 24575), (245, 24596), (251, 24614), (284, 24680), (305, 24719), (333, 24785), (345, 24815), (359, 24836), (379, 24881), (417, 24977), (434, 25016), (440, 25031), (469, 25070), (510, 25157), (527, 25175), (530, 25181), (553, 25229), (598, 25322), (620, 25397),

Gene: Killigrew\_8 Start: 5466, Stop: 6434, Start Num: 163

Candidate Starts for Killigrew\_8:

(Start: 163 @5466 has 304 MA's), (Start: 180 @5499 has 5 MA's), (Start: 190 @5517 has 1 MA's), (Start: 192 @5520 has 2 MA's), (335, 5787), (344, 5805), (365, 5838), (368, 5850), (415, 5925), (442, 5988), (462, 6021), (474, 6051), (484, 6069), (496, 6093), (520, 6132), (551, 6213), (559, 6237), (561, 6240), (563, 6243), (567, 6252), (600, 6339), (629, 6426),

Gene: Kimberlium\_33 Start: 28888, Stop: 29646, Start Num: 279

Candidate Starts for Kimberlium\_33:

(Start: 279 @28888 has 1 MA's), (292, 28912), (302, 28927), (306, 28939), (365, 29050), (423, 29164), (433, 29182), (454, 29221), (469, 29245), (484, 29281), (497, 29308), (520, 29347), (559, 29455), (578, 29503), (585, 29515), (601, 29560), (604, 29572), (614, 29602),

Gene: Kimbrough\_49 Start: 41421, Stop: 42776, Start Num: 82

Candidate Starts for Kimbrough\_49:

(Start: 82 @41421 has 255 MA's), (98, 41472), (108, 41505), (114, 41523), (168, 41634), (170, 41637), (Start: 180 @41652 has 5 MA's), (235, 41748), (251, 41787), (269, 41817), (284, 41853), (333, 41964), (345, 41994), (347, 41997), (379, 42063), (440, 42222), (469, 42270), (475, 42288), (498, 42336), (550, 42480), (571, 42540), (603, 42645), (637, 42732),

Gene: Kimchi\_37 Start: 31851, Stop: 32708, Start Num: 198

Candidate Starts for Kimchi\_37:

(Start: 198 @31851 has 122 MA's), (220, 31890), (232, 31920), (242, 31941), (257, 31977), (275, 32007), (309, 32082), (334, 32130), (336, 32133), (345, 32157), (347, 32160), (356, 32175), (426, 32346), (487, 32460), (495, 32475), (498, 32481), (575, 32523), (576, 32526), (601, 32580), (624, 32658), (641, 32691),

Gene: Kimona\_7 Start: 3551, Stop: 4285, Start Num: 296

Candidate Starts for Kimona\_7:

(209, 3389), (Start: 296 @3551 has 2 MA's), (365, 3692), (371, 3707), (385, 3731), (425, 3800), (439, 3827), (474, 3896), (538, 4037), (549, 4064), (561, 4100), (575, 4139), (622, 4262),

Gene: Kinbote\_33 Start: 28339, Stop: 29574, Start Num: 84

Candidate Starts for Kinbote\_33:

(Start: 84 @28339 has 24 MA's), (110, 28432), (122, 28465), (128, 28477), (136, 28489), (Start: 138 @28492 has 44 MA's), (170, 28555), (Start: 180 @28573 has 5 MA's), (204, 28606), (235, 28666), (251, 28705), (255, 28714), (257, 28717), (269, 28735), (284, 28771), (309, 28819), (314, 28831), (318, 28837), (339, 28900), (342, 28903), (354, 28930), (361, 28942), (403, 29044), (440, 29131), (469, 29170), (476, 29191), (522, 29260), (534, 29290), (553, 29323), (561, 29332), (564, 29338), (573, 29350), (575, 29359), (601, 29422), (620, 29491),

Gene: KingCyrus\_13 Start: 6810, Stop: 7802, Start Num: 163

Candidate Starts for KingCyrus\_13:

(Start: 163 @6810 has 304 MA's), (Start: 190 @6861 has 1 MA's), (Start: 192 @6864 has 2 MA's), (223, 6912), (302, 7038), (312, 7065), (338, 7125), (365, 7170), (412, 7257), (437, 7302), (467, 7341), (494, 7389), (504, 7404), (540, 7470), (549, 7494), (555, 7512), (588, 7599), (604, 7647), (624, 7713), (651, 7788),

Gene: KingMidas\_33 Start: 29367, Stop: 30383, Start Num: 149

Candidate Starts for KingMidas\_33:

(85, 29223), (105, 29295), (Start: 149 @29367 has 225 MA's), (Start: 221 @29499 has 188 MA's), (229, 29520), (239, 29541), (Start: 279 @29625 has 1 MA's), (306, 29676), (365, 29787), (422, 29898), (433, 29919), (454, 29958), (462, 29970), (484, 30018), (497, 30045), (511, 30069), (520, 30084), (559, 30192), (585, 30252), (604, 30309), (614, 30339),

Gene: KingTut\_40 Start: 37084, Stop: 38439, Start Num: 82

Candidate Starts for KingTut\_40:

(Start: 82 @37084 has 255 MA's), (98, 37135), (108, 37168), (168, 37297), (170, 37300), (Start: 180 @37315 has 5 MA's), (235, 37411), (251, 37450), (269, 37480), (284, 37516), (333, 37627), (345, 37657), (347, 37660), (379, 37726), (440, 37885), (469, 37933), (475, 37951), (498, 37999), (550, 38143), (571, 38203), (603, 38308), (637, 38395),

Gene: KingVeVeVe\_49 Start: 41692, Stop: 43047, Start Num: 82

Candidate Starts for KingVeVeVe\_49:

(Start: 82 @41692 has 255 MA's), (98, 41743), (108, 41776), (114, 41794), (168, 41905), (170, 41908), (Start: 180 @41923 has 5 MA's), (235, 42019), (251, 42058), (269, 42088), (284, 42124), (333, 42235), (345, 42265), (347, 42268), (379, 42334), (440, 42493), (469, 42541), (475, 42559), (498, 42607), (550, 42751), (571, 42811), (603, 42916), (637, 43003),

Gene: Kingmustik0402\_10 Start: 5873, Stop: 6853, Start Num: 164

Candidate Starts for Kingmustik0402\_10:

(Start: 164 @5873 has 109 MA's), (Start: 166 @5876 has 14 MA's), (178, 5900), (Start: 190 @5921 has 1 MA's), (Start: 192 @5924 has 2 MA's), (330, 6173), (365, 6230), (401, 6293), (416, 6314), (422, 6335), (437, 6362), (464, 6392), (474, 6419), (551, 6569), (598, 6680), (601, 6692), (604, 6704), (627, 6770),

Gene: Kingsley\_30 Start: 27238, Stop: 28308, Start Num: 149

Candidate Starts for Kingsley\_30:

(122, 27187), (Start: 149 @27238 has 225 MA's), (Start: 166 @27265 has 14 MA's), (Start: 180 @27292 has 5 MA's), (185, 27301), (219, 27361), (235, 27388), (269, 27454), (297, 27508), (314, 27550), (335, 27601), (391, 27715), (404, 27748), (431, 27823), (442, 27844), (512, 27973), (538, 28045), (574, 28141), (578, 28153), (604, 28222), (623, 28279), (627, 28288),

Gene: Kingsolomon\_28 Start: 26850, Stop: 27893, Start Num: 102

Candidate Starts for Kingsolomon\_28:

(Start: 102 @26850 has 88 MA's), (Start: 103 @26856 has 3 MA's), (112, 26883), (120, 26904), (143, 26955), (186, 27036), (245, 27141), (289, 27222), (293, 27228), (341, 27324), (349, 27342), (352, 27348), (355, 27354), (392, 27426), (418, 27483), (452, 27543), (489, 27618), (499, 27639), (572, 27663), (576, 27678), (580, 27690), (604, 27747), (640, 27849), (645, 27870),

Gene: KittenMittens\_9 Start: 3781, Stop: 4755, Start Num: 163

Candidate Starts for KittenMittens\_9:

(115, 3742), (Start: 163 @3781 has 304 MA's), (Start: 180 @3814 has 5 MA's), (Start: 192 @3835 has 2 MA's), (283, 4003), (306, 4045), (312, 4060), (365, 4165), (415, 4237), (423, 4264), (425, 4267), (430, 4276), (474, 4363), (538, 4510), (561, 4573), (575, 4612), (595, 4654),

Gene: Klein\_49 Start: 42136, Stop: 43002, Start Num: 89

Candidate Starts for Klein\_49:

(Start: 89 @42136 has 30 MA's), (Start: 97 @42163 has 1 MA's), (101, 42184), (Start: 138 @42271 has 44 MA's), (Start: 148 @42292 has 26 MA's), (174, 42337), (189, 42358), (206, 42379), (233, 42433), (255, 42484), (281, 42535), (355, 42685), (374, 42727), (400, 42778), (405, 42796), (427, 42862), (434, 42874), (438, 42883), (452, 42913), (486, 42976),

Gene: KlimbOn\_49 Start: 41710, Stop: 43065, Start Num: 82

Candidate Starts for KlimbOn\_49:

(Start: 82 @41710 has 255 MA's), (98, 41761), (108, 41794), (114, 41812), (168, 41923), (170, 41926), (Start: 180 @41941 has 5 MA's), (235, 42037), (251, 42076), (269, 42106), (284, 42142), (333, 42253), (345, 42283), (347, 42286), (379, 42352), (440, 42511), (469, 42559), (475, 42577),

(498, 42625), (550, 42769), (571, 42829), (603, 42934), (620, 42988), (637, 43021),

Gene: Kloppinator\_50 Start: 42123, Stop: 43478, Start Num: 82

Candidate Starts for Kloppinator\_50:

(Start: 82 @42123 has 255 MA's), (98, 42174), (108, 42207), (168, 42336), (170, 42339), (Start: 180 @42354 has 5 MA's), (235, 42450), (251, 42489), (269, 42519), (284, 42555), (333, 42666), (345, 42696), (347, 42699), (379, 42765), (440, 42924), (469, 42972), (475, 42990), (498, 43038), (550, 43182), (571, 43242), (603, 43347), (637, 43434),

Gene: Klocker\_50 Start: 44291, Stop: 45292, Start Num: 161

Candidate Starts for Klocker\_50:

(Start: 161 @44291 has 8 MA's), (178, 44321), (Start: 190 @44342 has 1 MA's), (Start: 192 @44345 has 2 MA's), (223, 44393), (241, 44432), (302, 44519), (362, 44645), (365, 44651), (382, 44687), (401, 44714), (416, 44735), (443, 44798), (461, 44816), (474, 44846), (491, 44876), (533, 44942), (560, 45017), (562, 45020), (578, 45062), (581, 45071), (604, 45131), (607, 45140), (646, 45251), (650, 45263), (653, 45281),

Gene: Koduck\_11 Start: 5840, Stop: 6604, Start Num: 294

Candidate Starts for Koduck\_11:

(Start: 294 @5840 has 16 MA's), (365, 5984), (423, 6098), (425, 6101), (430, 6110), (474, 6197), (507, 6260), (538, 6338), (549, 6365), (554, 6380), (559, 6398), (561, 6401), (597, 6491), (615, 6560),

Gene: Koella\_25 Start: 23673, Stop: 24674, Start Num: 149

Candidate Starts for Koella\_25:

(Start: 149 @23673 has 225 MA's), (Start: 163 @23694 has 304 MA's), (170, 23706), (Start: 192 @23748 has 2 MA's), (229, 23811), (239, 23832), (251, 23862), (Start: 279 @23916 has 1 MA's), (292, 23940), (302, 23955), (306, 23967), (365, 24078), (423, 24192), (433, 24210), (454, 24249), (469, 24273), (484, 24309), (497, 24336), (520, 24375), (538, 24423), (559, 24483), (585, 24543), (604, 24600), (614, 24630),

Gene: Koguma\_251 Start: 143830, Stop: 144858, Start Num: 142

Candidate Starts for Koguma\_251:

(Start: 142 @143830 has 200 MA's), (Start: 163 @143860 has 304 MA's), (170, 143872), (Start: 192 @143914 has 2 MA's), (229, 143977), (239, 143998), (Start: 279 @144082 has 1 MA's), (302, 144124), (306, 144136), (312, 144151), (344, 144220), (365, 144247), (393, 144301), (411, 144346), (414, 144349), (449, 144427), (462, 144448), (520, 144559), (554, 144649), (559, 144667), (590, 144739), (601, 144772),

Gene: Koreni\_9 Start: 5530, Stop: 6510, Start Num: 164

Candidate Starts for Koreni\_9:

(Start: 164 @5530 has 109 MA's), (Start: 166 @5533 has 14 MA's), (178, 5557), (Start: 190 @5578 has 1 MA's), (Start: 192 @5581 has 2 MA's), (330, 5830), (365, 5887), (416, 5971), (422, 5992), (437, 6019), (474, 6076), (551, 6226), (598, 6337), (601, 6349), (604, 6361), (627, 6427),

Gene: Kostya\_36 Start: 31859, Stop: 32716, Start Num: 198

Candidate Starts for Kostya\_36:

(Start: 198 @31859 has 122 MA's), (220, 31898), (232, 31928), (242, 31949), (257, 31985), (275, 32015), (309, 32090), (334, 32138), (336, 32141), (345, 32165), (347, 32168), (356, 32183), (426, 32354), (487, 32468), (495, 32483), (498, 32489), (575, 32531), (576, 32534), (601, 32588), (624, 32666), (641, 32699),

Gene: Krakatau\_32 Start: 28214, Stop: 29215, Start Num: 149

Candidate Starts for Krakatau\_32:

(Start: 149 @28214 has 225 MA's), (Start: 163 @28235 has 304 MA's), (170, 28247), (Start: 192 @28289 has 2 MA's), (229, 28352), (239, 28373), (251, 28403), (Start: 279 @28457 has 1 MA's), (292, 28481), (306, 28508), (365, 28619), (423, 28733), (433, 28751), (454, 28790), (469, 28814), (484, 28850), (497, 28877), (520, 28916), (538, 28964), (559, 29024), (585, 29084), (604, 29141), (614, 29171),

Gene: Kratark\_10 Start: 5876, Stop: 6856, Start Num: 164

Candidate Starts for Kratark\_10:

(Start: 164 @5876 has 109 MA's), (178, 5903), (Start: 192 @5927 has 2 MA's), (297, 6092), (330, 6176), (365, 6233), (368, 6245), (401, 6296), (416, 6317), (422, 6338), (437, 6365), (461, 6392), (474, 6422), (551, 6572), (601, 6695), (604, 6707), (627, 6773),

Gene: Kratio\_29 Start: 26874, Stop: 27623, Start Num: 227

Candidate Starts for Kratio\_29:

(183, 26814), (Start: 221 @26862 has 188 MA's), (Start: 227 @26874 has 1 MA's), (228, 26877), (229, 26880), (242, 26907), (258, 26943), (289, 27003), (293, 27009), (307, 27039), (309, 27045), (313, 27054), (323, 27087), (343, 27129), (345, 27132), (352, 27144), (370, 27180), (379, 27195), (395, 27231), (447, 27330), (469, 27357), (476, 27378), (578, 27441), (595, 27465), (601, 27489), (620, 27558), (640, 27603), (643, 27612),

Gene: Kremtemulon\_9 Start: 5926, Stop: 6906, Start Num: 164

Candidate Starts for Kremtemulon\_9:

(Start: 164 @5926 has 109 MA's), (178, 5953), (Start: 190 @5974 has 1 MA's), (Start: 192 @5977 has 2 MA's), (330, 6226), (362, 6277), (365, 6283), (368, 6295), (409, 6358), (416, 6367), (437, 6415), (474, 6472), (551, 6622), (562, 6646), (575, 6679), (599, 6736), (604, 6757), (627, 6823), (652, 6898),

Gene: Krili\_66 Start: 42929, Stop: 43969, Start Num: 148

Candidate Starts for Krili\_66:

(Start: 148 @42929 has 26 MA's), (Start: 192 @43004 has 2 MA's), (229, 43085), (232, 43091), (239, 43106), (278, 43187), (Start: 279 @43190 has 1 MA's), (306, 43244), (312, 43259), (365, 43355), (385, 43394), (397, 43424), (411, 43454), (414, 43457), (425, 43490), (462, 43556), (479, 43595), (484, 43604), (497, 43631), (520, 43670), (589, 43844), (604, 43895),

Gene: KristaRAM\_32 Start: 28344, Stop: 29345, Start Num: 149

Candidate Starts for KristaRAM\_32:

(Start: 149 @28344 has 225 MA's), (Start: 192 @28419 has 2 MA's), (210, 28452), (229, 28482), (239, 28503), (Start: 279 @28587 has 1 MA's), (306, 28638), (312, 28653), (365, 28749), (422, 28860), (433, 28881), (454, 28920), (462, 28932), (484, 28980), (497, 29007), (511, 29031), (520, 29046), (559, 29154), (578, 29202), (604, 29271), (614, 29301),

Gene: Kristoff\_11 Start: 5884, Stop: 6858, Start Num: 163

Candidate Starts for Kristoff\_11:

(Start: 163 @5884 has 304 MA's), (Start: 192 @5938 has 2 MA's), (276, 6091), (365, 6253), (371, 6268), (382, 6289), (422, 6361), (425, 6367), (430, 6376), (469, 6445), (474, 6463), (497, 6508), (507, 6526), (538, 6604), (549, 6631), (554, 6646), (561, 6667), (575, 6706), (597, 6757), (609, 6799), (632, 6850),

Gene: Kronus\_46 Start: 42116, Stop: 43180, Start Num: 138

Candidate Starts for Kronus\_46:

(Start: 138 @42116 has 44 MA's), (173, 42179), (219, 42260), (252, 42326), (260, 42341), (269, 42353), (280, 42380), (311, 42437), (314, 42446), (391, 42593), (401, 42608), (422, 42662), (439, 42695), (463, 42734), (470, 42746), (512, 42827), (520, 42845), (523, 42848), (538, 42893), (578, 43004), (617, 43115), (626, 43136), (641, 43169),



Gene: Krueger\_31 Start: 25731, Stop: 26474, Start Num: 217

Candidate Starts for Krueger\_31:

(81, 25440), (96, 25482), (151, 25629), (Start: 162 @25650 has 2 MA's), (183, 25683), (195, 25704), (Start: 217 @25731 has 11 MA's), (239, 25773), (242, 25779), (258, 25815), (287, 25863), (293, 25872), (309, 25908), (323, 25950), (379, 26058), (447, 26193), (462, 26208), (469, 26220), (476, 26241), (496, 26256), (497, 26259), (538, 26265), (601, 26343), (624, 26424), (637, 26445), (640, 26454),

Gene: Krypton555\_28 Start: 26752, Stop: 27795, Start Num: 102

Candidate Starts for Krypton555\_28:

(Start: 102 @26752 has 88 MA's), (Start: 103 @26758 has 3 MA's), (106, 26764), (112, 26785), (120, 26806), (143, 26857), (160, 26887), (186, 26938), (211, 26971), (216, 26983), (245, 27043), (289, 27124), (293, 27130), (313, 27175), (341, 27226), (349, 27244), (352, 27250), (355, 27256), (392, 27328), (418, 27385), (452, 27445), (489, 27520), (499, 27541), (572, 27565), (576, 27580), (578, 27586), (604, 27649), (640, 27751), (645, 27772), (648, 27778),

Gene: Ksquared\_27 Start: 24068, Stop: 25234, Start Num: 102

Candidate Starts for Ksquared\_27:

(15, 23315), (36, 23582), (41, 23687), (Start: 102 @24068 has 88 MA's), (106, 24077), (122, 24122), (123, 24125), (168, 24212), (Start: 198 @24257 has 122 MA's), (235, 24332), (245, 24353), (251, 24371), (284, 24437), (305, 24476), (333, 24542), (345, 24572), (359, 24593), (379, 24638), (417, 24734), (434, 24773), (440, 24788), (469, 24827), (510, 24914), (527, 24932), (530, 24938), (553, 24986), (598, 25079), (620, 25154),

Gene: Kugel\_11 Start: 6058, Stop: 7026, Start Num: 163

Candidate Starts for Kugel\_11:

(Start: 163 @6058 has 304 MA's), (Start: 180 @6091 has 5 MA's), (Start: 190 @6109 has 1 MA's), (Start: 192 @6112 has 2 MA's), (335, 6379), (365, 6430), (368, 6442), (415, 6517), (442, 6580), (450, 6592), (462, 6613), (469, 6625), (474, 6643), (484, 6661), (496, 6685), (520, 6724), (551, 6805), (559, 6829), (561, 6832), (563, 6835), (567, 6844), (600, 6931), (614, 6976), (629, 7018),

Gene: Kumao\_39 Start: 34279, Stop: 35301, Start Num: 100

Candidate Starts for Kumao\_39:

(90, 34234), (Start: 100 @34279 has 10 MA's), (108, 34306), (112, 34321), (136, 34375), (156, 34417), (Start: 163 @34429 has 304 MA's), (212, 34510), (232, 34549), (240, 34567), (251, 34594), (253, 34600), (267, 34621), (287, 34654), (293, 34663), (313, 34708), (328, 34741), (343, 34774), (345, 34777), (347, 34780), (352, 34789), (363, 34801), (364, 34804), (418, 34936), (469, 35029), (575, 35095), (578, 35104), (579, 35107), (580, 35110), (598, 35140), (601, 35152), (606, 35170), (640, 35263), (647, 35287),

Gene: Kwadwo\_48 Start: 41396, Stop: 42751, Start Num: 82

Candidate Starts for Kwadwo\_48:

(Start: 82 @41396 has 255 MA's), (98, 41447), (108, 41480), (168, 41609), (170, 41612), (Start: 180 @41627 has 5 MA's), (235, 41723), (251, 41762), (269, 41792), (284, 41828), (333, 41939), (345, 41969), (347, 41972), (379, 42038), (440, 42197), (469, 42245), (475, 42263), (498, 42311), (550, 42455), (571, 42515), (603, 42620), (637, 42707),

Gene: Kwksand96\_48 Start: 41271, Stop: 42626, Start Num: 82

Candidate Starts for Kwksand96\_48:

(Start: 82 @41271 has 255 MA's), (98, 41322), (108, 41355), (168, 41484), (170, 41487), (Start: 180 @41502 has 5 MA's), (235, 41598), (251, 41637), (269, 41667), (284, 41703), (333, 41814), (345, 41844), (347, 41847), (379, 41913), (440, 42072), (469, 42120), (475, 42138), (498, 42186), (550,

42330), (571, 42390), (603, 42495), (637, 42582),

Gene: KyMonks1A\_12 Start: 6335, Stop: 7303, Start Num: 163

Candidate Starts for KyMonks1A\_12:

(Start: 163 @6335 has 304 MA's), (Start: 180 @6368 has 5 MA's), (Start: 190 @6386 has 1 MA's), (Start: 192 @6389 has 2 MA's), (335, 6656), (365, 6707), (368, 6719), (415, 6794), (442, 6857), (450, 6869), (462, 6890), (469, 6902), (474, 6920), (484, 6938), (496, 6962), (520, 7001), (551, 7082), (559, 7106), (561, 7109), (563, 7112), (567, 7121), (600, 7208), (629, 7295),

Gene: Kyee\_10 Start: 5882, Stop: 6862, Start Num: 164

Candidate Starts for Kyee\_10:

(Start: 164 @5882 has 109 MA's), (Start: 166 @5885 has 14 MA's), (178, 5909), (Start: 190 @5930 has 1 MA's), (Start: 192 @5933 has 2 MA's), (330, 6182), (365, 6239), (416, 6323), (422, 6344), (437, 6371), (464, 6401), (474, 6428), (551, 6578), (598, 6689), (601, 6701), (604, 6713),

Gene: Kykar\_8 Start: 5555, Stop: 6523, Start Num: 163

Candidate Starts for Kykar\_8:

(Start: 163 @5555 has 304 MA's), (Start: 180 @5588 has 5 MA's), (Start: 190 @5606 has 1 MA's), (Start: 192 @5609 has 2 MA's), (335, 5876), (344, 5894), (365, 5927), (368, 5939), (415, 6014), (442, 6077), (456, 6101), (474, 6140), (484, 6158), (520, 6221), (551, 6302), (559, 6326), (561, 6329), (563, 6332), (567, 6341), (600, 6428), (614, 6473), (629, 6515),

Gene: L5\_12 Start: 5848, Stop: 6612, Start Num: 294

Candidate Starts for L5\_12:

(Start: 294 @5848 has 16 MA's), (365, 5992), (423, 6106), (425, 6109), (430, 6118), (474, 6205), (507, 6268), (538, 6346), (549, 6373), (554, 6388), (559, 6406), (561, 6409), (597, 6499), (615, 6568),

Gene: LBerry\_12 Start: 5962, Stop: 6927, Start Num: 153

Candidate Starts for LBerry\_12:

(Start: 153 @5962 has 92 MA's), (Start: 180 @6007 has 5 MA's), (Start: 192 @6028 has 2 MA's), (256, 6148), (330, 6286), (365, 6343), (371, 6358), (422, 6439), (430, 6454), (439, 6472), (469, 6523), (474, 6541), (497, 6586), (538, 6682), (561, 6745), (575, 6784), (597, 6835),

Gene: LHTSCC\_10 Start: 5858, Stop: 6838, Start Num: 164

Candidate Starts for LHTSCC\_10:

(Start: 164 @5858 has 109 MA's), (178, 5885), (Start: 190 @5906 has 1 MA's), (Start: 192 @5909 has 2 MA's), (330, 6158), (365, 6215), (368, 6227), (401, 6278), (416, 6299), (437, 6347), (474, 6404), (551, 6554), (601, 6677), (604, 6689), (627, 6755),

Gene: LRRHood\_244 Start: 143240, Stop: 144268, Start Num: 142

Candidate Starts for LRRHood\_244:

(Start: 142 @143240 has 200 MA's), (Start: 163 @143270 has 304 MA's), (170, 143282), (Start: 192 @143324 has 2 MA's), (229, 143387), (239, 143408), (Start: 279 @143492 has 1 MA's), (302, 143534), (306, 143546), (312, 143561), (344, 143630), (365, 143657), (393, 143711), (411, 143756), (414, 143759), (449, 143837), (462, 143858), (520, 143969), (554, 144059), (559, 144077), (590, 144149), (601, 144182),

Gene: Labelle\_41 Start: 35243, Stop: 36268, Start Num: 140

Candidate Starts for Labelle\_41:

(Start: 140 @35243 has 3 MA's), (229, 35378), (269, 35453), (311, 35537), (314, 35546), (322, 35570), (326, 35579), (380, 35672), (422, 35771), (439, 35804), (450, 35819), (459, 35840), (467, 35849), (512, 35936), (520, 35954), (536, 35984), (538, 36002), (550, 36038), (578, 36113), (585, 36125), (587, 36128), (600, 36167), (617, 36224),

Gene: Labeouficaum\_48 Start: 41266, Stop: 42621, Start Num: 82

Candidate Starts for Labeouficaum\_48:

(Start: 82 @41266 has 255 MA's), (98, 41317), (108, 41350), (168, 41479), (170, 41482), (Start: 180 @41497 has 5 MA's), (235, 41593), (251, 41632), (269, 41662), (284, 41698), (333, 41809), (345, 41839), (347, 41842), (379, 41908), (440, 42067), (469, 42115), (475, 42133), (498, 42181), (550, 42325), (571, 42385), (603, 42490), (637, 42577),

Gene: LadyBird\_11 Start: 6410, Stop: 7387, Start Num: 163

Candidate Starts for LadyBird\_11:

(Start: 163 @6410 has 304 MA's), (Start: 192 @6464 has 2 MA's), (234, 6521), (312, 6653), (325, 6689), (330, 6701), (365, 6758), (382, 6794), (415, 6842), (430, 6881), (470, 6953), (474, 6968), (507, 7031), (528, 7073), (538, 7121), (549, 7148), (554, 7163), (559, 7181), (561, 7184), (597, 7274), (626, 7373),

Gene: Lambert1\_11 Start: 6052, Stop: 7017, Start Num: 153

Candidate Starts for Lambert1\_11:

(Start: 153 @6052 has 92 MA's), (Start: 180 @6097 has 5 MA's), (Start: 192 @6118 has 2 MA's), (256, 6238), (267, 6253), (Start: 296 @6292 has 2 MA's), (330, 6376), (365, 6433), (371, 6448), (422, 6529), (430, 6544), (439, 6562), (469, 6613), (474, 6631), (497, 6676), (538, 6772), (561, 6835), (575, 6874), (597, 6925),

Gene: Lamina13\_10 Start: 5611, Stop: 6579, Start Num: 163

Candidate Starts for Lamina13\_10:

(Start: 163 @5611 has 304 MA's), (Start: 180 @5644 has 5 MA's), (Start: 190 @5662 has 1 MA's), (Start: 192 @5665 has 2 MA's), (335, 5932), (365, 5983), (368, 5995), (415, 6070), (442, 6133), (462, 6166), (469, 6178), (474, 6196), (484, 6214), (520, 6277), (551, 6358), (559, 6382), (561, 6385), (563, 6388), (567, 6397), (600, 6484), (629, 6571),

Gene: Landor\_12 Start: 8223, Stop: 9179, Start Num: 178

Candidate Starts for Landor\_12:

(Start: 161 @8193 has 8 MA's), (178, 8223), (Start: 180 @8226 has 5 MA's), (Start: 192 @8247 has 2 MA's), (273, 8382), (362, 8547), (365, 8553), (409, 8628), (416, 8637), (474, 8748), (509, 8808), (533, 8844), (551, 8898), (562, 8922), (565, 8928), (581, 8973), (604, 9033), (607, 9042),

Gene: Langerak\_27 Start: 24036, Stop: 25202, Start Num: 102

Candidate Starts for Langerak\_27:

(Start: 102 @24036 has 88 MA's), (123, 24093), (168, 24180), (Start: 198 @24225 has 122 MA's), (235, 24300), (245, 24321), (284, 24405), (305, 24444), (333, 24510), (345, 24540), (359, 24561), (379, 24606), (417, 24702), (434, 24741), (440, 24756), (447, 24768), (469, 24795), (510, 24882), (527, 24900), (530, 24906), (553, 24954), (571, 24975), (598, 25047), (620, 25122),

Gene: LappelDuVide\_9 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for LappelDuVide\_9:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Larenn\_12 Start: 6724, Stop: 7707, Start Num: 163

Candidate Starts for Larenn\_12:

(Start: 163 @6724 has 304 MA's), (178, 6754), (Start: 180 @6757 has 5 MA's), (Start: 192 @6778 has 2 MA's), (325, 7015), (330, 7027), (344, 7054), (365, 7084), (368, 7096), (376, 7108), (410, 7162), (435, 7213), (474, 7273), (551, 7420), (581, 7495), (590, 7510), (604, 7555), (627, 7627), (646, 7681),

Gene: LarryKay\_12 Start: 6048, Stop: 7013, Start Num: 153

Candidate Starts for LarryKay\_12:

(Start: 153 @6048 has 92 MA's), (Start: 180 @6093 has 5 MA's), (Start: 192 @6114 has 2 MA's), (256, 6234), (330, 6372), (365, 6429), (371, 6444), (422, 6525), (430, 6540), (439, 6558), (469, 6609), (474, 6627), (497, 6672), (538, 6768), (561, 6831), (575, 6870), (597, 6921),

Gene: Larva\_31 Start: 27026, Stop: 27787, Start Num: 221

Candidate Starts for Larva\_31:

(183, 26978), (Start: 221 @27026 has 188 MA's), (Start: 227 @27038 has 1 MA's), (229, 27044), (242, 27071), (258, 27107), (289, 27167), (293, 27173), (307, 27203), (309, 27209), (313, 27218), (323, 27251), (343, 27293), (345, 27296), (352, 27308), (370, 27344), (379, 27359), (395, 27395), (447, 27494), (469, 27521), (476, 27542), (578, 27605), (595, 27629), (601, 27653), (620, 27722), (640, 27767), (643, 27776),

Gene: LasagnaCat\_50 Start: 41842, Stop: 43197, Start Num: 82

Candidate Starts for LasagnaCat\_50:

(Start: 82 @41842 has 255 MA's), (98, 41893), (108, 41926), (168, 42055), (170, 42058), (Start: 180 @42073 has 5 MA's), (235, 42169), (251, 42208), (269, 42238), (284, 42274), (333, 42385), (345, 42415), (347, 42418), (379, 42484), (440, 42643), (469, 42691), (475, 42709), (498, 42757), (550, 42901), (571, 42961), (603, 43066), (637, 43153),

Gene: Lasso\_49 Start: 41671, Stop: 43026, Start Num: 82

Candidate Starts for Lasso\_49:

(Start: 82 @41671 has 255 MA's), (98, 41722), (108, 41755), (168, 41884), (170, 41887), (Start: 180 @41902 has 5 MA's), (235, 41998), (251, 42037), (269, 42067), (284, 42103), (333, 42214), (345, 42244), (347, 42247), (379, 42313), (440, 42472), (469, 42520), (475, 42538), (498, 42586), (550, 42730), (571, 42790), (603, 42895), (637, 42982),

Gene: LastHope\_31 Start: 25598, Stop: 26452, Start Num: 221

Candidate Starts for LastHope\_31:

(151, 25496), (Start: 162 @25517 has 2 MA's), (183, 25550), (195, 25571), (Start: 221 @25598 has 188 MA's), (Start: 227 @25610 has 1 MA's), (228, 25613), (239, 25637), (242, 25643), (253, 25673), (287, 25733), (293, 25742), (323, 25820), (447, 26063), (462, 26078), (469, 26090), (476, 26111), (487, 26135), (538, 26207), (578, 26273), (599, 26312), (604, 26333), (643, 26441),

Gene: LastJedi\_25 Start: 23704, Stop: 24705, Start Num: 149

Candidate Starts for LastJedi\_25:

(Start: 149 @23704 has 225 MA's), (Start: 163 @23725 has 304 MA's), (170, 23737), (Start: 192 @23779 has 2 MA's), (229, 23842), (239, 23863), (251, 23893), (Start: 279 @23947 has 1 MA's), (292, 23971), (302, 23986), (306, 23998), (365, 24109), (423, 24223), (433, 24241), (454, 24280), (469, 24304), (484, 24340), (497, 24367), (520, 24406), (538, 24454), (559, 24514), (585, 24574), (604, 24631), (614, 24661),

Gene: Latch\_252 Start: 143793, Stop: 144821, Start Num: 142

Candidate Starts for Latch\_252:

(Start: 142 @143793 has 200 MA's), (Start: 163 @143823 has 304 MA's), (170, 143835), (Start: 192 @143877 has 2 MA's), (229, 143940), (239, 143961), (Start: 279 @144045 has 1 MA's), (302, 144087), (306, 144099), (312, 144114), (344, 144183), (365, 144210), (393, 144264), (411, 144309), (414, 144312), (449, 144390), (462, 144411), (520, 144522), (554, 144612), (559, 144630), (590, 144702), (601, 144735),

Gene: LaterM\_31 Start: 26387, Stop: 27259, Start Num: 221

Candidate Starts for LaterM\_31:

(195, 26360), (Start: 221 @26387 has 188 MA's), (Start: 227 @26399 has 1 MA's), (258, 26468), (275, 26495), (287, 26525), (293, 26534), (309, 26570), (313, 26579), (323, 26612), (331, 26630), (379, 26720), (447, 26855), (469, 26882), (476, 26903), (487, 26927), (521, 26978), (578, 27080), (598, 27116), (604, 27140), (640, 27239), (643, 27248),

Gene: Latretium\_32 Start: 28306, Stop: 29304, Start Num: 149

Candidate Starts for Latretium\_32:

(Start: 149 @28306 has 225 MA's), (Start: 192 @28381 has 2 MA's), (229, 28441), (239, 28462), (Start: 279 @28546 has 1 MA's), (306, 28597), (312, 28612), (365, 28708), (423, 28822), (433, 28840), (454, 28879), (462, 28891), (484, 28939), (497, 28966), (511, 28990), (520, 29005), (559, 29113), (578, 29161), (604, 29230), (614, 29260),

Gene: LeBron\_26 Start: 25573, Stop: 26604, Start Num: 142

Candidate Starts for LeBron\_26:

(Start: 142 @25573 has 200 MA's), (236, 25729), (247, 25753), (251, 25765), (261, 25783), (272, 25801), (278, 25819), (281, 25825), (286, 25834), (Start: 294 @25849 has 16 MA's), (303, 25864), (321, 25912), (330, 25936), (365, 25993), (385, 26032), (425, 26110), (430, 26119), (431, 26122), (439, 26137), (467, 26191), (474, 26212), (482, 26227), (526, 26311), (537, 26341), (561, 26410), (567, 26422), (575, 26446), (581, 26464), (585, 26467), (590, 26479), (592, 26482), (601, 26512), (604, 26524),

Gene: LeMond\_30 Start: 25694, Stop: 26434, Start Num: 221

Candidate Starts for LeMond\_30:

(151, 25592), (Start: 162 @25613 has 2 MA's), (183, 25646), (195, 25667), (Start: 221 @25694 has 188 MA's), (242, 25739), (258, 25775), (293, 25832), (309, 25868), (323, 25910), (379, 26018), (447, 26153), (469, 26180), (487, 26225), (576, 26249), (598, 26291), (603, 26312), (604, 26315), (640, 26414),

Gene: Lee7\_253 Start: 146894, Stop: 147922, Start Num: 142

Candidate Starts for Lee7\_253:

(Start: 142 @146894 has 200 MA's), (Start: 163 @146924 has 304 MA's), (170, 146936), (Start: 192 @146978 has 2 MA's), (229, 147041), (239, 147062), (Start: 279 @147146 has 1 MA's), (302, 147188), (306, 147200), (312, 147215), (344, 147284), (365, 147311), (393, 147365), (411, 147410), (414, 147413), (449, 147491), (462, 147512), (520, 147623), (554, 147713), (559, 147731), (590, 147803), (601, 147836),

Gene: LeeLot\_49 Start: 41723, Stop: 43078, Start Num: 82

Candidate Starts for LeeLot\_49:

(Start: 82 @41723 has 255 MA's), (98, 41774), (108, 41807), (168, 41936), (170, 41939), (Start: 180 @41954 has 5 MA's), (235, 42050), (251, 42089), (269, 42119), (284, 42155), (333, 42266), (345, 42296), (347, 42299), (379, 42365), (440, 42524), (469, 42572), (475, 42590), (498, 42638), (550, 42782), (571, 42842), (603, 42947), (637, 43034),

Gene: Lego3393\_48 Start: 41851, Stop: 43206, Start Num: 82

Candidate Starts for Lego3393\_48:

(Start: 82 @41851 has 255 MA's), (98, 41902), (108, 41935), (168, 42064), (170, 42067), (Start: 180 @42082 has 5 MA's), (235, 42178), (251, 42217), (269, 42247), (284, 42283), (333, 42394), (345, 42424), (347, 42427), (379, 42493), (440, 42652), (469, 42700), (475, 42718), (498, 42766), (550, 42910), (571, 42970), (603, 43075), (637, 43162),

Gene: Legolas\_49 Start: 41441, Stop: 42796, Start Num: 82

Candidate Starts for Legolas\_49:

(Start: 82 @41441 has 255 MA's), (98, 41492), (108, 41525), (168, 41654), (170, 41657), (Start: 180 @41672 has 5 MA's), (235, 41768), (251, 41807), (269, 41837), (284, 41873), (333, 41984), (345, 42014), (347, 42017), (379, 42083), (440, 42242), (469, 42290), (475, 42308), (498, 42356), (550, 42500), (571, 42560), (603, 42665), (637, 42752),

Gene: LeiMonet\_50 Start: 41403, Stop: 42758, Start Num: 82

Candidate Starts for LeiMonet\_50:

(Start: 82 @41403 has 255 MA's), (98, 41454), (108, 41487), (114, 41505), (168, 41616), (170, 41619), (Start: 180 @41634 has 5 MA's), (235, 41730), (251, 41769), (269, 41799), (284, 41835), (333, 41946), (345, 41976), (347, 41979), (379, 42045), (440, 42204), (469, 42252), (475, 42270), (498, 42318), (550, 42462), (571, 42522), (603, 42627), (637, 42714),

Gene: LemonSlice\_49 Start: 41408, Stop: 42763, Start Num: 82

Candidate Starts for LemonSlice\_49:

(Start: 82 @41408 has 255 MA's), (98, 41459), (108, 41492), (168, 41621), (170, 41624), (Start: 180 @41639 has 5 MA's), (235, 41735), (251, 41774), (269, 41804), (284, 41840), (333, 41951), (345, 41981), (347, 41984), (379, 42050), (440, 42209), (469, 42257), (475, 42275), (498, 42323), (550, 42467), (571, 42527), (603, 42632), (637, 42719),

Gene: Lemur\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Lemur\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712),

Gene: Lemuria\_29 Start: 26871, Stop: 28088, Start Num: 88

Candidate Starts for Lemuria\_29:

(17, 26262), (18, 26289), (20, 26313), (23, 26334), (25, 26340), (27, 26388), (29, 26424), (32, 26442), (38, 26508), (39, 26535), (Start: 88 @26871 has 62 MA's), (170, 27075), (202, 27117), (235, 27186), (251, 27225), (255, 27234), (270, 27258), (284, 27291), (293, 27306), (309, 27339), (342, 27423), (402, 27561), (440, 27651), (459, 27675), (469, 27690), (472, 27699), (476, 27711), (489, 27738), (495, 27750), (498, 27756), (500, 27759), (571, 27864), (637, 28050), (639, 28053),

Gene: LeoAvram\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for LeoAvram\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (Start: 192 @5932 has 2 MA's), (273, 6067), (284, 6091), (330, 6181), (365, 6238), (401, 6301), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (601, 6700), (604, 6712), (644, 6823),

Gene: Leogania\_13 Start: 8570, Stop: 9553, Start Num: 163

Candidate Starts for Leogania\_13:

(Start: 163 @8570 has 304 MA's), (Start: 190 @8621 has 1 MA's), (Start: 192 @8624 has 2 MA's), (365, 8948), (371, 8963), (415, 9032), (422, 9056), (430, 9071), (469, 9140), (474, 9158), (538, 9302), (561, 9365), (575, 9404), (587, 9428), (595, 9446),

Gene: Leopard\_46 Start: 36660, Stop: 37541, Start Num: 94

Candidate Starts for Leopard\_46:

(Start: 94 @36660 has 3 MA's), (126, 36756), (129, 36762), (174, 36846), (Start: 180 @36858 has 5 MA's), (235, 36960), (274, 37038), (281, 37059), (336, 37182), (353, 37221), (374, 37266), (405, 37335), (421, 37386), (424, 37395), (429, 37404), (436, 37419), (460, 37464), (480, 37500),

Gene: Leozinho\_33 Start: 27931, Stop: 28947, Start Num: 149

Candidate Starts for Leozinho\_33:

(85, 27787), (105, 27859), (Start: 149 @27931 has 225 MA's), (Start: 221 @28063 has 188 MA's), (229, 28084), (239, 28105), (Start: 279 @28189 has 1 MA's), (306, 28240), (365, 28351), (422, 28462), (433, 28483), (454, 28522), (462, 28534), (484, 28582), (497, 28609), (511, 28633), (520, 28648), (559, 28756), (578, 28804), (585, 28816), (601, 28861), (604, 28873), (614, 28903),

Gene: Leperchaun\_31 Start: 27593, Stop: 28594, Start Num: 149

Candidate Starts for Leperchaun\_31:

(Start: 149 @27593 has 225 MA's), (Start: 163 @27614 has 304 MA's), (170, 27626), (Start: 192 @27668 has 2 MA's), (229, 27731), (239, 27752), (251, 27782), (Start: 279 @27836 has 1 MA's), (292, 27860), (306, 27887), (365, 27998), (423, 28112), (433, 28130), (454, 28169), (469, 28193), (484, 28229), (497, 28256), (520, 28295), (559, 28403), (578, 28451), (585, 28463), (600, 28505), (601, 28508), (604, 28520), (614, 28550),

Gene: Lesedi\_9 Start: 5770, Stop: 6738, Start Num: 163

Candidate Starts for Lesedi\_9:

(Start: 163 @5770 has 304 MA's), (Start: 180 @5803 has 5 MA's), (Start: 192 @5824 has 2 MA's), (302, 6013), (335, 6091), (365, 6142), (368, 6154), (415, 6229), (442, 6292), (450, 6304), (462, 6325), (469, 6337), (474, 6355), (484, 6373), (496, 6397), (520, 6436), (551, 6517), (559, 6541), (561, 6544), (563, 6547), (567, 6556), (600, 6643), (629, 6730),

Gene: Leston\_30 Start: 27176, Stop: 28048, Start Num: 221

Candidate Starts for Leston\_30:

(Start: 221 @27176 has 188 MA's), (Start: 227 @27188 has 1 MA's), (229, 27194), (242, 27221), (253, 27251), (258, 27257), (287, 27311), (293, 27320), (300, 27332), (313, 27365), (323, 27398), (347, 27446), (384, 27515), (469, 27668), (475, 27686), (476, 27689), (506, 27749), (521, 27767), (538, 27794), (578, 27866), (598, 27902), (599, 27905), (604, 27926), (620, 27983), (637, 28019), (640, 28028), (643, 28037),

Gene: LestyG\_47 Start: 41537, Stop: 42601, Start Num: 138

Candidate Starts for LestyG\_47:

(Start: 138 @41537 has 44 MA's), (173, 41600), (219, 41681), (252, 41747), (260, 41762), (269, 41774), (280, 41801), (311, 41858), (314, 41867), (391, 42014), (401, 42029), (422, 42083), (439, 42116), (463, 42155), (470, 42167), (512, 42248), (520, 42266), (523, 42269), (578, 42425), (617, 42536), (626, 42557), (641, 42590),

Gene: Lev2\_8 Start: 5172, Stop: 5981, Start Num: 221

Candidate Starts for Lev2\_8:

(Start: 221 @5172 has 188 MA's), (251, 5235), (255, 5244), (269, 5265), (284, 5301), (309, 5349), (329, 5406), (339, 5430), (440, 5661), (475, 5718), (645, 5967),

Gene: Leviathan\_13 Start: 6865, Stop: 7857, Start Num: 163

Candidate Starts for Leviathan\_13:

(Start: 163 @6865 has 304 MA's), (Start: 190 @6916 has 1 MA's), (Start: 192 @6919 has 2 MA's), (299, 7087), (302, 7093), (312, 7120), (338, 7180), (365, 7225), (412, 7312), (437, 7357), (467, 7396), (494, 7444), (540, 7525), (555, 7567), (588, 7654), (624, 7768),

Gene: Lewan\_28 Start: 26303, Stop: 27274, Start Num: 102

Candidate Starts for Lewan\_28:

(Start: 102 @26303 has 88 MA's), (120, 26357), (179, 26477), (Start: 198 @26507 has 122 MA's), (208, 26522), (Start: 227 @26555 has 1 MA's), (228, 26558), (232, 26567), (242, 26588), (275, 26651), (293, 26678), (305, 26702), (319, 26732), (345, 26783), (352, 26795), (386, 26858), (392, 26873), (415, 26933), (419, 26948), (469, 27029), (475, 27047), (476, 27050), (478, 27053), (579, 27104), (601, 27149), (613, 27191), (628, 27233),

Gene: Licorice\_12 Start: 6660, Stop: 7595, Start Num: 180

Candidate Starts for Licorice\_12:

(Start: 163 @6627 has 304 MA's), (Start: 180 @6660 has 5 MA's), (Start: 190 @6678 has 1 MA's), (Start: 192 @6681 has 2 MA's), (335, 6948), (365, 6999), (368, 7011), (415, 7086), (442, 7149), (450, 7161), (462, 7182), (469, 7194), (474, 7212), (484, 7230), (520, 7293), (551, 7374), (559, 7398), (561, 7401), (563, 7404), (567, 7413), (600, 7500), (614, 7545), (629, 7587),

Gene: Liefie\_28 Start: 25200, Stop: 26408, Start Num: 88

Candidate Starts for Liefie\_28:

(65, 25107), (Start: 88 @25200 has 62 MA's), (154, 25374), (202, 25446), (235, 25506), (251, 25545), (255, 25554), (270, 25578), (275, 25587), (284, 25611), (295, 25632), (309, 25659), (314, 25671), (342, 25743), (361, 25782), (440, 25971), (469, 26010), (476, 26031), (495, 26070), (498, 26076),

Gene: LifeSavor\_253 Start: 145021, Stop: 146049, Start Num: 142

Candidate Starts for LifeSavor\_253:

(Start: 142 @145021 has 200 MA's), (Start: 163 @145051 has 304 MA's), (170, 145063), (Start: 192 @145105 has 2 MA's), (229, 145168), (239, 145189), (Start: 279 @145273 has 1 MA's), (302, 145315), (306, 145327), (312, 145342), (344, 145411), (365, 145438), (393, 145492), (411, 145537), (414, 145540), (449, 145618), (462, 145639), (520, 145750), (554, 145840), (559, 145858), (590, 145930), (601, 145963),

Gene: LilBib\_11 Start: 6570, Stop: 7538, Start Num: 163

Candidate Starts for LilBib\_11:

(Start: 163 @6570 has 304 MA's), (Start: 180 @6603 has 5 MA's), (Start: 190 @6621 has 1 MA's), (Start: 192 @6624 has 2 MA's), (335, 6891), (365, 6942), (368, 6954), (415, 7029), (442, 7092), (462, 7125), (469, 7137), (474, 7155), (484, 7173), (496, 7197), (520, 7236), (551, 7317), (559, 7341), (561, 7344), (563, 7347), (567, 7356), (600, 7443), (629, 7530),

Gene: LilDestine\_28 Start: 26302, Stop: 27273, Start Num: 102

Candidate Starts for LilDestine\_28:

(Start: 102 @26302 has 88 MA's), (120, 26356), (179, 26476), (Start: 198 @26506 has 122 MA's), (208, 26521), (Start: 227 @26554 has 1 MA's), (228, 26557), (232, 26566), (242, 26587), (275, 26650), (293, 26677), (305, 26701), (345, 26782), (352, 26794), (386, 26857), (392, 26872), (415, 26932), (419, 26947), (469, 27028), (475, 27046), (476, 27049), (478, 27052), (579, 27103), (601, 27148), (613, 27190), (628, 27232),

Gene: LilHazelnut\_33 Start: 28339, Stop: 29574, Start Num: 84

Candidate Starts for LilHazelnut\_33:

(Start: 84 @28339 has 24 MA's), (110, 28432), (122, 28465), (128, 28477), (136, 28489), (Start: 138 @28492 has 44 MA's), (170, 28555), (Start: 180 @28573 has 5 MA's), (204, 28606), (235, 28666), (251, 28705), (255, 28714), (257, 28717), (269, 28735), (284, 28771), (309, 28819), (314, 28831), (318, 28837), (339, 28900), (342, 28903), (354, 28930), (361, 28942), (403, 29044), (440, 29131), (469, 29170), (476, 29191), (522, 29260), (534, 29290), (553, 29323), (561, 29332), (564, 29338), (573, 29350), (575, 29359), (601, 29422), (620, 29491),

Gene: LilMcDreamy\_46 Start: 42132, Stop: 43154, Start Num: 162

Candidate Starts for LilMcDreamy\_46:

(Start: 162 @42132 has 2 MA's), (178, 42162), (Start: 190 @42183 has 1 MA's), (Start: 192 @42186 has 2 MA's), (241, 42273), (283, 42342), (362, 42486), (365, 42492), (401, 42555), (409, 42567), (412, 42573), (416, 42576), (446, 42642), (457, 42666), (474, 42702), (491, 42732), (509, 42762), (524, 42789), (525, 42792), (551, 42852), (560, 42873), (575, 42909), (581, 42927), (583, 42933), (604, 42993), (637, 43080), (650, 43125), (653, 43143),



Gene: LilMoolah\_31 Start: 27797, Stop: 28798, Start Num: 149

Candidate Starts for LilMoolah\_31:

(Start: 149 @27797 has 225 MA's), (Start: 163 @27818 has 304 MA's), (170, 27830), (Start: 192 @27872 has 2 MA's), (229, 27935), (239, 27956), (251, 27986), (Start: 279 @28040 has 1 MA's), (292, 28064), (302, 28079), (306, 28091), (365, 28202), (423, 28316), (433, 28334), (454, 28373), (469, 28397), (484, 28433), (497, 28460), (520, 28499), (538, 28547), (559, 28607), (585, 28667), (604, 28724), (614, 28754),

Gene: LilPharaoh\_27 Start: 25978, Stop: 26736, Start Num: 221

Candidate Starts for LilPharaoh\_27:

(151, 25876), (183, 25930), (195, 25951), (Start: 221 @25978 has 188 MA's), (242, 26023), (258, 26059), (289, 26119), (293, 26125), (307, 26155), (323, 26203), (343, 26245), (379, 26311), (395, 26347), (447, 26446), (469, 26473), (476, 26494), (480, 26500), (573, 26539), (576, 26551), (578, 26557), (595, 26581), (601, 26605), (640, 26716), (643, 26725),

Gene: LilSpotty\_32 Start: 24959, Stop: 26029, Start Num: 149

Candidate Starts for LilSpotty\_32:

(Start: 149 @24959 has 225 MA's), (269, 25175), (297, 25229), (314, 25271), (335, 25322), (391, 25436), (404, 25469), (431, 25544), (442, 25565), (450, 25577), (512, 25694), (538, 25766), (578, 25874), (604, 25943), (627, 26009),

Gene: LilTurb\_13 Start: 6892, Stop: 7884, Start Num: 163

Candidate Starts for LilTurb\_13:

(Start: 163 @6892 has 304 MA's), (Start: 180 @6925 has 5 MA's), (Start: 190 @6943 has 1 MA's), (Start: 192 @6946 has 2 MA's), (299, 7114), (302, 7120), (312, 7147), (338, 7207), (365, 7252), (412, 7339), (437, 7384), (467, 7423), (494, 7471), (504, 7486), (540, 7552), (555, 7594), (588, 7681), (624, 7795),

Gene: Lilac\_37 Start: 31355, Stop: 32212, Start Num: 198

Candidate Starts for Lilac\_37:

(Start: 198 @31355 has 122 MA's), (220, 31394), (232, 31424), (242, 31445), (257, 31481), (275, 31511), (309, 31586), (334, 31634), (336, 31637), (345, 31661), (347, 31664), (356, 31679), (426, 31850), (487, 31964), (495, 31979), (498, 31985), (575, 32027), (576, 32030), (601, 32084), (624, 32162), (641, 32195),

Gene: LilhomieP\_37 Start: 31794, Stop: 32765, Start Num: 169

Candidate Starts for LilhomieP\_37:

(Start: 169 @31794 has 13 MA's), (183, 31818), (191, 31833), (266, 31971), (281, 31998), (300, 32016), (305, 32028), (308, 32037), (325, 32082), (330, 32094), (346, 32121), (365, 32148), (368, 32160), (397, 32205), (410, 32232), (423, 32262), (428, 32271), (430, 32274), (475, 32361), (485, 32376), (551, 32529), (552, 32532), (574, 32592), (578, 32604), (581, 32613), (598, 32649), (602, 32664), (618, 32703), (632, 32736),

Gene: Lilith\_12 Start: 5955, Stop: 6920, Start Num: 153

Candidate Starts for Lilith\_12:

(Start: 153 @5955 has 92 MA's), (Start: 180 @6000 has 5 MA's), (Start: 192 @6021 has 2 MA's), (256, 6141), (330, 6279), (365, 6336), (371, 6351), (422, 6432), (430, 6447), (439, 6465), (469, 6516), (474, 6534), (497, 6579), (538, 6675), (561, 6738), (575, 6777), (597, 6828),

Gene: Lilizi\_37 Start: 31563, Stop: 32420, Start Num: 198

Candidate Starts for Lilizi\_37:

(Start: 198 @31563 has 122 MA's), (220, 31602), (232, 31632), (242, 31653), (257, 31689), (275, 31719), (309, 31794), (334, 31842), (336, 31845), (345, 31869), (347, 31872), (356, 31887), (426, 32058), (487, 32172), (495, 32187), (498, 32193), (575, 32235), (576, 32238), (601, 32292), (624, 32370), (641, 32403),

Gene: Lilpickle\_34 Start: 31065, Stop: 31922, Start Num: 198

Candidate Starts for Lilpickle\_34:

(Start: 198 @31065 has 122 MA's), (220, 31104), (232, 31134), (242, 31155), (257, 31191), (275, 31221), (309, 31296), (334, 31344), (336, 31347), (345, 31371), (347, 31374), (356, 31389), (426, 31560), (487, 31674), (495, 31689), (498, 31695), (575, 31737), (576, 31740), (601, 31794), (624, 31872), (641, 31905),

Gene: LinStu\_249 Start: 143122, Stop: 144150, Start Num: 142

Candidate Starts for LinStu\_249:

(Start: 142 @143122 has 200 MA's), (Start: 163 @143152 has 304 MA's), (Start: 192 @143206 has 2 MA's), (229, 143269), (239, 143290), (Start: 279 @143374 has 1 MA's), (302, 143416), (306, 143428), (312, 143443), (344, 143512), (365, 143539), (393, 143593), (411, 143638), (414, 143641), (449, 143719), (462, 143740), (520, 143851), (554, 143941), (559, 143959), (590, 144031), (601, 144064),

Gene: LindNT\_31 Start: 26427, Stop: 27299, Start Num: 221

Candidate Starts for LindNT\_31:

(195, 26400), (Start: 221 @26427 has 188 MA's), (Start: 227 @26439 has 1 MA's), (258, 26508), (275, 26535), (287, 26565), (293, 26574), (309, 26610), (313, 26619), (323, 26652), (331, 26670), (379, 26760), (447, 26895), (469, 26922), (476, 26943), (487, 26967), (521, 27018), (578, 27120), (598, 27156), (604, 27180), (640, 27279), (643, 27288),

Gene: LittleB\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for LittleB\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: LittleCherry\_8 Start: 5356, Stop: 6165, Start Num: 221

Candidate Starts for LittleCherry\_8:

(Start: 221 @5356 has 188 MA's), (251, 5419), (255, 5428), (284, 5485), (309, 5533), (339, 5614), (420, 5803), (440, 5845), (475, 5902), (495, 5944), (645, 6151),

Gene: LittleE\_53 Start: 42373, Stop: 43245, Start Num: 89

Candidate Starts for LittleE\_53:

(Start: 89 @42373 has 30 MA's), (Start: 97 @42400 has 1 MA's), (Start: 148 @42529 has 26 MA's), (174, 42574), (189, 42595), (206, 42616), (233, 42670), (274, 42751), (403, 43030), (405, 43033), (424, 43093), (432, 43108), (438, 43120), (444, 43141),

Gene: LittleGuy\_10 Start: 5821, Stop: 6804, Start Num: 163

Candidate Starts for LittleGuy\_10:

(Start: 163 @5821 has 304 MA's), (Start: 190 @5872 has 1 MA's), (Start: 192 @5875 has 2 MA's), (273, 6010), (284, 6034), (330, 6124), (365, 6181), (401, 6244), (416, 6265), (422, 6286), (437, 6313), (474, 6370), (551, 6520), (601, 6643), (604, 6655), (644, 6766),

Gene: LittleShirley\_34 Start: 29159, Stop: 30160, Start Num: 149

Candidate Starts for LittleShirley\_34:

(Start: 149 @29159 has 225 MA's), (Start: 192 @29234 has 2 MA's), (210, 29267), (229, 29297), (239, 29318), (Start: 279 @29402 has 1 MA's), (292, 29426), (302, 29441), (306, 29453), (365, 29564),

(423, 29678), (433, 29696), (454, 29735), (469, 29759), (484, 29795), (497, 29822), (520, 29861), (538, 29909), (559, 29969), (585, 30029), (600, 30071), (601, 30074), (604, 30086), (614, 30116),

Gene: Littleton\_256 Start: 145030, Stop: 146058, Start Num: 142

Candidate Starts for Littleton\_256:

(Start: 142 @145030 has 200 MA's), (Start: 163 @145060 has 304 MA's), (170, 145072), (Start: 192 @145114 has 2 MA's), (229, 145177), (239, 145198), (Start: 279 @145282 has 1 MA's), (302, 145324), (306, 145336), (312, 145351), (344, 145420), (365, 145447), (393, 145501), (411, 145546), (414, 145549), (449, 145627), (462, 145648), (520, 145759), (554, 145849), (559, 145867), (590, 145939), (601, 145972),

Gene: Lizziana\_31 Start: 27672, Stop: 28673, Start Num: 149

Candidate Starts for Lizziana\_31:

(Start: 149 @27672 has 225 MA's), (Start: 163 @27693 has 304 MA's), (170, 27705), (Start: 192 @27747 has 2 MA's), (229, 27810), (239, 27831), (251, 27861), (Start: 279 @27915 has 1 MA's), (292, 27939), (302, 27954), (306, 27966), (365, 28077), (423, 28191), (433, 28209), (454, 28248), (469, 28272), (484, 28308), (497, 28335), (520, 28374), (538, 28422), (559, 28482), (585, 28542), (604, 28599), (614, 28629),

Gene: Llama\_31 Start: 27727, Stop: 28728, Start Num: 149

Candidate Starts for Llama\_31:

(33, 27106), (39, 27184), (42, 27247), (47, 27286), (58, 27418), (62, 27439), (69, 27475), (107, 27628), (Start: 149 @27727 has 225 MA's), (Start: 163 @27748 has 304 MA's), (170, 27760), (Start: 192 @27802 has 2 MA's), (210, 27835), (229, 27865), (239, 27886), (Start: 279 @27970 has 1 MA's), (292, 27994), (302, 28009), (306, 28021), (365, 28132), (423, 28246), (433, 28264), (454, 28303), (469, 28327), (484, 28363), (497, 28390), (520, 28429), (559, 28537), (578, 28585), (585, 28597), (600, 28639), (601, 28642), (604, 28654), (614, 28684),

Gene: Llij\_31 Start: 27499, Stop: 28500, Start Num: 149

Candidate Starts for Llij\_31:

(69, 27247), (107, 27400), (Start: 149 @27499 has 225 MA's), (Start: 163 @27520 has 304 MA's), (170, 27532), (Start: 192 @27574 has 2 MA's), (229, 27637), (239, 27658), (251, 27688), (Start: 279 @27742 has 1 MA's), (292, 27766), (306, 27793), (365, 27904), (423, 28018), (433, 28036), (454, 28075), (469, 28099), (484, 28135), (497, 28162), (520, 28201), (538, 28249), (559, 28309), (585, 28369), (604, 28426), (614, 28456),

Gene: Llorens\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for Llorens\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: Loadrie\_28 Start: 26335, Stop: 27306, Start Num: 102

Candidate Starts for Loadrie\_28:

(Start: 102 @26335 has 88 MA's), (120, 26389), (179, 26509), (Start: 198 @26539 has 122 MA's), (203, 26548), (208, 26554), (Start: 227 @26587 has 1 MA's), (228, 26590), (232, 26599), (242, 26620), (275, 26683), (293, 26710), (305, 26734), (345, 26815), (352, 26827), (386, 26890), (392, 26905), (415, 26965), (419, 26980), (469, 27061), (475, 27079), (476, 27082), (478, 27085), (579, 27136), (601, 27181), (613, 27223), (628, 27265),

Gene: Loanshark\_249 Start: 144380, Stop: 145408, Start Num: 142

Candidate Starts for Loanshark\_249:

(Start: 142 @144380 has 200 MA's), (Start: 163 @144410 has 304 MA's), (170, 144422), (Start: 192 @144464 has 2 MA's), (229, 144527), (239, 144548), (Start: 279 @144632 has 1 MA's), (302, 144674), (306, 144686), (312, 144701), (344, 144770), (365, 144797), (393, 144851), (411, 144896), (414, 144899), (449, 144977), (462, 144998), (520, 145109), (554, 145199), (559, 145217), (590, 145289), (601, 145322),

Gene: LochMonster\_10 Start: 5856, Stop: 6836, Start Num: 164

Candidate Starts for LochMonster\_10:

(Start: 164 @5856 has 109 MA's), (178, 5883), (Start: 190 @5904 has 1 MA's), (Start: 192 @5907 has 2 MA's), (330, 6156), (365, 6213), (368, 6225), (401, 6276), (416, 6297), (437, 6345), (461, 6372), (474, 6402), (551, 6552), (601, 6675), (604, 6687), (627, 6753),

Gene: Lockley\_10 Start: 5949, Stop: 6917, Start Num: 163

Candidate Starts for Lockley\_10:

(Start: 163 @5949 has 304 MA's), (Start: 180 @5982 has 5 MA's), (Start: 190 @6000 has 1 MA's), (Start: 192 @6003 has 2 MA's), (335, 6270), (365, 6321), (368, 6333), (415, 6408), (442, 6471), (450, 6483), (462, 6504), (469, 6516), (474, 6534), (484, 6552), (496, 6576), (520, 6615), (551, 6696), (559, 6720), (561, 6723), (563, 6726), (567, 6735), (600, 6822), (629, 6909),

Gene: Loka\_14 Start: 8131, Stop: 9117, Start Num: 163

Candidate Starts for Loka\_14:

(Start: 163 @8131 has 304 MA's), (178, 8161), (Start: 190 @8182 has 1 MA's), (Start: 192 @8185 has 2 MA's), (212, 8218), (330, 8434), (362, 8485), (365, 8491), (368, 8503), (381, 8524), (437, 8614), (474, 8680), (551, 8830), (560, 8851), (604, 8965), (627, 9037),

Gene: LolaVince\_248 Start: 144633, Stop: 145661, Start Num: 142

Candidate Starts for LolaVince\_248:

(Start: 142 @144633 has 200 MA's), (Start: 163 @144663 has 304 MA's), (170, 144675), (Start: 192 @144717 has 2 MA's), (229, 144780), (239, 144801), (Start: 279 @144885 has 1 MA's), (302, 144927), (306, 144939), (312, 144954), (344, 145023), (365, 145050), (393, 145104), (411, 145149), (414, 145152), (449, 145230), (462, 145251), (520, 145362), (554, 145452), (559, 145470), (590, 145542), (601, 145575),

Gene: Lolly9\_28 Start: 26618, Stop: 27661, Start Num: 102

Candidate Starts for Lolly9\_28:

(Start: 102 @26618 has 88 MA's), (Start: 103 @26624 has 3 MA's), (112, 26651), (120, 26672), (143, 26723), (160, 26753), (186, 26804), (245, 26909), (289, 26990), (293, 26996), (312, 27038), (341, 27092), (349, 27110), (352, 27116), (355, 27122), (392, 27194), (418, 27251), (452, 27311), (489, 27386), (499, 27407), (572, 27431), (576, 27446), (578, 27452), (604, 27515), (640, 27617), (645, 27638), (648, 27644),

Gene: Longacauda\_48 Start: 41404, Stop: 42759, Start Num: 82

Candidate Starts for Longacauda\_48:

(Start: 82 @41404 has 255 MA's), (98, 41455), (108, 41488), (168, 41617), (170, 41620), (Start: 180 @41635 has 5 MA's), (235, 41731), (251, 41770), (269, 41800), (284, 41836), (333, 41947), (345, 41977), (347, 41980), (379, 42046), (440, 42205), (469, 42253), (475, 42271), (498, 42319), (550, 42463), (571, 42523), (603, 42628), (637, 42715),

Gene: Lopsy\_48 Start: 41269, Stop: 42624, Start Num: 82

Candidate Starts for Lopsy\_48:

(Start: 82 @41269 has 255 MA's), (98, 41320), (108, 41353), (168, 41482), (170, 41485), (Start: 180 @41500 has 5 MA's), (235, 41596), (251, 41635), (269, 41665), (284, 41701), (333, 41812), (345, 41842), (347, 41845), (379, 41911), (440, 42070), (469, 42118), (475, 42136), (498, 42184), (550,

42328), (571, 42388), (603, 42493), (637, 42580),

Gene: Lopton\_11 Start: 6354, Stop: 7322, Start Num: 163

Candidate Starts for Lopton\_11:

(Start: 163 @6354 has 304 MA's), (Start: 180 @6387 has 5 MA's), (Start: 190 @6405 has 1 MA's), (Start: 192 @6408 has 2 MA's), (335, 6675), (365, 6726), (368, 6738), (415, 6813), (442, 6876), (450, 6888), (462, 6909), (469, 6921), (474, 6939), (484, 6957), (496, 6981), (520, 7020), (551, 7101), (559, 7125), (561, 7128), (563, 7131), (567, 7140), (600, 7227), (629, 7314),

Gene: LordLeafolot\_254 Start: 144246, Stop: 145274, Start Num: 142

Candidate Starts for LordLeafolot\_254:

(Start: 142 @144246 has 200 MA's), (Start: 163 @144276 has 304 MA's), (170, 144288), (Start: 192 @144330 has 2 MA's), (229, 144393), (239, 144414), (Start: 279 @144498 has 1 MA's), (302, 144540), (306, 144552), (312, 144567), (344, 144636), (365, 144663), (393, 144717), (411, 144762), (414, 144765), (449, 144843), (462, 144864), (520, 144975), (554, 145065), (559, 145083), (590, 145155), (601, 145188),

Gene: Lorde\_33 Start: 27654, Stop: 28724, Start Num: 149

Candidate Starts for Lorde\_33:

(122, 27600), (Start: 149 @27654 has 225 MA's), (269, 27870), (270, 27873), (297, 27924), (314, 27966), (335, 28017), (391, 28131), (404, 28164), (431, 28239), (442, 28260), (512, 28389), (538, 28461), (574, 28557), (578, 28569), (604, 28638), (623, 28695), (627, 28704),

Gene: Lorenzo\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Lorenzo\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Loser\_14 Start: 8241, Stop: 9218, Start Num: 163

Candidate Starts for Loser\_14:

(Start: 163 @8241 has 304 MA's), (Start: 192 @8295 has 2 MA's), (312, 8484), (325, 8520), (330, 8532), (365, 8589), (382, 8625), (415, 8673), (430, 8712), (469, 8781), (474, 8799), (497, 8844), (507, 8862), (528, 8904), (538, 8952), (549, 8979), (554, 8994), (561, 9015), (574, 9051), (575, 9054), (595, 9096), (597, 9105), (606, 9138),

Gene: LostAndPhound\_48 Start: 41423, Stop: 42778, Start Num: 82

Candidate Starts for LostAndPhound\_48:

(Start: 82 @41423 has 255 MA's), (98, 41474), (108, 41507), (114, 41525), (168, 41636), (170, 41639), (Start: 180 @41654 has 5 MA's), (235, 41750), (251, 41789), (269, 41819), (284, 41855), (333, 41966), (345, 41996), (347, 41999), (379, 42065), (440, 42224), (469, 42272), (475, 42290), (498, 42338), (550, 42482), (571, 42542), (603, 42647), (637, 42734),

Gene: Louie6\_12 Start: 6049, Stop: 7014, Start Num: 153

Candidate Starts for Louie6\_12:

(Start: 153 @6049 has 92 MA's), (Start: 180 @6094 has 5 MA's), (Start: 192 @6115 has 2 MA's), (256, 6235), (330, 6373), (365, 6430), (371, 6445), (422, 6526), (430, 6541), (439, 6559), (469, 6610), (474, 6628), (497, 6673), (538, 6769), (561, 6832), (575, 6871), (597, 6922),

Gene: LouisV14\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for LouisV14\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744),

(361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: Luchador\_11 Start: 6567, Stop: 7526, Start Num: 180

Candidate Starts for Luchador\_11:

(Start: 163 @6534 has 304 MA's), (Start: 180 @6567 has 5 MA's), (Start: 190 @6585 has 1 MA's), (Start: 192 @6588 has 2 MA's), (273, 6723), (302, 6762), (312, 6789), (338, 6849), (365, 6894), (412, 6981), (437, 7026), (441, 7035), (467, 7065), (494, 7113), (540, 7194), (555, 7236), (588, 7323), (619, 7422), (624, 7437), (651, 7512),

Gene: Lucky2013\_48 Start: 39222, Stop: 40226, Start Num: 100

Candidate Starts for Lucky2013\_48:

(Start: 100 @39222 has 10 MA's), (117, 39276), (141, 39327), (184, 39399), (232, 39474), (293, 39588), (300, 39600), (313, 39633), (345, 39702), (352, 39714), (363, 39726), (364, 39729), (384, 39774), (392, 39792), (469, 39954), (473, 39969), (478, 39978), (637, 40179),

Gene: LuckyMarjie\_48 Start: 41411, Stop: 42766, Start Num: 82

Candidate Starts for LuckyMarjie\_48:

(Start: 82 @41411 has 255 MA's), (98, 41462), (108, 41495), (168, 41624), (170, 41627), (Start: 180 @41642 has 5 MA's), (235, 41738), (251, 41777), (269, 41807), (284, 41843), (333, 41954), (345, 41984), (347, 41987), (379, 42053), (440, 42212), (469, 42260), (475, 42278), (498, 42326), (550, 42470), (571, 42530), (603, 42635), (637, 42722),

Gene: LugYA\_14 Start: 5960, Stop: 6925, Start Num: 153

Candidate Starts for LugYA\_14:

(Start: 153 @5960 has 92 MA's), (Start: 180 @6005 has 5 MA's), (Start: 192 @6026 has 2 MA's), (256, 6146), (365, 6341), (371, 6356), (422, 6437), (430, 6452), (439, 6470), (469, 6521), (474, 6539), (497, 6584), (538, 6680), (561, 6743), (575, 6782), (597, 6833),

Gene: Luke\_33 Start: 28294, Stop: 29529, Start Num: 84

Candidate Starts for Luke\_33:

(Start: 84 @28294 has 24 MA's), (110, 28387), (122, 28420), (128, 28432), (136, 28444), (Start: 138 @28447 has 44 MA's), (170, 28510), (Start: 180 @28528 has 5 MA's), (204, 28561), (235, 28621), (251, 28660), (255, 28669), (257, 28672), (269, 28690), (284, 28726), (309, 28774), (314, 28786), (318, 28792), (339, 28855), (342, 28858), (354, 28885), (361, 28897), (403, 28999), (440, 29086), (469, 29125), (476, 29146), (522, 29215), (534, 29245), (553, 29278), (561, 29287), (564, 29293), (573, 29305), (575, 29314), (601, 29377), (620, 29446),

Gene: Lukilu\_241 Start: 145249, Stop: 146277, Start Num: 142

Candidate Starts for Lukilu\_241:

(Start: 142 @145249 has 200 MA's), (Start: 163 @145279 has 304 MA's), (170, 145291), (Start: 192 @145333 has 2 MA's), (229, 145396), (239, 145417), (Start: 279 @145501 has 1 MA's), (302, 145543), (306, 145555), (312, 145570), (344, 145639), (365, 145666), (393, 145720), (411, 145765), (414, 145768), (449, 145846), (462, 145867), (520, 145978), (554, 146068), (559, 146086), (590, 146158), (601, 146191),

Gene: Lulumae\_48 Start: 41396, Stop: 42751, Start Num: 82

Candidate Starts for Lulumae\_48:

(Start: 82 @41396 has 255 MA's), (98, 41447), (108, 41480), (168, 41609), (170, 41612), (Start: 180 @41627 has 5 MA's), (235, 41723), (251, 41762), (269, 41792), (284, 41828), (333, 41939), (345, 41969), (347, 41972), (379, 42038), (440, 42197), (469, 42245), (475, 42263), (498, 42311), (550, 42455), (571, 42515), (603, 42620), (637, 42707),

Gene: Lulwa\_49 Start: 41689, Stop: 43044, Start Num: 82

Candidate Starts for Lulwa\_49:

(Start: 82 @41689 has 255 MA's), (98, 41740), (108, 41773), (168, 41902), (170, 41905), (Start: 180 @41920 has 5 MA's), (235, 42016), (251, 42055), (269, 42085), (284, 42121), (333, 42232), (345, 42262), (347, 42265), (379, 42331), (440, 42490), (469, 42538), (475, 42556), (498, 42604), (550, 42748), (571, 42808), (603, 42913), (637, 43000),

Gene: Lumine\_48 Start: 41392, Stop: 42747, Start Num: 82

Candidate Starts for Lumine\_48:

(Start: 82 @41392 has 255 MA's), (98, 41443), (108, 41476), (168, 41605), (170, 41608), (Start: 180 @41623 has 5 MA's), (235, 41719), (251, 41758), (269, 41788), (284, 41824), (333, 41935), (345, 41965), (347, 41968), (379, 42034), (440, 42193), (469, 42241), (475, 42259), (498, 42307), (550, 42451), (571, 42511), (603, 42616), (637, 42703),

Gene: Lumos\_28 Start: 26847, Stop: 27890, Start Num: 102

Candidate Starts for Lumos\_28:

(Start: 102 @26847 has 88 MA's), (Start: 103 @26853 has 3 MA's), (112, 26880), (120, 26901), (143, 26952), (186, 27033), (245, 27138), (289, 27219), (293, 27225), (341, 27321), (349, 27339), (352, 27345), (355, 27351), (392, 27423), (418, 27480), (452, 27540), (489, 27615), (499, 27636), (572, 27660), (576, 27675), (580, 27687), (604, 27744), (640, 27846), (645, 27867),

Gene: Luna22\_32 Start: 28339, Stop: 29574, Start Num: 84

Candidate Starts for Luna22\_32:

(Start: 84 @28339 has 24 MA's), (110, 28432), (122, 28465), (128, 28477), (136, 28489), (Start: 138 @28492 has 44 MA's), (170, 28555), (Start: 180 @28573 has 5 MA's), (204, 28606), (235, 28666), (251, 28705), (255, 28714), (257, 28717), (269, 28735), (284, 28771), (309, 28819), (314, 28831), (318, 28837), (339, 28900), (342, 28903), (354, 28930), (361, 28942), (403, 29044), (440, 29131), (469, 29170), (476, 29191), (522, 29260), (534, 29290), (553, 29323), (561, 29332), (564, 29338), (573, 29350), (575, 29359), (601, 29422), (620, 29491),

Gene: LunaBlu\_34 Start: 28521, Stop: 29537, Start Num: 149

Candidate Starts for LunaBlu\_34:

(74, 28290), (75, 28293), (83, 28341), (126, 28476), (132, 28485), (Start: 149 @28521 has 225 MA's), (Start: 221 @28653 has 188 MA's), (229, 28674), (239, 28695), (251, 28725), (259, 28737), (Start: 279 @28779 has 1 MA's), (306, 28830), (312, 28845), (365, 28941), (422, 29052), (433, 29073), (454, 29112), (462, 29124), (484, 29172), (497, 29199), (511, 29223), (520, 29238), (559, 29346), (578, 29394), (604, 29463), (614, 29493),

Gene: LunaStella\_33 Start: 28121, Stop: 29197, Start Num: 149

Candidate Starts for LunaStella\_33:

(Start: 149 @28121 has 225 MA's), (Start: 166 @28148 has 14 MA's), (182, 28178), (185, 28184), (229, 28259), (235, 28271), (244, 28289), (274, 28346), (311, 28424), (314, 28433), (335, 28484), (358, 28526), (367, 28550), (369, 28559), (391, 28601), (404, 28634), (422, 28691), (423, 28694), (431, 28709), (437, 28721), (450, 28742), (455, 28754), (470, 28778), (512, 28859), (517, 28883), (538, 28934), (568, 29012), (578, 29042), (579, 29045), (599, 29090), (604, 29111), (627, 29177),

Gene: Lunahalos\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for Lunahalos\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: Lunsford\_11 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Lunsford\_11:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712),

Gene: MA5\_10 Start: 5337, Stop: 6077, Start Num: 285

Candidate Starts for MA5\_10:

(172, 5151), (209, 5220), (Start: 285 @5337 has 17 MA's), (330, 5424), (365, 5481), (368, 5493), (371, 5496), (385, 5520), (400, 5535), (422, 5583), (425, 5589), (439, 5616), (474, 5685), (512, 5757), (535, 5799), (538, 5826), (549, 5853), (559, 5886), (561, 5889), (575, 5928), (631, 6069),

Gene: MAckerman\_26 Start: 25547, Stop: 26578, Start Num: 142

Candidate Starts for MAckerman\_26:

(Start: 142 @25547 has 200 MA's), (236, 25703), (247, 25727), (251, 25739), (261, 25757), (272, 25775), (278, 25793), (281, 25799), (286, 25808), (Start: 294 @25823 has 16 MA's), (303, 25838), (321, 25886), (330, 25910), (365, 25967), (385, 26006), (425, 26084), (430, 26093), (431, 26096), (439, 26111), (467, 26165), (474, 26186), (482, 26201), (526, 26285), (537, 26315), (561, 26384), (567, 26396), (575, 26420), (581, 26438), (585, 26441), (590, 26453), (592, 26456), (601, 26486), (604, 26498),

Gene: MISSy\_34 Start: 31371, Stop: 32228, Start Num: 198

Candidate Starts for MISSy\_34:

(Start: 198 @31371 has 122 MA's), (220, 31410), (232, 31440), (242, 31461), (257, 31497), (275, 31527), (309, 31602), (334, 31650), (336, 31653), (345, 31677), (347, 31680), (356, 31695), (426, 31866), (481, 31965), (487, 31980), (495, 31995), (498, 32001), (575, 32043), (576, 32046), (601, 32100), (624, 32178), (641, 32211),

Gene: MK4\_10 Start: 5610, Stop: 6350, Start Num: 285

Candidate Starts for MK4\_10:

(Start: 285 @5610 has 17 MA's), (330, 5697), (365, 5754), (368, 5766), (371, 5769), (385, 5793), (400, 5808), (422, 5856), (425, 5862), (439, 5889), (474, 5958), (512, 6030), (535, 6072), (538, 6099), (549, 6126), (559, 6159), (561, 6162), (575, 6201), (598, 6255), (631, 6342),

Gene: MPhalcon\_34 Start: 31364, Stop: 32221, Start Num: 198

Candidate Starts for MPhalcon\_34:

(Start: 198 @31364 has 122 MA's), (220, 31403), (232, 31433), (242, 31454), (257, 31490), (275, 31520), (309, 31595), (334, 31643), (336, 31646), (345, 31670), (347, 31673), (356, 31688), (426, 31859), (487, 31973), (495, 31988), (498, 31994), (575, 32036), (576, 32039), (601, 32093), (624, 32171), (641, 32204),

Gene: MPlant7149\_9 Start: 5587, Stop: 6555, Start Num: 163

Candidate Starts for MPlant7149\_9:

(Start: 163 @5587 has 304 MA's), (Start: 180 @5620 has 5 MA's), (Start: 190 @5638 has 1 MA's), (Start: 192 @5641 has 2 MA's), (335, 5908), (365, 5959), (368, 5971), (415, 6046), (442, 6109), (450, 6121), (462, 6142), (469, 6154), (474, 6172), (484, 6190), (496, 6214), (520, 6253), (551, 6334), (559, 6358), (561, 6361), (563, 6364), (567, 6373), (600, 6460), (629, 6547),

Gene: MRabcd\_48 Start: 41402, Stop: 42757, Start Num: 82

Candidate Starts for MRabcd\_48:

(Start: 82 @41402 has 255 MA's), (98, 41453), (108, 41486), (114, 41504), (168, 41615), (170, 41618), (Start: 180 @41633 has 5 MA's), (235, 41729), (251, 41768), (269, 41798), (284, 41834), (333, 41945), (345, 41975), (347, 41978), (379, 42044), (440, 42203), (469, 42251), (475, 42269),



(498, 42317), (550, 42461), (571, 42521), (603, 42626), (637, 42713),

Gene: Maby2021\_253 Start: 145933, Stop: 146961, Start Num: 142

Candidate Starts for Maby2021\_253:

(Start: 142 @145933 has 200 MA's), (Start: 163 @145963 has 304 MA's), (170, 145975), (Start: 192 @146017 has 2 MA's), (229, 146080), (239, 146101), (Start: 279 @146185 has 1 MA's), (302, 146227), (306, 146239), (312, 146254), (344, 146323), (365, 146350), (393, 146404), (411, 146449), (414, 146452), (449, 146530), (462, 146551), (520, 146662), (554, 146752), (559, 146770), (590, 146842), (601, 146875),

Gene: MacnCheese\_32 Start: 27431, Stop: 28219, Start Num: 221

Candidate Starts for MacnCheese\_32:

(195, 27407), (Start: 221 @27431 has 188 MA's), (242, 27476), (258, 27512), (287, 27569), (293, 27578), (309, 27614), (331, 27668), (343, 27692), (416, 27833), (447, 27896), (469, 27938), (476, 27959), (480, 27965), (487, 27983), (575, 28013), (576, 28016), (597, 28055), (604, 28082), (625, 28154), (640, 28184),

Gene: MadKillah\_68 Start: 43198, Stop: 44238, Start Num: 148

Candidate Starts for MadKillah\_68:

(Start: 148 @43198 has 26 MA's), (Start: 192 @43273 has 2 MA's), (229, 43354), (232, 43360), (239, 43375), (278, 43456), (Start: 279 @43459 has 1 MA's), (306, 43513), (312, 43528), (365, 43624), (385, 43663), (397, 43693), (411, 43723), (414, 43726), (425, 43759), (462, 43825), (479, 43864), (484, 43873), (497, 43900), (520, 43939), (589, 44113), (604, 44164),

Gene: MadMarie\_12 Start: 5964, Stop: 6929, Start Num: 153

Candidate Starts for MadMarie\_12:

(Start: 153 @5964 has 92 MA's), (Start: 180 @6009 has 5 MA's), (Start: 192 @6030 has 2 MA's), (256, 6150), (330, 6288), (365, 6345), (371, 6360), (422, 6441), (430, 6456), (439, 6474), (469, 6525), (474, 6543), (497, 6588), (538, 6684), (561, 6747), (575, 6786), (597, 6837),

Gene: MadMen\_29 Start: 26957, Stop: 27958, Start Num: 149

Candidate Starts for MadMen\_29:

(Start: 149 @26957 has 225 MA's), (Start: 192 @27032 has 2 MA's), (210, 27065), (229, 27095), (239, 27116), (Start: 279 @27200 has 1 MA's), (306, 27251), (312, 27266), (365, 27362), (422, 27473), (433, 27494), (454, 27533), (462, 27545), (484, 27593), (497, 27620), (511, 27644), (520, 27659), (559, 27767), (578, 27815), (604, 27884), (614, 27914),

Gene: MadamMonkfish\_35 Start: 31276, Stop: 32133, Start Num: 198

Candidate Starts for MadamMonkfish\_35:

(Start: 198 @31276 has 122 MA's), (220, 31315), (232, 31345), (242, 31366), (257, 31402), (275, 31432), (309, 31507), (334, 31555), (336, 31558), (345, 31582), (347, 31585), (356, 31600), (426, 31771), (487, 31885), (495, 31900), (498, 31906), (575, 31948), (576, 31951), (601, 32005), (624, 32083), (641, 32116),

Gene: Madiba\_29 Start: 26429, Stop: 27430, Start Num: 149

Candidate Starts for Madiba\_29:

(91, 26267), (Start: 149 @26429 has 225 MA's), (Start: 192 @26504 has 2 MA's), (210, 26537), (229, 26567), (239, 26588), (Start: 279 @26672 has 1 MA's), (292, 26696), (302, 26711), (306, 26723), (365, 26834), (423, 26948), (433, 26966), (454, 27005), (469, 27029), (484, 27065), (497, 27092), (520, 27131), (559, 27239), (578, 27287), (585, 27299), (601, 27344), (604, 27356), (614, 27386),

Gene: Madruga\_40 Start: 34911, Stop: 35936, Start Num: 140

Candidate Starts for Madruga\_40:

(Start: 140 @34911 has 3 MA's), (229, 35046), (269, 35121), (311, 35205), (314, 35214), (322, 35238), (326, 35247), (380, 35340), (422, 35439), (439, 35472), (450, 35487), (459, 35508), (467, 35517), (512, 35604), (520, 35622), (536, 35652), (538, 35670), (550, 35706), (578, 35781), (585, 35793), (587, 35796), (600, 35835), (617, 35892),

Gene: Mag7\_48 Start: 41326, Stop: 42681, Start Num: 82

Candidate Starts for Mag7\_48:

(Start: 82 @41326 has 255 MA's), (98, 41377), (108, 41410), (168, 41539), (170, 41542), (Start: 180 @41557 has 5 MA's), (235, 41653), (251, 41692), (269, 41722), (284, 41758), (333, 41869), (345, 41899), (347, 41902), (379, 41968), (440, 42127), (469, 42175), (475, 42193), (498, 42241), (550, 42385), (571, 42445), (603, 42550), (637, 42637),

Gene: Magic8\_49 Start: 41761, Stop: 43116, Start Num: 82

Candidate Starts for Magic8\_49:

(Start: 82 @41761 has 255 MA's), (98, 41812), (108, 41845), (168, 41974), (170, 41977), (Start: 180 @41992 has 5 MA's), (235, 42088), (251, 42127), (269, 42157), (284, 42193), (333, 42304), (345, 42334), (347, 42337), (379, 42403), (440, 42562), (469, 42610), (475, 42628), (498, 42676), (550, 42820), (571, 42880), (603, 42985), (637, 43072),

Gene: Magnar\_10 Start: 5741, Stop: 6703, Start Num: 163

Candidate Starts for Magnar\_10:

(Start: 163 @5741 has 304 MA's), (Start: 180 @5774 has 5 MA's), (Start: 190 @5792 has 1 MA's), (Start: 192 @5795 has 2 MA's), (306, 5996), (335, 6062), (365, 6107), (416, 6197), (454, 6278), (462, 6290), (469, 6302), (474, 6320), (484, 6338), (496, 6362), (520, 6401), (551, 6482), (559, 6506), (561, 6509), (563, 6512), (567, 6521), (600, 6608), (614, 6653), (629, 6695),

Gene: Magnito\_9 Start: 5486, Stop: 6454, Start Num: 163

Candidate Starts for Magnito\_9:

(Start: 163 @5486 has 304 MA's), (Start: 180 @5519 has 5 MA's), (Start: 190 @5537 has 1 MA's), (Start: 192 @5540 has 2 MA's), (335, 5807), (365, 5858), (368, 5870), (415, 5945), (442, 6008), (450, 6020), (462, 6041), (469, 6053), (474, 6071), (484, 6089), (496, 6113), (520, 6152), (551, 6233), (559, 6257), (561, 6260), (563, 6263), (567, 6272), (600, 6359), (629, 6446),

Gene: Mahavrat\_31 Start: 27558, Stop: 28559, Start Num: 149

Candidate Starts for Mahavrat\_31:

(107, 27459), (137, 27531), (Start: 149 @27558 has 225 MA's), (Start: 163 @27579 has 304 MA's), (170, 27591), (Start: 192 @27633 has 2 MA's), (210, 27666), (229, 27696), (239, 27717), (Start: 279 @27801 has 1 MA's), (292, 27825), (302, 27840), (306, 27852), (365, 27963), (423, 28077), (433, 28095), (454, 28134), (469, 28158), (484, 28194), (497, 28221), (520, 28260), (559, 28368), (585, 28428), (601, 28473), (604, 28485), (614, 28515),

Gene: Mainiac\_12 Start: 5955, Stop: 6920, Start Num: 153

Candidate Starts for Mainiac\_12:

(Start: 153 @5955 has 92 MA's), (Start: 180 @6000 has 5 MA's), (Start: 192 @6021 has 2 MA's), (256, 6141), (330, 6279), (365, 6336), (371, 6351), (422, 6432), (430, 6447), (439, 6465), (469, 6516), (474, 6534), (497, 6579), (538, 6675), (561, 6738), (575, 6777), (597, 6828),

Gene: Majeke\_27 Start: 24058, Stop: 25224, Start Num: 102

Candidate Starts for Majeke\_27:

(Start: 102 @24058 has 88 MA's), (123, 24115), (168, 24202), (Start: 198 @24247 has 122 MA's), (235, 24322), (245, 24343), (284, 24427), (305, 24466), (333, 24532), (345, 24562), (359, 24583), (379, 24628), (417, 24724), (434, 24763), (440, 24778), (469, 24817), (510, 24904), (527, 24922), (530, 24928), (553, 24976), (571, 24997), (598, 25069), (620, 25144),

Gene: Makemake\_10 Start: 6196, Stop: 7164, Start Num: 163

Candidate Starts for Makemake\_10:

(Start: 163 @6196 has 304 MA's), (Start: 180 @6229 has 5 MA's), (Start: 190 @6247 has 1 MA's), (Start: 192 @6250 has 2 MA's), (335, 6517), (365, 6568), (368, 6580), (415, 6655), (442, 6718), (462, 6751), (474, 6781), (484, 6799), (496, 6823), (520, 6862), (551, 6943), (559, 6967), (561, 6970), (563, 6973), (567, 6982), (600, 7069), (614, 7114), (629, 7156),

Gene: MalagasyRose\_31 Start: 25844, Stop: 26686, Start Num: 221

Candidate Starts for MalagasyRose\_31:

(195, 25817), (Start: 221 @25844 has 188 MA's), (Start: 227 @25856 has 1 MA's), (239, 25883), (242, 25889), (253, 25919), (270, 25943), (287, 25979), (293, 25988), (309, 26024), (323, 26066), (378, 26171), (462, 26324), (469, 26336), (476, 26357), (487, 26381), (501, 26408), (506, 26417), (578, 26507), (599, 26546), (604, 26567), (640, 26666),

Gene: Malec\_12 Start: 6729, Stop: 7712, Start Num: 163

Candidate Starts for Malec\_12:

(Start: 163 @6729 has 304 MA's), (178, 6759), (Start: 180 @6762 has 5 MA's), (Start: 192 @6783 has 2 MA's), (325, 7020), (330, 7032), (344, 7059), (365, 7089), (368, 7101), (376, 7113), (410, 7167), (435, 7218), (474, 7278), (551, 7425), (581, 7500), (604, 7560), (627, 7632), (646, 7686),

Gene: Malinsilva\_14 Start: 5954, Stop: 6919, Start Num: 153

Candidate Starts for Malinsilva\_14:

(Start: 153 @5954 has 92 MA's), (Start: 180 @5999 has 5 MA's), (Start: 192 @6020 has 2 MA's), (256, 6140), (330, 6278), (365, 6335), (371, 6350), (422, 6431), (430, 6446), (439, 6464), (469, 6515), (474, 6533), (497, 6578), (538, 6674), (561, 6737), (575, 6776), (597, 6827),

Gene: Malithi\_27 Start: 23977, Stop: 25143, Start Num: 102

Candidate Starts for Malithi\_27:

(Start: 102 @23977 has 88 MA's), (106, 23986), (122, 24031), (123, 24034), (168, 24121), (Start: 198 @24166 has 122 MA's), (214, 24199), (235, 24241), (245, 24262), (251, 24280), (284, 24346), (305, 24385), (333, 24451), (345, 24481), (359, 24502), (379, 24547), (417, 24643), (434, 24682), (440, 24697), (447, 24709), (469, 24736), (510, 24823), (527, 24841), (530, 24847), (553, 24895), (571, 24916), (598, 24988), (620, 25063),

Gene: Malthus\_33 Start: 27553, Stop: 28344, Start Num: 200

Candidate Starts for Malthus\_33:

(Start: 200 @27553 has 20 MA's), (Start: 227 @27586 has 1 MA's), (242, 27619), (251, 27643), (264, 27664), (287, 27712), (293, 27721), (309, 27757), (350, 27838), (447, 28045), (469, 28072), (471, 28078), (476, 28093), (487, 28117), (576, 28141), (593, 28162), (601, 28195), (604, 28207), (625, 28279),

Gene: Mana\_48 Start: 41411, Stop: 42766, Start Num: 82

Candidate Starts for Mana\_48:

(Start: 82 @41411 has 255 MA's), (98, 41462), (108, 41495), (114, 41513), (168, 41624), (170, 41627), (Start: 180 @41642 has 5 MA's), (235, 41738), (251, 41777), (269, 41807), (284, 41843), (333, 41954), (345, 41984), (347, 41987), (379, 42053), (440, 42212), (469, 42260), (475, 42278), (498, 42326), (550, 42470), (571, 42530), (603, 42635), (637, 42722),

Gene: Manad\_49 Start: 41671, Stop: 43026, Start Num: 82

Candidate Starts for Manad\_49:

(Start: 82 @41671 has 255 MA's), (98, 41722), (108, 41755), (168, 41884), (170, 41887), (Start: 180 @41902 has 5 MA's), (235, 41998), (251, 42037), (269, 42067), (284, 42103), (333, 42214), (345,

42244), (347, 42247), (379, 42313), (440, 42472), (469, 42520), (475, 42538), (498, 42586), (550, 42730), (571, 42790), (603, 42895), (620, 42949), (637, 42982),

Gene: Manatee\_10 Start: 5683, Stop: 6651, Start Num: 163

Candidate Starts for Manatee\_10:

(Start: 163 @5683 has 304 MA's), (Start: 180 @5716 has 5 MA's), (Start: 190 @5734 has 1 MA's), (Start: 192 @5737 has 2 MA's), (335, 6004), (365, 6055), (368, 6067), (415, 6142), (442, 6205), (462, 6238), (469, 6250), (474, 6268), (484, 6286), (496, 6310), (520, 6349), (551, 6430), (559, 6454), (561, 6457), (563, 6460), (567, 6469), (600, 6556), (629, 6643),

Gene: Manda\_36 Start: 32343, Stop: 33200, Start Num: 198

Candidate Starts for Manda\_36:

(Start: 198 @32343 has 122 MA's), (220, 32382), (232, 32412), (242, 32433), (257, 32469), (275, 32499), (309, 32574), (334, 32622), (336, 32625), (345, 32649), (347, 32652), (356, 32667), (426, 32838), (487, 32952), (495, 32967), (498, 32973), (575, 33015), (576, 33018), (601, 33072), (624, 33150), (641, 33183),

Gene: Mandlovu\_32 Start: 28274, Stop: 29290, Start Num: 149

Candidate Starts for Mandlovu\_32:

(58, 27956), (59, 27962), (60, 27974), (Start: 63 @27986 has 1 MA's), (64, 27998), (Start: 149 @28274 has 225 MA's), (Start: 221 @28406 has 188 MA's), (229, 28427), (239, 28448), (251, 28478), (259, 28490), (Start: 279 @28532 has 1 MA's), (292, 28556), (302, 28571), (306, 28583), (312, 28598), (365, 28694), (422, 28805), (433, 28826), (454, 28865), (462, 28877), (484, 28925), (497, 28952), (511, 28976), (520, 28991), (559, 29099), (578, 29147), (604, 29216), (614, 29246),

Gene: Mangeria\_252 Start: 145144, Stop: 146172, Start Num: 142

Candidate Starts for Mangeria\_252:

(Start: 142 @145144 has 200 MA's), (Start: 163 @145174 has 304 MA's), (170, 145186), (Start: 192 @145228 has 2 MA's), (229, 145291), (239, 145312), (Start: 279 @145396 has 1 MA's), (302, 145438), (306, 145450), (312, 145465), (344, 145534), (365, 145561), (393, 145615), (411, 145660), (414, 145663), (449, 145741), (462, 145762), (520, 145873), (554, 145963), (559, 145981), (590, 146053), (601, 146086),

Gene: Mangethe\_27 Start: 24058, Stop: 25224, Start Num: 102

Candidate Starts for Mangethe\_27:

(Start: 102 @24058 has 88 MA's), (123, 24115), (168, 24202), (Start: 198 @24247 has 122 MA's), (235, 24322), (245, 24343), (284, 24427), (305, 24466), (333, 24532), (345, 24562), (359, 24583), (379, 24628), (417, 24724), (434, 24763), (440, 24778), (469, 24817), (510, 24904), (527, 24922), (530, 24928), (553, 24976), (571, 24997), (598, 25069), (620, 25144),

Gene: Mantra\_31 Start: 27618, Stop: 28619, Start Num: 149

Candidate Starts for Mantra\_31:

(34, 26997), (40, 27075), (43, 27138), (48, 27177), (62, 27330), (69, 27366), (Start: 149 @27618 has 225 MA's), (Start: 163 @27639 has 304 MA's), (170, 27651), (Start: 192 @27693 has 2 MA's), (229, 27756), (239, 27777), (251, 27807), (Start: 279 @27861 has 1 MA's), (292, 27885), (306, 27912), (365, 28023), (423, 28137), (433, 28155), (454, 28194), (469, 28218), (484, 28254), (497, 28281), (520, 28320), (538, 28368), (559, 28428), (585, 28488), (604, 28545), (614, 28575),

Gene: Manu\_13 Start: 6033, Stop: 6998, Start Num: 153

Candidate Starts for Manu\_13:

(Start: 153 @6033 has 92 MA's), (Start: 192 @6099 has 2 MA's), (226, 6153), (265, 6231), (330, 6354), (365, 6411), (415, 6483), (430, 6522), (439, 6540), (474, 6609), (535, 6726), (538, 6753), (561, 6816), (597, 6906), (599, 6912),

Gene: Mao1\_38 Start: 36347, Stop: 37516, Start Num: 103

Candidate Starts for Mao1\_38:

(26, 35753), (31, 35816), (41, 35969), (Start: 82 @36278 has 255 MA's), (Start: 103 @36347 has 3 MA's), (123, 36401), (125, 36404), (168, 36488), (235, 36608), (245, 36629), (284, 36713), (305, 36752), (333, 36818), (359, 36869), (379, 36914), (388, 36929), (417, 37010), (434, 37049), (440, 37064), (447, 37076), (469, 37103), (510, 37190), (527, 37208), (532, 37220), (553, 37268), (571, 37289), (573, 37295), (593, 37340), (598, 37361), (620, 37436), (648, 37505),

Gene: MarQuardt\_12 Start: 5963, Stop: 6928, Start Num: 153

Candidate Starts for MarQuardt\_12:

(Start: 153 @5963 has 92 MA's), (Start: 180 @6008 has 5 MA's), (Start: 192 @6029 has 2 MA's), (256, 6149), (365, 6344), (371, 6359), (422, 6440), (430, 6455), (439, 6473), (469, 6524), (474, 6542), (497, 6587), (538, 6683), (561, 6746), (575, 6785), (597, 6836),

Gene: Maravista\_31 Start: 27454, Stop: 28455, Start Num: 149

Candidate Starts for Maravista\_31:

(Start: 149 @27454 has 225 MA's), (Start: 163 @27475 has 304 MA's), (170, 27487), (Start: 192 @27529 has 2 MA's), (229, 27592), (239, 27613), (251, 27643), (Start: 279 @27697 has 1 MA's), (292, 27721), (302, 27736), (306, 27748), (365, 27859), (423, 27973), (433, 27991), (454, 28030), (469, 28054), (484, 28090), (497, 28117), (520, 28156), (538, 28204), (559, 28264), (585, 28324), (604, 28381), (614, 28411),

Gene: Marcell\_10 Start: 5946, Stop: 6914, Start Num: 163

Candidate Starts for Marcell\_10:

(Start: 163 @5946 has 304 MA's), (Start: 180 @5979 has 5 MA's), (Start: 190 @5997 has 1 MA's), (Start: 192 @6000 has 2 MA's), (335, 6267), (365, 6318), (368, 6330), (415, 6405), (442, 6468), (450, 6480), (462, 6501), (469, 6513), (474, 6531), (484, 6549), (496, 6573), (520, 6612), (551, 6693), (559, 6717), (561, 6720), (563, 6723), (567, 6732), (614, 6864), (629, 6906),

Gene: Marchy\_8 Start: 5606, Stop: 6541, Start Num: 180

Candidate Starts for Marchy\_8:

(Start: 163 @5573 has 304 MA's), (Start: 180 @5606 has 5 MA's), (Start: 190 @5624 has 1 MA's), (Start: 192 @5627 has 2 MA's), (335, 5894), (365, 5945), (368, 5957), (415, 6032), (442, 6095), (462, 6128), (469, 6140), (474, 6158), (484, 6176), (520, 6239), (551, 6320), (559, 6344), (561, 6347), (563, 6350), (567, 6359), (600, 6446), (614, 6491), (629, 6533),

Gene: Marcoliusprime\_29 Start: 24807, Stop: 26009, Start Num: 99

Candidate Starts for Marcoliusprime\_29:

(87, 24765), (Start: 99 @24807 has 10 MA's), (104, 24834), (125, 24891), (136, 24912), (150, 24939), (182, 24999), (205, 25035), (Start: 227 @25068 has 1 MA's), (228, 25071), (242, 25101), (275, 25167), (293, 25206), (330, 25284), (353, 25329), (384, 25386), (392, 25404), (469, 25569), (476, 25590), (486, 25611), (539, 25716), (545, 25731), (575, 25800), (601, 25857), (624, 25938),

Gene: Marge\_10 Start: 5967, Stop: 6935, Start Num: 163

Candidate Starts for Marge\_10:

(Start: 163 @5967 has 304 MA's), (Start: 180 @6000 has 5 MA's), (Start: 190 @6018 has 1 MA's), (Start: 192 @6021 has 2 MA's), (335, 6288), (365, 6339), (368, 6351), (415, 6426), (442, 6489), (450, 6501), (462, 6522), (474, 6552), (484, 6570), (496, 6594), (520, 6633), (551, 6714), (559, 6738), (561, 6741), (563, 6744), (567, 6753), (600, 6840), (614, 6885), (629, 6927),

Gene: Margo\_11 Start: 6077, Stop: 7042, Start Num: 153

Candidate Starts for Margo\_11:

(Start: 153 @6077 has 92 MA's), (Start: 180 @6122 has 5 MA's), (Start: 192 @6143 has 2 MA's), (256, 6263), (267, 6278), (Start: 296 @6317 has 2 MA's), (330, 6401), (365, 6458), (371, 6473), (422, 6554), (430, 6569), (439, 6587), (469, 6638), (474, 6656), (497, 6701), (538, 6797), (561, 6860), (575, 6899), (597, 6950),

Gene: Marie\_12 Start: 5960, Stop: 6925, Start Num: 153

Candidate Starts for Marie\_12:

(Start: 153 @5960 has 92 MA's), (Start: 180 @6005 has 5 MA's), (Start: 192 @6026 has 2 MA's), (256, 6146), (365, 6341), (371, 6356), (422, 6437), (430, 6452), (439, 6470), (469, 6521), (474, 6539), (497, 6584), (538, 6680), (561, 6743), (575, 6782), (597, 6833),

Gene: Marius\_13 Start: 6033, Stop: 6998, Start Num: 153

Candidate Starts for Marius\_13:

(Start: 153 @6033 has 92 MA's), (Start: 192 @6099 has 2 MA's), (226, 6153), (265, 6231), (330, 6354), (365, 6411), (415, 6483), (430, 6522), (439, 6540), (474, 6609), (535, 6726), (538, 6753), (561, 6816), (597, 6906), (599, 6912),

Gene: MarkPhew\_31 Start: 25592, Stop: 26332, Start Num: 221

Candidate Starts for MarkPhew\_31:

(151, 25490), (Start: 162 @25511 has 2 MA's), (183, 25544), (195, 25565), (Start: 221 @25592 has 188 MA's), (239, 25631), (242, 25637), (258, 25673), (293, 25730), (309, 25766), (323, 25808), (347, 25856), (379, 25916), (469, 26078), (480, 26105), (487, 26123), (493, 26135), (598, 26189), (604, 26213), (640, 26312), (643, 26321),

Gene: Marker\_32 Start: 27383, Stop: 28384, Start Num: 149

Candidate Starts for Marker\_32:

(69, 27131), (107, 27284), (137, 27356), (Start: 149 @27383 has 225 MA's), (Start: 192 @27458 has 2 MA's), (229, 27521), (239, 27542), (251, 27572), (Start: 279 @27626 has 1 MA's), (292, 27650), (302, 27665), (306, 27677), (312, 27692), (365, 27788), (423, 27902), (433, 27920), (454, 27959), (469, 27983), (484, 28019), (497, 28046), (520, 28085), (538, 28133), (559, 28193), (578, 28241), (585, 28253), (601, 28298), (604, 28310), (614, 28340),

Gene: Marley1013\_47 Start: 42315, Stop: 43379, Start Num: 138

Candidate Starts for Marley1013\_47:

(Start: 138 @42315 has 44 MA's), (173, 42378), (219, 42459), (252, 42525), (260, 42540), (269, 42552), (280, 42579), (311, 42636), (314, 42645), (391, 42792), (401, 42807), (422, 42861), (439, 42894), (463, 42933), (470, 42945), (512, 43026), (520, 43044), (523, 43047), (538, 43092), (578, 43203), (617, 43314), (626, 43335), (641, 43368),

Gene: Marmie\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Marmie\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: Maroc7\_9 Start: 5759, Stop: 6727, Start Num: 163

Candidate Starts for Maroc7\_9:

(Start: 163 @5759 has 304 MA's), (Start: 180 @5792 has 5 MA's), (Start: 190 @5810 has 1 MA's), (Start: 192 @5813 has 2 MA's), (335, 6080), (365, 6131), (368, 6143), (415, 6218), (442, 6281), (450, 6293), (462, 6314), (469, 6326), (474, 6344), (484, 6362), (496, 6386), (520, 6425), (551, 6506), (559, 6530), (561, 6533), (563, 6536), (567, 6545), (614, 6677), (629, 6719),

Gene: Marsha\_10 Start: 6203, Stop: 7171, Start Num: 163

Candidate Starts for Marsha\_10:

(Start: 163 @6203 has 304 MA's), (Start: 180 @6236 has 5 MA's), (Start: 190 @6254 has 1 MA's), (Start: 192 @6257 has 2 MA's), (335, 6524), (344, 6542), (365, 6575), (368, 6587), (415, 6662), (442, 6725), (462, 6758), (474, 6788), (484, 6806), (520, 6869), (551, 6950), (559, 6974), (561, 6977), (563, 6980), (567, 6989), (600, 7076), (629, 7163),

Gene: Marshawn\_32 Start: 26272, Stop: 27012, Start Num: 221

Candidate Starts for Marshawn\_32:

(183, 26224), (195, 26245), (Start: 221 @26272 has 188 MA's), (Start: 227 @26284 has 1 MA's), (239, 26311), (242, 26317), (258, 26353), (293, 26410), (300, 26422), (309, 26446), (323, 26488), (347, 26536), (379, 26596), (447, 26731), (469, 26758), (487, 26803), (576, 26827), (598, 26869), (603, 26890), (604, 26893), (640, 26992), (643, 27001),

Gene: Marshmallow\_35 Start: 31856, Stop: 32713, Start Num: 198

Candidate Starts for Marshmallow\_35:

(Start: 198 @31856 has 122 MA's), (220, 31895), (232, 31925), (242, 31946), (257, 31982), (275, 32012), (309, 32087), (334, 32135), (336, 32138), (345, 32162), (347, 32165), (356, 32180), (426, 32351), (487, 32465), (495, 32480), (498, 32486), (575, 32528), (576, 32531), (601, 32585), (624, 32663), (641, 32696),

Gene: Martik\_31 Start: 27699, Stop: 28700, Start Num: 149

Candidate Starts for Martik\_31:

(Start: 149 @27699 has 225 MA's), (Start: 163 @27720 has 304 MA's), (170, 27732), (Start: 192 @27774 has 2 MA's), (229, 27837), (239, 27858), (251, 27888), (Start: 279 @27942 has 1 MA's), (292, 27966), (302, 27981), (306, 27993), (365, 28104), (423, 28218), (433, 28236), (454, 28275), (469, 28299), (484, 28335), (497, 28362), (520, 28401), (538, 28449), (559, 28509), (585, 28569), (604, 28626), (614, 28656),

Gene: Maru\_48 Start: 41354, Stop: 42709, Start Num: 82

Candidate Starts for Maru\_48:

(Start: 82 @41354 has 255 MA's), (98, 41405), (108, 41438), (168, 41567), (170, 41570), (Start: 180 @41585 has 5 MA's), (235, 41681), (251, 41720), (269, 41750), (284, 41786), (333, 41897), (345, 41927), (347, 41930), (379, 41996), (440, 42155), (469, 42203), (475, 42221), (498, 42269), (550, 42413), (571, 42473), (603, 42578), (637, 42665),

Gene: MaryBeth\_10 Start: 6181, Stop: 7149, Start Num: 163

Candidate Starts for MaryBeth\_10:

(Start: 163 @6181 has 304 MA's), (Start: 180 @6214 has 5 MA's), (Start: 190 @6232 has 1 MA's), (Start: 192 @6235 has 2 MA's), (335, 6502), (365, 6553), (368, 6565), (415, 6640), (442, 6703), (450, 6715), (462, 6736), (469, 6748), (474, 6766), (484, 6784), (496, 6808), (520, 6847), (551, 6928), (559, 6952), (561, 6955), (563, 6958), (567, 6967), (600, 7054), (629, 7141),

Gene: MaryV\_52 Start: 38366, Stop: 39331, Start Num: 149

Candidate Starts for MaryV\_52:

(Start: 149 @38366 has 225 MA's), (185, 38429), (231, 38489), (238, 38504), (239, 38507), (246, 38519), (249, 38525), (269, 38561), (270, 38564), (306, 38636), (312, 38651), (314, 38657), (344, 38720), (365, 38750), (381, 38783), (422, 38846), (423, 38849), (442, 38888), (462, 38921), (474, 38948), (479, 38957), (496, 38990), (557, 39125), (561, 39140), (578, 39185), (597, 39227), (604, 39254), (617, 39296),

Gene: MarysWell\_7 Start: 5323, Stop: 6132, Start Num: 221

Candidate Starts for MarysWell\_7:

(Start: 221 @5323 has 188 MA's), (251, 5386), (255, 5395), (284, 5452), (309, 5500), (420, 5770), (440, 5812), (475, 5869), (495, 5911), (645, 6118),

Gene: Maskar\_49 Start: 41392, Stop: 42747, Start Num: 82

Candidate Starts for Maskar\_49:

(Start: 82 @41392 has 255 MA's), (98, 41443), (108, 41476), (168, 41605), (170, 41608), (Start: 180 @41623 has 5 MA's), (235, 41719), (251, 41758), (269, 41788), (284, 41824), (333, 41935), (345, 41965), (347, 41968), (379, 42034), (440, 42193), (469, 42241), (475, 42259), (498, 42307), (550, 42451), (571, 42511), (603, 42616), (637, 42703),

Gene: Matalotodo\_49 Start: 41706, Stop: 43061, Start Num: 82

Candidate Starts for Matalotodo\_49:

(Start: 82 @41706 has 255 MA's), (98, 41757), (108, 41790), (168, 41919), (170, 41922), (Start: 180 @41937 has 5 MA's), (235, 42033), (251, 42072), (269, 42102), (284, 42138), (333, 42249), (345, 42279), (347, 42282), (379, 42348), (440, 42507), (469, 42555), (475, 42573), (498, 42621), (550, 42765), (571, 42825), (603, 42930), (637, 43017),

Gene: Matsumoto\_250 Start: 144235, Stop: 145263, Start Num: 142

Candidate Starts for Matsumoto\_250:

(Start: 142 @144235 has 200 MA's), (Start: 163 @144265 has 304 MA's), (170, 144277), (Start: 192 @144319 has 2 MA's), (229, 144382), (239, 144403), (Start: 279 @144487 has 1 MA's), (302, 144529), (306, 144541), (312, 144556), (344, 144625), (365, 144652), (393, 144706), (411, 144751), (414, 144754), (449, 144832), (462, 144853), (520, 144964), (554, 145054), (559, 145072), (590, 145144), (601, 145177),

Gene: Mattes\_31 Start: 27708, Stop: 28709, Start Num: 149

Candidate Starts for Mattes\_31:

(Start: 149 @27708 has 225 MA's), (Start: 192 @27783 has 2 MA's), (229, 27846), (239, 27867), (Start: 279 @27951 has 1 MA's), (292, 27975), (302, 27990), (306, 28002), (365, 28113), (423, 28227), (433, 28245), (454, 28284), (469, 28308), (484, 28344), (520, 28410), (559, 28518), (578, 28566), (585, 28578), (601, 28623), (604, 28635), (614, 28665),

Gene: Maverick\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Maverick\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Maxo\_10 Start: 5882, Stop: 6862, Start Num: 164

Candidate Starts for Maxo\_10:

(Start: 164 @5882 has 109 MA's), (Start: 166 @5885 has 14 MA's), (178, 5909), (Start: 190 @5930 has 1 MA's), (Start: 192 @5933 has 2 MA's), (330, 6182), (365, 6239), (416, 6323), (422, 6344), (437, 6371), (464, 6401), (474, 6428), (551, 6578), (598, 6689), (601, 6701), (604, 6713), (627, 6779),

Gene: Maxxinista\_36 Start: 31325, Stop: 32182, Start Num: 198

Candidate Starts for Maxxinista\_36:

(Start: 198 @31325 has 122 MA's), (220, 31364), (232, 31394), (242, 31415), (257, 31451), (275, 31481), (309, 31556), (334, 31604), (336, 31607), (345, 31631), (347, 31634), (356, 31649), (426, 31820), (487, 31934), (495, 31949), (498, 31955), (575, 31997), (576, 32000), (601, 32054), (624, 32132), (641, 32165),

Gene: Mazhar510\_10 Start: 5882, Stop: 6862, Start Num: 164

Candidate Starts for Mazhar510\_10:



(Start: 164 @5882 has 109 MA's), (Start: 166 @5885 has 14 MA's), (178, 5909), (Start: 190 @5930 has 1 MA's), (Start: 192 @5933 has 2 MA's), (330, 6182), (365, 6239), (416, 6323), (422, 6344), (437, 6371), (464, 6401), (474, 6428), (551, 6578), (598, 6689), (601, 6701), (604, 6713), (627, 6779),

Gene: McGee\_254 Start: 144581, Stop: 145609, Start Num: 142

Candidate Starts for McGee\_254:

(Start: 142 @144581 has 200 MA's), (Start: 163 @144611 has 304 MA's), (170, 144623), (Start: 192 @144665 has 2 MA's), (229, 144728), (239, 144749), (Start: 279 @144833 has 1 MA's), (302, 144875), (306, 144887), (312, 144902), (344, 144971), (365, 144998), (393, 145052), (411, 145097), (414, 145100), (449, 145178), (462, 145199), (520, 145310), (554, 145400), (559, 145418), (590, 145490), (601, 145523),

Gene: McGuire\_10 Start: 5728, Stop: 6696, Start Num: 163

Candidate Starts for McGuire\_10:

(Start: 163 @5728 has 304 MA's), (Start: 180 @5761 has 5 MA's), (Start: 190 @5779 has 1 MA's), (Start: 192 @5782 has 2 MA's), (335, 6049), (365, 6100), (368, 6112), (415, 6187), (442, 6250), (462, 6283), (469, 6295), (474, 6313), (484, 6331), (496, 6355), (520, 6394), (551, 6475), (559, 6499), (561, 6502), (563, 6505), (567, 6514), (600, 6601), (629, 6688),

Gene: McWolfish\_249 Start: 144242, Stop: 145270, Start Num: 142

Candidate Starts for McWolfish\_249:

(Start: 142 @144242 has 200 MA's), (Start: 163 @144272 has 304 MA's), (170, 144284), (Start: 192 @144326 has 2 MA's), (229, 144389), (239, 144410), (Start: 279 @144494 has 1 MA's), (302, 144536), (306, 144548), (312, 144563), (344, 144632), (365, 144659), (393, 144713), (411, 144758), (414, 144761), (449, 144839), (462, 144860), (520, 144971), (554, 145061), (559, 145079), (590, 145151), (601, 145184),

Gene: Mcshane\_48 Start: 41403, Stop: 42758, Start Num: 82

Candidate Starts for Mcshane\_48:

(Start: 82 @41403 has 255 MA's), (98, 41454), (108, 41487), (168, 41616), (170, 41619), (Start: 180 @41634 has 5 MA's), (235, 41730), (251, 41769), (269, 41799), (284, 41835), (333, 41946), (345, 41976), (347, 41979), (379, 42045), (440, 42204), (469, 42252), (475, 42270), (498, 42318), (550, 42462), (571, 42522), (603, 42627), (637, 42714),

Gene: Mdavu\_27 Start: 25966, Stop: 26724, Start Num: 221

Candidate Starts for Mdavu\_27:

(151, 25864), (183, 25918), (195, 25939), (Start: 221 @25966 has 188 MA's), (242, 26011), (258, 26047), (289, 26107), (293, 26113), (307, 26143), (323, 26191), (343, 26233), (379, 26299), (395, 26335), (447, 26434), (469, 26461), (476, 26482), (480, 26488), (573, 26527), (576, 26539), (578, 26545), (595, 26569), (601, 26593), (640, 26704), (643, 26713),

Gene: MeaningOfLife\_31 Start: 26430, Stop: 27302, Start Num: 221

Candidate Starts for MeaningOfLife\_31:

(195, 26403), (Start: 221 @26430 has 188 MA's), (Start: 227 @26442 has 1 MA's), (258, 26511), (275, 26538), (287, 26568), (293, 26577), (309, 26613), (313, 26622), (323, 26655), (331, 26673), (347, 26703), (379, 26763), (447, 26898), (469, 26925), (476, 26946), (487, 26970), (521, 27021), (578, 27123), (598, 27159), (604, 27183), (640, 27282), (643, 27291),

Gene: Mecca\_48 Start: 41409, Stop: 42764, Start Num: 82

Candidate Starts for Mecca\_48:

(Start: 82 @41409 has 255 MA's), (98, 41460), (108, 41493), (114, 41511), (168, 41622), (170, 41625), (Start: 180 @41640 has 5 MA's), (235, 41736), (251, 41775), (269, 41805), (284, 41841), (333, 41952), (345, 41982), (347, 41985), (379, 42051), (440, 42210), (469, 42258), (475, 42276),

(498, 42324), (550, 42468), (571, 42528), (603, 42633), (637, 42720),

Gene: Medusa\_10 Start: 5884, Stop: 6861, Start Num: 166

Candidate Starts for Medusa\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: MeeZee\_10 Start: 5884, Stop: 6861, Start Num: 166

Candidate Starts for MeeZee\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Megamind\_249 Start: 144567, Stop: 145595, Start Num: 142

Candidate Starts for Megamind\_249:

(Start: 142 @144567 has 200 MA's), (Start: 163 @144597 has 304 MA's), (170, 144609), (Start: 192 @144651 has 2 MA's), (229, 144714), (239, 144735), (Start: 279 @144819 has 1 MA's), (302, 144861), (306, 144873), (312, 144888), (344, 144957), (365, 144984), (393, 145038), (411, 145083), (414, 145086), (449, 145164), (462, 145185), (520, 145296), (554, 145386), (559, 145404), (590, 145476), (601, 145509),

Gene: Megamind20\_49 Start: 41431, Stop: 42786, Start Num: 82

Candidate Starts for Megamind20\_49:

(Start: 82 @41431 has 255 MA's), (98, 41482), (108, 41515), (168, 41644), (170, 41647), (Start: 180 @41662 has 5 MA's), (235, 41758), (251, 41797), (269, 41827), (284, 41863), (333, 41974), (345, 42004), (347, 42007), (379, 42073), (440, 42232), (469, 42280), (475, 42298), (498, 42346), (550, 42490), (571, 42550), (603, 42655), (637, 42742),

Gene: Megatron\_50 Start: 41839, Stop: 43194, Start Num: 82

Candidate Starts for Megatron\_50:

(Start: 82 @41839 has 255 MA's), (98, 41890), (108, 41923), (168, 42052), (170, 42055), (Start: 180 @42070 has 5 MA's), (235, 42166), (251, 42205), (269, 42235), (284, 42271), (333, 42382), (345, 42412), (347, 42415), (379, 42481), (440, 42640), (469, 42688), (475, 42706), (498, 42754), (550, 42898), (571, 42958), (603, 43063), (637, 43150),

Gene: Megiddo\_27 Start: 24311, Stop: 25477, Start Num: 102

Candidate Starts for Megiddo\_27:

(15, 23558), (26, 23729), (36, 23825), (41, 23930), (Start: 102 @24311 has 88 MA's), (106, 24320), (122, 24365), (123, 24368), (168, 24455), (Start: 198 @24500 has 122 MA's), (235, 24575), (245, 24596), (251, 24614), (284, 24680), (305, 24719), (333, 24785), (345, 24815), (359, 24836), (379, 24881), (417, 24977), (434, 25016), (440, 25031), (469, 25070), (510, 25157), (527, 25175), (530, 25181), (553, 25229), (598, 25322), (620, 25397),

Gene: Megsy\_31 Start: 26430, Stop: 27302, Start Num: 221

Candidate Starts for Megsy\_31:

(195, 26403), (Start: 221 @26430 has 188 MA's), (Start: 227 @26442 has 1 MA's), (258, 26511), (275, 26538), (287, 26568), (293, 26577), (309, 26613), (313, 26622), (323, 26655), (331, 26673), (379, 26763), (447, 26898), (469, 26925), (476, 26946), (487, 26970), (521, 27021), (578, 27123), (598, 27159), (604, 27183), (640, 27282), (643, 27291),

Gene: Melc17\_49 Start: 41701, Stop: 43056, Start Num: 82

Candidate Starts for Melc17\_49:

(Start: 82 @41701 has 255 MA's), (98, 41752), (108, 41785), (170, 41917), (Start: 180 @41932 has 5 MA's), (235, 42028), (251, 42067), (269, 42097), (284, 42133), (333, 42244), (345, 42274), (347, 42277), (379, 42343), (440, 42502), (469, 42550), (475, 42568), (498, 42616), (550, 42760), (571, 42820), (603, 42925), (620, 42979), (637, 43012),

Gene: Melissauren88\_31 Start: 27668, Stop: 28666, Start Num: 149

Candidate Starts for Melissauren88\_31:

(Start: 149 @27668 has 225 MA's), (Start: 192 @27743 has 2 MA's), (229, 27803), (239, 27824), (Start: 279 @27908 has 1 MA's), (306, 27959), (312, 27974), (365, 28070), (415, 28157), (422, 28181), (433, 28202), (454, 28241), (462, 28253), (484, 28301), (497, 28328), (511, 28352), (520, 28367), (559, 28475), (578, 28523), (604, 28592), (614, 28622),

Gene: Melpomini\_247 Start: 143327, Stop: 144355, Start Num: 142

Candidate Starts for Melpomini\_247:

(Start: 142 @143327 has 200 MA's), (Start: 163 @143357 has 304 MA's), (170, 143369), (Start: 192 @143411 has 2 MA's), (229, 143474), (239, 143495), (Start: 279 @143579 has 1 MA's), (302, 143621), (306, 143633), (312, 143648), (344, 143717), (365, 143744), (393, 143798), (411, 143843), (414, 143846), (449, 143924), (462, 143945), (520, 144056), (554, 144146), (559, 144164), (590, 144236), (601, 144269),

Gene: MelsMeow\_49 Start: 41442, Stop: 42800, Start Num: 82

Candidate Starts for MelsMeow\_49:

(Start: 82 @41442 has 255 MA's), (98, 41493), (108, 41526), (114, 41544), (168, 41655), (170, 41658), (Start: 180 @41673 has 5 MA's), (235, 41769), (251, 41808), (269, 41838), (284, 41874), (333, 41985), (345, 42015), (347, 42018), (379, 42084), (440, 42243), (469, 42291), (475, 42309), (498, 42357), (550, 42504), (571, 42564), (603, 42669), (637, 42756),

Gene: Melvin\_10 Start: 5884, Stop: 6861, Start Num: 166

Candidate Starts for Melvin\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (401, 6301), (416, 6322), (422, 6343), (437, 6370), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Mercurio\_30 Start: 27399, Stop: 28616, Start Num: 88

Candidate Starts for Mercurio\_30:

(Start: 88 @27399 has 62 MA's), (139, 27543), (202, 27645), (235, 27714), (251, 27753), (255, 27762), (270, 27786), (284, 27819), (293, 27834), (309, 27867), (342, 27951), (440, 28179), (469, 28218), (472, 28227), (476, 28239), (492, 28272), (495, 28278), (498, 28284), (500, 28287), (637, 28578), (639, 28581),

Gene: Mesh1\_49 Start: 41718, Stop: 43073, Start Num: 82

Candidate Starts for Mesh1\_49:

(Start: 82 @41718 has 255 MA's), (98, 41769), (108, 41802), (168, 41931), (170, 41934), (Start: 180 @41949 has 5 MA's), (235, 42045), (251, 42084), (269, 42114), (284, 42150), (333, 42261), (345, 42291), (347, 42294), (379, 42360), (440, 42519), (469, 42567), (475, 42585), (498, 42633), (550, 42777), (571, 42837), (603, 42942), (637, 43029),

Gene: MetalQZJ\_10 Start: 6181, Stop: 7149, Start Num: 163

Candidate Starts for MetalQZJ\_10:

(Start: 163 @6181 has 304 MA's), (Start: 180 @6214 has 5 MA's), (Start: 190 @6232 has 1 MA's), (Start: 192 @6235 has 2 MA's), (335, 6502), (365, 6553), (368, 6565), (415, 6640), (442, 6703), (450, 6715), (462, 6736), (469, 6748), (474, 6766), (484, 6784), (496, 6808), (520, 6847), (551, 6928), (559, 6952), (561, 6955), (563, 6958), (567, 6967), (600, 7054), (629, 7141),

Gene: Methuselah\_12 Start: 6045, Stop: 7010, Start Num: 153

Candidate Starts for Methuselah\_12:

(Start: 153 @6045 has 92 MA's), (Start: 180 @6090 has 5 MA's), (Start: 192 @6111 has 2 MA's), (256, 6231), (330, 6369), (365, 6426), (371, 6441), (422, 6522), (430, 6537), (439, 6555), (469, 6606), (474, 6624), (497, 6669), (538, 6765), (561, 6828), (575, 6867), (597, 6918),

Gene: MiaZeal\_48 Start: 38897, Stop: 39901, Start Num: 100

Candidate Starts for MiaZeal\_48:

(Start: 100 @38897 has 10 MA's), (117, 38951), (141, 39002), (184, 39074), (232, 39149), (293, 39263), (300, 39275), (313, 39308), (345, 39377), (352, 39389), (363, 39401), (364, 39404), (384, 39449), (392, 39467), (469, 39629), (473, 39644), (478, 39653), (637, 39854),

Gene: Micasa\_7 Start: 5324, Stop: 6133, Start Num: 221

Candidate Starts for Micasa\_7:

(Start: 221 @5324 has 188 MA's), (251, 5387), (255, 5396), (284, 5453), (309, 5501), (339, 5582), (420, 5771), (440, 5813), (475, 5870), (495, 5912), (645, 6119),

Gene: MichaelPhcott\_48 Start: 41323, Stop: 42678, Start Num: 82

Candidate Starts for MichaelPhcott\_48:

(Start: 82 @41323 has 255 MA's), (98, 41374), (108, 41407), (168, 41536), (170, 41539), (Start: 180 @41554 has 5 MA's), (235, 41650), (251, 41689), (269, 41719), (284, 41755), (333, 41866), (345, 41896), (347, 41899), (379, 41965), (440, 42124), (469, 42172), (475, 42190), (498, 42238), (550, 42382), (571, 42442), (603, 42547), (637, 42634),

Gene: Michley\_10 Start: 5929, Stop: 6897, Start Num: 163

Candidate Starts for Michley\_10:

(Start: 163 @5929 has 304 MA's), (Start: 180 @5962 has 5 MA's), (Start: 190 @5980 has 1 MA's), (Start: 192 @5983 has 2 MA's), (335, 6250), (365, 6301), (368, 6313), (415, 6388), (442, 6451), (450, 6463), (462, 6484), (469, 6496), (474, 6514), (484, 6532), (496, 6556), (520, 6595), (551, 6676), (559, 6700), (561, 6703), (563, 6706), (567, 6715), (600, 6802), (614, 6847), (629, 6889),

Gene: Microwolf\_12 Start: 5963, Stop: 6928, Start Num: 153

Candidate Starts for Microwolf\_12:

(Start: 153 @5963 has 92 MA's), (Start: 180 @6008 has 5 MA's), (Start: 192 @6029 has 2 MA's), (256, 6149), (330, 6287), (365, 6344), (371, 6359), (422, 6440), (430, 6455), (439, 6473), (469, 6524), (474, 6542), (497, 6587), (538, 6683), (561, 6746), (575, 6785), (597, 6836),

Gene: MiculUcigas\_11 Start: 6484, Stop: 7461, Start Num: 163

Candidate Starts for MiculUcigas\_11:

(Start: 163 @6484 has 304 MA's), (Start: 192 @6538 has 2 MA's), (234, 6595), (312, 6727), (330, 6775), (365, 6832), (382, 6868), (415, 6916), (430, 6955), (470, 7027), (474, 7042), (497, 7087), (507, 7105), (528, 7147), (538, 7195), (549, 7222), (554, 7237), (559, 7255), (561, 7258), (597, 7348),

Gene: Midas2\_8 Start: 5323, Stop: 6132, Start Num: 221

Candidate Starts for Midas2\_8:

(Start: 221 @5323 has 188 MA's), (251, 5386), (255, 5395), (284, 5452), (309, 5500), (420, 5770), (440, 5812), (475, 5869), (495, 5911), (645, 6118),

Gene: MikeLiesIn\_253 Start: 145703, Stop: 146731, Start Num: 142

Candidate Starts for MikeLiesIn\_253:

(Start: 142 @145703 has 200 MA's), (Start: 163 @145733 has 304 MA's), (170, 145745), (Start: 192 @145787 has 2 MA's), (229, 145850), (239, 145871), (Start: 279 @145955 has 1 MA's), (302,

145997), (306, 146009), (312, 146024), (344, 146093), (365, 146120), (393, 146174), (411, 146219), (414, 146222), (449, 146300), (462, 146321), (520, 146432), (554, 146522), (559, 146540), (590, 146612), (601, 146645),

Gene: Miko\_14 Start: 8100, Stop: 9086, Start Num: 163

Candidate Starts for Miko\_14:

(Start: 163 @8100 has 304 MA's), (178, 8130), (Start: 190 @8151 has 1 MA's), (Start: 192 @8154 has 2 MA's), (212, 8187), (330, 8403), (365, 8460), (368, 8472), (381, 8493), (437, 8583), (474, 8649), (551, 8799), (560, 8820), (604, 8934), (627, 9006),

Gene: Mikota\_49 Start: 41689, Stop: 43044, Start Num: 82

Candidate Starts for Mikota\_49:

(Start: 82 @41689 has 255 MA's), (98, 41740), (108, 41773), (168, 41902), (170, 41905), (Start: 180 @41920 has 5 MA's), (235, 42016), (251, 42055), (269, 42085), (284, 42121), (333, 42232), (345, 42262), (347, 42265), (379, 42331), (440, 42490), (469, 42538), (475, 42556), (498, 42604), (550, 42748), (571, 42808), (603, 42913), (637, 43000),

Gene: Mikro\_246 Start: 146146, Stop: 147174, Start Num: 142

Candidate Starts for Mikro\_246:

(Start: 142 @146146 has 200 MA's), (Start: 163 @146176 has 304 MA's), (170, 146188), (Start: 192 @146230 has 2 MA's), (229, 146293), (239, 146314), (Start: 279 @146398 has 1 MA's), (302, 146440), (306, 146452), (312, 146467), (344, 146536), (365, 146563), (393, 146617), (411, 146662), (414, 146665), (449, 146743), (462, 146764), (520, 146875), (554, 146965), (559, 146983), (590, 147055), (601, 147088),

Gene: MilanaBonita\_25 Start: 23599, Stop: 24597, Start Num: 149

Candidate Starts for MilanaBonita\_25:

(Start: 149 @23599 has 225 MA's), (Start: 192 @23674 has 2 MA's), (229, 23734), (239, 23755), (Start: 279 @23839 has 1 MA's), (306, 23890), (312, 23905), (365, 24001), (415, 24088), (422, 24112), (433, 24133), (454, 24172), (462, 24184), (484, 24232), (497, 24259), (511, 24283), (520, 24298), (559, 24406), (578, 24454), (604, 24523), (614, 24553),

Gene: Milcery\_8 Start: 5360, Stop: 6169, Start Num: 221

Candidate Starts for Milcery\_8:

(Start: 221 @5360 has 188 MA's), (251, 5423), (255, 5432), (284, 5489), (309, 5537), (339, 5618), (420, 5807), (440, 5849), (475, 5906), (495, 5948), (645, 6155),

Gene: Miley16\_28 Start: 26303, Stop: 27274, Start Num: 102

Candidate Starts for Miley16\_28:

(Start: 102 @26303 has 88 MA's), (120, 26357), (Start: 198 @26507 has 122 MA's), (203, 26516), (208, 26522), (Start: 227 @26555 has 1 MA's), (228, 26558), (232, 26567), (242, 26588), (275, 26651), (293, 26678), (305, 26702), (345, 26783), (352, 26795), (386, 26858), (392, 26873), (415, 26933), (419, 26948), (469, 27029), (475, 27047), (476, 27050), (478, 27053), (579, 27104), (601, 27149), (613, 27191), (628, 27233),

Gene: MilleniumForce\_32 Start: 28460, Stop: 29458, Start Num: 149

Candidate Starts for MilleniumForce\_32:

(Start: 149 @28460 has 225 MA's), (Start: 192 @28535 has 2 MA's), (229, 28595), (239, 28616), (Start: 279 @28700 has 1 MA's), (306, 28751), (312, 28766), (365, 28862), (422, 28973), (433, 28994), (454, 29033), (462, 29045), (484, 29093), (497, 29120), (511, 29144), (520, 29159), (559, 29267), (578, 29315), (604, 29384), (614, 29414),

Gene: Millski\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Millski\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (401, 6301), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Milly\_29 Start: 24780, Stop: 25982, Start Num: 99

Candidate Starts for Milly\_29:

(87, 24738), (Start: 99 @24780 has 10 MA's), (104, 24807), (111, 24828), (125, 24864), (136, 24885), (150, 24912), (182, 24972), (205, 25008), (Start: 227 @25041 has 1 MA's), (228, 25044), (242, 25074), (275, 25140), (293, 25179), (330, 25257), (353, 25302), (384, 25359), (392, 25377), (469, 25542), (476, 25563), (486, 25584), (529, 25662), (539, 25689), (545, 25704), (575, 25773), (601, 25830), (624, 25911),

Gene: Mindy\_35 Start: 31636, Stop: 32493, Start Num: 198

Candidate Starts for Mindy\_35:

(Start: 198 @31636 has 122 MA's), (220, 31675), (232, 31705), (242, 31726), (257, 31762), (275, 31792), (309, 31867), (334, 31915), (336, 31918), (345, 31942), (347, 31945), (356, 31960), (426, 32131), (487, 32245), (495, 32260), (498, 32266), (575, 32308), (576, 32311), (601, 32365), (624, 32443), (641, 32476),

Gene: Minerva\_55 Start: 43973, Stop: 44845, Start Num: 89

Candidate Starts for Minerva\_55:

(Start: 89 @43973 has 30 MA's), (Start: 97 @44000 has 1 MA's), (Start: 138 @44108 has 44 MA's), (Start: 148 @44129 has 26 MA's), (174, 44174), (189, 44195), (206, 44216), (233, 44270), (255, 44321), (281, 44372), (355, 44522), (403, 44630), (405, 44633), (413, 44657), (424, 44693), (432, 44708), (438, 44720), (444, 44741),

Gene: MiniBoss\_49 Start: 41695, Stop: 43050, Start Num: 82

Candidate Starts for MiniBoss\_49:

(Start: 82 @41695 has 255 MA's), (98, 41746), (108, 41779), (114, 41797), (168, 41908), (170, 41911), (Start: 180 @41926 has 5 MA's), (235, 42022), (251, 42061), (269, 42091), (284, 42127), (333, 42238), (345, 42268), (347, 42271), (379, 42337), (440, 42496), (469, 42544), (475, 42562), (498, 42610), (550, 42754), (571, 42814), (603, 42919), (637, 43006),

Gene: MiniLon\_28 Start: 26618, Stop: 27661, Start Num: 102

Candidate Starts for MiniLon\_28:

(Start: 102 @26618 has 88 MA's), (Start: 103 @26624 has 3 MA's), (112, 26651), (120, 26672), (143, 26723), (160, 26753), (186, 26804), (245, 26909), (289, 26990), (293, 26996), (312, 27038), (341, 27092), (349, 27110), (352, 27116), (355, 27122), (392, 27194), (418, 27251), (452, 27311), (489, 27386), (499, 27407), (572, 27431), (576, 27446), (578, 27452), (604, 27515), (640, 27617), (645, 27638), (648, 27644),

Gene: MiniMac\_28 Start: 26619, Stop: 27662, Start Num: 102

Candidate Starts for MiniMac\_28:

(Start: 102 @26619 has 88 MA's), (Start: 103 @26625 has 3 MA's), (112, 26652), (120, 26673), (143, 26724), (160, 26754), (186, 26805), (245, 26910), (289, 26991), (293, 26997), (312, 27039), (341, 27093), (349, 27111), (352, 27117), (355, 27123), (392, 27195), (418, 27252), (452, 27312), (489, 27387), (499, 27408), (572, 27432), (576, 27447), (578, 27453), (580, 27459), (604, 27516), (640, 27618), (645, 27639), (648, 27645), (649, 27654),

Gene: MinionDave\_34 Start: 28679, Stop: 29695, Start Num: 149

Candidate Starts for MinionDave\_34:

(74, 28448), (75, 28451), (83, 28499), (126, 28634), (132, 28643), (Start: 149 @28679 has 225 MA's), (Start: 221 @28811 has 188 MA's), (229, 28832), (239, 28853), (251, 28883), (259, 28895), (Start: 279 @28937 has 1 MA's), (306, 28988), (312, 29003), (365, 29099), (422, 29210), (433, 29231), (454, 29270), (462, 29282), (484, 29330), (497, 29357), (511, 29381), (520, 29396), (559, 29504), (578, 29552), (604, 29621), (614, 29651),

Gene: Miniwave\_35 Start: 32055, Stop: 32912, Start Num: 198

Candidate Starts for Miniwave\_35:

(Start: 198 @32055 has 122 MA's), (220, 32094), (232, 32124), (242, 32145), (257, 32181), (275, 32211), (309, 32286), (334, 32334), (336, 32337), (345, 32361), (347, 32364), (356, 32379), (426, 32550), (487, 32664), (495, 32679), (498, 32685), (575, 32727), (576, 32730), (601, 32784), (624, 32862), (641, 32895),

Gene: Minnie\_33 Start: 28503, Stop: 29504, Start Num: 149

Candidate Starts for Minnie\_33:

(Start: 149 @28503 has 225 MA's), (Start: 192 @28578 has 2 MA's), (210, 28611), (229, 28641), (239, 28662), (251, 28692), (259, 28704), (Start: 279 @28746 has 1 MA's), (292, 28770), (302, 28785), (306, 28797), (365, 28908), (423, 29022), (433, 29040), (454, 29079), (469, 29103), (484, 29139), (497, 29166), (520, 29205), (559, 29313), (578, 29361), (585, 29373), (601, 29418), (604, 29430), (614, 29460),

Gene: Miramae\_10 Start: 5845, Stop: 6825, Start Num: 164

Candidate Starts for Miramae\_10:

(Start: 164 @5845 has 109 MA's), (178, 5872), (Start: 190 @5893 has 1 MA's), (Start: 192 @5896 has 2 MA's), (330, 6145), (365, 6202), (368, 6214), (401, 6265), (416, 6286), (437, 6334), (474, 6391), (551, 6541), (604, 6676), (607, 6685), (627, 6742), (652, 6817),

Gene: Miryou\_30 Start: 27043, Stop: 27903, Start Num: 227

Candidate Starts for Miryou\_30:

(151, 26929), (183, 26983), (Start: 221 @27031 has 188 MA's), (Start: 227 @27043 has 1 MA's), (228, 27046), (229, 27049), (242, 27076), (253, 27106), (258, 27112), (287, 27166), (293, 27175), (300, 27187), (313, 27220), (323, 27253), (347, 27301), (469, 27523), (475, 27541), (476, 27544), (506, 27604), (538, 27649), (578, 27721), (598, 27757), (599, 27760), (604, 27781), (620, 27838), (637, 27874), (640, 27883), (643, 27892),

Gene: Misfit\_35 Start: 31945, Stop: 32802, Start Num: 198

Candidate Starts for Misfit\_35:

(Start: 198 @31945 has 122 MA's), (220, 31984), (232, 32014), (242, 32035), (257, 32071), (275, 32101), (309, 32176), (334, 32224), (336, 32227), (345, 32251), (347, 32254), (356, 32269), (426, 32440), (487, 32554), (495, 32569), (498, 32575), (575, 32617), (576, 32620), (601, 32674), (624, 32752), (641, 32785),

Gene: Misha28\_32 Start: 27407, Stop: 28408, Start Num: 149

Candidate Starts for Misha28\_32:

(69, 27146), (107, 27308), (Start: 149 @27407 has 225 MA's), (Start: 192 @27482 has 2 MA's), (229, 27545), (239, 27566), (Start: 279 @27650 has 1 MA's), (292, 27674), (302, 27689), (306, 27701), (365, 27812), (423, 27926), (433, 27944), (454, 27983), (469, 28007), (484, 28043), (497, 28070), (520, 28109), (559, 28217), (578, 28265), (585, 28277), (604, 28334), (614, 28364),

Gene: Misomonster\_14 Start: 6045, Stop: 7010, Start Num: 153

Candidate Starts for Misomonster\_14:

(Start: 153 @6045 has 92 MA's), (Start: 180 @6090 has 5 MA's), (Start: 192 @6111 has 2 MA's), (256, 6231), (330, 6369), (365, 6426), (371, 6441), (422, 6522), (430, 6537), (439, 6555), (469, 6606),

(474, 6624), (497, 6669), (538, 6765), (561, 6828), (597, 6918),

Gene: MissDaisy\_32 Start: 27396, Stop: 28187, Start Num: 200

Candidate Starts for MissDaisy\_32:

(Start: 140 @27291 has 3 MA's), (151, 27309), (165, 27336), (175, 27357), (Start: 200 @27396 has 20 MA's), (Start: 227 @27429 has 1 MA's), (242, 27462), (270, 27516), (287, 27555), (293, 27564), (309, 27600), (313, 27609), (402, 27792), (447, 27888), (469, 27915), (476, 27936), (483, 27951), (487, 27960), (576, 27984), (601, 28038), (604, 28050), (625, 28122), (637, 28143),

Gene: MissWhite\_11 Start: 5672, Stop: 6478, Start Num: 225

Candidate Starts for MissWhite\_11:

(Start: 225 @5672 has 4 MA's), (284, 5798), (309, 5846), (314, 5858), (337, 5924), (399, 6056), (431, 6140), (440, 6158), (469, 6197), (475, 6215), (605, 6350), (620, 6401), (645, 6464),

Gene: MisterCuddles\_33 Start: 28455, Stop: 29525, Start Num: 149

Candidate Starts for MisterCuddles\_33:

(122, 28404), (Start: 149 @28455 has 225 MA's), (Start: 163 @28476 has 304 MA's), (Start: 166 @28482 has 14 MA's), (Start: 180 @28509 has 5 MA's), (185, 28518), (219, 28578), (235, 28605), (269, 28671), (297, 28725), (314, 28767), (335, 28818), (377, 28902), (391, 28932), (404, 28965), (431, 29040), (442, 29061), (512, 29190), (538, 29262), (574, 29358), (578, 29370), (604, 29439), (623, 29496), (627, 29505),

Gene: MitKao\_49 Start: 41421, Stop: 42776, Start Num: 82

Candidate Starts for MitKao\_49:

(Start: 82 @41421 has 255 MA's), (98, 41472), (108, 41505), (114, 41523), (168, 41634), (170, 41637), (Start: 180 @41652 has 5 MA's), (235, 41748), (251, 41787), (269, 41817), (284, 41853), (333, 41964), (345, 41994), (347, 41997), (379, 42063), (440, 42222), (469, 42270), (475, 42288), (498, 42336), (550, 42480), (571, 42540), (603, 42645), (637, 42732),

Gene: Mitti\_32 Start: 27554, Stop: 28345, Start Num: 200

Candidate Starts for Mitti\_32:

(Start: 200 @27554 has 20 MA's), (Start: 227 @27587 has 1 MA's), (242, 27620), (251, 27644), (264, 27665), (270, 27674), (283, 27704), (287, 27713), (293, 27722), (309, 27758), (350, 27839), (447, 28046), (469, 28073), (476, 28094), (483, 28109), (487, 28118), (576, 28142), (601, 28196), (604, 28208), (625, 28280),

Gene: MkaliMitinis3\_28 Start: 26303, Stop: 27274, Start Num: 102

Candidate Starts for MkaliMitinis3\_28:

(Start: 102 @26303 has 88 MA's), (120, 26357), (179, 26477), (Start: 198 @26507 has 122 MA's), (208, 26522), (Start: 227 @26555 has 1 MA's), (228, 26558), (232, 26567), (242, 26588), (275, 26651), (293, 26678), (305, 26702), (319, 26732), (345, 26783), (352, 26795), (386, 26858), (392, 26873), (415, 26933), (419, 26948), (469, 27029), (475, 27047), (476, 27050), (478, 27053), (579, 27104), (601, 27149), (613, 27191), (628, 27233),

Gene: MmasiCarm\_47 Start: 41519, Stop: 42583, Start Num: 138

Candidate Starts for MmasiCarm\_47:

(Start: 138 @41519 has 44 MA's), (173, 41582), (219, 41663), (252, 41729), (260, 41744), (269, 41756), (280, 41783), (311, 41840), (314, 41849), (391, 41996), (401, 42011), (422, 42065), (439, 42098), (463, 42137), (470, 42149), (512, 42230), (520, 42248), (523, 42251), (538, 42296), (578, 42407), (617, 42518), (626, 42539), (641, 42572),

Gene: MoMoMixon\_248 Start: 144662, Stop: 145690, Start Num: 142

Candidate Starts for MoMoMixon\_248:



(Start: 142 @144662 has 200 MA's), (Start: 163 @144692 has 304 MA's), (170, 144704), (Start: 192 @144746 has 2 MA's), (229, 144809), (239, 144830), (Start: 279 @144914 has 1 MA's), (302, 144956), (306, 144968), (312, 144983), (344, 145052), (365, 145079), (393, 145133), (411, 145178), (414, 145181), (449, 145259), (462, 145280), (520, 145391), (554, 145481), (559, 145499), (590, 145571), (601, 145604),

Gene: Modragons\_31 Start: 27572, Stop: 28573, Start Num: 149

Candidate Starts for Modragons\_31:

(33, 26951), (39, 27029), (42, 27092), (47, 27131), (58, 27263), (62, 27284), (69, 27320), (107, 27473), (Start: 149 @27572 has 225 MA's), (Start: 163 @27593 has 304 MA's), (170, 27605), (Start: 192 @27647 has 2 MA's), (210, 27680), (229, 27710), (239, 27731), (Start: 279 @27815 has 1 MA's), (292, 27839), (302, 27854), (306, 27866), (365, 27977), (423, 28091), (433, 28109), (454, 28148), (469, 28172), (484, 28208), (497, 28235), (520, 28274), (559, 28382), (578, 28430), (585, 28442), (600, 28484), (601, 28487), (604, 28499), (614, 28529),

Gene: Moldemort\_36 Start: 31600, Stop: 32457, Start Num: 198

Candidate Starts for Moldemort\_36:

(Start: 198 @31600 has 122 MA's), (220, 31639), (232, 31669), (242, 31690), (257, 31726), (275, 31756), (309, 31831), (334, 31879), (336, 31882), (345, 31906), (347, 31909), (356, 31924), (426, 32095), (487, 32209), (495, 32224), (498, 32230), (575, 32272), (576, 32275), (601, 32329), (624, 32407), (641, 32440),

Gene: Molly\_11 Start: 5789, Stop: 6757, Start Num: 163

Candidate Starts for Molly\_11:

(Start: 163 @5789 has 304 MA's), (Start: 180 @5822 has 5 MA's), (Start: 190 @5840 has 1 MA's), (Start: 192 @5843 has 2 MA's), (335, 6110), (365, 6161), (368, 6173), (415, 6248), (442, 6311), (450, 6323), (462, 6344), (474, 6374), (484, 6392), (496, 6416), (520, 6455), (551, 6536), (559, 6560), (561, 6563), (563, 6566), (567, 6575), (600, 6662), (614, 6707), (629, 6749),

Gene: Momo\_254 Start: 143793, Stop: 144821, Start Num: 142

Candidate Starts for Momo\_254:

(Start: 142 @143793 has 200 MA's), (Start: 163 @143823 has 304 MA's), (170, 143835), (Start: 192 @143877 has 2 MA's), (229, 143940), (239, 143961), (Start: 279 @144045 has 1 MA's), (302, 144087), (306, 144099), (312, 144114), (344, 144183), (365, 144210), (393, 144264), (411, 144309), (414, 144312), (449, 144390), (462, 144411), (520, 144522), (554, 144612), (559, 144630), (590, 144702), (601, 144735),

Gene: Monet\_11 Start: 6484, Stop: 7452, Start Num: 163

Candidate Starts for Monet\_11:

(Start: 163 @6484 has 304 MA's), (Start: 180 @6517 has 5 MA's), (Start: 190 @6535 has 1 MA's), (335, 6805), (365, 6856), (368, 6868), (415, 6943), (442, 7006), (450, 7018), (462, 7039), (469, 7051), (474, 7069), (484, 7087), (496, 7111), (520, 7150), (551, 7231), (559, 7255), (561, 7258), (563, 7261), (567, 7270), (600, 7357), (607, 7381), (614, 7402), (629, 7444),

Gene: MoneyMay\_12 Start: 5960, Stop: 6925, Start Num: 153

Candidate Starts for MoneyMay\_12:

(Start: 153 @5960 has 92 MA's), (Start: 180 @6005 has 5 MA's), (Start: 192 @6026 has 2 MA's), (256, 6146), (365, 6341), (371, 6356), (422, 6437), (430, 6452), (439, 6470), (469, 6521), (474, 6539), (497, 6584), (538, 6680), (561, 6743), (575, 6782), (597, 6833),

Gene: MontyDev\_39 Start: 34993, Stop: 36042, Start Num: 142

Candidate Starts for MontyDev\_39:

(Start: 142 @34993 has 200 MA's), (Start: 192 @35077 has 2 MA's), (199, 35086), (211, 35110), (229, 35140), (239, 35161), (254, 35197), (269, 35218), (274, 35227), (Start: 279 @35245 has 1 MA's), (314, 35314), (394, 35467), (432, 35566), (484, 35665), (515, 35719), (575, 35872), (587, 35896), (590, 35905), (603, 35947), (604, 35950), (606, 35956), (610, 35965), (622, 36001), (626, 36010), (632, 36019),

Gene: MooMoo\_29 Start: 26730, Stop: 27749, Start Num: 149

Candidate Starts for MooMoo\_29:

(Start: 149 @26730 has 225 MA's), (Start: 163 @26751 has 304 MA's), (Start: 166 @26757 has 14 MA's), (Start: 192 @26805 has 2 MA's), (229, 26868), (239, 26889), (Start: 279 @26973 has 1 MA's), (302, 27015), (303, 27018), (306, 27027), (330, 27084), (335, 27093), (365, 27138), (415, 27225), (430, 27264), (462, 27321), (474, 27351), (501, 27402), (520, 27432), (567, 27555), (581, 27597), (582, 27600), (591, 27624), (594, 27630), (595, 27636), (596, 27639), (601, 27660),

Gene: Moonbeam\_32 Start: 28207, Stop: 29208, Start Num: 149

Candidate Starts for Moonbeam\_32:

(Start: 149 @28207 has 225 MA's), (Start: 192 @28282 has 2 MA's), (210, 28315), (229, 28345), (233, 28354), (239, 28366), (Start: 279 @28450 has 1 MA's), (292, 28474), (302, 28489), (306, 28501), (365, 28612), (423, 28726), (433, 28744), (454, 28783), (469, 28807), (484, 28843), (497, 28870), (520, 28909), (559, 29017), (578, 29065), (585, 29077), (601, 29122), (604, 29134), (614, 29164),

Gene: Moose\_9 Start: 6022, Stop: 6990, Start Num: 163

Candidate Starts for Moose\_9:

(Start: 163 @6022 has 304 MA's), (Start: 180 @6055 has 5 MA's), (Start: 190 @6073 has 1 MA's), (Start: 192 @6076 has 2 MA's), (335, 6343), (365, 6394), (368, 6406), (415, 6481), (442, 6544), (462, 6577), (469, 6589), (474, 6607), (484, 6625), (496, 6649), (520, 6688), (551, 6769), (559, 6793), (561, 6796), (563, 6799), (567, 6808), (600, 6895), (614, 6940), (629, 6982),

Gene: Moostard\_28 Start: 26853, Stop: 27896, Start Num: 102

Candidate Starts for Moostard\_28:

(Start: 102 @26853 has 88 MA's), (Start: 103 @26859 has 3 MA's), (112, 26886), (120, 26907), (143, 26958), (186, 27039), (245, 27144), (289, 27225), (293, 27231), (341, 27327), (349, 27345), (352, 27351), (355, 27357), (392, 27429), (418, 27486), (452, 27546), (489, 27621), (499, 27642), (572, 27666), (576, 27681), (580, 27693), (604, 27750), (640, 27852), (645, 27873),

Gene: Morgushi\_49 Start: 41410, Stop: 42765, Start Num: 82

Candidate Starts for Morgushi\_49:

(Start: 82 @41410 has 255 MA's), (98, 41461), (108, 41494), (168, 41623), (170, 41626), (Start: 180 @41641 has 5 MA's), (235, 41737), (251, 41776), (269, 41806), (284, 41842), (333, 41953), (345, 41983), (347, 41986), (379, 42052), (440, 42211), (469, 42259), (475, 42277), (498, 42325), (550, 42469), (571, 42529), (603, 42634), (637, 42721),

Gene: Mori\_67 Start: 43460, Stop: 44500, Start Num: 148

Candidate Starts for Mori\_67:

(Start: 148 @43460 has 26 MA's), (Start: 192 @43535 has 2 MA's), (229, 43616), (232, 43622), (239, 43637), (278, 43718), (Start: 279 @43721 has 1 MA's), (306, 43775), (312, 43790), (365, 43886), (385, 43925), (397, 43955), (411, 43985), (414, 43988), (425, 44021), (462, 44087), (479, 44126), (484, 44135), (497, 44162), (520, 44201), (589, 44375), (604, 44426),

Gene: Morizzled23\_250 Start: 143609, Stop: 144637, Start Num: 142

Candidate Starts for Morizzled23\_250:

(Start: 142 @143609 has 200 MA's), (Start: 163 @143639 has 304 MA's), (170, 143651), (Start: 192 @143693 has 2 MA's), (229, 143756), (239, 143777), (Start: 279 @143861 has 1 MA's), (302,

143903), (306, 143915), (312, 143930), (344, 143999), (365, 144026), (393, 144080), (411, 144125), (414, 144128), (415, 144131), (449, 144206), (462, 144227), (520, 144338), (554, 144428), (559, 144446), (590, 144518), (601, 144551),

Gene: Morpher26\_10 Start: 5887, Stop: 6870, Start Num: 163

Candidate Starts for Morpher26\_10:

(Start: 163 @5887 has 304 MA's), (178, 5917), (Start: 190 @5938 has 1 MA's), (Start: 192 @5941 has 2 MA's), (330, 6190), (365, 6247), (368, 6259), (387, 6289), (401, 6310), (416, 6331), (437, 6379), (474, 6436), (551, 6586), (601, 6709), (604, 6721), (607, 6730), (627, 6787), (652, 6862),

Gene: Morrow\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Morrow\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (Start: 192 @5932 has 2 MA's), (273, 6067), (284, 6091), (330, 6181), (365, 6238), (401, 6301), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (601, 6700), (604, 6712), (644, 6823),

Gene: Mortcellus\_46 Start: 42171, Stop: 43235, Start Num: 138

Candidate Starts for Mortcellus\_46:

(Start: 138 @42171 has 44 MA's), (173, 42234), (219, 42315), (252, 42381), (260, 42396), (269, 42408), (280, 42435), (311, 42492), (314, 42501), (391, 42648), (401, 42663), (422, 42717), (439, 42750), (463, 42789), (470, 42801), (512, 42882), (520, 42900), (523, 42903), (538, 42948), (578, 43059), (617, 43170), (626, 43191), (641, 43224),

Gene: Morty\_50 Start: 41848, Stop: 43203, Start Num: 82

Candidate Starts for Morty\_50:

(Start: 82 @41848 has 255 MA's), (98, 41899), (108, 41932), (168, 42061), (170, 42064), (Start: 180 @42079 has 5 MA's), (235, 42175), (251, 42214), (269, 42244), (284, 42280), (333, 42391), (345, 42421), (347, 42424), (379, 42490), (440, 42649), (469, 42697), (475, 42715), (498, 42763), (550, 42907), (571, 42967), (603, 43072), (637, 43159),

Gene: Morty007\_47 Start: 42315, Stop: 43379, Start Num: 138

Candidate Starts for Morty007\_47:

(Start: 138 @42315 has 44 MA's), (173, 42378), (219, 42459), (252, 42525), (260, 42540), (269, 42552), (280, 42579), (311, 42636), (314, 42645), (391, 42792), (401, 42807), (422, 42861), (439, 42894), (463, 42933), (470, 42945), (512, 43026), (520, 43044), (523, 43047), (538, 43092), (578, 43203), (617, 43314), (626, 43335), (641, 43368),

Gene: Mosaic\_48 Start: 41415, Stop: 42770, Start Num: 82

Candidate Starts for Mosaic\_48:

(Start: 82 @41415 has 255 MA's), (98, 41466), (108, 41499), (114, 41517), (168, 41628), (170, 41631), (Start: 180 @41646 has 5 MA's), (235, 41742), (251, 41781), (269, 41811), (284, 41847), (333, 41958), (345, 41988), (347, 41991), (379, 42057), (440, 42216), (469, 42264), (475, 42282), (498, 42330), (550, 42474), (571, 42534), (603, 42639), (637, 42726),

Gene: Mosby\_34 Start: 31362, Stop: 32219, Start Num: 198

Candidate Starts for Mosby\_34:

(Start: 198 @31362 has 122 MA's), (220, 31401), (232, 31431), (242, 31452), (257, 31488), (275, 31518), (309, 31593), (334, 31641), (336, 31644), (345, 31668), (347, 31671), (356, 31686), (426, 31857), (487, 31971), (495, 31986), (498, 31992), (575, 32034), (576, 32037), (601, 32091), (624, 32169), (641, 32202),

Gene: Mova\_32 Start: 27350, Stop: 28348, Start Num: 149

Candidate Starts for Mova\_32:

(Start: 149 @27350 has 225 MA's), (Start: 192 @27425 has 2 MA's), (229, 27485), (239, 27506), (Start: 279 @27590 has 1 MA's), (306, 27641), (312, 27656), (365, 27752), (422, 27863), (433, 27884), (454, 27923), (462, 27935), (484, 27983), (497, 28010), (511, 28034), (520, 28049), (559, 28157), (578, 28205), (604, 28274), (614, 28304),

Gene: Mowgli\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Mowgli\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: Mozy\_33 Start: 28396, Stop: 29397, Start Num: 149

Candidate Starts for Mozy\_33:

(121, 28342), (126, 28351), (Start: 149 @28396 has 225 MA's), (Start: 163 @28417 has 304 MA's), (Start: 192 @28471 has 2 MA's), (210, 28504), (229, 28534), (239, 28555), (Start: 279 @28639 has 1 MA's), (292, 28663), (302, 28678), (306, 28690), (365, 28801), (423, 28915), (433, 28933), (454, 28972), (469, 28996), (484, 29032), (497, 29059), (520, 29098), (538, 29146), (559, 29206), (578, 29254), (585, 29266), (601, 29311), (604, 29323), (614, 29353),

Gene: MrGordo\_10 Start: 5741, Stop: 6709, Start Num: 163

Candidate Starts for MrGordo\_10:

(Start: 163 @5741 has 304 MA's), (Start: 180 @5774 has 5 MA's), (Start: 190 @5792 has 1 MA's), (Start: 192 @5795 has 2 MA's), (302, 5984), (335, 6062), (344, 6080), (365, 6113), (368, 6125), (415, 6200), (442, 6263), (462, 6296), (474, 6326), (484, 6344), (496, 6368), (520, 6407), (551, 6488), (559, 6512), (561, 6515), (563, 6518), (567, 6527), (600, 6614), (614, 6659), (629, 6701),

Gene: MrMagoo\_43 Start: 32893, Stop: 33870, Start Num: 167

Candidate Starts for MrMagoo\_43:

(Start: 167 @32893 has 7 MA's), (183, 32920), (250, 33043), (266, 33073), (305, 33130), (308, 33139), (325, 33184), (330, 33196), (348, 33226), (365, 33250), (373, 33268), (389, 33295), (410, 33334), (428, 33373), (430, 33376), (475, 33463), (485, 33478), (551, 33631), (552, 33634), (557, 33643), (559, 33655), (564, 33664), (572, 33685), (578, 33706), (606, 33781),

Gene: MrPhizzler\_48 Start: 41412, Stop: 42767, Start Num: 82

Candidate Starts for MrPhizzler\_48:

(Start: 82 @41412 has 255 MA's), (98, 41463), (108, 41496), (168, 41625), (170, 41628), (Start: 180 @41643 has 5 MA's), (235, 41739), (251, 41778), (269, 41808), (284, 41844), (333, 41955), (345, 41985), (347, 41988), (379, 42054), (440, 42213), (469, 42261), (475, 42279), (498, 42327), (550, 42471), (571, 42531), (603, 42636), (637, 42723),

Gene: Mryolo\_9 Start: 5771, Stop: 6739, Start Num: 163

Candidate Starts for Mryolo\_9:

(Start: 163 @5771 has 304 MA's), (Start: 180 @5804 has 5 MA's), (Start: 190 @5822 has 1 MA's), (Start: 192 @5825 has 2 MA's), (335, 6092), (365, 6143), (368, 6155), (415, 6230), (442, 6293), (462, 6326), (469, 6338), (474, 6356), (484, 6374), (496, 6398), (520, 6437), (551, 6518), (559, 6542), (561, 6545), (563, 6548), (567, 6557), (600, 6644), (629, 6731),

Gene: Ms6\_25 Start: 23131, Stop: 24129, Start Num: 149

Candidate Starts for Ms6\_25:

(Start: 149 @23131 has 225 MA's), (Start: 192 @23206 has 2 MA's), (229, 23266), (239, 23287), (Start: 279 @23371 has 1 MA's), (306, 23422), (312, 23437), (365, 23533), (422, 23644), (433, 23665), (454, 23704), (462, 23716), (484, 23764), (497, 23791), (511, 23815), (520, 23830), (559,

23938), (578, 23986), (604, 24055), (614, 24085),

Gene: MsGreen\_28 Start: 26850, Stop: 27893, Start Num: 102

Candidate Starts for MsGreen\_28:

(Start: 102 @26850 has 88 MA's), (Start: 103 @26856 has 3 MA's), (112, 26883), (120, 26904), (143, 26955), (186, 27036), (245, 27141), (289, 27222), (293, 27228), (341, 27324), (349, 27342), (352, 27348), (355, 27354), (392, 27426), (418, 27483), (452, 27543), (489, 27618), (499, 27639), (572, 27663), (576, 27678), (580, 27690), (604, 27747), (640, 27849), (645, 27870),

Gene: MuchMore\_14 Start: 5954, Stop: 6919, Start Num: 153

Candidate Starts for MuchMore\_14:

(Start: 153 @5954 has 92 MA's), (Start: 180 @5999 has 5 MA's), (Start: 192 @6020 has 2 MA's), (256, 6140), (330, 6278), (365, 6335), (371, 6350), (422, 6431), (430, 6446), (439, 6464), (469, 6515), (474, 6533), (497, 6578), (538, 6674), (561, 6737), (575, 6776), (597, 6827),

Gene: Mufasa\_30 Start: 24878, Stop: 26089, Start Num: 99

Candidate Starts for Mufasa\_30:

(16, 24167), (19, 24230), (22, 24254), (70, 24755), (73, 24776), (87, 24839), (Start: 99 @24878 has 10 MA's), (104, 24905), (111, 24926), (125, 24962), (150, 25007), (205, 25103), (Start: 227 @25136 has 1 MA's), (228, 25139), (242, 25169), (275, 25235), (293, 25274), (330, 25352), (353, 25397), (384, 25454), (392, 25472), (418, 25544), (469, 25637), (476, 25658), (486, 25679), (487, 25682), (539, 25796), (545, 25811), (575, 25880), (601, 25937), (624, 26018),

Gene: Mulan\_49 Start: 41565, Stop: 42920, Start Num: 82

Candidate Starts for Mulan\_49:

(Start: 82 @41565 has 255 MA's), (98, 41616), (108, 41649), (168, 41778), (170, 41781), (Start: 180 @41796 has 5 MA's), (235, 41892), (251, 41931), (269, 41961), (284, 41997), (333, 42108), (345, 42138), (347, 42141), (379, 42207), (440, 42366), (469, 42414), (475, 42432), (498, 42480), (550, 42624), (571, 42684), (603, 42789), (637, 42876),

Gene: MulchSalad\_30 Start: 24409, Stop: 25410, Start Num: 149

Candidate Starts for MulchSalad\_30:

(124, 24364), (130, 24373), (Start: 149 @24409 has 225 MA's), (Start: 180 @24463 has 5 MA's), (Start: 192 @24484 has 2 MA's), (210, 24517), (229, 24547), (239, 24568), (Start: 279 @24652 has 1 MA's), (292, 24676), (302, 24691), (306, 24703), (365, 24814), (433, 24946), (454, 24985), (469, 25009), (484, 25045), (497, 25072), (511, 25096), (520, 25111), (559, 25219), (578, 25267), (604, 25336), (614, 25366),

Gene: Mule\_10 Start: 6057, Stop: 7025, Start Num: 163

Candidate Starts for Mule\_10:

(Start: 163 @6057 has 304 MA's), (Start: 180 @6090 has 5 MA's), (Start: 190 @6108 has 1 MA's), (Start: 192 @6111 has 2 MA's), (335, 6378), (365, 6429), (368, 6441), (415, 6516), (442, 6579), (450, 6591), (462, 6612), (469, 6624), (474, 6642), (484, 6660), (496, 6684), (520, 6723), (551, 6804), (559, 6828), (561, 6831), (563, 6834), (567, 6843), (600, 6930), (629, 7017),

Gene: Mundrea\_10 Start: 5843, Stop: 6823, Start Num: 164

Candidate Starts for Mundrea\_10:

(Start: 164 @5843 has 109 MA's), (178, 5870), (Start: 190 @5891 has 1 MA's), (Start: 192 @5894 has 2 MA's), (304, 6074), (330, 6143), (344, 6170), (365, 6200), (368, 6212), (387, 6242), (416, 6284), (422, 6305), (437, 6332), (464, 6362), (474, 6389), (477, 6395), (551, 6539), (604, 6674), (607, 6683), (627, 6740), (652, 6815),

Gene: Murai\_68 Start: 43641, Stop: 44681, Start Num: 148

Candidate Starts for Murai\_68:

(Start: 148 @43641 has 26 MA's), (Start: 192 @43716 has 2 MA's), (229, 43797), (232, 43803), (239, 43818), (278, 43899), (Start: 279 @43902 has 1 MA's), (306, 43956), (312, 43971), (365, 44067), (385, 44106), (397, 44136), (411, 44166), (414, 44169), (425, 44202), (462, 44268), (479, 44307), (484, 44316), (497, 44343), (520, 44382), (589, 44556), (604, 44607),

Gene: Murdoc\_49 Start: 41696, Stop: 43051, Start Num: 82

Candidate Starts for Murdoc\_49:

(Start: 82 @41696 has 255 MA's), (98, 41747), (108, 41780), (168, 41909), (170, 41912), (Start: 180 @41927 has 5 MA's), (235, 42023), (251, 42062), (269, 42092), (284, 42128), (333, 42239), (345, 42269), (347, 42272), (379, 42338), (440, 42497), (469, 42545), (475, 42563), (498, 42611), (550, 42755), (571, 42815), (603, 42920), (637, 43007),

Gene: Murica\_34 Start: 31842, Stop: 32699, Start Num: 198

Candidate Starts for Murica\_34:

(Start: 198 @31842 has 122 MA's), (220, 31881), (232, 31911), (242, 31932), (257, 31968), (275, 31998), (309, 32073), (334, 32121), (336, 32124), (345, 32148), (347, 32151), (356, 32166), (426, 32337), (481, 32436), (487, 32451), (495, 32466), (498, 32472), (575, 32514), (576, 32517), (601, 32571), (624, 32649), (641, 32682),

Gene: Murphy\_36 Start: 31837, Stop: 32694, Start Num: 198

Candidate Starts for Murphy\_36:

(Start: 198 @31837 has 122 MA's), (220, 31876), (232, 31906), (242, 31927), (257, 31963), (275, 31993), (309, 32068), (334, 32116), (336, 32119), (345, 32143), (347, 32146), (356, 32161), (426, 32332), (487, 32446), (495, 32461), (498, 32467), (575, 32509), (576, 32512), (601, 32566), (624, 32644), (641, 32677),

Gene: Murucutumbu\_31 Start: 26406, Stop: 27278, Start Num: 221

Candidate Starts for Murucutumbu\_31:

(151, 26304), (195, 26379), (Start: 221 @26406 has 188 MA's), (Start: 227 @26418 has 1 MA's), (258, 26487), (275, 26514), (287, 26544), (293, 26553), (309, 26589), (313, 26598), (323, 26631), (331, 26649), (379, 26739), (447, 26874), (469, 26901), (476, 26922), (487, 26946), (521, 26997), (578, 27099), (598, 27135), (604, 27159), (640, 27258), (643, 27267),

Gene: Museum\_11 Start: 5573, Stop: 6541, Start Num: 163

Candidate Starts for Museum\_11:

(Start: 163 @5573 has 304 MA's), (Start: 180 @5606 has 5 MA's), (Start: 190 @5624 has 1 MA's), (Start: 192 @5627 has 2 MA's), (335, 5894), (365, 5945), (368, 5957), (415, 6032), (442, 6095), (450, 6107), (462, 6128), (469, 6140), (474, 6158), (484, 6176), (496, 6200), (520, 6239), (551, 6320), (559, 6344), (561, 6347), (563, 6350), (567, 6359), (600, 6446), (629, 6533),

Gene: Mutaforma13\_31 Start: 27781, Stop: 28782, Start Num: 149

Candidate Starts for Mutaforma13\_31:

(Start: 149 @27781 has 225 MA's), (Start: 192 @27856 has 2 MA's), (210, 27889), (229, 27919), (239, 27940), (251, 27970), (259, 27982), (Start: 279 @28024 has 1 MA's), (292, 28048), (302, 28063), (306, 28075), (312, 28090), (365, 28186), (422, 28297), (433, 28318), (454, 28357), (462, 28369), (484, 28417), (497, 28444), (511, 28468), (520, 28483), (559, 28591), (578, 28639), (604, 28708), (614, 28738),

Gene: Mutante\_48 Start: 41415, Stop: 42770, Start Num: 82

Candidate Starts for Mutante\_48:

(Start: 82 @41415 has 255 MA's), (98, 41466), (108, 41499), (168, 41628), (170, 41631), (Start: 180 @41646 has 5 MA's), (235, 41742), (251, 41781), (269, 41811), (284, 41847), (333, 41958), (345,

41988), (347, 41991), (379, 42057), (440, 42216), (469, 42264), (475, 42282), (498, 42330), (550, 42474), (571, 42534), (603, 42639), (637, 42726),

Gene: Mynx\_31 Start: 26477, Stop: 27349, Start Num: 221

Candidate Starts for Mynx\_31:

(195, 26450), (Start: 221 @26477 has 188 MA's), (Start: 227 @26489 has 1 MA's), (258, 26558), (275, 26585), (287, 26615), (293, 26624), (309, 26660), (313, 26669), (323, 26702), (331, 26720), (347, 26750), (379, 26810), (447, 26945), (469, 26972), (476, 26993), (487, 27017), (521, 27068), (578, 27170), (598, 27206), (604, 27230), (640, 27329), (643, 27338),

Gene: Myrale\_35 Start: 31721, Stop: 32578, Start Num: 198

Candidate Starts for Myrale\_35:

(Start: 198 @31721 has 122 MA's), (220, 31760), (232, 31790), (242, 31811), (257, 31847), (275, 31877), (309, 31952), (334, 32000), (336, 32003), (345, 32027), (347, 32030), (356, 32045), (426, 32216), (487, 32330), (495, 32345), (498, 32351), (575, 32393), (576, 32396), (601, 32450), (624, 32528), (641, 32561),

Gene: NEHalo\_10 Start: 5583, Stop: 6551, Start Num: 163

Candidate Starts for NEHalo\_10:

(Start: 163 @5583 has 304 MA's), (Start: 180 @5616 has 5 MA's), (Start: 190 @5634 has 1 MA's), (Start: 192 @5637 has 2 MA's), (335, 5904), (365, 5955), (368, 5967), (415, 6042), (442, 6105), (450, 6117), (462, 6138), (474, 6168), (484, 6186), (496, 6210), (520, 6249), (551, 6330), (559, 6354), (561, 6357), (563, 6360), (567, 6369), (600, 6456), (629, 6543),

Gene: NaSiaTalie\_11 Start: 6481, Stop: 7458, Start Num: 163

Candidate Starts for NaSiaTalie\_11:

(Start: 163 @6481 has 304 MA's), (Start: 192 @6535 has 2 MA's), (234, 6592), (312, 6724), (330, 6772), (365, 6829), (382, 6865), (415, 6913), (430, 6952), (470, 7024), (474, 7039), (497, 7084), (507, 7102), (528, 7144), (538, 7192), (549, 7219), (554, 7234), (559, 7252), (561, 7255), (597, 7345),

Gene: Naca\_8 Start: 5264, Stop: 6073, Start Num: 221

Candidate Starts for Naca\_8:

(177, 5201), (207, 5240), (Start: 221 @5264 has 188 MA's), (251, 5327), (284, 5393), (309, 5441), (420, 5711), (440, 5753), (469, 5792), (475, 5810), (489, 5840), (640, 6038),

Gene: Nacho\_0050 Start: 41842, Stop: 43197, Start Num: 82

Candidate Starts for Nacho\_0050:

(Start: 82 @41842 has 255 MA's), (98, 41893), (108, 41926), (114, 41944), (168, 42055), (170, 42058), (Start: 180 @42073 has 5 MA's), (235, 42169), (251, 42208), (269, 42238), (284, 42274), (333, 42385), (345, 42415), (347, 42418), (379, 42484), (440, 42643), (469, 42691), (475, 42709), (498, 42757), (550, 42901), (571, 42961), (603, 43066), (637, 43153),

Gene: Naija\_253 Start: 144496, Stop: 145524, Start Num: 142

Candidate Starts for Naija\_253:

(Start: 142 @144496 has 200 MA's), (Start: 163 @144526 has 304 MA's), (170, 144538), (Start: 192 @144580 has 2 MA's), (229, 144643), (239, 144664), (Start: 279 @144748 has 1 MA's), (302, 144790), (306, 144802), (312, 144817), (344, 144886), (365, 144913), (393, 144967), (411, 145012), (414, 145015), (449, 145093), (462, 145114), (520, 145225), (554, 145315), (559, 145333), (590, 145405), (601, 145438),

Gene: Naira\_10 Start: 5962, Stop: 6930, Start Num: 163

Candidate Starts for Naira\_10:

(Start: 163 @5962 has 304 MA's), (Start: 180 @5995 has 5 MA's), (Start: 190 @6013 has 1 MA's), (Start: 192 @6016 has 2 MA's), (335, 6283), (365, 6334), (368, 6346), (415, 6421), (442, 6484), (462, 6517), (474, 6547), (520, 6628), (551, 6709), (559, 6733), (561, 6736), (563, 6739), (567, 6748), (600, 6835), (629, 6922),

Gene: Naji\_14 Start: 6597, Stop: 7361, Start Num: 294

Candidate Starts for Naji\_14:

(Start: 294 @6597 has 16 MA's), (365, 6741), (415, 6828), (423, 6855), (430, 6867), (474, 6954), (538, 7095), (559, 7155), (561, 7158), (574, 7194), (597, 7248), (611, 7296),

Gene: Nala\_35 Start: 31876, Stop: 32733, Start Num: 198

Candidate Starts for Nala\_35:

(Start: 198 @31876 has 122 MA's), (220, 31915), (232, 31945), (242, 31966), (257, 32002), (275, 32032), (309, 32107), (334, 32155), (336, 32158), (345, 32182), (347, 32185), (356, 32200), (426, 32371), (487, 32485), (495, 32500), (498, 32506), (575, 32548), (576, 32551), (601, 32605), (624, 32683), (641, 32716),

Gene: Nanosmite\_43 Start: 32726, Stop: 33703, Start Num: 167

Candidate Starts for Nanosmite\_43:

(Start: 167 @32726 has 7 MA's), (183, 32753), (191, 32768), (325, 33017), (330, 33029), (365, 33083), (397, 33140), (410, 33167), (428, 33206), (430, 33209), (475, 33296), (485, 33311), (494, 33329), (551, 33464), (552, 33467), (559, 33488), (601, 33596), (618, 33638),

Gene: Napoleon13\_249 Start: 143525, Stop: 144553, Start Num: 142

Candidate Starts for Napoleon13\_249:

(Start: 142 @143525 has 200 MA's), (Start: 163 @143555 has 304 MA's), (170, 143567), (Start: 192 @143609 has 2 MA's), (229, 143672), (239, 143693), (Start: 279 @143777 has 1 MA's), (302, 143819), (306, 143831), (312, 143846), (344, 143915), (365, 143942), (393, 143996), (411, 144041), (414, 144044), (449, 144122), (462, 144143), (520, 144254), (554, 144344), (559, 144362), (590, 144434), (601, 144467),

Gene: Nappy\_251 Start: 145602, Stop: 146630, Start Num: 142

Candidate Starts for Nappy\_251:

(Start: 142 @145602 has 200 MA's), (Start: 163 @145632 has 304 MA's), (170, 145644), (Start: 192 @145686 has 2 MA's), (229, 145749), (239, 145770), (Start: 279 @145854 has 1 MA's), (302, 145896), (306, 145908), (312, 145923), (344, 145992), (365, 146019), (393, 146073), (411, 146118), (414, 146121), (449, 146199), (462, 146220), (520, 146331), (554, 146421), (559, 146439), (590, 146511), (601, 146544),

Gene: Naval22\_257 Start: 146276, Stop: 147304, Start Num: 142

Candidate Starts for Naval22\_257:

(Start: 142 @146276 has 200 MA's), (Start: 163 @146306 has 304 MA's), (170, 146318), (Start: 192 @146360 has 2 MA's), (229, 146423), (239, 146444), (Start: 279 @146528 has 1 MA's), (302, 146570), (306, 146582), (312, 146597), (344, 146666), (365, 146693), (393, 146747), (411, 146792), (414, 146795), (449, 146873), (462, 146894), (520, 147005), (554, 147095), (559, 147113), (590, 147185), (601, 147218),

Gene: NearlyHeadless\_8 Start: 4875, Stop: 5684, Start Num: 221

Candidate Starts for NearlyHeadless\_8:

(Start: 221 @4875 has 188 MA's), (263, 4959), (284, 5004), (314, 5064), (337, 5130), (363, 5178), (379, 5217), (440, 5364), (469, 5403), (475, 5421), (490, 5454), (500, 5472), (602, 5541), (645, 5670),

Gene: Nebkiss\_35 Start: 30289, Stop: 31287, Start Num: 149



Candidate Starts for Nebkiss\_35:

(Start: 149 @30289 has 225 MA's), (Start: 192 @30364 has 2 MA's), (229, 30427), (239, 30448), (278, 30529), (Start: 279 @30532 has 1 MA's), (290, 30553), (292, 30556), (304, 30577), (312, 30598), (318, 30610), (325, 30628), (365, 30694), (450, 30856), (456, 30868), (462, 30877), (465, 30880), (469, 30889), (474, 30907), (496, 30949), (516, 30982), (520, 30985), (523, 30988), (538, 31033), (551, 31066), (558, 31087), (559, 31090), (561, 31093), (567, 31105), (578, 31138), (579, 31141), (585, 31150), (595, 31171), (600, 31192), (601, 31195), (604, 31207), (626, 31270), (630, 31279),

Gene: Nebs\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Nebs\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (Start: 192 @5932 has 2 MA's), (273, 6067), (284, 6091), (330, 6181), (365, 6238), (401, 6301), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (601, 6700), (604, 6712), (644, 6823),

Gene: Necropolis\_27 Start: 24049, Stop: 25215, Start Num: 102

Candidate Starts for Necropolis\_27:

(Start: 102 @24049 has 88 MA's), (122, 24103), (123, 24106), (168, 24193), (Start: 198 @24238 has 122 MA's), (235, 24313), (245, 24334), (251, 24352), (284, 24418), (305, 24457), (333, 24523), (345, 24553), (359, 24574), (379, 24619), (417, 24715), (434, 24754), (440, 24769), (469, 24808), (510, 24895), (527, 24913), (530, 24919), (553, 24967), (571, 24988), (598, 25060), (620, 25135),

Gene: NedWong\_251 Start: 144954, Stop: 145982, Start Num: 142

Candidate Starts for NedWong\_251:

(Start: 142 @144954 has 200 MA's), (Start: 163 @144984 has 304 MA's), (170, 144996), (Start: 192 @145038 has 2 MA's), (229, 145101), (239, 145122), (Start: 279 @145206 has 1 MA's), (302, 145248), (306, 145260), (312, 145275), (344, 145344), (365, 145371), (393, 145425), (411, 145470), (414, 145473), (449, 145551), (462, 145572), (520, 145683), (554, 145773), (559, 145791), (590, 145863), (601, 145896),

Gene: NelitzaMV\_35 Start: 31926, Stop: 32783, Start Num: 198

Candidate Starts for NelitzaMV\_35:

(Start: 198 @31926 has 122 MA's), (220, 31965), (232, 31995), (242, 32016), (257, 32052), (275, 32082), (309, 32157), (334, 32205), (336, 32208), (345, 32232), (347, 32235), (356, 32250), (426, 32421), (487, 32535), (495, 32550), (498, 32556), (575, 32598), (576, 32601), (601, 32655), (624, 32733), (641, 32766),

Gene: Nemo27\_10 Start: 5931, Stop: 6860, Start Num: 192

Candidate Starts for Nemo27\_10:

(Start: 164 @5880 has 109 MA's), (Start: 166 @5883 has 14 MA's), (178, 5907), (Start: 190 @5928 has 1 MA's), (Start: 192 @5931 has 2 MA's), (330, 6180), (365, 6237), (416, 6321), (422, 6342), (437, 6369), (464, 6399), (474, 6426), (551, 6576), (598, 6687), (601, 6699), (604, 6711), (627, 6777),

Gene: Neos5\_47 Start: 42330, Stop: 43394, Start Num: 138

Candidate Starts for Neos5\_47:

(Start: 138 @42330 has 44 MA's), (173, 42393), (219, 42474), (252, 42540), (260, 42555), (269, 42567), (280, 42594), (311, 42651), (314, 42660), (391, 42807), (401, 42822), (422, 42876), (439, 42909), (463, 42948), (470, 42960), (512, 43041), (520, 43059), (523, 43062), (538, 43107), (578, 43218), (617, 43329), (626, 43350), (641, 43383),

Gene: Nergal\_27 Start: 24122, Stop: 24985, Start Num: 221

Candidate Starts for Nergal\_27:

(Start: 162 @24038 has 2 MA's), (183, 24071), (Start: 221 @24122 has 188 MA's), (Start: 227 @24134 has 1 MA's), (229, 24140), (242, 24167), (258, 24203), (264, 24212), (287, 24251), (293,

24260), (309, 24296), (313, 24305), (331, 24356), (379, 24446), (447, 24581), (462, 24596), (469, 24608), (476, 24629), (487, 24653), (496, 24671), (516, 24701), (578, 24806), (599, 24845), (603, 24863), (640, 24965), (643, 24974),

Gene: Nerujay\_11 Start: 6472, Stop: 7386, Start Num: 192

Candidate Starts for Nerujay\_11:

(Start: 163 @6418 has 304 MA's), (Start: 180 @6451 has 5 MA's), (Start: 190 @6469 has 1 MA's), (Start: 192 @6472 has 2 MA's), (335, 6739), (365, 6790), (368, 6802), (415, 6877), (442, 6940), (462, 6973), (469, 6985), (474, 7003), (484, 7021), (496, 7045), (520, 7084), (551, 7165), (559, 7189), (561, 7192), (563, 7195), (567, 7204), (614, 7336), (629, 7378),

Gene: Netyap\_28 Start: 26303, Stop: 27274, Start Num: 102

Candidate Starts for Netyap\_28:

(Start: 102 @26303 has 88 MA's), (120, 26357), (Start: 198 @26507 has 122 MA's), (203, 26516), (208, 26522), (Start: 227 @26555 has 1 MA's), (228, 26558), (232, 26567), (242, 26588), (275, 26651), (293, 26678), (305, 26702), (345, 26783), (352, 26795), (386, 26858), (392, 26873), (415, 26933), (419, 26948), (469, 27029), (475, 27047), (476, 27050), (478, 27053), (579, 27104), (601, 27149), (613, 27191), (628, 27233),

Gene: Newman\_49 Start: 41713, Stop: 43068, Start Num: 82

Candidate Starts for Newman\_49:

(Start: 82 @41713 has 255 MA's), (98, 41764), (108, 41797), (114, 41815), (168, 41926), (170, 41929), (Start: 180 @41944 has 5 MA's), (235, 42040), (251, 42079), (269, 42109), (284, 42145), (333, 42256), (345, 42286), (347, 42289), (379, 42355), (440, 42514), (469, 42562), (475, 42580), (498, 42628), (550, 42772), (571, 42832), (603, 42937), (620, 42991), (637, 43024),

Gene: Ngannou\_247 Start: 143478, Stop: 144506, Start Num: 142

Candidate Starts for Ngannou\_247:

(Start: 142 @143478 has 200 MA's), (Start: 163 @143508 has 304 MA's), (170, 143520), (Start: 192 @143562 has 2 MA's), (229, 143625), (239, 143646), (Start: 279 @143730 has 1 MA's), (302, 143772), (306, 143784), (312, 143799), (344, 143868), (365, 143895), (393, 143949), (411, 143994), (414, 143997), (449, 144075), (462, 144096), (520, 144207), (554, 144297), (559, 144315), (590, 144387), (601, 144420),

Gene: Nhonho\_10 Start: 5867, Stop: 6835, Start Num: 163

Candidate Starts for Nhonho\_10:

(Start: 163 @5867 has 304 MA's), (Start: 180 @5900 has 5 MA's), (Start: 190 @5918 has 1 MA's), (Start: 192 @5921 has 2 MA's), (335, 6188), (365, 6239), (368, 6251), (415, 6326), (442, 6389), (462, 6422), (474, 6452), (484, 6470), (496, 6494), (520, 6533), (551, 6614), (559, 6638), (561, 6641), (563, 6644), (567, 6653), (600, 6740), (629, 6827),

Gene: Nibb\_30 Start: 25727, Stop: 26467, Start Num: 221

Candidate Starts for Nibb\_30:

(151, 25625), (Start: 162 @25646 has 2 MA's), (183, 25679), (195, 25700), (Start: 221 @25727 has 188 MA's), (242, 25772), (258, 25808), (293, 25865), (309, 25901), (323, 25943), (379, 26051), (469, 26213), (480, 26240), (487, 26258), (493, 26270), (576, 26282), (598, 26324), (603, 26345), (604, 26348), (640, 26447), (643, 26456),

Gene: Nicholas\_28 Start: 26850, Stop: 27893, Start Num: 102

Candidate Starts for Nicholas\_28:

(Start: 102 @26850 has 88 MA's), (Start: 103 @26856 has 3 MA's), (112, 26883), (120, 26904), (143, 26955), (186, 27036), (245, 27141), (289, 27222), (293, 27228), (341, 27324), (349, 27342), (352, 27348), (355, 27354), (392, 27426), (418, 27483), (452, 27543), (489, 27618), (499, 27639), (572,

27663), (576, 27678), (580, 27690), (604, 27747), (640, 27849), (645, 27870),

Gene: Nicholasp3\_28 Start: 26305, Stop: 27276, Start Num: 102

Candidate Starts for Nicholasp3\_28:

(Start: 102 @26305 has 88 MA's), (120, 26359), (179, 26479), (Start: 198 @26509 has 122 MA's), (208, 26524), (Start: 227 @26557 has 1 MA's), (228, 26560), (232, 26569), (242, 26590), (275, 26653), (293, 26680), (305, 26704), (319, 26734), (345, 26785), (352, 26797), (386, 26860), (392, 26875), (415, 26935), (419, 26950), (469, 27031), (475, 27049), (476, 27052), (478, 27055), (579, 27106), (601, 27151), (613, 27193), (628, 27235),

Gene: Nicole21\_49 Start: 41717, Stop: 43072, Start Num: 82

Candidate Starts for Nicole21\_49:

(Start: 82 @41717 has 255 MA's), (98, 41768), (108, 41801), (168, 41930), (170, 41933), (Start: 180 @41948 has 5 MA's), (235, 42044), (251, 42083), (269, 42113), (284, 42149), (333, 42260), (345, 42290), (347, 42293), (379, 42359), (440, 42518), (469, 42566), (475, 42584), (498, 42632), (550, 42776), (571, 42836), (603, 42941), (637, 43028),

Gene: NicoleTera\_15 Start: 8178, Stop: 9164, Start Num: 163

Candidate Starts for NicoleTera\_15:

(Start: 163 @8178 has 304 MA's), (176, 8205), (178, 8208), (Start: 180 @8211 has 5 MA's), (Start: 192 @8232 has 2 MA's), (325, 8469), (330, 8481), (365, 8538), (368, 8550), (376, 8562), (410, 8616), (469, 8709), (474, 8727), (551, 8877), (581, 8952), (592, 8970), (604, 9012), (627, 9084),

Gene: Nidhogg\_253 Start: 145322, Stop: 146350, Start Num: 142

Candidate Starts for Nidhogg\_253:

(Start: 142 @145322 has 200 MA's), (Start: 163 @145352 has 304 MA's), (170, 145364), (Start: 192 @145406 has 2 MA's), (229, 145469), (239, 145490), (Start: 279 @145574 has 1 MA's), (302, 145616), (306, 145628), (312, 145643), (344, 145712), (365, 145739), (393, 145793), (411, 145838), (414, 145841), (449, 145919), (462, 145940), (520, 146051), (554, 146141), (559, 146159), (590, 146231), (601, 146264),

Gene: NiebruSaylor\_66 Start: 42848, Stop: 43888, Start Num: 148

Candidate Starts for NiebruSaylor\_66:

(Start: 148 @42848 has 26 MA's), (Start: 192 @42923 has 2 MA's), (229, 43004), (232, 43010), (239, 43025), (278, 43106), (Start: 279 @43109 has 1 MA's), (306, 43163), (312, 43178), (365, 43274), (385, 43313), (397, 43343), (411, 43373), (414, 43376), (425, 43409), (462, 43475), (479, 43514), (484, 43523), (497, 43550), (520, 43589), (589, 43763), (604, 43814),

Gene: NihilNomen\_48 Start: 42652, Stop: 43518, Start Num: 89

Candidate Starts for NihilNomen\_48:

(Start: 89 @42652 has 30 MA's), (Start: 97 @42679 has 1 MA's), (101, 42700), (Start: 138 @42787 has 44 MA's), (Start: 148 @42808 has 26 MA's), (174, 42853), (189, 42874), (206, 42895), (233, 42949), (255, 43000), (281, 43051), (355, 43201), (374, 43243), (400, 43294), (405, 43312), (427, 43378), (434, 43390), (438, 43399), (452, 43429), (486, 43492),

Gene: Nikao\_27 Start: 25978, Stop: 26736, Start Num: 221

Candidate Starts for Nikao\_27:

(151, 25876), (183, 25930), (195, 25951), (Start: 221 @25978 has 188 MA's), (242, 26023), (258, 26059), (289, 26119), (293, 26125), (307, 26155), (323, 26203), (343, 26245), (379, 26311), (395, 26347), (447, 26446), (469, 26473), (476, 26494), (480, 26500), (573, 26539), (576, 26551), (578, 26557), (595, 26581), (601, 26605), (640, 26716), (643, 26725),

Gene: Niklas\_31 Start: 25853, Stop: 26614, Start Num: 221

Candidate Starts for Niklas\_31:

(195, 25823), (Start: 221 @25853 has 188 MA's), (242, 25898), (258, 25934), (289, 25994), (293, 26000), (307, 26030), (309, 26036), (313, 26045), (323, 26078), (343, 26120), (370, 26171), (379, 26186), (447, 26321), (469, 26348), (476, 26369), (480, 26375), (487, 26393), (576, 26426), (578, 26432), (601, 26480), (621, 26552), (640, 26594), (643, 26603),

Gene: Nilo\_40 Start: 35349, Stop: 36398, Start Num: 142

Candidate Starts for Nilo\_40:

(Start: 142 @35349 has 200 MA's), (Start: 192 @35433 has 2 MA's), (199, 35442), (211, 35466), (229, 35496), (239, 35517), (254, 35553), (269, 35574), (274, 35583), (Start: 279 @35601 has 1 MA's), (314, 35670), (358, 35760), (383, 35802), (394, 35823), (432, 35922), (448, 35949), (484, 36021), (515, 36075), (574, 36225), (587, 36252), (590, 36261), (603, 36303), (604, 36306), (606, 36312), (610, 36321), (622, 36357), (626, 36366), (632, 36375),

Gene: Nimbo\_31 Start: 27524, Stop: 28525, Start Num: 149

Candidate Starts for Nimbo\_31:

(107, 27425), (Start: 149 @27524 has 225 MA's), (Start: 163 @27545 has 304 MA's), (170, 27557), (Start: 192 @27599 has 2 MA's), (229, 27662), (239, 27683), (Start: 279 @27767 has 1 MA's), (292, 27791), (302, 27806), (306, 27818), (365, 27929), (423, 28043), (433, 28061), (454, 28100), (469, 28124), (484, 28160), (497, 28187), (520, 28226), (538, 28274), (559, 28334), (578, 28382), (585, 28394), (601, 28439), (604, 28451),

Gene: Nimrod\_35 Start: 32100, Stop: 32957, Start Num: 198

Candidate Starts for Nimrod\_35:

(Start: 198 @32100 has 122 MA's), (220, 32139), (232, 32169), (242, 32190), (257, 32226), (275, 32256), (309, 32331), (334, 32379), (336, 32382), (345, 32406), (347, 32409), (356, 32424), (426, 32595), (487, 32709), (495, 32724), (498, 32730), (575, 32772), (576, 32775), (601, 32829), (624, 32907), (641, 32940),

Gene: Nitzel\_32 Start: 28239, Stop: 29240, Start Num: 149

Candidate Starts for Nitzel\_32:

(107, 28140), (Start: 149 @28239 has 225 MA's), (Start: 163 @28260 has 304 MA's), (170, 28272), (Start: 192 @28314 has 2 MA's), (210, 28347), (229, 28377), (239, 28398), (Start: 279 @28482 has 1 MA's), (292, 28506), (302, 28521), (306, 28533), (365, 28644), (423, 28758), (433, 28776), (454, 28815), (469, 28839), (484, 28875), (497, 28902), (520, 28941), (559, 29049), (578, 29097), (585, 29109), (600, 29151), (601, 29154), (604, 29166), (614, 29196),

Gene: Nivrat\_31 Start: 27671, Stop: 28672, Start Num: 149

Candidate Starts for Nivrat\_31:

(Start: 149 @27671 has 225 MA's), (Start: 163 @27692 has 304 MA's), (170, 27704), (Start: 192 @27746 has 2 MA's), (229, 27809), (239, 27830), (251, 27860), (Start: 279 @27914 has 1 MA's), (292, 27938), (302, 27953), (306, 27965), (365, 28076), (423, 28190), (433, 28208), (454, 28247), (469, 28271), (484, 28307), (497, 28334), (520, 28373), (538, 28421), (559, 28481), (585, 28541), (604, 28598), (614, 28628),

Gene: Niza\_11 Start: 6593, Stop: 7561, Start Num: 163

Candidate Starts for Niza\_11:

(Start: 163 @6593 has 304 MA's), (Start: 180 @6626 has 5 MA's), (Start: 190 @6644 has 1 MA's), (Start: 192 @6647 has 2 MA's), (335, 6914), (365, 6965), (368, 6977), (415, 7052), (442, 7115), (450, 7127), (462, 7148), (469, 7160), (474, 7178), (484, 7196), (496, 7220), (520, 7259), (551, 7340), (559, 7364), (561, 7367), (563, 7370), (567, 7379), (600, 7466), (629, 7553),

Gene: NoShow\_27 Start: 24413, Stop: 25492, Start Num: 116

Candidate Starts for NoShow\_27:

(80, 24296), (Start: 116 @24413 has 3 MA's), (119, 24425), (122, 24428), (196, 24560), (215, 24599), (267, 24701), (271, 24707), (297, 24755), (314, 24797), (327, 24833), (336, 24851), (342, 24857), (401, 24944), (407, 24950), (424, 25004), (439, 25031), (448, 25046), (484, 25118), (493, 25136), (536, 25211), (575, 25316), (581, 25334), (590, 25349), (596, 25361), (610, 25409), (638, 25478),

Gene: NoSleep\_36 Start: 31597, Stop: 32454, Start Num: 198

Candidate Starts for NoSleep\_36:

(Start: 198 @31597 has 122 MA's), (220, 31636), (232, 31666), (242, 31687), (257, 31723), (275, 31753), (309, 31828), (334, 31876), (336, 31879), (345, 31903), (347, 31906), (356, 31921), (426, 32092), (487, 32206), (495, 32221), (498, 32227), (575, 32269), (576, 32272), (601, 32326), (624, 32404), (641, 32437),

Gene: Noella\_11 Start: 6052, Stop: 7017, Start Num: 153

Candidate Starts for Noella\_11:

(Start: 153 @6052 has 92 MA's), (Start: 180 @6097 has 5 MA's), (Start: 192 @6118 has 2 MA's), (256, 6238), (267, 6253), (Start: 296 @6292 has 2 MA's), (330, 6376), (365, 6433), (371, 6448), (422, 6529), (430, 6544), (439, 6562), (469, 6613), (474, 6631), (497, 6676), (538, 6772), (561, 6835), (575, 6874), (597, 6925),

Gene: Noelle\_10 Start: 5947, Stop: 6927, Start Num: 164

Candidate Starts for Noelle\_10:

(Start: 164 @5947 has 109 MA's), (Start: 166 @5950 has 14 MA's), (178, 5974), (Start: 190 @5995 has 1 MA's), (Start: 192 @5998 has 2 MA's), (330, 6247), (335, 6256), (365, 6304), (416, 6388), (430, 6424), (437, 6436), (461, 6463), (464, 6466), (474, 6493), (551, 6643), (601, 6766), (604, 6778), (607, 6787), (627, 6844), (652, 6919),

Gene: NoodleTree\_248 Start: 140073, Stop: 141101, Start Num: 142

Candidate Starts for NoodleTree\_248:

(Start: 142 @140073 has 200 MA's), (Start: 163 @140103 has 304 MA's), (170, 140115), (Start: 192 @140157 has 2 MA's), (229, 140220), (239, 140241), (Start: 279 @140325 has 1 MA's), (302, 140367), (306, 140379), (312, 140394), (344, 140463), (365, 140490), (393, 140544), (411, 140589), (414, 140592), (449, 140670), (462, 140691), (520, 140802), (554, 140892), (559, 140910), (590, 140982), (601, 141015),

Gene: Norbert\_10 Start: 6052, Stop: 7017, Start Num: 153

Candidate Starts for Norbert\_10:

(Start: 153 @6052 has 92 MA's), (Start: 180 @6097 has 5 MA's), (Start: 192 @6118 has 2 MA's), (256, 6238), (267, 6253), (Start: 296 @6292 has 2 MA's), (330, 6376), (365, 6433), (371, 6448), (422, 6529), (430, 6544), (439, 6562), (469, 6613), (474, 6631), (497, 6676), (538, 6772), (561, 6835), (575, 6874), (597, 6925),

Gene: Norm\_252 Start: 145223, Stop: 146251, Start Num: 142

Candidate Starts for Norm\_252:

(Start: 142 @145223 has 200 MA's), (Start: 163 @145253 has 304 MA's), (170, 145265), (Start: 192 @145307 has 2 MA's), (229, 145370), (239, 145391), (Start: 279 @145475 has 1 MA's), (302, 145517), (306, 145529), (312, 145544), (344, 145613), (365, 145640), (393, 145694), (411, 145739), (414, 145742), (449, 145820), (462, 145841), (520, 145952), (554, 146042), (559, 146060), (590, 146132), (601, 146165),

Gene: NormanBulbieJr\_31 Start: 27686, Stop: 28687, Start Num: 149

Candidate Starts for NormanBulbieJr\_31:

(Start: 149 @27686 has 225 MA's), (Start: 163 @27707 has 304 MA's), (170, 27719), (Start: 192 @27761 has 2 MA's), (229, 27824), (239, 27845), (251, 27875), (Start: 279 @27929 has 1 MA's), (292, 27953), (302, 27968), (306, 27980), (365, 28091), (423, 28205), (433, 28223), (454, 28262), (469, 28286), (484, 28322), (497, 28349), (520, 28388), (538, 28436), (559, 28496), (585, 28556), (604, 28613), (614, 28643),

Gene: NorthStar\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for NorthStar\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Norz\_12 Start: 6730, Stop: 7698, Start Num: 163

Candidate Starts for Norz\_12:

(Start: 163 @6730 has 304 MA's), (Start: 180 @6763 has 5 MA's), (Start: 190 @6781 has 1 MA's), (Start: 192 @6784 has 2 MA's), (335, 7051), (365, 7102), (368, 7114), (415, 7189), (442, 7252), (462, 7285), (474, 7315), (484, 7333), (496, 7357), (520, 7396), (551, 7477), (559, 7501), (561, 7504), (563, 7507), (567, 7516), (568, 7519), (600, 7603), (614, 7648), (629, 7690),

Gene: NotAPhaseMom\_10 Start: 5885, Stop: 6865, Start Num: 164

Candidate Starts for NotAPhaseMom\_10:

(Start: 164 @5885 has 109 MA's), (Start: 166 @5888 has 14 MA's), (178, 5912), (Start: 190 @5933 has 1 MA's), (Start: 192 @5936 has 2 MA's), (330, 6185), (365, 6242), (416, 6326), (422, 6347), (437, 6374), (464, 6404), (474, 6431), (551, 6581), (598, 6692), (601, 6704), (604, 6716), (627, 6782),

Gene: NothingSpecial\_13 Start: 8456, Stop: 9436, Start Num: 163

Candidate Starts for NothingSpecial\_13:

(Start: 163 @8456 has 304 MA's), (Start: 192 @8510 has 2 MA's), (283, 8678), (365, 8831), (371, 8846), (415, 8915), (422, 8939), (430, 8954), (469, 9023), (474, 9041), (538, 9185), (561, 9248), (574, 9284), (575, 9287), (595, 9329),

Gene: Nozo\_47 Start: 42295, Stop: 43359, Start Num: 138

Candidate Starts for Nozo\_47:

(Start: 138 @42295 has 44 MA's), (173, 42358), (219, 42439), (252, 42505), (260, 42520), (269, 42532), (280, 42559), (311, 42616), (314, 42625), (391, 42772), (401, 42787), (422, 42841), (439, 42874), (463, 42913), (470, 42925), (512, 43006), (520, 43024), (523, 43027), (538, 43072), (578, 43183), (617, 43294), (626, 43315), (641, 43348),

Gene: NuevoMundo\_254 Start: 145709, Stop: 146737, Start Num: 142

Candidate Starts for NuevoMundo\_254:

(Start: 142 @145709 has 200 MA's), (Start: 163 @145739 has 304 MA's), (Start: 192 @145793 has 2 MA's), (229, 145856), (239, 145877), (Start: 279 @145961 has 1 MA's), (302, 146003), (306, 146015), (312, 146030), (344, 146099), (365, 146126), (393, 146180), (411, 146225), (414, 146228), (449, 146306), (462, 146327), (520, 146438), (554, 146528), (559, 146546), (590, 146618), (601, 146651),

Gene: Numberten\_49 Start: 41708, Stop: 43063, Start Num: 82

Candidate Starts for Numberten\_49:

(Start: 82 @41708 has 255 MA's), (98, 41759), (108, 41792), (168, 41921), (170, 41924), (Start: 180 @41939 has 5 MA's), (235, 42035), (251, 42074), (269, 42104), (284, 42140), (333, 42251), (345, 42281), (347, 42284), (379, 42350), (440, 42509), (469, 42557), (475, 42575), (498, 42623), (550, 42767), (571, 42827), (603, 42932), (637, 43019),

Gene: Nutello\_27 Start: 25978, Stop: 26736, Start Num: 221

Candidate Starts for Nutello\_27:

(151, 25876), (183, 25930), (195, 25951), (Start: 221 @25978 has 188 MA's), (242, 26023), (258, 26059), (289, 26119), (293, 26125), (307, 26155), (323, 26203), (343, 26245), (379, 26311), (395, 26347), (447, 26446), (469, 26473), (476, 26494), (480, 26500), (573, 26539), (576, 26551), (578, 26557), (595, 26581), (601, 26605), (640, 26716), (643, 26725),

Gene: Nyala\_48 Start: 41407, Stop: 42762, Start Num: 82

Candidate Starts for Nyala\_48:

(Start: 82 @41407 has 255 MA's), (98, 41458), (108, 41491), (168, 41620), (170, 41623), (Start: 180 @41638 has 5 MA's), (235, 41734), (251, 41773), (269, 41803), (284, 41839), (333, 41950), (345, 41980), (347, 41983), (379, 42049), (440, 42208), (469, 42256), (475, 42274), (498, 42322), (550, 42466), (571, 42526), (603, 42631), (637, 42718),

Gene: Nyxis\_10 Start: 5824, Stop: 6807, Start Num: 163

Candidate Starts for Nyxis\_10:

(Start: 163 @5824 has 304 MA's), (Start: 190 @5875 has 1 MA's), (Start: 192 @5878 has 2 MA's), (273, 6013), (284, 6037), (330, 6127), (365, 6184), (401, 6247), (416, 6268), (422, 6289), (437, 6316), (474, 6373), (551, 6523), (601, 6646), (604, 6658), (644, 6769),

Gene: OBUpride\_33 Start: 28333, Stop: 29568, Start Num: 84

Candidate Starts for OBUpride\_33:

(Start: 84 @28333 has 24 MA's), (110, 28426), (122, 28459), (128, 28471), (136, 28483), (Start: 138 @28486 has 44 MA's), (170, 28549), (Start: 180 @28567 has 5 MA's), (204, 28600), (235, 28660), (251, 28699), (255, 28708), (257, 28711), (269, 28729), (284, 28765), (309, 28813), (314, 28825), (318, 28831), (339, 28894), (342, 28897), (354, 28924), (361, 28936), (403, 29038), (440, 29125), (469, 29164), (476, 29185), (522, 29254), (534, 29284), (553, 29317), (561, 29326), (564, 29332), (573, 29344), (575, 29353), (601, 29416), (620, 29485),

Gene: OKCentral2016\_10 Start: 5411, Stop: 6385, Start Num: 163

Candidate Starts for OKCentral2016\_10:

(139, 5372), (Start: 163 @5411 has 304 MA's), (Start: 192 @5465 has 2 MA's), (276, 5618), (365, 5780), (371, 5795), (382, 5816), (415, 5864), (422, 5888), (425, 5894), (430, 5903), (469, 5972), (474, 5990), (497, 6035), (507, 6053), (538, 6131), (549, 6158), (554, 6173), (561, 6194), (597, 6284), (609, 6326), (632, 6377),

Gene: OKaNui\_10 Start: 5646, Stop: 6626, Start Num: 164

Candidate Starts for OKaNui\_10:

(Start: 164 @5646 has 109 MA's), (Start: 166 @5649 has 14 MA's), (178, 5673), (Start: 190 @5694 has 1 MA's), (Start: 192 @5697 has 2 MA's), (330, 5946), (365, 6003), (416, 6087), (422, 6108), (437, 6135), (464, 6165), (474, 6192), (551, 6342), (598, 6453), (601, 6465), (604, 6477), (627, 6543),

Gene: OSmaximus\_50 Start: 41881, Stop: 43236, Start Num: 82

Candidate Starts for OSmaximus\_50:

(Start: 82 @41881 has 255 MA's), (98, 41932), (108, 41965), (168, 42094), (170, 42097), (Start: 180 @42112 has 5 MA's), (235, 42208), (251, 42247), (269, 42277), (284, 42313), (333, 42424), (345, 42454), (347, 42457), (379, 42523), (440, 42682), (469, 42730), (475, 42748), (498, 42796), (550, 42940), (571, 43000), (603, 43105), (620, 43159), (637, 43192),

Gene: Obama12\_10 Start: 5860, Stop: 6840, Start Num: 164

Candidate Starts for Obama12\_10:

(Start: 164 @5860 has 109 MA's), (178, 5887), (Start: 190 @5908 has 1 MA's), (Start: 192 @5911 has 2 MA's), (330, 6160), (365, 6217), (368, 6229), (401, 6280), (416, 6301), (437, 6349), (474, 6406), (551, 6556), (601, 6679), (604, 6691), (627, 6757),

Gene: Obutu\_47 Start: 41519, Stop: 42583, Start Num: 138

Candidate Starts for Obutu\_47:

(Start: 138 @41519 has 44 MA's), (173, 41582), (219, 41663), (252, 41729), (260, 41744), (269, 41756), (280, 41783), (311, 41840), (314, 41849), (391, 41996), (401, 42011), (422, 42065), (439, 42098), (463, 42137), (470, 42149), (512, 42230), (520, 42248), (523, 42251), (578, 42407), (617, 42518), (626, 42539), (641, 42572),

Gene: Ochi17\_29 Start: 27179, Stop: 28180, Start Num: 149

Candidate Starts for Ochi17\_29:

(33, 26558), (39, 26636), (42, 26699), (47, 26738), (58, 26870), (62, 26891), (69, 26927), (107, 27080), (Start: 149 @27179 has 225 MA's), (Start: 163 @27200 has 304 MA's), (170, 27212), (Start: 192 @27254 has 2 MA's), (210, 27287), (229, 27317), (239, 27338), (Start: 279 @27422 has 1 MA's), (292, 27446), (302, 27461), (306, 27473), (365, 27584), (423, 27698), (433, 27716), (454, 27755), (469, 27779), (484, 27815), (497, 27842), (520, 27881), (559, 27989), (578, 28037), (585, 28049), (600, 28091), (601, 28094), (604, 28106), (614, 28136),

Gene: OctaviousRex\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for OctaviousRex\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: Odette\_49 Start: 41912, Stop: 42757, Start Num: 97

Candidate Starts for Odette\_49:

(Start: 89 @41885 has 30 MA's), (Start: 97 @41912 has 1 MA's), (115, 41972), (Start: 138 @42020 has 44 MA's), (174, 42086), (189, 42107), (206, 42128), (233, 42182), (274, 42263), (403, 42542), (405, 42545), (413, 42569), (424, 42605), (432, 42620), (438, 42632), (444, 42653),

Gene: OfUltron\_31 Start: 27728, Stop: 28729, Start Num: 149

Candidate Starts for OfUltron\_31:

(33, 27107), (39, 27185), (42, 27248), (47, 27287), (58, 27419), (62, 27440), (69, 27476), (107, 27629), (Start: 149 @27728 has 225 MA's), (Start: 163 @27749 has 304 MA's), (170, 27761), (Start: 192 @27803 has 2 MA's), (210, 27836), (229, 27866), (239, 27887), (Start: 279 @27971 has 1 MA's), (292, 27995), (302, 28010), (306, 28022), (365, 28133), (423, 28247), (433, 28265), (454, 28304), (469, 28328), (484, 28364), (497, 28391), (520, 28430), (559, 28538), (578, 28586), (585, 28598), (600, 28640), (601, 28643), (604, 28655), (614, 28685),

Gene: Ogopogo\_31 Start: 26878, Stop: 27879, Start Num: 149

Candidate Starts for Ogopogo\_31:

(Start: 149 @26878 has 225 MA's), (Start: 192 @26953 has 2 MA's), (210, 26986), (229, 27016), (239, 27037), (251, 27067), (Start: 279 @27121 has 1 MA's), (292, 27145), (302, 27160), (306, 27172), (365, 27283), (423, 27397), (433, 27415), (454, 27454), (469, 27478), (484, 27514), (497, 27541), (511, 27565), (520, 27580), (559, 27688), (578, 27736), (604, 27805), (614, 27835),

Gene: OhShagHennessy\_26 Start: 25512, Stop: 26543, Start Num: 142

Candidate Starts for OhShagHennessy\_26:

(Start: 142 @25512 has 200 MA's), (236, 25668), (247, 25692), (251, 25704), (261, 25722), (272, 25740), (278, 25758), (281, 25764), (286, 25773), (Start: 294 @25788 has 16 MA's), (303, 25803), (321, 25851), (330, 25875), (365, 25932), (385, 25971), (425, 26049), (430, 26058), (431, 26061), (439, 26076), (467, 26130), (474, 26151), (482, 26166), (526, 26250), (537, 26280), (561, 26349), (567, 26361), (575, 26385), (581, 26403), (585, 26406), (590, 26418), (592, 26421), (601, 26451),



(604, 26463),

Gene: Ohfah\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Ohfah\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (Start: 192 @5932 has 2 MA's), (273, 6067), (284, 6091), (330, 6181), (365, 6238), (401, 6301), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (601, 6700), (604, 6712), (644, 6823),

Gene: Ohno789\_9 Start: 5411, Stop: 6379, Start Num: 163

Candidate Starts for Ohno789\_9:

(Start: 163 @5411 has 304 MA's), (Start: 180 @5444 has 5 MA's), (Start: 190 @5462 has 1 MA's), (Start: 192 @5465 has 2 MA's), (335, 5732), (365, 5783), (368, 5795), (415, 5870), (442, 5933), (450, 5945), (462, 5966), (474, 5996), (484, 6014), (520, 6077), (551, 6158), (559, 6182), (561, 6185), (563, 6188), (567, 6197), (600, 6284), (629, 6371),

Gene: OkiRoe\_30 Start: 27047, Stop: 27919, Start Num: 221

Candidate Starts for OkiRoe\_30:

(151, 26945), (183, 26999), (Start: 221 @27047 has 188 MA's), (Start: 227 @27059 has 1 MA's), (229, 27065), (242, 27092), (253, 27122), (258, 27128), (287, 27182), (293, 27191), (300, 27203), (313, 27236), (323, 27269), (347, 27317), (469, 27539), (475, 27557), (476, 27560), (506, 27620), (521, 27638), (538, 27665), (578, 27737), (593, 27752), (598, 27773), (599, 27776), (604, 27797), (637, 27890), (640, 27899), (643, 27908),

Gene: Oksu\_32 Start: 27572, Stop: 28573, Start Num: 149

Candidate Starts for Oksu\_32:

(33, 26951), (39, 27029), (42, 27092), (47, 27131), (58, 27263), (62, 27284), (69, 27320), (107, 27473), (Start: 149 @27572 has 225 MA's), (Start: 163 @27593 has 304 MA's), (170, 27605), (Start: 192 @27647 has 2 MA's), (210, 27680), (229, 27710), (239, 27731), (Start: 279 @27815 has 1 MA's), (292, 27839), (302, 27854), (306, 27866), (365, 27977), (423, 28091), (433, 28109), (454, 28148), (469, 28172), (484, 28208), (497, 28235), (520, 28274), (559, 28382), (578, 28430), (585, 28442), (600, 28484), (601, 28487), (604, 28499), (614, 28529),

Gene: Olak\_49 Start: 41410, Stop: 42765, Start Num: 82

Candidate Starts for Olak\_49:

(Start: 82 @41410 has 255 MA's), (98, 41461), (108, 41494), (168, 41623), (170, 41626), (Start: 180 @41641 has 5 MA's), (235, 41737), (251, 41776), (269, 41806), (284, 41842), (333, 41953), (345, 41983), (347, 41986), (379, 42052), (440, 42211), (469, 42259), (475, 42277), (498, 42325), (550, 42469), (571, 42529), (603, 42634), (637, 42721),

Gene: OlanP\_12 Start: 6213, Stop: 7178, Start Num: 153

Candidate Starts for OlanP\_12:

(Start: 153 @6213 has 92 MA's), (Start: 192 @6279 has 2 MA's), (226, 6333), (265, 6411), (330, 6534), (365, 6591), (415, 6663), (430, 6702), (439, 6720), (474, 6789), (535, 6906), (538, 6933), (561, 6996), (597, 7086), (599, 7092),

Gene: OldBen\_31 Start: 27554, Stop: 28555, Start Num: 149

Candidate Starts for OldBen\_31:

(Start: 149 @27554 has 225 MA's), (Start: 192 @27629 has 2 MA's), (210, 27662), (229, 27692), (239, 27713), (Start: 279 @27797 has 1 MA's), (292, 27821), (302, 27836), (306, 27848), (365, 27959), (423, 28073), (433, 28091), (454, 28130), (469, 28154), (484, 28190), (497, 28217), (520, 28256), (559, 28364), (585, 28424), (604, 28481), (614, 28511),

Gene: Olga\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Olga\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: Oline\_48 Start: 41270, Stop: 42625, Start Num: 82

Candidate Starts for Oline\_48:

(Start: 82 @41270 has 255 MA's), (98, 41321), (108, 41354), (168, 41483), (170, 41486), (Start: 180 @41501 has 5 MA's), (235, 41597), (251, 41636), (269, 41666), (284, 41702), (333, 41813), (345, 41843), (347, 41846), (379, 41912), (440, 42071), (469, 42119), (475, 42137), (498, 42185), (550, 42329), (571, 42389), (603, 42494), (637, 42581),

Gene: Olive\_49 Start: 41697, Stop: 43052, Start Num: 82

Candidate Starts for Olive\_49:

(Start: 82 @41697 has 255 MA's), (98, 41748), (108, 41781), (128, 41835), (168, 41910), (170, 41913), (Start: 180 @41928 has 5 MA's), (235, 42024), (251, 42063), (269, 42093), (284, 42129), (333, 42240), (345, 42270), (347, 42273), (379, 42339), (440, 42498), (469, 42546), (475, 42564), (498, 42612), (550, 42756), (571, 42816), (603, 42921), (637, 43008),

Gene: OliverWalter\_49 Start: 41719, Stop: 43074, Start Num: 82

Candidate Starts for OliverWalter\_49:

(Start: 82 @41719 has 255 MA's), (98, 41770), (108, 41803), (168, 41932), (170, 41935), (Start: 180 @41950 has 5 MA's), (235, 42046), (251, 42085), (269, 42115), (284, 42151), (333, 42262), (345, 42292), (347, 42295), (379, 42361), (440, 42520), (469, 42568), (475, 42586), (498, 42634), (550, 42778), (571, 42838), (603, 42943), (620, 42997), (637, 43030),

Gene: Ollie\_12 Start: 5833, Stop: 6798, Start Num: 153

Candidate Starts for Ollie\_12:

(Start: 153 @5833 has 92 MA's), (Start: 180 @5878 has 5 MA's), (Start: 192 @5899 has 2 MA's), (256, 6019), (330, 6157), (365, 6214), (371, 6229), (422, 6310), (430, 6325), (439, 6343), (467, 6391), (470, 6397), (474, 6412), (538, 6553), (561, 6616), (575, 6655), (597, 6706),

Gene: OlympiaSaint\_31 Start: 27970, Stop: 28971, Start Num: 149

Candidate Starts for OlympiaSaint\_31:

(Start: 149 @27970 has 225 MA's), (Start: 192 @28045 has 2 MA's), (210, 28078), (229, 28108), (239, 28129), (251, 28159), (259, 28171), (Start: 279 @28213 has 1 MA's), (292, 28237), (302, 28252), (306, 28264), (365, 28375), (423, 28489), (433, 28507), (454, 28546), (469, 28570), (484, 28606), (520, 28672), (559, 28780), (578, 28828), (585, 28840), (601, 28885), (604, 28897), (614, 28927),

Gene: Omega\_53 Start: 43678, Stop: 44550, Start Num: 89

Candidate Starts for Omega\_53:

(56, 43507), (Start: 89 @43678 has 30 MA's), (Start: 97 @43705 has 1 MA's), (115, 43765), (Start: 148 @43834 has 26 MA's), (171, 43873), (174, 43879), (206, 43921), (233, 43975), (274, 44056), (324, 44179), (343, 44206), (403, 44335), (405, 44338), (424, 44398), (432, 44413), (438, 44425), (444, 44446), (454, 44458), (486, 44518),

Gene: OmniCritical\_32 Start: 27538, Stop: 28329, Start Num: 200

Candidate Starts for OmniCritical\_32:

(Start: 200 @27538 has 20 MA's), (Start: 227 @27571 has 1 MA's), (242, 27604), (251, 27628), (264, 27649), (270, 27658), (283, 27688), (287, 27697), (293, 27706), (309, 27742), (350, 27823), (447, 28030), (469, 28057), (476, 28078), (483, 28093), (487, 28102), (576, 28126), (601, 28180), (604, 28192), (625, 28264),

Gene: Omnicron\_31 Start: 25950, Stop: 26807, Start Num: 221

Candidate Starts for Omnicron\_31:

(Start: 221 @25950 has 188 MA's), (Start: 227 @25962 has 1 MA's), (229, 25968), (239, 25989), (242, 25995), (253, 26025), (287, 26085), (293, 26094), (300, 26106), (313, 26139), (323, 26172), (347, 26220), (469, 26442), (476, 26463), (487, 26487), (501, 26514), (506, 26523), (507, 26526), (521, 26538), (542, 26565), (578, 26625), (579, 26628), (598, 26661), (604, 26685), (620, 26742), (640, 26787),

Gene: Omniscient\_49 Start: 41716, Stop: 43071, Start Num: 82

Candidate Starts for Omniscient\_49:

(Start: 82 @41716 has 255 MA's), (98, 41767), (108, 41800), (114, 41818), (168, 41929), (170, 41932), (Start: 180 @41947 has 5 MA's), (235, 42043), (251, 42082), (269, 42112), (284, 42148), (333, 42259), (345, 42289), (347, 42292), (379, 42358), (440, 42517), (469, 42565), (475, 42583), (498, 42631), (550, 42775), (571, 42835), (603, 42940), (637, 43027),

Gene: Onyinye\_47 Start: 36542, Stop: 37423, Start Num: 94

Candidate Starts for Onyinye\_47:

(Start: 94 @36542 has 3 MA's), (126, 36638), (129, 36644), (174, 36728), (Start: 180 @36740 has 5 MA's), (235, 36842), (274, 36920), (281, 36941), (336, 37064), (353, 37103), (374, 37148), (405, 37217), (421, 37268), (424, 37277), (429, 37286), (460, 37346), (480, 37382),

Gene: Oogway\_9 Start: 6003, Stop: 6971, Start Num: 163

Candidate Starts for Oogway\_9:

(Start: 163 @6003 has 304 MA's), (Start: 180 @6036 has 5 MA's), (Start: 190 @6054 has 1 MA's), (Start: 192 @6057 has 2 MA's), (335, 6324), (365, 6375), (368, 6387), (415, 6462), (442, 6525), (450, 6537), (462, 6558), (469, 6570), (474, 6588), (484, 6606), (496, 6630), (520, 6669), (551, 6750), (559, 6774), (561, 6777), (563, 6780), (567, 6789), (600, 6876), (629, 6963),

Gene: Oosterbaan\_49 Start: 41704, Stop: 43059, Start Num: 82

Candidate Starts for Oosterbaan\_49:

(Start: 82 @41704 has 255 MA's), (98, 41755), (108, 41788), (168, 41917), (170, 41920), (Start: 180 @41935 has 5 MA's), (235, 42031), (251, 42070), (269, 42100), (284, 42136), (333, 42247), (345, 42277), (347, 42280), (379, 42346), (440, 42505), (469, 42553), (475, 42571), (498, 42619), (550, 42763), (571, 42823), (603, 42928), (620, 42982), (637, 43015),

Gene: Optimus\_54 Start: 43558, Stop: 44430, Start Num: 89

Candidate Starts for Optimus\_54:

(Start: 89 @43558 has 30 MA's), (Start: 97 @43585 has 1 MA's), (115, 43645), (Start: 138 @43693 has 44 MA's), (174, 43759), (189, 43780), (206, 43801), (233, 43855), (274, 43936), (403, 44215), (405, 44218), (413, 44242), (424, 44278), (432, 44293), (438, 44305), (444, 44326),

Gene: OrangeOswald\_47 Start: 41536, Stop: 42600, Start Num: 138

Candidate Starts for OrangeOswald\_47:

(Start: 138 @41536 has 44 MA's), (173, 41599), (219, 41680), (252, 41746), (260, 41761), (269, 41773), (280, 41800), (311, 41857), (314, 41866), (391, 42013), (401, 42028), (422, 42082), (439, 42115), (463, 42154), (470, 42166), (512, 42247), (520, 42265), (523, 42268), (538, 42313), (578, 42424), (617, 42535), (626, 42556), (641, 42589),

Gene: Orfeu\_49 Start: 41403, Stop: 42758, Start Num: 82

Candidate Starts for Orfeu\_49:

(Start: 82 @41403 has 255 MA's), (98, 41454), (108, 41487), (168, 41616), (170, 41619), (Start: 180 @41634 has 5 MA's), (235, 41730), (251, 41769), (269, 41799), (284, 41835), (333, 41946), (345,

41976), (347, 41979), (379, 42045), (440, 42204), (469, 42252), (475, 42270), (498, 42318), (550, 42462), (571, 42522), (603, 42627), (637, 42714),

Gene: Orion\_50 Start: 41837, Stop: 43192, Start Num: 82

Candidate Starts for Orion\_50:

(Start: 82 @41837 has 255 MA's), (98, 41888), (108, 41921), (168, 42050), (170, 42053), (Start: 180 @42068 has 5 MA's), (235, 42164), (251, 42203), (269, 42233), (284, 42269), (333, 42380), (345, 42410), (347, 42413), (379, 42479), (440, 42638), (469, 42686), (475, 42704), (498, 42752), (550, 42896), (571, 42956), (603, 43061), (637, 43148),

Gene: OrionPax\_36 Start: 31603, Stop: 32460, Start Num: 198

Candidate Starts for OrionPax\_36:

(Start: 198 @31603 has 122 MA's), (220, 31642), (232, 31672), (242, 31693), (257, 31729), (275, 31759), (309, 31834), (334, 31882), (336, 31885), (345, 31909), (347, 31912), (356, 31927), (426, 32098), (487, 32212), (495, 32227), (498, 32233), (575, 32275), (576, 32278), (601, 32332), (624, 32410), (641, 32443),

Gene: Orwigg\_50 Start: 41403, Stop: 42758, Start Num: 82

Candidate Starts for Orwigg\_50:

(Start: 82 @41403 has 255 MA's), (98, 41454), (108, 41487), (168, 41616), (170, 41619), (Start: 180 @41634 has 5 MA's), (235, 41730), (251, 41769), (269, 41799), (284, 41835), (333, 41946), (345, 41976), (347, 41979), (379, 42045), (440, 42204), (469, 42252), (475, 42270), (498, 42318), (550, 42462), (571, 42522), (603, 42627), (637, 42714),

Gene: Oscar\_30 Start: 25695, Stop: 26435, Start Num: 221

Candidate Starts for Oscar\_30:

(151, 25593), (Start: 162 @25614 has 2 MA's), (183, 25647), (195, 25668), (Start: 221 @25695 has 188 MA's), (242, 25740), (258, 25776), (293, 25833), (309, 25869), (323, 25911), (347, 25959), (379, 26019), (447, 26154), (469, 26181), (480, 26208), (487, 26226), (576, 26250), (598, 26292), (603, 26313), (604, 26316), (640, 26415),

Gene: Ovechkin\_32 Start: 28427, Stop: 29497, Start Num: 149

Candidate Starts for Ovechkin\_32:

(122, 28376), (Start: 149 @28427 has 225 MA's), (Start: 166 @28454 has 14 MA's), (Start: 180 @28481 has 5 MA's), (185, 28490), (219, 28550), (235, 28577), (269, 28643), (297, 28697), (314, 28739), (335, 28790), (391, 28904), (404, 28937), (431, 29012), (442, 29033), (512, 29162), (538, 29234), (574, 29330), (578, 29342), (604, 29411), (623, 29468), (627, 29477),

Gene: OwlsT2W\_32 Start: 27949, Stop: 28950, Start Num: 149

Candidate Starts for OwlsT2W\_32:

(Start: 149 @27949 has 225 MA's), (Start: 192 @28024 has 2 MA's), (210, 28057), (229, 28087), (239, 28108), (Start: 279 @28192 has 1 MA's), (306, 28243), (312, 28258), (365, 28354), (422, 28465), (433, 28486), (454, 28525), (462, 28537), (484, 28585), (497, 28612), (511, 28636), (520, 28651), (559, 28759), (578, 28807), (604, 28876), (614, 28906),

Gene: P28Green\_12 Start: 5961, Stop: 6926, Start Num: 153

Candidate Starts for P28Green\_12:

(Start: 153 @5961 has 92 MA's), (Start: 180 @6006 has 5 MA's), (Start: 192 @6027 has 2 MA's), (256, 6147), (365, 6342), (371, 6357), (422, 6438), (430, 6453), (439, 6471), (469, 6522), (474, 6540), (497, 6585), (538, 6681), (561, 6744), (575, 6783), (597, 6834),

Gene: P3MA\_30 Start: 24007, Stop: 24912, Start Num: 225

Candidate Starts for P3MA\_30:

(157, 23887), (Start: 225 @24007 has 4 MA's), (284, 24133), (292, 24148), (313, 24202), (321, 24226), (351, 24289), (401, 24403), (421, 24457), (434, 24484), (447, 24511), (465, 24526), (466, 24529), (470, 24538), (476, 24562), (478, 24565), (498, 24607), (519, 24631), (527, 24643), (530, 24649), (577, 24724), (625, 24844), (633, 24859), (637, 24865),

Gene: PG1\_50 Start: 41850, Stop: 43205, Start Num: 82

Candidate Starts for PG1\_50:

(Start: 82 @41850 has 255 MA's), (98, 41901), (108, 41934), (168, 42063), (170, 42066), (Start: 180 @42081 has 5 MA's), (235, 42177), (251, 42216), (269, 42246), (284, 42282), (333, 42393), (345, 42423), (347, 42426), (379, 42492), (440, 42651), (469, 42699), (475, 42717), (498, 42765), (550, 42909), (571, 42969), (603, 43074), (637, 43161),

Gene: PGHhamlin\_14 Start: 5954, Stop: 6919, Start Num: 153

Candidate Starts for PGHhamlin\_14:

(Start: 153 @5954 has 92 MA's), (Start: 180 @5999 has 5 MA's), (Start: 192 @6020 has 2 MA's), (256, 6140), (330, 6278), (365, 6335), (371, 6350), (422, 6431), (430, 6446), (439, 6464), (469, 6515), (474, 6533), (497, 6578), (538, 6674), (561, 6737), (575, 6776), (597, 6827),

Gene: PHappiness\_31 Start: 27497, Stop: 28498, Start Num: 149

Candidate Starts for PHappiness\_31:

(107, 27398), (Start: 149 @27497 has 225 MA's), (Start: 163 @27518 has 304 MA's), (170, 27530), (Start: 192 @27572 has 2 MA's), (229, 27635), (239, 27656), (Start: 279 @27740 has 1 MA's), (292, 27764), (302, 27779), (306, 27791), (365, 27902), (423, 28016), (433, 28034), (454, 28073), (469, 28097), (484, 28133), (497, 28160), (520, 28199), (538, 28247), (559, 28307), (578, 28355), (585, 28367), (601, 28412), (604, 28424),

Gene: PMC\_31 Start: 27499, Stop: 28500, Start Num: 149

Candidate Starts for PMC\_31:

(69, 27247), (107, 27400), (Start: 149 @27499 has 225 MA's), (Start: 163 @27520 has 304 MA's), (170, 27532), (Start: 192 @27574 has 2 MA's), (229, 27637), (239, 27658), (251, 27688), (Start: 279 @27742 has 1 MA's), (292, 27766), (306, 27793), (365, 27904), (423, 28018), (433, 28036), (454, 28075), (469, 28099), (484, 28135), (497, 28162), (520, 28201), (538, 28249), (559, 28309), (585, 28369), (604, 28426), (614, 28456),

Gene: PP\_20 Start: 11682, Stop: 12425, Start Num: 296

Candidate Starts for PP\_20:

(Start: 296 @11682 has 2 MA's), (312, 11718), (330, 11766), (365, 11823), (371, 11838), (423, 11922), (425, 11925), (439, 11952), (474, 12021), (507, 12084), (535, 12135), (538, 12162), (549, 12189), (554, 12204), (559, 12222), (561, 12225), (566, 12234), (567, 12243), (579, 12279), (597, 12318),

Gene: PSullivan\_12 Start: 6491, Stop: 7459, Start Num: 163

Candidate Starts for PSullivan\_12:

(Start: 163 @6491 has 304 MA's), (Start: 180 @6524 has 5 MA's), (Start: 190 @6542 has 1 MA's), (Start: 192 @6545 has 2 MA's), (335, 6812), (365, 6863), (368, 6875), (415, 6950), (442, 7013), (450, 7025), (462, 7046), (474, 7076), (484, 7094), (496, 7118), (520, 7157), (551, 7238), (559, 7262), (561, 7265), (563, 7268), (567, 7277), (600, 7364), (614, 7409), (629, 7451),

Gene: Pacc40\_31 Start: 27689, Stop: 28690, Start Num: 149

Candidate Starts for Pacc40\_31:

(Start: 149 @27689 has 225 MA's), (Start: 163 @27710 has 304 MA's), (170, 27722), (Start: 192 @27764 has 2 MA's), (229, 27827), (239, 27848), (251, 27878), (Start: 279 @27932 has 1 MA's), (292, 27956), (306, 27983), (365, 28094), (423, 28208), (433, 28226), (454, 28265), (469, 28289),

(484, 28325), (497, 28352), (520, 28391), (559, 28499), (578, 28547), (585, 28559), (600, 28601), (601, 28604), (604, 28616), (614, 28646),

Gene: PacerPaul\_10 Start: 6259, Stop: 7227, Start Num: 163

Candidate Starts for PacerPaul\_10:

(Start: 163 @6259 has 304 MA's), (Start: 180 @6292 has 5 MA's), (Start: 190 @6310 has 1 MA's), (Start: 192 @6313 has 2 MA's), (335, 6580), (365, 6631), (368, 6643), (415, 6718), (442, 6781), (462, 6814), (469, 6826), (474, 6844), (484, 6862), (520, 6925), (551, 7006), (559, 7030), (561, 7033), (563, 7036), (567, 7045), (600, 7132), (614, 7177), (629, 7219),

Gene: Pacifista\_51 Start: 41406, Stop: 42761, Start Num: 82

Candidate Starts for Pacifista\_51:

(Start: 82 @41406 has 255 MA's), (98, 41457), (108, 41490), (168, 41619), (170, 41622), (Start: 180 @41637 has 5 MA's), (235, 41733), (251, 41772), (269, 41802), (284, 41838), (333, 41949), (345, 41979), (347, 41982), (379, 42048), (440, 42207), (469, 42255), (475, 42273), (498, 42321), (550, 42465), (571, 42525), (603, 42630), (637, 42717),

Gene: Padfoot\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for Padfoot\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: Padpat\_31 Start: 26454, Stop: 27326, Start Num: 221

Candidate Starts for Padpat\_31:

(195, 26427), (Start: 221 @26454 has 188 MA's), (Start: 227 @26466 has 1 MA's), (258, 26535), (275, 26562), (287, 26592), (293, 26601), (309, 26637), (313, 26646), (323, 26679), (331, 26697), (347, 26727), (378, 26784), (379, 26787), (447, 26922), (469, 26949), (476, 26970), (487, 26994), (521, 27045), (578, 27147), (598, 27183), (616, 27255), (640, 27306), (643, 27315),

Gene: Paito\_28 Start: 25437, Stop: 26654, Start Num: 88

Candidate Starts for Paito\_28:

(27, 24921), (38, 25041), (51, 25197), (Start: 88 @25437 has 62 MA's), (154, 25611), (202, 25683), (251, 25791), (270, 25824), (284, 25857), (295, 25878), (309, 25905), (314, 25917), (342, 25989), (361, 26028), (416, 26160), (440, 26217), (459, 26241), (469, 26256), (492, 26310), (495, 26316), (498, 26322), (500, 26325),

Gene: Palestino\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Palestino\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Palpatine\_35 Start: 31872, Stop: 32729, Start Num: 198

Candidate Starts for Palpatine\_35:

(Start: 198 @31872 has 122 MA's), (220, 31911), (232, 31941), (242, 31962), (257, 31998), (275, 32028), (309, 32103), (334, 32151), (336, 32154), (345, 32178), (347, 32181), (356, 32196), (426, 32367), (481, 32466), (487, 32481), (495, 32496), (498, 32502), (575, 32544), (576, 32547), (601, 32601), (624, 32679), (641, 32712),

Gene: Panamaxus\_11 Start: 6052, Stop: 7017, Start Num: 153

Candidate Starts for Panamaxus\_11:

(Start: 153 @6052 has 92 MA's), (Start: 180 @6097 has 5 MA's), (Start: 192 @6118 has 2 MA's), (256, 6238), (267, 6253), (Start: 296 @6292 has 2 MA's), (330, 6376), (365, 6433), (371, 6448), (422, 6529), (430, 6544), (439, 6562), (474, 6631), (497, 6676), (538, 6772), (561, 6835), (575, 6874), (597, 6925),

Gene: Paola\_30 Start: 27046, Stop: 27918, Start Num: 221

Candidate Starts for Paola\_30:

(Start: 221 @27046 has 188 MA's), (Start: 227 @27058 has 1 MA's), (229, 27064), (242, 27091), (253, 27121), (258, 27127), (287, 27181), (293, 27190), (300, 27202), (313, 27235), (323, 27268), (347, 27316), (384, 27385), (469, 27538), (475, 27556), (476, 27559), (506, 27619), (521, 27637), (538, 27664), (578, 27736), (598, 27772), (599, 27775), (604, 27796), (620, 27853), (637, 27889), (640, 27898), (643, 27907),

Gene: Paperbeatsrock\_37 Start: 32838, Stop: 33695, Start Num: 198

Candidate Starts for Paperbeatsrock\_37:

(Start: 198 @32838 has 122 MA's), (220, 32877), (232, 32907), (242, 32928), (257, 32964), (275, 32994), (309, 33069), (334, 33117), (336, 33120), (345, 33144), (347, 33147), (356, 33162), (426, 33333), (487, 33447), (495, 33462), (498, 33468), (575, 33510), (576, 33513), (601, 33567), (624, 33645), (641, 33678),

Gene: Papez\_12 Start: 7454, Stop: 8422, Start Num: 163

Candidate Starts for Papez\_12:

(Start: 163 @7454 has 304 MA's), (Start: 180 @7487 has 5 MA's), (Start: 190 @7505 has 1 MA's), (Start: 192 @7508 has 2 MA's), (335, 7775), (365, 7826), (368, 7838), (415, 7913), (442, 7976), (450, 7988), (462, 8009), (469, 8021), (474, 8039), (484, 8057), (520, 8120), (551, 8201), (559, 8225), (561, 8228), (563, 8231), (567, 8240), (600, 8327), (614, 8372), (629, 8414),

Gene: Paphu\_9 Start: 5448, Stop: 6416, Start Num: 163

Candidate Starts for Paphu\_9:

(Start: 163 @5448 has 304 MA's), (Start: 180 @5481 has 5 MA's), (Start: 190 @5499 has 1 MA's), (Start: 192 @5502 has 2 MA's), (335, 5769), (365, 5820), (368, 5832), (415, 5907), (442, 5970), (450, 5982), (462, 6003), (469, 6015), (474, 6033), (484, 6051), (496, 6075), (520, 6114), (551, 6195), (559, 6219), (561, 6222), (563, 6225), (567, 6234), (600, 6321), (614, 6366), (629, 6408),

Gene: Papyrus\_39 Start: 35008, Stop: 36057, Start Num: 142

Candidate Starts for Papyrus\_39:

(Start: 142 @35008 has 200 MA's), (Start: 192 @35092 has 2 MA's), (199, 35101), (211, 35125), (229, 35155), (239, 35176), (254, 35212), (269, 35233), (274, 35242), (Start: 279 @35260 has 1 MA's), (314, 35329), (394, 35482), (432, 35581), (448, 35608), (484, 35680), (515, 35734), (575, 35887), (587, 35911), (590, 35920), (603, 35962), (604, 35965), (606, 35971), (610, 35980), (622, 36016), (626, 36025), (632, 36034),

Gene: Paraselene\_9 Start: 5760, Stop: 6728, Start Num: 163

Candidate Starts for Paraselene\_9:

(Start: 163 @5760 has 304 MA's), (Start: 180 @5793 has 5 MA's), (Start: 190 @5811 has 1 MA's), (Start: 192 @5814 has 2 MA's), (335, 6081), (365, 6132), (368, 6144), (415, 6219), (442, 6282), (450, 6294), (462, 6315), (474, 6345), (484, 6363), (496, 6387), (520, 6426), (551, 6507), (559, 6531), (561, 6534), (563, 6537), (567, 6546), (600, 6633), (614, 6678), (629, 6720),

Gene: Pari\_11 Start: 6227, Stop: 7195, Start Num: 163

Candidate Starts for Pari\_11:

(Start: 163 @6227 has 304 MA's), (Start: 180 @6260 has 5 MA's), (Start: 190 @6278 has 1 MA's), (Start: 192 @6281 has 2 MA's), (335, 6548), (365, 6599), (368, 6611), (415, 6686), (442, 6749), (450,

6761), (462, 6782), (469, 6794), (474, 6812), (484, 6830), (496, 6854), (520, 6893), (551, 6974), (559, 6998), (561, 7001), (563, 7004), (567, 7013), (600, 7100), (629, 7187),

Gene: ParkTD\_251 Start: 144793, Stop: 145821, Start Num: 142

Candidate Starts for ParkTD\_251:

(Start: 142 @144793 has 200 MA's), (Start: 163 @144823 has 304 MA's), (170, 144835), (Start: 192 @144877 has 2 MA's), (229, 144940), (239, 144961), (Start: 279 @145045 has 1 MA's), (302, 145087), (306, 145099), (312, 145114), (344, 145183), (365, 145210), (393, 145264), (411, 145309), (414, 145312), (449, 145390), (462, 145411), (520, 145522), (554, 145612), (559, 145630), (590, 145702), (601, 145735),

Gene: Parliament\_9 Start: 5830, Stop: 6798, Start Num: 163

Candidate Starts for Parliament\_9:

(Start: 163 @5830 has 304 MA's), (Start: 180 @5863 has 5 MA's), (Start: 190 @5881 has 1 MA's), (Start: 192 @5884 has 2 MA's), (335, 6151), (365, 6202), (368, 6214), (415, 6289), (442, 6352), (450, 6364), (462, 6385), (469, 6397), (474, 6415), (484, 6433), (496, 6457), (520, 6496), (551, 6577), (559, 6601), (561, 6604), (563, 6607), (567, 6616), (600, 6703), (629, 6790),

Gene: PascalRango\_9 Start: 5626, Stop: 6594, Start Num: 163

Candidate Starts for PascalRango\_9:

(Start: 163 @5626 has 304 MA's), (Start: 180 @5659 has 5 MA's), (Start: 190 @5677 has 1 MA's), (Start: 192 @5680 has 2 MA's), (335, 5947), (365, 5998), (368, 6010), (415, 6085), (442, 6148), (462, 6181), (469, 6193), (474, 6211), (484, 6229), (496, 6253), (520, 6292), (551, 6373), (559, 6397), (561, 6400), (563, 6403), (567, 6412), (600, 6499), (629, 6586),

Gene: Pat3\_34 Start: 30584, Stop: 31441, Start Num: 198

Candidate Starts for Pat3\_34:

(Start: 198 @30584 has 122 MA's), (220, 30623), (232, 30653), (242, 30674), (257, 30710), (275, 30740), (309, 30815), (334, 30863), (336, 30866), (345, 30890), (347, 30893), (356, 30908), (426, 31079), (487, 31193), (495, 31208), (498, 31214), (575, 31256), (576, 31259), (601, 31313), (624, 31391), (641, 31424),

Gene: Patience\_42 Start: 35792, Stop: 36817, Start Num: 140

Candidate Starts for Patience\_42:

(Start: 140 @35792 has 3 MA's), (229, 35927), (269, 36002), (311, 36086), (314, 36095), (322, 36119), (326, 36128), (380, 36221), (422, 36320), (439, 36353), (450, 36368), (459, 36389), (467, 36398), (512, 36485), (520, 36503), (536, 36533), (538, 36551), (550, 36587), (578, 36662), (585, 36674), (587, 36677), (600, 36716), (617, 36773),

Gene: Patt\_32 Start: 27372, Stop: 28163, Start Num: 200

Candidate Starts for Patt\_32:

(Start: 140 @27267 has 3 MA's), (151, 27285), (165, 27312), (175, 27333), (Start: 200 @27372 has 20 MA's), (Start: 227 @27405 has 1 MA's), (242, 27438), (270, 27492), (287, 27531), (293, 27540), (309, 27576), (313, 27585), (402, 27768), (447, 27864), (469, 27891), (476, 27912), (483, 27927), (487, 27936), (576, 27960), (601, 28014), (604, 28026), (625, 28098), (637, 28119),

Gene: Patter\_254 Start: 144453, Stop: 145481, Start Num: 142

Candidate Starts for Patter\_254:

(Start: 142 @144453 has 200 MA's), (Start: 163 @144483 has 304 MA's), (170, 144495), (Start: 192 @144537 has 2 MA's), (229, 144600), (239, 144621), (Start: 279 @144705 has 1 MA's), (302, 144747), (306, 144759), (312, 144774), (344, 144843), (365, 144870), (393, 144924), (411, 144969), (414, 144972), (449, 145050), (462, 145071), (520, 145182), (554, 145272), (559, 145290), (590, 145362), (601, 145395),



Gene: PattyP\_11 Start: 5782, Stop: 6750, Start Num: 163

Candidate Starts for PattyP\_11:

(Start: 163 @5782 has 304 MA's), (Start: 180 @5815 has 5 MA's), (Start: 190 @5833 has 1 MA's), (Start: 192 @5836 has 2 MA's), (335, 6103), (365, 6154), (368, 6166), (415, 6241), (442, 6304), (450, 6316), (462, 6337), (469, 6349), (474, 6367), (484, 6385), (496, 6409), (520, 6448), (551, 6529), (559, 6553), (561, 6556), (563, 6559), (567, 6568), (600, 6655), (629, 6742),

Gene: Pawn\_13 Start: 6033, Stop: 6998, Start Num: 153

Candidate Starts for Pawn\_13:

(Start: 153 @6033 has 92 MA's), (Start: 192 @6099 has 2 MA's), (226, 6153), (265, 6231), (330, 6354), (365, 6411), (415, 6483), (430, 6522), (439, 6540), (474, 6609), (535, 6726), (538, 6753), (561, 6816), (597, 6906), (599, 6912),

Gene: Payneful\_9 Start: 5627, Stop: 6541, Start Num: 192

Candidate Starts for Payneful\_9:

(Start: 163 @5573 has 304 MA's), (Start: 180 @5606 has 5 MA's), (Start: 190 @5624 has 1 MA's), (Start: 192 @5627 has 2 MA's), (335, 5894), (365, 5945), (368, 5957), (415, 6032), (442, 6095), (462, 6128), (469, 6140), (474, 6158), (484, 6176), (520, 6239), (551, 6320), (559, 6344), (561, 6347), (563, 6350), (567, 6359), (600, 6446), (614, 6491), (629, 6533),

Gene: PeaceMeal1\_9 Start: 3782, Stop: 4756, Start Num: 163

Candidate Starts for PeaceMeal1\_9:

(115, 3743), (Start: 163 @3782 has 304 MA's), (Start: 180 @3815 has 5 MA's), (Start: 192 @3836 has 2 MA's), (283, 4004), (306, 4046), (312, 4061), (365, 4166), (415, 4238), (423, 4265), (425, 4268), (430, 4277), (474, 4364), (538, 4511), (561, 4574), (575, 4613), (595, 4655),

Gene: Peaches\_10 Start: 5884, Stop: 6861, Start Num: 166

Candidate Starts for Peaches\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Peanam\_31 Start: 25850, Stop: 26611, Start Num: 221

Candidate Starts for Peanam\_31:

(195, 25820), (Start: 221 @25850 has 188 MA's), (242, 25895), (258, 25931), (289, 25991), (293, 25997), (307, 26027), (309, 26033), (313, 26042), (323, 26075), (343, 26117), (370, 26168), (379, 26183), (447, 26318), (469, 26345), (476, 26366), (480, 26372), (487, 26390), (576, 26423), (578, 26429), (601, 26477), (621, 26549), (640, 26591), (643, 26600),

Gene: Peeb\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Peeb\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (263, 25567), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: Peel\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for Peel\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: PegLeg\_38 Start: 31793, Stop: 32764, Start Num: 169

Candidate Starts for PegLeg\_38:

(Start: 169 @31793 has 13 MA's), (183, 31817), (191, 31832), (266, 31970), (281, 31997), (300, 32015), (305, 32027), (308, 32036), (325, 32081), (330, 32093), (346, 32120), (365, 32147), (368, 32159), (397, 32204), (410, 32231), (423, 32261), (428, 32270), (430, 32273), (475, 32360), (485, 32375), (551, 32528), (552, 32531), (574, 32591), (578, 32603), (581, 32612), (598, 32648), (602, 32663), (618, 32702), (632, 32735),

Gene: Pelly\_11 Start: 6513, Stop: 7427, Start Num: 192

Candidate Starts for Pelly\_11:

(Start: 163 @6459 has 304 MA's), (Start: 180 @6492 has 5 MA's), (Start: 190 @6510 has 1 MA's), (Start: 192 @6513 has 2 MA's), (335, 6780), (365, 6831), (368, 6843), (415, 6918), (442, 6981), (462, 7014), (469, 7026), (474, 7044), (484, 7062), (496, 7086), (520, 7125), (551, 7206), (559, 7230), (561, 7233), (563, 7236), (567, 7245), (600, 7332), (629, 7419),

Gene: Pembroke\_12 Start: 5963, Stop: 6928, Start Num: 153

Candidate Starts for Pembroke\_12:

(Start: 153 @5963 has 92 MA's), (Start: 180 @6008 has 5 MA's), (Start: 192 @6029 has 2 MA's), (256, 6149), (330, 6287), (365, 6344), (371, 6359), (422, 6440), (430, 6455), (439, 6473), (469, 6524), (474, 6542), (497, 6587), (538, 6683), (561, 6746), (575, 6785), (597, 6836),

Gene: Penny1\_12 Start: 5962, Stop: 6927, Start Num: 153

Candidate Starts for Penny1\_12:

(Start: 153 @5962 has 92 MA's), (Start: 180 @6007 has 5 MA's), (Start: 192 @6028 has 2 MA's), (256, 6148), (330, 6286), (365, 6343), (371, 6358), (422, 6439), (430, 6454), (439, 6472), (469, 6523), (474, 6541), (497, 6586), (538, 6682), (561, 6745), (575, 6784), (597, 6835),

Gene: Pepe\_11 Start: 6482, Stop: 7450, Start Num: 163

Candidate Starts for Pepe\_11:

(Start: 163 @6482 has 304 MA's), (Start: 180 @6515 has 5 MA's), (Start: 190 @6533 has 1 MA's), (Start: 192 @6536 has 2 MA's), (335, 6803), (365, 6854), (368, 6866), (415, 6941), (442, 7004), (462, 7037), (469, 7049), (474, 7067), (484, 7085), (496, 7109), (520, 7148), (551, 7229), (559, 7253), (561, 7256), (563, 7259), (567, 7268), (568, 7271), (600, 7355), (614, 7400), (629, 7442),

Gene: Periodt\_28 Start: 25201, Stop: 26400, Start Num: 88

Candidate Starts for Periodt\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25537), (255, 25546), (270, 25570), (275, 25579), (284, 25603), (295, 25624), (309, 25651), (314, 25663), (342, 25735), (361, 25774), (440, 25963), (469, 26002), (476, 26023), (495, 26062), (498, 26068),

Gene: Perplexer\_10 Start: 5881, Stop: 6864, Start Num: 163

Candidate Starts for Perplexer\_10:

(Start: 163 @5881 has 304 MA's), (178, 5911), (Start: 190 @5932 has 1 MA's), (Start: 192 @5935 has 2 MA's), (330, 6184), (365, 6241), (368, 6253), (387, 6283), (401, 6304), (416, 6325), (437, 6373), (474, 6430), (551, 6580), (601, 6703), (604, 6715), (607, 6724), (627, 6781), (652, 6856),

Gene: Perseus\_11 Start: 6143, Stop: 7111, Start Num: 163

Candidate Starts for Perseus\_11:

(Start: 163 @6143 has 304 MA's), (Start: 180 @6176 has 5 MA's), (Start: 190 @6194 has 1 MA's), (Start: 192 @6197 has 2 MA's), (335, 6464), (365, 6515), (368, 6527), (415, 6602), (442, 6665), (462, 6698), (469, 6710), (474, 6728), (484, 6746), (496, 6770), (520, 6809), (551, 6890), (559, 6914), (561, 6917), (563, 6920), (567, 6929), (600, 7016), (614, 7061), (629, 7103),

Gene: PeterPeter\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for PeterPeter\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Peterson\_13 Start: 7442, Stop: 8410, Start Num: 163

Candidate Starts for Peterson\_13:

(Start: 163 @7442 has 304 MA's), (Start: 180 @7475 has 5 MA's), (Start: 190 @7493 has 1 MA's), (Start: 192 @7496 has 2 MA's), (335, 7763), (365, 7814), (368, 7826), (415, 7901), (462, 7997), (469, 8009), (474, 8027), (484, 8045), (496, 8069), (520, 8108), (551, 8189), (559, 8213), (561, 8216), (563, 8219), (567, 8228), (600, 8315), (614, 8360), (629, 8402),

Gene: PetiteSangsue\_10 Start: 5887, Stop: 6870, Start Num: 163

Candidate Starts for PetiteSangsue\_10:

(Start: 163 @5887 has 304 MA's), (178, 5917), (Start: 190 @5938 has 1 MA's), (Start: 192 @5941 has 2 MA's), (330, 6190), (365, 6247), (368, 6259), (387, 6289), (401, 6310), (416, 6331), (437, 6379), (474, 6436), (551, 6586), (601, 6709), (604, 6721), (607, 6730), (627, 6787), (652, 6862),

Gene: Petp2012\_12 Start: 5935, Stop: 6903, Start Num: 163

Candidate Starts for Petp2012\_12:

(Start: 163 @5935 has 304 MA's), (Start: 180 @5968 has 5 MA's), (Start: 190 @5986 has 1 MA's), (Start: 192 @5989 has 2 MA's), (335, 6256), (365, 6307), (368, 6319), (415, 6394), (442, 6457), (462, 6490), (469, 6502), (474, 6520), (484, 6538), (496, 6562), (520, 6601), (551, 6682), (559, 6706), (561, 6709), (563, 6712), (567, 6721), (600, 6808), (614, 6853), (629, 6895),

Gene: Petra64142\_37 Start: 32318, Stop: 33175, Start Num: 198

Candidate Starts for Petra64142\_37:

(Start: 198 @32318 has 122 MA's), (220, 32357), (232, 32387), (242, 32408), (257, 32444), (275, 32474), (309, 32549), (334, 32597), (336, 32600), (345, 32624), (347, 32627), (356, 32642), (426, 32813), (481, 32912), (487, 32927), (495, 32942), (498, 32948), (575, 32990), (576, 32993), (601, 33047), (624, 33125), (641, 33158),

Gene: Petruccio\_10 Start: 5701, Stop: 6669, Start Num: 163

Candidate Starts for Petruccio\_10:

(Start: 163 @5701 has 304 MA's), (Start: 180 @5734 has 5 MA's), (Start: 190 @5752 has 1 MA's), (Start: 192 @5755 has 2 MA's), (335, 6022), (365, 6073), (368, 6085), (415, 6160), (442, 6223), (450, 6235), (462, 6256), (469, 6268), (474, 6286), (484, 6304), (496, 6328), (520, 6367), (551, 6448), (559, 6472), (561, 6475), (563, 6478), (567, 6487), (600, 6574), (614, 6619), (629, 6661),

Gene: PetterN\_9 Start: 5151, Stop: 5960, Start Num: 221

Candidate Starts for PetterN\_9:

(177, 5088), (207, 5127), (Start: 221 @5151 has 188 MA's), (251, 5214), (284, 5280), (293, 5295), (309, 5328), (420, 5598), (440, 5640), (469, 5679), (475, 5697), (489, 5727), (640, 5925),

Gene: Phacado\_10 Start: 5880, Stop: 6860, Start Num: 164

Candidate Starts for Phacado\_10:

(Start: 164 @5880 has 109 MA's), (Start: 166 @5883 has 14 MA's), (178, 5907), (Start: 190 @5928 has 1 MA's), (Start: 192 @5931 has 2 MA's), (330, 6180), (365, 6237), (416, 6321), (422, 6342), (437, 6369), (464, 6399), (474, 6426), (551, 6576), (598, 6687), (601, 6699), (604, 6711), (627, 6777),

Gene: Phaded\_14 Start: 8540, Stop: 9526, Start Num: 161

Candidate Starts for Phaded\_14:

(Start: 161 @8540 has 8 MA's), (178, 8570), (Start: 192 @8594 has 2 MA's), (273, 8729), (365, 8900), (409, 8975), (416, 8984), (474, 9095), (509, 9155), (533, 9191), (551, 9245), (562, 9269), (565, 9275), (581, 9320), (604, 9380), (607, 9389),

Gene: Phaedrus\_45 Start: 41456, Stop: 42520, Start Num: 138

Candidate Starts for Phaedrus\_45:

(Start: 138 @41456 has 44 MA's), (173, 41519), (219, 41600), (252, 41666), (260, 41681), (269, 41693), (280, 41720), (311, 41777), (314, 41786), (391, 41933), (401, 41948), (422, 42002), (439, 42035), (463, 42074), (470, 42086), (512, 42167), (520, 42185), (523, 42188), (538, 42233), (578, 42344), (617, 42455), (626, 42476), (641, 42509),

Gene: Phaja\_35 Start: 32034, Stop: 32891, Start Num: 198

Candidate Starts for Phaja\_35:

(Start: 198 @32034 has 122 MA's), (220, 32073), (232, 32103), (242, 32124), (257, 32160), (275, 32190), (309, 32265), (334, 32313), (336, 32316), (345, 32340), (347, 32343), (356, 32358), (426, 32529), (487, 32643), (495, 32658), (498, 32664), (575, 32706), (576, 32709), (601, 32763), (624, 32841), (641, 32874),

Gene: Phalconet\_31 Start: 27631, Stop: 28632, Start Num: 149

Candidate Starts for Phalconet\_31:

(Start: 149 @27631 has 225 MA's), (Start: 163 @27652 has 304 MA's), (170, 27664), (Start: 192 @27706 has 2 MA's), (229, 27769), (239, 27790), (251, 27820), (Start: 279 @27874 has 1 MA's), (292, 27898), (306, 27925), (365, 28036), (423, 28150), (433, 28168), (454, 28207), (469, 28231), (484, 28267), (497, 28294), (520, 28333), (538, 28381), (559, 28441), (585, 28501), (604, 28558), (614, 28588),

Gene: Phalm\_27 Start: 24311, Stop: 25477, Start Num: 102

Candidate Starts for Phalm\_27:

(15, 23558), (26, 23729), (36, 23825), (41, 23930), (Start: 102 @24311 has 88 MA's), (106, 24320), (122, 24365), (123, 24368), (168, 24455), (Start: 198 @24500 has 122 MA's), (235, 24575), (245, 24596), (251, 24614), (284, 24680), (305, 24719), (333, 24785), (345, 24815), (359, 24836), (379, 24881), (417, 24977), (434, 25016), (440, 25031), (469, 25070), (510, 25157), (527, 25175), (530, 25181), (553, 25229), (598, 25322), (620, 25397),

Gene: Phamished\_50 Start: 41857, Stop: 43212, Start Num: 82

Candidate Starts for Phamished\_50:

(Start: 82 @41857 has 255 MA's), (98, 41908), (108, 41941), (168, 42070), (170, 42073), (Start: 180 @42088 has 5 MA's), (235, 42184), (251, 42223), (269, 42253), (284, 42289), (333, 42400), (345, 42430), (347, 42433), (379, 42499), (440, 42658), (469, 42706), (475, 42724), (498, 42772), (550, 42916), (571, 42976), (603, 43081), (637, 43168),

Gene: Phanphagia\_28 Start: 26657, Stop: 27655, Start Num: 149

Candidate Starts for Phanphagia\_28:

(Start: 149 @26657 has 225 MA's), (Start: 192 @26732 has 2 MA's), (229, 26792), (239, 26813), (Start: 279 @26897 has 1 MA's), (306, 26948), (312, 26963), (365, 27059), (415, 27146), (422, 27170), (433, 27191), (454, 27230), (462, 27242), (484, 27290), (497, 27317), (511, 27341), (520, 27356), (559, 27464), (578, 27512), (604, 27581), (614, 27611),

Gene: Phantastic\_10 Start: 5701, Stop: 6441, Start Num: 282

Candidate Starts for Phantastic\_10:

(209, 5608), (Start: 282 @5701 has 1 MA's), (303, 5716), (330, 5788), (365, 5845), (368, 5857), (371, 5860), (385, 5884), (400, 5899), (422, 5947), (439, 5980), (474, 6049), (512, 6121), (538, 6190), (549,

6217), (561, 6253), (575, 6292), (631, 6433),

Gene: Pharb\_30 Start: 26706, Stop: 27494, Start Num: 221

Candidate Starts for Pharb\_30:

(183, 26661), (Start: 221 @26706 has 188 MA's), (242, 26751), (258, 26787), (287, 26844), (293, 26853), (309, 26889), (331, 26943), (343, 26967), (416, 27108), (447, 27171), (469, 27213), (476, 27234), (480, 27240), (487, 27258), (575, 27288), (604, 27357), (625, 27429), (640, 27459),

Gene: Phareon\_49 Start: 41405, Stop: 42760, Start Num: 82

Candidate Starts for Phareon\_49:

(Start: 82 @41405 has 255 MA's), (98, 41456), (108, 41489), (168, 41618), (170, 41621), (Start: 180 @41636 has 5 MA's), (235, 41732), (251, 41771), (269, 41801), (284, 41837), (333, 41948), (345, 41978), (347, 41981), (379, 42047), (440, 42206), (469, 42254), (475, 42272), (498, 42320), (550, 42464), (571, 42524), (603, 42629), (637, 42716),

Gene: Pharsalus\_36 Start: 32638, Stop: 33495, Start Num: 198

Candidate Starts for Pharsalus\_36:

(Start: 198 @32638 has 122 MA's), (220, 32677), (232, 32707), (242, 32728), (257, 32764), (275, 32794), (309, 32869), (334, 32917), (336, 32920), (345, 32944), (347, 32947), (356, 32962), (426, 33133), (487, 33247), (495, 33262), (498, 33268), (575, 33310), (576, 33313), (601, 33367), (624, 33445), (641, 33478),

Gene: Phasih\_32 Start: 28074, Stop: 29075, Start Num: 149

Candidate Starts for Phasih\_32:

(34, 27453), (40, 27531), (43, 27594), (48, 27633), (62, 27786), (69, 27822), (Start: 149 @28074 has 225 MA's), (Start: 163 @28095 has 304 MA's), (170, 28107), (Start: 192 @28149 has 2 MA's), (229, 28212), (239, 28233), (251, 28263), (Start: 279 @28317 has 1 MA's), (292, 28341), (306, 28368), (365, 28479), (423, 28593), (433, 28611), (454, 28650), (469, 28674), (484, 28710), (497, 28737), (520, 28776), (538, 28824), (559, 28884), (585, 28944), (604, 29001), (614, 29031),

Gene: PhatBacter\_35 Start: 31886, Stop: 32743, Start Num: 198

Candidate Starts for PhatBacter\_35:

(Start: 198 @31886 has 122 MA's), (220, 31925), (232, 31955), (242, 31976), (257, 32012), (275, 32042), (309, 32117), (334, 32165), (336, 32168), (345, 32192), (347, 32195), (356, 32210), (426, 32381), (481, 32480), (487, 32495), (495, 32510), (498, 32516), (575, 32558), (576, 32561), (601, 32615), (624, 32693), (641, 32726),

Gene: PhatCats2014\_50 Start: 41854, Stop: 43209, Start Num: 82

Candidate Starts for PhatCats2014\_50:

(Start: 82 @41854 has 255 MA's), (98, 41905), (108, 41938), (168, 42067), (170, 42070), (Start: 180 @42085 has 5 MA's), (235, 42181), (251, 42220), (269, 42250), (284, 42286), (333, 42397), (345, 42427), (347, 42430), (379, 42496), (440, 42655), (469, 42703), (475, 42721), (498, 42769), (550, 42913), (571, 42973), (603, 43078), (637, 43165),

Gene: PhatLouie\_49 Start: 41708, Stop: 43063, Start Num: 82

Candidate Starts for PhatLouie\_49:

(Start: 82 @41708 has 255 MA's), (98, 41759), (108, 41792), (168, 41921), (170, 41924), (Start: 180 @41939 has 5 MA's), (235, 42035), (251, 42074), (269, 42104), (284, 42140), (333, 42251), (345, 42281), (347, 42284), (379, 42350), (440, 42509), (469, 42557), (475, 42575), (498, 42623), (550, 42767), (571, 42827), (603, 42932), (637, 43019),

Gene: Phatniss\_32 Start: 28016, Stop: 29017, Start Num: 149

Candidate Starts for Phatniss\_32:

(69, 27764), (107, 27917), (Start: 149 @28016 has 225 MA's), (Start: 163 @28037 has 304 MA's), (170, 28049), (Start: 192 @28091 has 2 MA's), (229, 28154), (239, 28175), (251, 28205), (Start: 279 @28259 has 1 MA's), (292, 28283), (306, 28310), (365, 28421), (423, 28535), (433, 28553), (454, 28592), (469, 28616), (484, 28652), (497, 28679), (520, 28718), (538, 28766), (559, 28826), (585, 28886), (604, 28943), (614, 28973),

Gene: Phaux\_34 Start: 31884, Stop: 32741, Start Num: 198

Candidate Starts for Phaux\_34:

(Start: 198 @31884 has 122 MA's), (220, 31923), (232, 31953), (242, 31974), (257, 32010), (275, 32040), (309, 32115), (334, 32163), (336, 32166), (345, 32190), (347, 32193), (356, 32208), (426, 32379), (481, 32478), (487, 32493), (495, 32508), (498, 32514), (575, 32556), (576, 32559), (601, 32613), (624, 32691), (641, 32724),

Gene: Phayeta\_48 Start: 41401, Stop: 42465, Start Num: 138

Candidate Starts for Phayeta\_48:

(Start: 138 @41401 has 44 MA's), (173, 41464), (219, 41545), (252, 41611), (260, 41626), (269, 41638), (280, 41665), (311, 41722), (314, 41731), (391, 41878), (401, 41893), (422, 41947), (439, 41980), (463, 42019), (470, 42031), (512, 42112), (520, 42130), (523, 42133), (538, 42178), (578, 42289), (617, 42400), (626, 42421), (641, 42454),

Gene: Phegasus\_27 Start: 24058, Stop: 25224, Start Num: 102

Candidate Starts for Phegasus\_27:

(Start: 102 @24058 has 88 MA's), (123, 24115), (168, 24202), (Start: 198 @24247 has 122 MA's), (235, 24322), (245, 24343), (284, 24427), (305, 24466), (333, 24532), (345, 24562), (359, 24583), (379, 24628), (417, 24724), (434, 24763), (440, 24778), (469, 24817), (510, 24904), (527, 24922), (530, 24928), (553, 24976), (571, 24997), (598, 25069), (620, 25144),

Gene: Phelipe\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Phelipe\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: PhelpsODU\_31 Start: 25890, Stop: 26633, Start Num: 217

Candidate Starts for PhelpsODU\_31:

(195, 25863), (Start: 217 @25890 has 11 MA's), (239, 25932), (242, 25938), (258, 25974), (287, 26022), (293, 26031), (309, 26067), (323, 26109), (379, 26217), (447, 26352), (462, 26367), (469, 26379), (476, 26400), (497, 26418), (538, 26424), (601, 26502), (624, 26583), (637, 26604), (640, 26613),

Gene: PhenghisKhan\_48 Start: 41329, Stop: 42684, Start Num: 82

Candidate Starts for PhenghisKhan\_48:

(Start: 82 @41329 has 255 MA's), (98, 41380), (108, 41413), (168, 41542), (170, 41545), (Start: 180 @41560 has 5 MA's), (235, 41656), (251, 41695), (269, 41725), (284, 41761), (333, 41872), (345, 41902), (347, 41905), (379, 41971), (440, 42130), (469, 42178), (475, 42196), (498, 42244), (550, 42388), (571, 42448), (603, 42553), (637, 42640),

Gene: Pherdinand\_50 Start: 41845, Stop: 43221, Start Num: 82

Candidate Starts for Pherdinand\_50:

(Start: 82 @41845 has 255 MA's), (98, 41896), (108, 41929), (168, 42058), (170, 42061), (Start: 180 @42076 has 5 MA's), (235, 42172), (251, 42211), (269, 42241), (284, 42277), (333, 42388), (345, 42418), (347, 42421), (379, 42487), (440, 42646), (469, 42694), (475, 42712), (498, 42760), (550, 42925), (571, 42985), (603, 43090), (637, 43177),

Gene: Phergie\_49 Start: 41321, Stop: 42676, Start Num: 82

Candidate Starts for Phergie\_49:

(Start: 82 @41321 has 255 MA's), (98, 41372), (108, 41405), (168, 41534), (170, 41537), (Start: 180 @41552 has 5 MA's), (235, 41648), (251, 41687), (269, 41717), (284, 41753), (333, 41864), (345, 41894), (347, 41897), (379, 41963), (440, 42122), (469, 42170), (475, 42188), (498, 42236), (550, 42380), (571, 42440), (603, 42545), (637, 42632),

Gene: PherrisBueller\_11 Start: 5911, Stop: 6879, Start Num: 163

Candidate Starts for PherrisBueller\_11:

(Start: 163 @5911 has 304 MA's), (Start: 180 @5944 has 5 MA's), (Start: 190 @5962 has 1 MA's), (Start: 192 @5965 has 2 MA's), (302, 6154), (335, 6232), (365, 6283), (368, 6295), (415, 6370), (442, 6433), (462, 6466), (469, 6478), (474, 6496), (484, 6514), (496, 6538), (520, 6577), (551, 6658), (559, 6682), (561, 6685), (563, 6688), (567, 6697), (600, 6784), (629, 6871),

Gene: PhesterPhotato\_31 Start: 27551, Stop: 28552, Start Num: 149

Candidate Starts for PhesterPhotato\_31:

(Start: 149 @27551 has 225 MA's), (Start: 163 @27572 has 304 MA's), (170, 27584), (Start: 192 @27626 has 2 MA's), (229, 27689), (239, 27710), (251, 27740), (Start: 279 @27794 has 1 MA's), (292, 27818), (306, 27845), (365, 27956), (423, 28070), (433, 28088), (454, 28127), (469, 28151), (484, 28187), (497, 28214), (520, 28253), (538, 28301), (559, 28361), (578, 28409), (604, 28478), (614, 28508),

Gene: Phighter1804\_10 Start: 5857, Stop: 6837, Start Num: 164

Candidate Starts for Phighter1804\_10:

(Start: 164 @5857 has 109 MA's), (178, 5884), (Start: 190 @5905 has 1 MA's), (Start: 192 @5908 has 2 MA's), (330, 6157), (365, 6214), (368, 6226), (401, 6277), (416, 6298), (422, 6319), (437, 6346), (461, 6373), (474, 6403), (551, 6553), (601, 6676), (604, 6688), (627, 6754),

Gene: Phillis\_8 Start: 4833, Stop: 5642, Start Num: 221

Candidate Starts for Phillis\_8:

(Start: 221 @4833 has 188 MA's), (263, 4917), (284, 4962), (314, 5022), (337, 5088), (440, 5322), (469, 5361), (475, 5379), (490, 5412), (500, 5430), (578, 5475), (602, 5499), (645, 5628),

Gene: Philly\_46 Start: 41387, Stop: 42451, Start Num: 138

Candidate Starts for Philly\_46:

(Start: 138 @41387 has 44 MA's), (173, 41450), (219, 41531), (252, 41597), (260, 41612), (269, 41624), (280, 41651), (311, 41708), (314, 41717), (391, 41864), (401, 41879), (422, 41933), (439, 41966), (463, 42005), (470, 42017), (512, 42098), (520, 42116), (523, 42119), (538, 42164), (578, 42275), (617, 42386), (626, 42407), (641, 42440),

Gene: Philus\_31 Start: 27593, Stop: 28594, Start Num: 149

Candidate Starts for Philus\_31:

(Start: 149 @27593 has 225 MA's), (Start: 192 @27668 has 2 MA's), (210, 27701), (229, 27731), (239, 27752), (251, 27782), (259, 27794), (Start: 279 @27836 has 1 MA's), (292, 27860), (302, 27875), (306, 27887), (365, 27998), (423, 28112), (433, 28130), (454, 28169), (469, 28193), (484, 28229), (520, 28295), (559, 28403), (578, 28451), (585, 28463), (601, 28508), (604, 28520), (614, 28550),

Gene: Phineas\_27 Start: 24423, Stop: 25589, Start Num: 102

Candidate Starts for Phineas\_27:

(Start: 102 @24423 has 88 MA's), (123, 24480), (168, 24567), (Start: 198 @24612 has 122 MA's), (235, 24687), (245, 24708), (284, 24792), (305, 24831), (333, 24897), (345, 24927), (359, 24948), (379, 24993), (417, 25089), (434, 25128), (440, 25143), (469, 25182), (510, 25269), (527, 25287),

(530, 25293), (553, 25341), (571, 25362), (598, 25434), (620, 25509),

Gene: Phipps\_49 Start: 41685, Stop: 43040, Start Num: 82

Candidate Starts for Phipps\_49:

(Start: 82 @41685 has 255 MA's), (98, 41736), (108, 41769), (168, 41898), (170, 41901), (Start: 180 @41916 has 5 MA's), (235, 42012), (251, 42051), (269, 42081), (284, 42117), (333, 42228), (345, 42258), (347, 42261), (379, 42327), (440, 42486), (469, 42534), (475, 42552), (498, 42600), (550, 42744), (571, 42804), (603, 42909), (637, 42996),

Gene: Phish\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Phish\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: PhishRPhriends\_11 Start: 5224, Stop: 6189, Start Num: 153

Candidate Starts for PhishRPhriends\_11:

(Start: 153 @5224 has 92 MA's), (Start: 192 @5290 has 2 MA's), (226, 5344), (265, 5422), (330, 5545), (365, 5602), (415, 5674), (430, 5713), (439, 5731), (474, 5800), (535, 5917), (538, 5944), (561, 6007), (597, 6097), (599, 6103),

Gene: Phlegm\_257 Start: 145199, Stop: 146227, Start Num: 142

Candidate Starts for Phlegm\_257:

(Start: 142 @145199 has 200 MA's), (Start: 163 @145229 has 304 MA's), (170, 145241), (Start: 192 @145283 has 2 MA's), (229, 145346), (239, 145367), (Start: 279 @145451 has 1 MA's), (302, 145493), (306, 145505), (312, 145520), (344, 145589), (365, 145616), (393, 145670), (411, 145715), (414, 145718), (449, 145796), (462, 145817), (520, 145928), (554, 146018), (559, 146036), (590, 146108), (601, 146141),

Gene: Phleuron\_48 Start: 41326, Stop: 42681, Start Num: 82

Candidate Starts for Phleuron\_48:

(Start: 82 @41326 has 255 MA's), (98, 41377), (108, 41410), (168, 41539), (170, 41542), (Start: 180 @41557 has 5 MA's), (235, 41653), (251, 41692), (269, 41722), (284, 41758), (333, 41869), (345, 41899), (347, 41902), (379, 41968), (440, 42127), (469, 42175), (475, 42193), (498, 42241), (550, 42385), (571, 42445), (603, 42550), (637, 42637),

Gene: Phlorence\_8 Start: 5463, Stop: 6272, Start Num: 221

Candidate Starts for Phlorence\_8:

(Start: 221 @5463 has 188 MA's), (251, 5526), (255, 5535), (269, 5556), (284, 5592), (309, 5640), (329, 5697), (339, 5721), (440, 5952), (475, 6009), (645, 6258),

Gene: Phlyer\_47 Start: 42275, Stop: 43339, Start Num: 138

Candidate Starts for Phlyer\_47:

(Start: 138 @42275 has 44 MA's), (173, 42338), (219, 42419), (252, 42485), (260, 42500), (269, 42512), (280, 42539), (311, 42596), (314, 42605), (391, 42752), (401, 42767), (422, 42821), (439, 42854), (463, 42893), (470, 42905), (512, 42986), (520, 43004), (523, 43007), (578, 43163), (617, 43274), (626, 43295), (641, 43328),

Gene: Phoebe\_12 Start: 5960, Stop: 6925, Start Num: 153

Candidate Starts for Phoebe\_12:

(Start: 153 @5960 has 92 MA's), (Start: 180 @6005 has 5 MA's), (Start: 192 @6026 has 2 MA's), (256, 6146), (365, 6341), (371, 6356), (422, 6437), (430, 6452), (439, 6470), (469, 6521), (474, 6539),



(497, 6584), (538, 6680), (561, 6743), (575, 6782), (597, 6833),

Gene: Phoebus\_48 Start: 42862, Stop: 43734, Start Num: 89

Candidate Starts for Phoebus\_48:

(Start: 89 @42862 has 30 MA's), (Start: 97 @42889 has 1 MA's), (115, 42949), (Start: 138 @42997 has 44 MA's), (174, 43063), (189, 43084), (206, 43105), (233, 43159), (274, 43240), (403, 43519), (405, 43522), (413, 43546), (424, 43582), (432, 43597), (438, 43609), (444, 43630),

Gene: Phontbonne\_10 Start: 5822, Stop: 6805, Start Num: 163

Candidate Starts for Phontbonne\_10:

(Start: 163 @5822 has 304 MA's), (Start: 190 @5873 has 1 MA's), (Start: 192 @5876 has 2 MA's), (273, 6011), (284, 6035), (330, 6125), (365, 6182), (401, 6245), (416, 6266), (422, 6287), (437, 6314), (474, 6371), (551, 6521), (601, 6644), (604, 6656), (644, 6767),

Gene: Phox\_253 Start: 144448, Stop: 145476, Start Num: 142

Candidate Starts for Phox\_253:

(Start: 142 @144448 has 200 MA's), (Start: 163 @144478 has 304 MA's), (170, 144490), (Start: 192 @144532 has 2 MA's), (229, 144595), (239, 144616), (Start: 279 @144700 has 1 MA's), (302, 144742), (306, 144754), (312, 144769), (344, 144838), (365, 144865), (393, 144919), (411, 144964), (414, 144967), (449, 145045), (462, 145066), (520, 145177), (554, 145267), (559, 145285), (590, 145357), (601, 145390),

Gene: Phoxy\_12 Start: 6046, Stop: 7011, Start Num: 153

Candidate Starts for Phoxy\_12:

(Start: 153 @6046 has 92 MA's), (Start: 180 @6091 has 5 MA's), (Start: 192 @6112 has 2 MA's), (256, 6232), (330, 6370), (365, 6427), (371, 6442), (422, 6523), (430, 6538), (439, 6556), (469, 6607), (474, 6625), (497, 6670), (538, 6766), (561, 6829), (575, 6868), (597, 6919),

Gene: Phrank\_31 Start: 25840, Stop: 26583, Start Num: 217

Candidate Starts for Phrank\_31:

(195, 25813), (Start: 217 @25840 has 11 MA's), (228, 25858), (239, 25882), (242, 25888), (258, 25924), (287, 25972), (293, 25981), (309, 26017), (323, 26059), (379, 26167), (447, 26302), (462, 26317), (469, 26329), (476, 26350), (496, 26365), (497, 26368), (538, 26374), (601, 26452), (624, 26533), (637, 26554), (640, 26563),

Gene: PhrankReynolds\_47 Start: 41326, Stop: 42681, Start Num: 82

Candidate Starts for PhrankReynolds\_47:

(Start: 82 @41326 has 255 MA's), (98, 41377), (108, 41410), (168, 41539), (170, 41542), (Start: 180 @41557 has 5 MA's), (235, 41653), (251, 41692), (269, 41722), (284, 41758), (333, 41869), (345, 41899), (347, 41902), (379, 41968), (440, 42127), (469, 42175), (475, 42193), (498, 42241), (550, 42385), (571, 42445), (603, 42550), (637, 42637),

Gene: Phrann\_26 Start: 23199, Stop: 24365, Start Num: 102

Candidate Starts for Phrann\_26:

(Start: 102 @23199 has 88 MA's), (123, 23256), (168, 23343), (Start: 198 @23388 has 122 MA's), (235, 23463), (245, 23484), (284, 23568), (305, 23607), (333, 23673), (345, 23703), (359, 23724), (379, 23769), (417, 23865), (434, 23904), (440, 23919), (447, 23931), (469, 23958), (510, 24045), (527, 24063), (530, 24069), (564, 24129), (598, 24210), (620, 24285), (640, 24327), (645, 24348), (648, 24354),

Gene: Phranny\_13 Start: 6031, Stop: 6996, Start Num: 153

Candidate Starts for Phranny\_13:

(Start: 153 @6031 has 92 MA's), (Start: 192 @6097 has 2 MA's), (226, 6151), (265, 6229), (330, 6352), (365, 6409), (415, 6481), (430, 6520), (439, 6538), (474, 6607), (535, 6724), (538, 6751), (561, 6814), (597, 6904), (599, 6910),

Gene: Phreak\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Phreak\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: PhrodoBaggins\_49 Start: 41833, Stop: 43188, Start Num: 82

Candidate Starts for PhrodoBaggins\_49:

(Start: 82 @41833 has 255 MA's), (98, 41884), (108, 41917), (168, 42046), (170, 42049), (Start: 180 @42064 has 5 MA's), (235, 42160), (251, 42199), (269, 42229), (284, 42265), (333, 42376), (345, 42406), (347, 42409), (379, 42475), (440, 42634), (469, 42682), (475, 42700), (498, 42748), (550, 42892), (571, 42952), (603, 43057), (637, 43144),

Gene: PhrostyMug\_10 Start: 6057, Stop: 7025, Start Num: 163

Candidate Starts for PhrostyMug\_10:

(Start: 163 @6057 has 304 MA's), (Start: 180 @6090 has 5 MA's), (Start: 190 @6108 has 1 MA's), (Start: 192 @6111 has 2 MA's), (335, 6378), (365, 6429), (368, 6441), (415, 6516), (442, 6579), (450, 6591), (462, 6612), (469, 6624), (474, 6642), (484, 6660), (496, 6684), (520, 6723), (551, 6804), (559, 6828), (561, 6831), (563, 6834), (567, 6843), (600, 6930), (629, 7017),

Gene: Phrux\_35 Start: 31599, Stop: 32456, Start Num: 198

Candidate Starts for Phrux\_35:

(Start: 198 @31599 has 122 MA's), (220, 31638), (232, 31668), (242, 31689), (257, 31725), (275, 31755), (309, 31830), (334, 31878), (336, 31881), (345, 31905), (347, 31908), (356, 31923), (426, 32094), (481, 32193), (487, 32208), (495, 32223), (498, 32229), (575, 32271), (576, 32274), (601, 32328), (624, 32406), (641, 32439),

Gene: Phunky\_49 Start: 41702, Stop: 43057, Start Num: 82

Candidate Starts for Phunky\_49:

(Start: 82 @41702 has 255 MA's), (98, 41753), (108, 41786), (168, 41915), (170, 41918), (Start: 180 @41933 has 5 MA's), (235, 42029), (251, 42068), (269, 42098), (284, 42134), (333, 42245), (345, 42275), (347, 42278), (379, 42344), (440, 42503), (469, 42551), (475, 42569), (498, 42617), (550, 42761), (571, 42821), (603, 42926), (637, 43013),

Gene: Phusco\_251 Start: 144031, Stop: 145059, Start Num: 142

Candidate Starts for Phusco\_251:

(Start: 142 @144031 has 200 MA's), (Start: 163 @144061 has 304 MA's), (170, 144073), (Start: 192 @144115 has 2 MA's), (229, 144178), (239, 144199), (Start: 279 @144283 has 1 MA's), (302, 144325), (306, 144337), (312, 144352), (344, 144421), (365, 144448), (393, 144502), (411, 144547), (414, 144550), (449, 144628), (462, 144649), (520, 144760), (554, 144850), (559, 144868), (590, 144940), (601, 144973),

Gene: Piatt\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for Piatt\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: PickleBack\_8 Start: 5173, Stop: 5982, Start Num: 221

Candidate Starts for PickleBack\_8:

(Start: 221 @5173 has 188 MA's), (251, 5236), (255, 5245), (269, 5266), (284, 5302), (309, 5350), (329, 5407), (339, 5431), (440, 5662), (475, 5719), (645, 5968),

Gene: Pier\_251 Start: 145324, Stop: 146352, Start Num: 142

Candidate Starts for Pier\_251:

(Start: 142 @145324 has 200 MA's), (Start: 163 @145354 has 304 MA's), (170, 145366), (Start: 192 @145408 has 2 MA's), (229, 145471), (239, 145492), (Start: 279 @145576 has 1 MA's), (302, 145618), (306, 145630), (312, 145645), (344, 145714), (365, 145741), (393, 145795), (411, 145840), (414, 145843), (449, 145921), (462, 145942), (520, 146053), (554, 146143), (559, 146161), (590, 146233), (601, 146266),

Gene: Piglet\_0049 Start: 41827, Stop: 43182, Start Num: 82

Candidate Starts for Piglet\_0049:

(Start: 82 @41827 has 255 MA's), (98, 41878), (108, 41911), (168, 42040), (170, 42043), (Start: 180 @42058 has 5 MA's), (235, 42154), (251, 42193), (269, 42223), (284, 42259), (333, 42370), (345, 42400), (347, 42403), (379, 42469), (440, 42628), (469, 42676), (475, 42694), (498, 42742), (550, 42886), (571, 42946), (603, 43051), (637, 43138),

Gene: PinheadLarry\_49 Start: 41415, Stop: 42770, Start Num: 82

Candidate Starts for PinheadLarry\_49:

(Start: 82 @41415 has 255 MA's), (98, 41466), (108, 41499), (168, 41628), (170, 41631), (Start: 180 @41646 has 5 MA's), (235, 41742), (251, 41781), (269, 41811), (284, 41847), (333, 41958), (345, 41988), (347, 41991), (379, 42057), (440, 42216), (469, 42264), (475, 42282), (498, 42330), (550, 42474), (571, 42534), (603, 42639), (637, 42726),

Gene: PinkPlastic\_8 Start: 5490, Stop: 6458, Start Num: 163

Candidate Starts for PinkPlastic\_8:

(Start: 163 @5490 has 304 MA's), (Start: 180 @5523 has 5 MA's), (Start: 190 @5541 has 1 MA's), (Start: 192 @5544 has 2 MA's), (335, 5811), (365, 5862), (368, 5874), (415, 5949), (442, 6012), (450, 6024), (462, 6045), (469, 6057), (474, 6075), (484, 6093), (496, 6117), (520, 6156), (551, 6237), (559, 6261), (561, 6264), (563, 6267), (567, 6276), (600, 6363), (629, 6450),

Gene: PinkYoshi\_28 Start: 25192, Stop: 26400, Start Num: 88

Candidate Starts for PinkYoshi\_28:

(65, 25099), (Start: 88 @25192 has 62 MA's), (154, 25366), (202, 25438), (251, 25537), (255, 25546), (270, 25570), (275, 25579), (284, 25603), (295, 25624), (309, 25651), (314, 25663), (342, 25735), (361, 25774), (440, 25963), (459, 25987), (469, 26002), (476, 26023), (498, 26068), (500, 26071), (534, 26122),

Gene: Pinkcreek\_232 Start: 141680, Stop: 142678, Start Num: 163

Candidate Starts for Pinkcreek\_232:

(Start: 142 @141650 has 200 MA's), (Start: 163 @141680 has 304 MA's), (Start: 192 @141734 has 2 MA's), (229, 141797), (239, 141818), (Start: 279 @141902 has 1 MA's), (302, 141944), (306, 141956), (312, 141971), (344, 142040), (365, 142067), (393, 142121), (411, 142166), (414, 142169), (449, 142247), (462, 142268), (520, 142379), (554, 142469), (559, 142487), (590, 142559), (601, 142592),

Gene: Pinkman\_48 Start: 41264, Stop: 42619, Start Num: 82

Candidate Starts for Pinkman\_48:

(Start: 82 @41264 has 255 MA's), (98, 41315), (108, 41348), (168, 41477), (170, 41480), (Start: 180 @41495 has 5 MA's), (235, 41591), (251, 41630), (269, 41660), (284, 41696), (333, 41807), (345,

41837), (347, 41840), (379, 41906), (440, 42065), (469, 42113), (475, 42131), (498, 42179), (550, 42323), (571, 42383), (603, 42488), (637, 42575),

Gene: Pinto\_12 Start: 6133, Stop: 7101, Start Num: 163

Candidate Starts for Pinto\_12:

(Start: 163 @6133 has 304 MA's), (Start: 180 @6166 has 5 MA's), (Start: 190 @6184 has 1 MA's), (Start: 192 @6187 has 2 MA's), (335, 6454), (365, 6505), (368, 6517), (415, 6592), (442, 6655), (462, 6688), (469, 6700), (474, 6718), (484, 6736), (496, 6760), (520, 6799), (551, 6880), (559, 6904), (561, 6907), (563, 6910), (567, 6919), (600, 7006), (629, 7093),

Gene: Pio\_259 Start: 146527, Stop: 147555, Start Num: 142

Candidate Starts for Pio\_259:

(Start: 142 @146527 has 200 MA's), (Start: 163 @146557 has 304 MA's), (170, 146569), (Start: 192 @146611 has 2 MA's), (229, 146674), (239, 146695), (Start: 279 @146779 has 1 MA's), (302, 146821), (306, 146833), (312, 146848), (344, 146917), (365, 146944), (393, 146998), (411, 147043), (414, 147046), (449, 147124), (462, 147145), (520, 147256), (554, 147346), (559, 147364), (590, 147436), (601, 147469),

Gene: Pipcraft\_10 Start: 5884, Stop: 6861, Start Num: 166

Candidate Starts for Pipcraft\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Pipefish\_49 Start: 42928, Stop: 43992, Start Num: 138

Candidate Starts for Pipefish\_49:

(Start: 138 @42928 has 44 MA's), (173, 42991), (219, 43072), (252, 43138), (260, 43153), (269, 43165), (280, 43192), (311, 43249), (314, 43258), (391, 43405), (401, 43420), (422, 43474), (439, 43507), (463, 43546), (470, 43558), (512, 43639), (520, 43657), (523, 43660), (578, 43816), (617, 43927), (626, 43948), (641, 43981),

Gene: Piper2020\_33 Start: 28123, Stop: 29124, Start Num: 149

Candidate Starts for Piper2020\_33:

(Start: 149 @28123 has 225 MA's), (Start: 192 @28198 has 2 MA's), (210, 28231), (229, 28261), (239, 28282), (Start: 279 @28366 has 1 MA's), (292, 28390), (302, 28405), (306, 28417), (365, 28528), (423, 28642), (433, 28660), (454, 28699), (469, 28723), (484, 28759), (497, 28786), (520, 28825), (559, 28933), (578, 28981), (604, 29050), (614, 29080),

Gene: Pippin\_11 Start: 5832, Stop: 6800, Start Num: 163

Candidate Starts for Pippin\_11:

(Start: 163 @5832 has 304 MA's), (Start: 180 @5865 has 5 MA's), (Start: 190 @5883 has 1 MA's), (Start: 192 @5886 has 2 MA's), (335, 6153), (365, 6204), (368, 6216), (415, 6291), (442, 6354), (450, 6366), (462, 6387), (469, 6399), (474, 6417), (484, 6435), (496, 6459), (520, 6498), (551, 6579), (559, 6603), (561, 6606), (563, 6609), (567, 6618), (600, 6705), (629, 6792),

Gene: Pippy\_25 Start: 23661, Stop: 24662, Start Num: 149

Candidate Starts for Pippy\_25:

(Start: 149 @23661 has 225 MA's), (Start: 192 @23736 has 2 MA's), (229, 23799), (239, 23820), (Start: 279 @23904 has 1 MA's), (292, 23928), (302, 23943), (306, 23955), (365, 24066), (433, 24198), (454, 24237), (469, 24261), (497, 24324), (520, 24363), (604, 24588), (614, 24618),

Gene: Pipsqueak\_49 Start: 41709, Stop: 43064, Start Num: 82

Candidate Starts for Pipsqueak\_49:

(Start: 82 @41709 has 255 MA's), (98, 41760), (108, 41793), (168, 41922), (170, 41925), (Start: 180 @41940 has 5 MA's), (235, 42036), (251, 42075), (269, 42105), (284, 42141), (333, 42252), (345, 42282), (347, 42285), (379, 42351), (440, 42510), (469, 42558), (475, 42576), (498, 42624), (550, 42768), (571, 42828), (603, 42933), (637, 43020),

Gene: Piro94\_12 Start: 6941, Stop: 7918, Start Num: 163

Candidate Starts for Piro94\_12:

(Start: 163 @6941 has 304 MA's), (Start: 192 @6995 has 2 MA's), (234, 7052), (312, 7184), (330, 7232), (365, 7289), (382, 7325), (415, 7373), (430, 7412), (470, 7484), (474, 7499), (497, 7544), (507, 7562), (528, 7604), (538, 7652), (549, 7679), (554, 7694), (559, 7712), (561, 7715), (597, 7805),

Gene: Pistachio\_11 Start: 5286, Stop: 6026, Start Num: 285

Candidate Starts for Pistachio\_11:

(209, 5169), (Start: 285 @5286 has 17 MA's), (330, 5373), (365, 5430), (368, 5442), (371, 5445), (385, 5469), (400, 5484), (408, 5502), (422, 5532), (425, 5538), (430, 5547), (439, 5565), (469, 5616), (474, 5634), (512, 5706), (535, 5748), (538, 5775), (549, 5802), (559, 5835), (561, 5838), (575, 5877), (631, 6018),

Gene: Pita2\_12 Start: 6491, Stop: 7459, Start Num: 163

Candidate Starts for Pita2\_12:

(Start: 163 @6491 has 304 MA's), (Start: 180 @6524 has 5 MA's), (Start: 190 @6542 has 1 MA's), (Start: 192 @6545 has 2 MA's), (335, 6812), (365, 6863), (368, 6875), (415, 6950), (442, 7013), (450, 7025), (462, 7046), (474, 7076), (484, 7094), (496, 7118), (520, 7157), (551, 7238), (559, 7262), (561, 7265), (563, 7268), (567, 7277), (600, 7364), (614, 7409), (629, 7451),

Gene: Pivoine\_253 Start: 144496, Stop: 145524, Start Num: 142

Candidate Starts for Pivoine\_253:

(Start: 142 @144496 has 200 MA's), (Start: 163 @144526 has 304 MA's), (170, 144538), (Start: 192 @144580 has 2 MA's), (229, 144643), (239, 144664), (Start: 279 @144748 has 1 MA's), (302, 144790), (306, 144802), (312, 144817), (344, 144886), (365, 144913), (393, 144967), (411, 145012), (414, 145015), (449, 145093), (462, 145114), (520, 145225), (554, 145315), (559, 145333), (590, 145405), (601, 145438),

Gene: Pixie\_31 Start: 26938, Stop: 27726, Start Num: 221

Candidate Starts for Pixie\_31:

(195, 26914), (Start: 221 @26938 has 188 MA's), (242, 26983), (258, 27019), (287, 27076), (293, 27085), (309, 27121), (331, 27175), (343, 27199), (416, 27340), (469, 27445), (476, 27466), (480, 27472), (487, 27490), (575, 27520), (604, 27589), (625, 27661), (640, 27691),

Gene: Placalicious\_48 Start: 41402, Stop: 42757, Start Num: 82

Candidate Starts for Placalicious\_48:

(Start: 82 @41402 has 255 MA's), (98, 41453), (108, 41486), (168, 41615), (170, 41618), (Start: 180 @41633 has 5 MA's), (235, 41729), (251, 41768), (269, 41798), (284, 41834), (333, 41945), (345, 41975), (347, 41978), (379, 42044), (440, 42203), (469, 42251), (475, 42269), (498, 42317), (550, 42461), (571, 42521), (603, 42626), (637, 42713),

Gene: Plagueis\_28 Start: 25036, Stop: 26244, Start Num: 88

Candidate Starts for Plagueis\_28:

(65, 24943), (Start: 88 @25036 has 62 MA's), (154, 25210), (202, 25282), (251, 25381), (255, 25390), (270, 25414), (275, 25423), (284, 25447), (295, 25468), (309, 25495), (314, 25507), (342, 25579), (361, 25618), (440, 25807), (459, 25831), (469, 25846), (476, 25867), (498, 25912), (500, 25915), (534, 25966),

Gene: Pleione\_256 Start: 145259, Stop: 146287, Start Num: 142

Candidate Starts for Pleione\_256:

(Start: 142 @145259 has 200 MA's), (Start: 163 @145289 has 304 MA's), (170, 145301), (Start: 192 @145343 has 2 MA's), (229, 145406), (239, 145427), (Start: 279 @145511 has 1 MA's), (302, 145553), (306, 145565), (312, 145580), (344, 145649), (365, 145676), (393, 145730), (411, 145775), (414, 145778), (449, 145856), (462, 145877), (520, 145988), (554, 146078), (559, 146096), (590, 146168), (601, 146201),

Gene: Plmatters\_49 Start: 41705, Stop: 43060, Start Num: 82

Candidate Starts for Plmatters\_49:

(Start: 82 @41705 has 255 MA's), (98, 41756), (108, 41789), (168, 41918), (170, 41921), (Start: 180 @41936 has 5 MA's), (235, 42032), (251, 42071), (269, 42101), (284, 42137), (333, 42248), (345, 42278), (347, 42281), (379, 42347), (440, 42506), (469, 42554), (475, 42572), (498, 42620), (550, 42764), (571, 42824), (603, 42929), (637, 43016),

Gene: Plumbus\_33 Start: 27594, Stop: 28595, Start Num: 149

Candidate Starts for Plumbus\_33:

(33, 26973), (39, 27051), (42, 27114), (47, 27153), (62, 27306), (69, 27342), (Start: 149 @27594 has 225 MA's), (Start: 192 @27669 has 2 MA's), (210, 27702), (229, 27732), (239, 27753), (251, 27783), (259, 27795), (Start: 279 @27837 has 1 MA's), (292, 27861), (302, 27876), (306, 27888), (365, 27999), (423, 28113), (433, 28131), (454, 28170), (469, 28194), (484, 28230), (497, 28257), (520, 28296), (559, 28404), (585, 28464), (604, 28521), (614, 28551),

Gene: Pocahontas\_11 Start: 6049, Stop: 7014, Start Num: 153

Candidate Starts for Pocahontas\_11:

(Start: 153 @6049 has 92 MA's), (Start: 180 @6094 has 5 MA's), (Start: 192 @6115 has 2 MA's), (256, 6235), (267, 6250), (Start: 296 @6289 has 2 MA's), (330, 6373), (365, 6430), (371, 6445), (422, 6526), (430, 6541), (439, 6559), (469, 6610), (474, 6628), (497, 6673), (538, 6769), (561, 6832), (575, 6871), (597, 6922),

Gene: Podrick\_49 Start: 41696, Stop: 43051, Start Num: 82

Candidate Starts for Podrick\_49:

(Start: 82 @41696 has 255 MA's), (98, 41747), (108, 41780), (168, 41909), (170, 41912), (Start: 180 @41927 has 5 MA's), (235, 42023), (251, 42062), (269, 42092), (284, 42128), (333, 42239), (345, 42269), (347, 42272), (379, 42338), (440, 42497), (469, 42545), (475, 42563), (498, 42611), (550, 42755), (571, 42815), (603, 42920), (637, 43007),

Gene: Poenanya\_31 Start: 27641, Stop: 28642, Start Num: 149

Candidate Starts for Poenanya\_31:

(91, 27479), (Start: 149 @27641 has 225 MA's), (Start: 192 @27716 has 2 MA's), (210, 27749), (229, 27779), (239, 27800), (251, 27830), (259, 27842), (Start: 279 @27884 has 1 MA's), (292, 27908), (302, 27923), (306, 27935), (365, 28046), (423, 28160), (433, 28178), (454, 28217), (469, 28241), (484, 28277), (497, 28304), (520, 28343), (538, 28391), (559, 28451), (578, 28499), (585, 28511), (601, 28556), (604, 28568), (614, 28598),

Gene: Pokerus\_30 Start: 26411, Stop: 27283, Start Num: 221

Candidate Starts for Pokerus\_30:

(195, 26384), (Start: 221 @26411 has 188 MA's), (Start: 227 @26423 has 1 MA's), (258, 26492), (275, 26519), (287, 26549), (293, 26558), (309, 26594), (313, 26603), (323, 26636), (331, 26654), (347, 26684), (379, 26744), (447, 26879), (469, 26906), (476, 26927), (487, 26951), (521, 27002), (578, 27104), (598, 27140), (604, 27164), (640, 27263), (643, 27272),

Gene: Policronamos\_36 Start: 31884, Stop: 32741, Start Num: 198

Candidate Starts for Policronamos\_36:

(Start: 198 @31884 has 122 MA's), (220, 31923), (232, 31953), (242, 31974), (257, 32010), (275, 32040), (309, 32115), (334, 32163), (336, 32166), (345, 32190), (347, 32193), (356, 32208), (426, 32379), (481, 32478), (487, 32493), (495, 32508), (498, 32514), (575, 32556), (576, 32559), (601, 32613), (624, 32691), (641, 32724),

Gene: Polka14\_32 Start: 28140, Stop: 29141, Start Num: 149

Candidate Starts for Polka14\_32:

(91, 27978), (Start: 149 @28140 has 225 MA's), (Start: 192 @28215 has 2 MA's), (210, 28248), (229, 28278), (239, 28299), (251, 28329), (259, 28341), (Start: 279 @28383 has 1 MA's), (292, 28407), (302, 28422), (306, 28434), (365, 28545), (423, 28659), (433, 28677), (454, 28716), (469, 28740), (484, 28776), (497, 28803), (520, 28842), (538, 28890), (559, 28950), (578, 28998), (585, 29010), (601, 29055), (604, 29067), (614, 29097),

Gene: Polkaroo\_27 Start: 24068, Stop: 25234, Start Num: 102

Candidate Starts for Polkaroo\_27:

(Start: 102 @24068 has 88 MA's), (123, 24125), (168, 24212), (Start: 198 @24257 has 122 MA's), (235, 24332), (245, 24353), (284, 24437), (305, 24476), (333, 24542), (345, 24572), (359, 24593), (379, 24638), (417, 24734), (434, 24773), (440, 24788), (447, 24800), (469, 24827), (510, 24914), (527, 24932), (530, 24938), (553, 24986), (598, 25079), (620, 25154),

Gene: Pollywog\_31 Start: 27849, Stop: 28850, Start Num: 149

Candidate Starts for Pollywog\_31:

(Start: 149 @27849 has 225 MA's), (Start: 192 @27924 has 2 MA's), (210, 27957), (229, 27987), (239, 28008), (251, 28038), (259, 28050), (Start: 279 @28092 has 1 MA's), (306, 28143), (312, 28158), (365, 28254), (422, 28365), (433, 28386), (454, 28425), (462, 28437), (484, 28485), (497, 28512), (511, 28536), (520, 28551), (559, 28659), (578, 28707), (604, 28776), (614, 28806),

Gene: Polymorphads\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Polymorphads\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (Start: 192 @5932 has 2 MA's), (273, 6067), (284, 6091), (330, 6181), (365, 6238), (401, 6301), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (601, 6700), (604, 6712), (644, 6823),

Gene: Pomar16\_14 Start: 6638, Stop: 7402, Start Num: 294

Candidate Starts for Pomar16\_14:

(Start: 294 @6638 has 16 MA's), (365, 6782), (415, 6869), (423, 6896), (430, 6908), (474, 6995), (538, 7136), (559, 7196), (561, 7199), (574, 7235), (597, 7289), (611, 7337),

Gene: Poompha\_9 Start: 3780, Stop: 4754, Start Num: 163

Candidate Starts for Poompha\_9:

(115, 3741), (Start: 163 @3780 has 304 MA's), (Start: 180 @3813 has 5 MA's), (Start: 192 @3834 has 2 MA's), (283, 4002), (306, 4044), (312, 4059), (365, 4164), (415, 4236), (423, 4263), (425, 4266), (430, 4275), (474, 4362), (538, 4509), (561, 4572), (575, 4611), (595, 4653),

Gene: PopTart\_31 Start: 27830, Stop: 28831, Start Num: 149

Candidate Starts for PopTart\_31:

(Start: 149 @27830 has 225 MA's), (Start: 192 @27905 has 2 MA's), (210, 27938), (229, 27968), (239, 27989), (Start: 279 @28073 has 1 MA's), (292, 28097), (302, 28112), (306, 28124), (365, 28235), (433, 28367), (454, 28406), (469, 28430), (484, 28466), (497, 28493), (520, 28532), (559, 28640), (585, 28700), (601, 28745), (604, 28757), (614, 28787),

Gene: Popcicle\_11 Start: 6049, Stop: 7014, Start Num: 153

Candidate Starts for Popcicle\_11:

(Start: 153 @6049 has 92 MA's), (Start: 180 @6094 has 5 MA's), (Start: 192 @6115 has 2 MA's), (256, 6235), (267, 6250), (Start: 296 @6289 has 2 MA's), (330, 6373), (365, 6430), (371, 6445), (422, 6526), (430, 6541), (439, 6559), (469, 6610), (474, 6628), (497, 6673), (538, 6769), (561, 6832), (575, 6871), (597, 6922),

Gene: Pops\_49 Start: 41720, Stop: 43075, Start Num: 82

Candidate Starts for Pops\_49:

(Start: 82 @41720 has 255 MA's), (98, 41771), (108, 41804), (168, 41933), (170, 41936), (Start: 180 @41951 has 5 MA's), (235, 42047), (251, 42086), (269, 42116), (284, 42152), (333, 42263), (345, 42293), (347, 42296), (379, 42362), (440, 42521), (469, 42569), (475, 42587), (498, 42635), (550, 42779), (571, 42839), (603, 42944), (620, 42998), (637, 43031),

Gene: Porcelain\_47 Start: 38897, Stop: 39901, Start Num: 100

Candidate Starts for Porcelain\_47:

(Start: 100 @38897 has 10 MA's), (117, 38951), (141, 39002), (184, 39074), (232, 39149), (293, 39263), (300, 39275), (313, 39308), (345, 39377), (352, 39389), (363, 39401), (364, 39404), (384, 39449), (392, 39467), (469, 39629), (473, 39644), (478, 39653), (637, 39854),

Gene: Porky\_35 Start: 31695, Stop: 32552, Start Num: 198

Candidate Starts for Porky\_35:

(Start: 198 @31695 has 122 MA's), (220, 31734), (232, 31764), (242, 31785), (257, 31821), (275, 31851), (309, 31926), (334, 31974), (336, 31977), (345, 32001), (347, 32004), (356, 32019), (426, 32190), (487, 32304), (495, 32319), (498, 32325), (575, 32367), (576, 32370), (601, 32424), (624, 32502), (641, 32535),

Gene: PotatoSplit\_13 Start: 5962, Stop: 6927, Start Num: 153

Candidate Starts for PotatoSplit\_13:

(Start: 153 @5962 has 92 MA's), (Start: 180 @6007 has 5 MA's), (Start: 192 @6028 has 2 MA's), (256, 6148), (330, 6286), (365, 6343), (371, 6358), (422, 6439), (430, 6454), (439, 6472), (469, 6523), (474, 6541), (497, 6586), (538, 6682), (561, 6745), (575, 6784), (597, 6835),

Gene: Potter\_48 Start: 41432, Stop: 42787, Start Num: 82

Candidate Starts for Potter\_48:

(Start: 82 @41432 has 255 MA's), (98, 41483), (108, 41516), (114, 41534), (168, 41645), (170, 41648), (Start: 180 @41663 has 5 MA's), (235, 41759), (251, 41798), (269, 41828), (284, 41864), (333, 41975), (345, 42005), (347, 42008), (379, 42074), (440, 42233), (469, 42281), (475, 42299), (498, 42347), (550, 42491), (571, 42551), (603, 42656), (637, 42743),

Gene: Pound\_51 Start: 44412, Stop: 45278, Start Num: 89

Candidate Starts for Pound\_51:

(Start: 89 @44412 has 30 MA's), (Start: 97 @44439 has 1 MA's), (Start: 138 @44547 has 44 MA's), (Start: 148 @44568 has 26 MA's), (174, 44613), (189, 44634), (206, 44655), (233, 44709), (255, 44760), (281, 44811), (355, 44961), (374, 45003), (400, 45054), (405, 45072), (427, 45138), (434, 45150), (438, 45159), (452, 45189), (486, 45252),

Gene: Power\_11 Start: 6372, Stop: 7364, Start Num: 163

Candidate Starts for Power\_11:

(Start: 163 @6372 has 304 MA's), (Start: 190 @6423 has 1 MA's), (Start: 192 @6426 has 2 MA's), (212, 6459), (223, 6474), (299, 6594), (302, 6600), (338, 6687), (365, 6732), (437, 6864), (467, 6903), (494, 6951), (540, 7032), (555, 7074), (586, 7158), (588, 7161), (604, 7209), (624, 7275), (651, 7350),

Gene: Prickles\_49 Start: 41696, Stop: 43051, Start Num: 82



Candidate Starts for Prickles\_49:

(Start: 82 @41696 has 255 MA's), (98, 41747), (108, 41780), (114, 41798), (168, 41909), (170, 41912), (Start: 180 @41927 has 5 MA's), (235, 42023), (251, 42062), (269, 42092), (284, 42128), (333, 42239), (345, 42269), (347, 42272), (379, 42338), (440, 42497), (469, 42545), (475, 42563), (498, 42611), (550, 42755), (571, 42815), (603, 42920), (620, 42974), (637, 43007),

Gene: Priscilla\_31 Start: 27784, Stop: 28785, Start Num: 149

Candidate Starts for Priscilla\_31:

(Start: 149 @27784 has 225 MA's), (Start: 192 @27859 has 2 MA's), (210, 27892), (229, 27922), (239, 27943), (251, 27973), (259, 27985), (Start: 279 @28027 has 1 MA's), (292, 28051), (302, 28066), (306, 28078), (365, 28189), (423, 28303), (433, 28321), (454, 28360), (469, 28384), (484, 28420), (520, 28486), (559, 28594), (578, 28642), (585, 28654), (601, 28699), (604, 28711), (614, 28741),

Gene: Prithvi\_31 Start: 26427, Stop: 27299, Start Num: 221

Candidate Starts for Prithvi\_31:

(195, 26400), (Start: 221 @26427 has 188 MA's), (Start: 227 @26439 has 1 MA's), (258, 26508), (275, 26535), (287, 26565), (293, 26574), (309, 26610), (313, 26619), (323, 26652), (331, 26670), (379, 26760), (447, 26895), (469, 26922), (476, 26943), (487, 26967), (521, 27018), (578, 27120), (598, 27156), (604, 27180), (640, 27279), (643, 27288),

Gene: ProfessorX\_49 Start: 41697, Stop: 43052, Start Num: 82

Candidate Starts for ProfessorX\_49:

(Start: 82 @41697 has 255 MA's), (98, 41748), (108, 41781), (168, 41910), (170, 41913), (Start: 180 @41928 has 5 MA's), (235, 42024), (251, 42063), (269, 42093), (284, 42129), (333, 42240), (345, 42270), (347, 42273), (379, 42339), (440, 42498), (469, 42546), (475, 42564), (498, 42612), (550, 42756), (571, 42816), (603, 42921), (637, 43008),

Gene: Psycho\_31 Start: 27156, Stop: 27917, Start Num: 221

Candidate Starts for Psycho\_31:

(183, 27108), (Start: 221 @27156 has 188 MA's), (Start: 227 @27168 has 1 MA's), (229, 27174), (242, 27201), (258, 27237), (289, 27297), (293, 27303), (307, 27333), (309, 27339), (313, 27348), (323, 27381), (343, 27423), (345, 27426), (352, 27438), (370, 27474), (379, 27489), (395, 27525), (447, 27624), (469, 27651), (476, 27672), (578, 27735), (595, 27759), (601, 27783), (620, 27852), (640, 27897), (643, 27906),

Gene: Puhltonio\_49 Start: 41706, Stop: 43061, Start Num: 82

Candidate Starts for Puhltonio\_49:

(Start: 82 @41706 has 255 MA's), (98, 41757), (108, 41790), (168, 41919), (170, 41922), (Start: 180 @41937 has 5 MA's), (235, 42033), (251, 42072), (269, 42102), (284, 42138), (333, 42249), (345, 42279), (347, 42282), (379, 42348), (440, 42507), (469, 42555), (475, 42573), (498, 42621), (550, 42765), (571, 42825), (603, 42930), (637, 43017),

Gene: Pukovnik\_13 Start: 8101, Stop: 9087, Start Num: 161

Candidate Starts for Pukovnik\_13:

(Start: 161 @8101 has 8 MA's), (178, 8131), (Start: 192 @8155 has 2 MA's), (362, 8455), (365, 8461), (409, 8536), (416, 8545), (474, 8656), (533, 8752), (551, 8806), (562, 8830), (565, 8836), (581, 8881), (583, 8887), (604, 8941), (607, 8950),

Gene: Pumbaa\_10 Start: 5856, Stop: 6836, Start Num: 164

Candidate Starts for Pumbaa\_10:

(Start: 164 @5856 has 109 MA's), (178, 5883), (Start: 192 @5907 has 2 MA's), (297, 6072), (330, 6156), (365, 6213), (368, 6225), (401, 6276), (416, 6297), (422, 6318), (437, 6345), (461, 6372), (474, 6402), (551, 6552), (601, 6675), (604, 6687), (627, 6753),

Gene: Pumpkin\_37 Start: 31935, Stop: 32792, Start Num: 198

Candidate Starts for Pumpkin\_37:

(Start: 198 @31935 has 122 MA's), (220, 31974), (232, 32004), (242, 32025), (257, 32061), (275, 32091), (309, 32166), (334, 32214), (336, 32217), (345, 32241), (347, 32244), (356, 32259), (426, 32430), (487, 32544), (495, 32559), (498, 32565), (575, 32607), (576, 32610), (601, 32664), (624, 32742), (641, 32775),

Gene: Puppy\_11 Start: 5358, Stop: 6098, Start Num: 285

Candidate Starts for Puppy\_11:

(209, 5241), (Start: 285 @5358 has 17 MA's), (330, 5445), (365, 5502), (368, 5514), (371, 5517), (385, 5541), (400, 5556), (408, 5574), (422, 5604), (425, 5610), (430, 5619), (439, 5637), (469, 5688), (474, 5706), (512, 5778), (535, 5820), (538, 5847), (549, 5874), (559, 5907), (561, 5910), (575, 5949), (631, 6090),

Gene: PurduePete\_253 Start: 145973, Stop: 147001, Start Num: 142

Candidate Starts for PurduePete\_253:

(Start: 142 @145973 has 200 MA's), (Start: 163 @146003 has 304 MA's), (170, 146015), (Start: 192 @146057 has 2 MA's), (229, 146120), (239, 146141), (Start: 279 @146225 has 1 MA's), (302, 146267), (306, 146279), (312, 146294), (344, 146363), (365, 146390), (393, 146444), (411, 146489), (414, 146492), (449, 146570), (462, 146591), (520, 146702), (554, 146792), (559, 146810), (590, 146882), (601, 146915),

Gene: PurpleHaze\_12 Start: 6032, Stop: 6997, Start Num: 153

Candidate Starts for PurpleHaze\_12:

(Start: 153 @6032 has 92 MA's), (Start: 192 @6098 has 2 MA's), (226, 6152), (265, 6230), (330, 6353), (365, 6410), (415, 6482), (430, 6521), (439, 6539), (474, 6608), (535, 6725), (538, 6752), (561, 6815), (597, 6905), (599, 6911),

Gene: Pygmy\_29 Start: 25891, Stop: 27057, Start Num: 102

Candidate Starts for Pygmy\_29:

(Start: 102 @25891 has 88 MA's), (123, 25948), (168, 26035), (Start: 198 @26080 has 122 MA's), (235, 26155), (245, 26176), (251, 26194), (284, 26260), (305, 26299), (333, 26365), (345, 26395), (359, 26416), (379, 26461), (417, 26557), (434, 26596), (440, 26611), (447, 26623), (469, 26650), (510, 26737), (527, 26755), (530, 26761), (553, 26809), (571, 26830), (598, 26902), (620, 26977),

Gene: QBert\_244 Start: 142846, Stop: 143874, Start Num: 142

Candidate Starts for QBert\_244:

(Start: 142 @142846 has 200 MA's), (Start: 163 @142876 has 304 MA's), (170, 142888), (Start: 192 @142930 has 2 MA's), (229, 142993), (239, 143014), (Start: 279 @143098 has 1 MA's), (302, 143140), (306, 143152), (312, 143167), (344, 143236), (365, 143263), (393, 143317), (411, 143362), (414, 143365), (449, 143443), (462, 143464), (520, 143575), (554, 143665), (559, 143683), (590, 143755), (601, 143788),

Gene: QTRlifeCrisis\_10 Start: 6459, Stop: 7427, Start Num: 163

Candidate Starts for QTRlifeCrisis\_10:

(Start: 163 @6459 has 304 MA's), (Start: 180 @6492 has 5 MA's), (Start: 190 @6510 has 1 MA's), (Start: 192 @6513 has 2 MA's), (302, 6702), (335, 6780), (344, 6798), (365, 6831), (368, 6843), (415, 6918), (442, 6981), (450, 6993), (462, 7014), (469, 7026), (474, 7044), (484, 7062), (496, 7086), (520, 7125), (551, 7206), (559, 7230), (561, 7233), (563, 7236), (567, 7245), (600, 7332), (614, 7377), (629, 7419),

Gene: Quallification\_36 Start: 32064, Stop: 32921, Start Num: 198

Candidate Starts for Quallification\_36:

(Start: 198 @32064 has 122 MA's), (220, 32103), (232, 32133), (242, 32154), (257, 32190), (275, 32220), (309, 32295), (334, 32343), (336, 32346), (345, 32370), (347, 32373), (356, 32388), (426, 32559), (487, 32673), (495, 32688), (498, 32694), (575, 32736), (576, 32739), (601, 32793), (624, 32871), (641, 32904),

Gene: Quasimodo\_255 Start: 144832, Stop: 145860, Start Num: 142

Candidate Starts for Quasimodo\_255:

(Start: 142 @144832 has 200 MA's), (Start: 163 @144862 has 304 MA's), (170, 144874), (Start: 192 @144916 has 2 MA's), (229, 144979), (239, 145000), (Start: 279 @145084 has 1 MA's), (302, 145126), (306, 145138), (312, 145153), (344, 145222), (365, 145249), (393, 145303), (411, 145348), (414, 145351), (449, 145429), (462, 145450), (520, 145561), (554, 145651), (559, 145669), (590, 145741), (601, 145774),

Gene: QueenB2\_11 Start: 6448, Stop: 7431, Start Num: 163

Candidate Starts for QueenB2\_11:

(134, 6406), (Start: 163 @6448 has 304 MA's), (178, 6478), (Start: 180 @6481 has 5 MA's), (Start: 190 @6499 has 1 MA's), (Start: 192 @6502 has 2 MA's), (325, 6739), (330, 6751), (365, 6808), (368, 6820), (410, 6886), (474, 6997), (551, 7144), (592, 7237), (604, 7279), (627, 7351), (646, 7405),

Gene: QueenBeane\_49 Start: 41696, Stop: 43051, Start Num: 82

Candidate Starts for QueenBeane\_49:

(Start: 82 @41696 has 255 MA's), (98, 41747), (108, 41780), (168, 41909), (170, 41912), (Start: 180 @41927 has 5 MA's), (235, 42023), (251, 42062), (269, 42092), (284, 42128), (333, 42239), (345, 42269), (347, 42272), (379, 42338), (440, 42497), (469, 42545), (475, 42563), (498, 42611), (550, 42755), (571, 42815), (603, 42920), (637, 43007),

Gene: QueenBeesly\_11 Start: 6372, Stop: 7364, Start Num: 163

Candidate Starts for QueenBeesly\_11:

(Start: 163 @6372 has 304 MA's), (Start: 190 @6423 has 1 MA's), (Start: 192 @6426 has 2 MA's), (212, 6459), (223, 6474), (299, 6594), (302, 6600), (338, 6687), (365, 6732), (437, 6864), (467, 6903), (494, 6951), (540, 7032), (555, 7074), (588, 7161), (604, 7209), (624, 7275), (651, 7350),

Gene: QueenHazel\_26 Start: 24219, Stop: 25385, Start Num: 102

Candidate Starts for QueenHazel\_26:

(2, 22992), (6, 23166), (28, 23667), (41, 23847), (Start: 102 @24219 has 88 MA's), (123, 24276), (168, 24363), (201, 24411), (235, 24483), (245, 24504), (284, 24588), (305, 24627), (333, 24693), (345, 24723), (359, 24744), (379, 24789), (417, 24885), (434, 24924), (440, 24939), (469, 24978), (510, 25065), (527, 25083), (530, 25089), (553, 25137), (571, 25158), (598, 25230), (620, 25305), (640, 25347), (645, 25368), (648, 25374),

Gene: QuickMath\_32 Start: 28868, Stop: 29869, Start Num: 149

Candidate Starts for QuickMath\_32:

(Start: 149 @28868 has 225 MA's), (Start: 192 @28943 has 2 MA's), (210, 28976), (229, 29006), (239, 29027), (251, 29057), (259, 29069), (Start: 279 @29111 has 1 MA's), (292, 29135), (302, 29150), (306, 29162), (365, 29273), (423, 29387), (433, 29405), (454, 29444), (469, 29468), (484, 29504), (497, 29531), (520, 29570), (559, 29678), (578, 29726), (585, 29738), (601, 29783), (604, 29795), (614, 29825),

Gene: Quico\_32 Start: 27328, Stop: 28329, Start Num: 149

Candidate Starts for Quico\_32:

(Start: 149 @27328 has 225 MA's), (Start: 192 @27403 has 2 MA's), (210, 27436), (229, 27466), (239, 27487), (Start: 279 @27571 has 1 MA's), (292, 27595), (302, 27610), (306, 27622), (365, 27733),

(423, 27847), (433, 27865), (454, 27904), (469, 27928), (484, 27964), (497, 27991), (520, 28030), (538, 28078), (559, 28138), (578, 28186), (585, 28198), (601, 28243), (604, 28255), (614, 28285),

Gene: QuincyRose\_30 Start: 26474, Stop: 27346, Start Num: 221

Candidate Starts for QuincyRose\_30:

(195, 26447), (Start: 221 @26474 has 188 MA's), (Start: 227 @26486 has 1 MA's), (258, 26555), (275, 26582), (287, 26612), (293, 26621), (309, 26657), (313, 26666), (323, 26699), (331, 26717), (347, 26747), (379, 26807), (447, 26942), (469, 26969), (476, 26990), (487, 27014), (521, 27065), (578, 27167), (598, 27203), (604, 27227), (640, 27326), (643, 27335),

Gene: QuinnKiro\_10 Start: 6052, Stop: 7017, Start Num: 153

Candidate Starts for QuinnKiro\_10:

(Start: 153 @6052 has 92 MA's), (Start: 180 @6097 has 5 MA's), (Start: 192 @6118 has 2 MA's), (256, 6238), (267, 6253), (Start: 296 @6292 has 2 MA's), (330, 6376), (365, 6433), (371, 6448), (422, 6529), (430, 6544), (439, 6562), (469, 6613), (474, 6631), (497, 6676), (538, 6772), (561, 6835), (575, 6874), (597, 6925),

Gene: Quisquilliae\_49 Start: 41733, Stop: 43088, Start Num: 82

Candidate Starts for Quisquilliae\_49:

(Start: 82 @41733 has 255 MA's), (98, 41784), (108, 41817), (168, 41946), (170, 41949), (Start: 180 @41964 has 5 MA's), (235, 42060), (251, 42099), (269, 42129), (284, 42165), (333, 42276), (345, 42306), (347, 42309), (379, 42375), (440, 42534), (469, 42582), (475, 42600), (498, 42648), (550, 42792), (571, 42852), (603, 42957), (637, 43044),

Gene: Rabbs\_28 Start: 25284, Stop: 26492, Start Num: 88

Candidate Starts for Rabbs\_28:

(65, 25191), (Start: 88 @25284 has 62 MA's), (154, 25458), (202, 25530), (251, 25629), (255, 25638), (270, 25662), (275, 25671), (284, 25695), (295, 25716), (309, 25743), (314, 25755), (342, 25827), (361, 25866), (440, 26055), (469, 26094), (476, 26115), (495, 26154), (498, 26160),

Gene: Rabinovish\_245 Start: 143336, Stop: 144364, Start Num: 142

Candidate Starts for Rabinovish\_245:

(Start: 142 @143336 has 200 MA's), (Start: 163 @143366 has 304 MA's), (170, 143378), (Start: 192 @143420 has 2 MA's), (229, 143483), (239, 143504), (Start: 279 @143588 has 1 MA's), (302, 143630), (306, 143642), (312, 143657), (344, 143726), (365, 143753), (393, 143807), (411, 143852), (414, 143855), (449, 143933), (462, 143954), (520, 144065), (554, 144155), (559, 144173), (590, 144245), (601, 144278),

Gene: Rachaly\_14 Start: 8129, Stop: 9115, Start Num: 163

Candidate Starts for Rachaly\_14:

(Start: 163 @8129 has 304 MA's), (178, 8159), (Start: 190 @8180 has 1 MA's), (Start: 192 @8183 has 2 MA's), (212, 8216), (330, 8432), (362, 8483), (365, 8489), (368, 8501), (381, 8522), (437, 8612), (474, 8678), (551, 8828), (560, 8849), (604, 8963), (627, 9035),

Gene: Radiance\_31 Start: 27692, Stop: 28693, Start Num: 149

Candidate Starts for Radiance\_31:

(Start: 149 @27692 has 225 MA's), (Start: 192 @27767 has 2 MA's), (210, 27800), (229, 27830), (239, 27851), (251, 27881), (259, 27893), (Start: 279 @27935 has 1 MA's), (292, 27959), (302, 27974), (306, 27986), (365, 28097), (423, 28211), (433, 28229), (454, 28268), (469, 28292), (484, 28328), (520, 28394), (559, 28502), (578, 28550), (585, 28562), (601, 28607), (604, 28619), (614, 28649),

Gene: RagingRooster\_47 Start: 41537, Stop: 42601, Start Num: 138

Candidate Starts for RagingRooster\_47:

(Start: 138 @41537 has 44 MA's), (173, 41600), (219, 41681), (252, 41747), (260, 41762), (269, 41774), (280, 41801), (311, 41858), (314, 41867), (391, 42014), (401, 42029), (422, 42083), (439, 42116), (463, 42155), (470, 42167), (512, 42248), (520, 42266), (523, 42269), (538, 42314), (578, 42425), (617, 42536), (626, 42557), (641, 42590),

Gene: Rahel\_254 Start: 144934, Stop: 145962, Start Num: 142

Candidate Starts for Rahel\_254:

(Start: 142 @144934 has 200 MA's), (Start: 163 @144964 has 304 MA's), (170, 144976), (Start: 192 @145018 has 2 MA's), (229, 145081), (239, 145102), (Start: 279 @145186 has 1 MA's), (302, 145228), (306, 145240), (312, 145255), (344, 145324), (365, 145351), (393, 145405), (411, 145450), (414, 145453), (449, 145531), (462, 145552), (520, 145663), (554, 145753), (559, 145771), (590, 145843), (601, 145876),

Gene: Rajelicia\_9 Start: 5630, Stop: 6598, Start Num: 163

Candidate Starts for Rajelicia\_9:

(Start: 163 @5630 has 304 MA's), (Start: 180 @5663 has 5 MA's), (Start: 190 @5681 has 1 MA's), (Start: 192 @5684 has 2 MA's), (335, 5951), (365, 6002), (368, 6014), (415, 6089), (442, 6152), (450, 6164), (462, 6185), (469, 6197), (474, 6215), (484, 6233), (496, 6257), (520, 6296), (551, 6377), (559, 6401), (561, 6404), (563, 6407), (567, 6416), (600, 6503), (629, 6590),

Gene: Rakim\_36 Start: 31964, Stop: 32821, Start Num: 198

Candidate Starts for Rakim\_36:

(Start: 198 @31964 has 122 MA's), (220, 32003), (232, 32033), (242, 32054), (257, 32090), (275, 32120), (309, 32195), (334, 32243), (336, 32246), (345, 32270), (347, 32273), (356, 32288), (426, 32459), (487, 32573), (495, 32588), (498, 32594), (575, 32636), (576, 32639), (601, 32693), (624, 32771), (641, 32804),

Gene: Ramen\_31 Start: 26460, Stop: 27332, Start Num: 221

Candidate Starts for Ramen\_31:

(195, 26433), (Start: 221 @26460 has 188 MA's), (Start: 227 @26472 has 1 MA's), (258, 26541), (275, 26568), (287, 26598), (293, 26607), (309, 26643), (313, 26652), (323, 26685), (331, 26703), (347, 26733), (379, 26793), (447, 26928), (469, 26955), (476, 26976), (487, 27000), (578, 27153), (598, 27189), (640, 27312), (643, 27321),

Gene: Ramsey\_34 Start: 28342, Stop: 29358, Start Num: 149

Candidate Starts for Ramsey\_34:

(74, 28111), (75, 28114), (83, 28162), (126, 28297), (132, 28306), (Start: 149 @28342 has 225 MA's), (Start: 221 @28474 has 188 MA's), (229, 28495), (239, 28516), (251, 28546), (259, 28558), (Start: 279 @28600 has 1 MA's), (292, 28624), (302, 28639), (306, 28651), (312, 28666), (365, 28762), (423, 28876), (433, 28894), (454, 28933), (469, 28957), (484, 28993), (497, 29020), (511, 29044), (520, 29059), (559, 29167), (578, 29215), (604, 29284), (614, 29314),

Gene: Rando14\_31 Start: 25909, Stop: 26766, Start Num: 221

Candidate Starts for Rando14\_31:

(Start: 221 @25909 has 188 MA's), (Start: 227 @25921 has 1 MA's), (229, 25927), (239, 25948), (242, 25954), (253, 25984), (287, 26044), (293, 26053), (300, 26065), (313, 26098), (323, 26131), (347, 26179), (370, 26224), (416, 26311), (469, 26401), (476, 26422), (487, 26446), (501, 26473), (506, 26482), (521, 26497), (542, 26524), (578, 26584), (579, 26587), (598, 26620), (604, 26644), (620, 26701), (637, 26737), (640, 26746),

Gene: Rapunzel97\_31 Start: 26461, Stop: 27333, Start Num: 221

Candidate Starts for Rapunzel97\_31:

(195, 26434), (Start: 221 @26461 has 188 MA's), (Start: 227 @26473 has 1 MA's), (258, 26542), (275, 26569), (287, 26599), (293, 26608), (309, 26644), (313, 26653), (323, 26686), (331, 26704), (347, 26734), (378, 26791), (379, 26794), (447, 26929), (469, 26956), (476, 26977), (487, 27001), (521, 27052), (578, 27154), (598, 27190), (604, 27214), (640, 27313), (643, 27322),

Gene: Reba\_13 Start: 5704, Stop: 6669, Start Num: 153

Candidate Starts for Reba\_13:

(Start: 153 @5704 has 92 MA's), (Start: 192 @5770 has 2 MA's), (226, 5824), (265, 5902), (330, 6025), (365, 6082), (415, 6154), (430, 6193), (439, 6211), (474, 6280), (535, 6397), (538, 6424), (561, 6487), (597, 6577), (599, 6583),

Gene: Rebeuca\_11 Start: 5885, Stop: 6859, Start Num: 163

Candidate Starts for Rebeuca\_11:

(Start: 163 @5885 has 304 MA's), (Start: 192 @5939 has 2 MA's), (276, 6092), (365, 6254), (371, 6269), (382, 6290), (422, 6362), (425, 6368), (430, 6377), (469, 6446), (474, 6464), (497, 6509), (507, 6527), (538, 6605), (549, 6632), (554, 6647), (561, 6668), (575, 6707), (597, 6758), (609, 6800), (632, 6851),

Gene: RedBird\_31 Start: 27495, Stop: 28496, Start Num: 149

Candidate Starts for RedBird\_31:

(Start: 149 @27495 has 225 MA's), (Start: 163 @27516 has 304 MA's), (Start: 192 @27570 has 2 MA's), (210, 27603), (229, 27633), (239, 27654), (251, 27684), (259, 27696), (Start: 279 @27738 has 1 MA's), (292, 27762), (302, 27777), (306, 27789), (365, 27900), (423, 28014), (433, 28032), (454, 28071), (469, 28095), (484, 28131), (497, 28158), (520, 28197), (538, 28245), (559, 28305), (578, 28353), (585, 28365), (601, 28410), (604, 28422), (614, 28452),

Gene: RedMaple\_49 Start: 41847, Stop: 43202, Start Num: 82

Candidate Starts for RedMaple\_49:

(Start: 82 @41847 has 255 MA's), (98, 41898), (108, 41931), (168, 42060), (170, 42063), (Start: 180 @42078 has 5 MA's), (235, 42174), (251, 42213), (269, 42243), (284, 42279), (333, 42390), (345, 42420), (347, 42423), (379, 42489), (440, 42648), (469, 42696), (475, 42714), (498, 42762), (550, 42906), (571, 42966), (603, 43071), (620, 43125), (637, 43158),

Gene: RedRock\_14 Start: 8396, Stop: 9373, Start Num: 163

Candidate Starts for RedRock\_14:

(135, 8351), (Start: 163 @8396 has 304 MA's), (Start: 192 @8450 has 2 MA's), (312, 8639), (325, 8675), (330, 8687), (365, 8744), (382, 8780), (415, 8828), (430, 8867), (469, 8936), (474, 8954), (497, 8999), (507, 9017), (528, 9059), (538, 9107), (549, 9134), (554, 9149), (561, 9170), (574, 9206), (575, 9209), (595, 9251), (597, 9260),

Gene: Redno2\_47 Start: 39617, Stop: 40489, Start Num: 89

Candidate Starts for Redno2\_47:

(Start: 89 @39617 has 30 MA's), (Start: 97 @39644 has 1 MA's), (Start: 148 @39773 has 26 MA's), (174, 39818), (189, 39839), (206, 39860), (233, 39914), (274, 39995), (403, 40274), (405, 40277), (413, 40301), (424, 40337), (432, 40352), (438, 40364), (444, 40385),

Gene: Refuge\_14 Start: 8748, Stop: 9725, Start Num: 163

Candidate Starts for Refuge\_14:

(Start: 163 @8748 has 304 MA's), (Start: 192 @8802 has 2 MA's), (230, 8862), (259, 8922), (328, 9060), (331, 9069), (365, 9123), (371, 9138), (422, 9231), (425, 9237), (430, 9246), (474, 9333), (538, 9474), (561, 9537), (587, 9600), (595, 9618), (609, 9669),

Gene: Reindeer\_38 Start: 32261, Stop: 33232, Start Num: 169

Candidate Starts for Reindeer\_38:

(160, 32246), (Start: 169 @32261 has 13 MA's), (183, 32285), (191, 32300), (193, 32303), (223, 32351), (243, 32393), (266, 32438), (271, 32441), (281, 32465), (300, 32483), (305, 32495), (308, 32504), (330, 32561), (331, 32564), (346, 32588), (365, 32615), (381, 32648), (410, 32699), (423, 32729), (428, 32738), (430, 32741), (475, 32828), (485, 32843), (494, 32861), (551, 32996), (552, 32999), (578, 33071), (581, 33080), (595, 33104), (598, 33116), (618, 33170), (632, 33203),

Gene: Relief\_10 Start: 5882, Stop: 6862, Start Num: 164

Candidate Starts for Relief\_10:

(Start: 164 @5882 has 109 MA's), (Start: 166 @5885 has 14 MA's), (178, 5909), (Start: 190 @5930 has 1 MA's), (Start: 192 @5933 has 2 MA's), (330, 6182), (365, 6239), (416, 6323), (422, 6344), (437, 6371), (474, 6428), (551, 6578), (598, 6689), (601, 6701), (604, 6713), (627, 6779),

Gene: Remy19\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Remy19\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: Renaissance\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Renaissance\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: Renaud18\_31 Start: 27722, Stop: 28723, Start Num: 149

Candidate Starts for Renaud18\_31:

(Start: 149 @27722 has 225 MA's), (Start: 163 @27743 has 304 MA's), (170, 27755), (Start: 192 @27797 has 2 MA's), (229, 27860), (239, 27881), (251, 27911), (Start: 279 @27965 has 1 MA's), (292, 27989), (306, 28016), (312, 28031), (365, 28127), (422, 28238), (433, 28259), (454, 28298), (462, 28310), (484, 28358), (497, 28385), (511, 28409), (520, 28424), (559, 28532), (578, 28580), (604, 28649), (614, 28679),

Gene: Reptar3000\_32 Start: 27365, Stop: 28156, Start Num: 200

Candidate Starts for Reptar3000\_32:

(Start: 140 @27263 has 3 MA's), (151, 27281), (165, 27308), (Start: 200 @27365 has 20 MA's), (242, 27431), (251, 27455), (264, 27476), (270, 27485), (287, 27524), (293, 27533), (309, 27569), (313, 27578), (350, 27650), (447, 27857), (469, 27884), (476, 27905), (487, 27929), (601, 28007), (604, 28019), (625, 28091),

Gene: ResDef\_11 Start: 6052, Stop: 7017, Start Num: 153

Candidate Starts for ResDef\_11:

(Start: 153 @6052 has 92 MA's), (Start: 180 @6097 has 5 MA's), (Start: 192 @6118 has 2 MA's), (256, 6238), (267, 6253), (Start: 296 @6292 has 2 MA's), (330, 6376), (365, 6433), (371, 6448), (422, 6529), (430, 6544), (439, 6562), (469, 6613), (474, 6631), (497, 6676), (538, 6772), (561, 6835), (575, 6874), (597, 6925),

Gene: Retro23\_11 Start: 6523, Stop: 7515, Start Num: 163

Candidate Starts for Retro23\_11:

(Start: 163 @6523 has 304 MA's), (Start: 180 @6556 has 5 MA's), (Start: 190 @6574 has 1 MA's), (Start: 192 @6577 has 2 MA's), (212, 6610), (223, 6625), (299, 6745), (302, 6751), (312, 6778), (338,

6838), (365, 6883), (437, 7015), (467, 7054), (494, 7102), (540, 7183), (555, 7225), (588, 7312), (601, 7348), (608, 7372), (620, 7414), (624, 7426), (651, 7501),

Gene: Rey\_43 Start: 33168, Stop: 34145, Start Num: 167

Candidate Starts for Rey\_43:

(Start: 167 @33168 has 7 MA's), (183, 33195), (226, 33267), (243, 33303), (266, 33348), (308, 33414), (346, 33498), (365, 33525), (412, 33612), (428, 33648), (430, 33651), (475, 33738), (485, 33753), (520, 33819), (551, 33906), (552, 33909), (557, 33918), (559, 33930), (564, 33939), (572, 33960), (606, 34056),

Gene: RhynO\_11 Start: 5848, Stop: 6822, Start Num: 163

Candidate Starts for RhynO\_11:

(Start: 163 @5848 has 304 MA's), (Start: 192 @5902 has 2 MA's), (223, 5950), (276, 6055), (365, 6217), (371, 6232), (382, 6253), (422, 6325), (430, 6340), (469, 6409), (474, 6427), (497, 6472), (507, 6490), (538, 6568), (549, 6595), (554, 6610), (561, 6631), (575, 6670), (597, 6721), (609, 6763), (632, 6814),

Gene: Rhynn\_10 Start: 6060, Stop: 7028, Start Num: 163

Candidate Starts for Rhynn\_10:

(Start: 163 @6060 has 304 MA's), (Start: 180 @6093 has 5 MA's), (Start: 190 @6111 has 1 MA's), (Start: 192 @6114 has 2 MA's), (335, 6381), (365, 6432), (368, 6444), (415, 6519), (442, 6582), (450, 6594), (462, 6615), (474, 6645), (484, 6663), (496, 6687), (520, 6726), (551, 6807), (559, 6831), (561, 6834), (563, 6837), (567, 6846), (568, 6849), (600, 6933), (614, 6978), (629, 7020),

Gene: Rialto\_35 Start: 29850, Stop: 30851, Start Num: 149

Candidate Starts for Rialto\_35:

(Start: 149 @29850 has 225 MA's), (Start: 192 @29925 has 2 MA's), (210, 29958), (229, 29988), (239, 30009), (Start: 279 @30093 has 1 MA's), (292, 30117), (302, 30132), (306, 30144), (365, 30255), (423, 30369), (433, 30387), (454, 30426), (469, 30450), (484, 30486), (497, 30513), (520, 30552), (538, 30600), (559, 30660), (585, 30720), (600, 30762), (601, 30765), (604, 30777), (614, 30807),

Gene: Ricotta\_49 Start: 41419, Stop: 42774, Start Num: 82

Candidate Starts for Ricotta\_49:

(Start: 82 @41419 has 255 MA's), (98, 41470), (108, 41503), (168, 41632), (170, 41635), (Start: 180 @41650 has 5 MA's), (235, 41746), (251, 41785), (269, 41815), (284, 41851), (333, 41962), (345, 41992), (347, 41995), (379, 42061), (440, 42220), (469, 42268), (475, 42286), (498, 42334), (550, 42478), (571, 42538), (603, 42643), (637, 42730),

Gene: RidgeCB\_10 Start: 5587, Stop: 6555, Start Num: 163

Candidate Starts for RidgeCB\_10:

(Start: 163 @5587 has 304 MA's), (Start: 180 @5620 has 5 MA's), (Start: 190 @5638 has 1 MA's), (Start: 192 @5641 has 2 MA's), (335, 5908), (344, 5926), (365, 5959), (368, 5971), (415, 6046), (442, 6109), (450, 6121), (462, 6142), (469, 6154), (474, 6172), (482, 6187), (484, 6190), (520, 6253), (551, 6334), (559, 6358), (561, 6361), (563, 6364), (567, 6373), (600, 6460), (629, 6547),

Gene: Riggan\_49 Start: 41692, Stop: 43047, Start Num: 82

Candidate Starts for Riggan\_49:

(Start: 82 @41692 has 255 MA's), (98, 41743), (108, 41776), (168, 41905), (170, 41908), (Start: 180 @41923 has 5 MA's), (235, 42019), (251, 42058), (269, 42088), (284, 42124), (333, 42235), (345, 42265), (347, 42268), (379, 42334), (440, 42493), (469, 42541), (475, 42559), (498, 42607), (550, 42751), (571, 42811), (603, 42916), (637, 43003),

Gene: Rimmer\_34 Start: 31424, Stop: 32281, Start Num: 198



Candidate Starts for Rimmer\_34:

(Start: 198 @31424 has 122 MA's), (220, 31463), (232, 31493), (242, 31514), (257, 31550), (275, 31580), (309, 31655), (334, 31703), (336, 31706), (345, 31730), (347, 31733), (356, 31748), (426, 31919), (481, 32018), (487, 32033), (495, 32048), (498, 32054), (575, 32096), (576, 32099), (601, 32153), (624, 32231), (641, 32264),

Gene: Rimu\_51 Start: 41432, Stop: 42787, Start Num: 82

Candidate Starts for Rimu\_51:

(Start: 82 @41432 has 255 MA's), (98, 41483), (108, 41516), (168, 41645), (170, 41648), (Start: 180 @41663 has 5 MA's), (235, 41759), (251, 41798), (269, 41828), (284, 41864), (333, 41975), (345, 42005), (347, 42008), (379, 42074), (440, 42233), (469, 42281), (475, 42299), (498, 42347), (550, 42491), (571, 42551), (603, 42656), (637, 42743),

Gene: Ringer\_10 Start: 6258, Stop: 7226, Start Num: 163

Candidate Starts for Ringer\_10:

(Start: 163 @6258 has 304 MA's), (Start: 180 @6291 has 5 MA's), (Start: 190 @6309 has 1 MA's), (Start: 192 @6312 has 2 MA's), (335, 6579), (365, 6630), (368, 6642), (415, 6717), (442, 6780), (462, 6813), (469, 6825), (474, 6843), (484, 6861), (520, 6924), (551, 7005), (559, 7029), (561, 7032), (563, 7035), (567, 7044), (600, 7131), (614, 7176), (629, 7218),

Gene: Riparian\_39 Start: 34810, Stop: 35859, Start Num: 142

Candidate Starts for Riparian\_39:

(Start: 142 @34810 has 200 MA's), (Start: 192 @34894 has 2 MA's), (199, 34903), (211, 34927), (229, 34957), (239, 34978), (254, 35014), (269, 35035), (274, 35044), (Start: 279 @35062 has 1 MA's), (314, 35131), (394, 35284), (432, 35383), (448, 35410), (484, 35482), (515, 35536), (575, 35689), (587, 35713), (590, 35722), (603, 35764), (604, 35767), (606, 35773), (610, 35782), (622, 35818), (626, 35827), (632, 35836),

Gene: Rita\_32 Start: 27771, Stop: 28772, Start Num: 149

Candidate Starts for Rita\_32:

(Start: 149 @27771 has 225 MA's), (Start: 192 @27846 has 2 MA's), (210, 27879), (229, 27909), (239, 27930), (Start: 279 @28014 has 1 MA's), (306, 28065), (365, 28176), (422, 28287), (433, 28308), (454, 28347), (469, 28371), (484, 28407), (497, 28434), (511, 28458), (520, 28473), (559, 28581), (578, 28629), (604, 28698), (614, 28728),

Gene: Rita1961\_47 Start: 41520, Stop: 42584, Start Num: 138

Candidate Starts for Rita1961\_47:

(Start: 138 @41520 has 44 MA's), (173, 41583), (219, 41664), (252, 41730), (260, 41745), (269, 41757), (280, 41784), (311, 41841), (314, 41850), (391, 41997), (401, 42012), (422, 42066), (439, 42099), (463, 42138), (470, 42150), (512, 42231), (520, 42249), (523, 42252), (578, 42408), (617, 42519), (626, 42540), (641, 42573),

Gene: RitaG\_32 Start: 27960, Stop: 28961, Start Num: 149

Candidate Starts for RitaG\_32:

(Start: 149 @27960 has 225 MA's), (Start: 192 @28035 has 2 MA's), (210, 28068), (229, 28098), (239, 28119), (Start: 279 @28203 has 1 MA's), (292, 28227), (302, 28242), (306, 28254), (365, 28365), (423, 28479), (433, 28497), (454, 28536), (469, 28560), (484, 28596), (497, 28623), (520, 28662), (559, 28770), (585, 28830), (604, 28887), (614, 28917),

Gene: RiverMonster\_35 Start: 31613, Stop: 32470, Start Num: 198

Candidate Starts for RiverMonster\_35:

(Start: 198 @31613 has 122 MA's), (220, 31652), (232, 31682), (242, 31703), (257, 31739), (275, 31769), (309, 31844), (334, 31892), (336, 31895), (345, 31919), (347, 31922), (356, 31937), (426,

32108), (487, 32222), (495, 32237), (498, 32243), (575, 32285), (576, 32288), (601, 32342), (624, 32420), (641, 32453),

Gene: Rizal\_241 Start: 142749, Stop: 143777, Start Num: 142

Candidate Starts for Rizal\_241:

(Start: 142 @142749 has 200 MA's), (Start: 163 @142779 has 304 MA's), (170, 142791), (Start: 192 @142833 has 2 MA's), (229, 142896), (239, 142917), (Start: 279 @143001 has 1 MA's), (302, 143043), (306, 143055), (312, 143070), (344, 143139), (365, 143166), (393, 143220), (411, 143265), (414, 143268), (449, 143346), (462, 143367), (520, 143478), (554, 143568), (559, 143586), (590, 143658), (601, 143691),

Gene: RoMag\_247 Start: 144530, Stop: 145558, Start Num: 142

Candidate Starts for RoMag\_247:

(Start: 142 @144530 has 200 MA's), (Start: 163 @144560 has 304 MA's), (170, 144572), (Start: 192 @144614 has 2 MA's), (229, 144677), (239, 144698), (Start: 279 @144782 has 1 MA's), (302, 144824), (306, 144836), (312, 144851), (344, 144920), (365, 144947), (393, 145001), (411, 145046), (414, 145049), (449, 145127), (462, 145148), (520, 145259), (554, 145349), (559, 145367), (590, 145439), (601, 145472),

Gene: Roary\_8 Start: 4837, Stop: 5646, Start Num: 221

Candidate Starts for Roary\_8:

(Start: 221 @4837 has 188 MA's), (263, 4921), (284, 4966), (337, 5092), (440, 5326), (469, 5365), (475, 5383), (490, 5416), (500, 5434), (578, 5479), (602, 5503), (645, 5632),

Gene: Robyn\_48 Start: 41288, Stop: 42643, Start Num: 82

Candidate Starts for Robyn\_48:

(Start: 82 @41288 has 255 MA's), (98, 41339), (108, 41372), (168, 41501), (170, 41504), (Start: 180 @41519 has 5 MA's), (235, 41615), (251, 41654), (269, 41684), (284, 41720), (320, 41795), (333, 41831), (345, 41861), (347, 41864), (379, 41930), (440, 42089), (469, 42137), (475, 42155), (498, 42203), (550, 42347), (571, 42407), (603, 42512), (637, 42599),

Gene: Rockne\_31 Start: 27499, Stop: 28500, Start Num: 149

Candidate Starts for Rockne\_31:

(69, 27247), (107, 27400), (Start: 149 @27499 has 225 MA's), (Start: 163 @27520 has 304 MA's), (170, 27532), (Start: 192 @27574 has 2 MA's), (229, 27637), (239, 27658), (251, 27688), (Start: 279 @27742 has 1 MA's), (292, 27766), (306, 27793), (365, 27904), (423, 28018), (433, 28036), (454, 28075), (469, 28099), (484, 28135), (497, 28162), (520, 28201), (538, 28249), (559, 28309), (585, 28369), (604, 28426), (614, 28456),

Gene: Rockstar\_10 Start: 5610, Stop: 6350, Start Num: 285

Candidate Starts for Rockstar\_10:

(Start: 285 @5610 has 17 MA's), (330, 5697), (365, 5754), (368, 5766), (371, 5769), (385, 5793), (400, 5808), (422, 5856), (425, 5862), (439, 5889), (474, 5958), (512, 6030), (516, 6042), (535, 6072), (538, 6099), (549, 6126), (559, 6159), (561, 6162), (575, 6201), (598, 6255), (631, 6342),

Gene: RockyHorror\_32 Start: 27441, Stop: 28442, Start Num: 149

Candidate Starts for RockyHorror\_32:

(42, 26961), (47, 27000), (62, 27153), (69, 27189), (Start: 149 @27441 has 225 MA's), (Start: 192 @27516 has 2 MA's), (210, 27549), (229, 27579), (239, 27600), (Start: 279 @27684 has 1 MA's), (292, 27708), (302, 27723), (306, 27735), (365, 27846), (423, 27960), (433, 27978), (454, 28017), (469, 28041), (484, 28077), (497, 28104), (520, 28143), (559, 28251), (585, 28311), (601, 28356), (604, 28368), (614, 28398),

Gene: Rohr\_11 Start: 6266, Stop: 7234, Start Num: 163

Candidate Starts for Rohr\_11:

(Start: 163 @6266 has 304 MA's), (Start: 180 @6299 has 5 MA's), (Start: 190 @6317 has 1 MA's), (Start: 192 @6320 has 2 MA's), (335, 6587), (365, 6638), (368, 6650), (415, 6725), (442, 6788), (462, 6821), (469, 6833), (474, 6851), (482, 6866), (484, 6869), (496, 6893), (520, 6932), (551, 7013), (559, 7037), (561, 7040), (563, 7043), (567, 7052), (600, 7139), (614, 7184), (629, 7226),

Gene: Roliet\_49 Start: 41705, Stop: 43060, Start Num: 82

Candidate Starts for Roliet\_49:

(Start: 82 @41705 has 255 MA's), (98, 41756), (108, 41789), (114, 41807), (168, 41918), (170, 41921), (Start: 180 @41936 has 5 MA's), (235, 42032), (251, 42071), (269, 42101), (284, 42137), (333, 42248), (345, 42278), (347, 42281), (379, 42347), (440, 42506), (469, 42554), (475, 42572), (498, 42620), (550, 42764), (571, 42824), (603, 42929), (637, 43016),

Gene: RomaT\_47 Start: 42310, Stop: 43374, Start Num: 138

Candidate Starts for RomaT\_47:

(Start: 138 @42310 has 44 MA's), (173, 42373), (219, 42454), (252, 42520), (260, 42535), (269, 42547), (280, 42574), (311, 42631), (314, 42640), (391, 42787), (401, 42802), (422, 42856), (439, 42889), (463, 42928), (470, 42940), (512, 43021), (520, 43039), (523, 43042), (538, 43087), (578, 43198), (617, 43309), (626, 43330), (641, 43363),

Gene: Romney\_10 Start: 5880, Stop: 6860, Start Num: 164

Candidate Starts for Romney\_10:

(Start: 164 @5880 has 109 MA's), (Start: 166 @5883 has 14 MA's), (178, 5907), (Start: 190 @5928 has 1 MA's), (Start: 192 @5931 has 2 MA's), (330, 6180), (365, 6237), (416, 6321), (422, 6342), (437, 6369), (474, 6426), (551, 6576), (598, 6687), (601, 6699), (604, 6711), (627, 6777),

Gene: Ronan\_248 Start: 142911, Stop: 143939, Start Num: 142

Candidate Starts for Ronan\_248:

(Start: 142 @142911 has 200 MA's), (Start: 163 @142941 has 304 MA's), (Start: 192 @142995 has 2 MA's), (229, 143058), (239, 143079), (Start: 279 @143163 has 1 MA's), (302, 143205), (306, 143217), (312, 143232), (344, 143301), (365, 143328), (393, 143382), (411, 143427), (414, 143430), (449, 143508), (462, 143529), (520, 143640), (554, 143730), (559, 143748), (590, 143820), (601, 143853),

Gene: Roosevelt\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Roosevelt\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Roots515\_255 Start: 146075, Stop: 147103, Start Num: 142

Candidate Starts for Roots515\_255:

(Start: 142 @146075 has 200 MA's), (Start: 163 @146105 has 304 MA's), (170, 146117), (Start: 192 @146159 has 2 MA's), (229, 146222), (239, 146243), (Start: 279 @146327 has 1 MA's), (302, 146369), (306, 146381), (312, 146396), (344, 146465), (365, 146492), (393, 146546), (411, 146591), (414, 146594), (449, 146672), (462, 146693), (520, 146804), (554, 146894), (559, 146912), (590, 146984), (601, 147017),

Gene: Rope\_39 Start: 34990, Stop: 36039, Start Num: 142

Candidate Starts for Rope\_39:

(Start: 142 @34990 has 200 MA's), (Start: 192 @35074 has 2 MA's), (199, 35083), (211, 35107), (229, 35137), (239, 35158), (254, 35194), (269, 35215), (274, 35224), (Start: 279 @35242 has 1 MA's), (314, 35311), (394, 35464), (432, 35563), (448, 35590), (484, 35662), (515, 35716), (575, 35869),

(587, 35893), (590, 35902), (603, 35944), (604, 35947), (606, 35953), (610, 35962), (622, 35998), (626, 36007), (632, 36016),

Gene: Roscoe\_50 Start: 41942, Stop: 43297, Start Num: 82

Candidate Starts for Roscoe\_50:

(Start: 82 @41942 has 255 MA's), (98, 41993), (108, 42026), (168, 42155), (170, 42158), (Start: 180 @42173 has 5 MA's), (235, 42269), (251, 42308), (269, 42338), (284, 42374), (333, 42485), (345, 42515), (347, 42518), (379, 42584), (440, 42743), (469, 42791), (475, 42809), (498, 42857), (550, 43001), (571, 43061), (603, 43166), (637, 43253),

Gene: Rose5\_26 Start: 25547, Stop: 26578, Start Num: 142

Candidate Starts for Rose5\_26:

(Start: 142 @25547 has 200 MA's), (235, 25700), (236, 25703), (247, 25727), (251, 25739), (261, 25757), (272, 25775), (278, 25793), (281, 25799), (286, 25808), (Start: 294 @25823 has 16 MA's), (303, 25838), (330, 25910), (365, 25967), (385, 26006), (425, 26084), (430, 26093), (431, 26096), (439, 26111), (467, 26165), (474, 26186), (482, 26201), (526, 26285), (537, 26315), (561, 26384), (567, 26396), (575, 26420), (581, 26438), (585, 26441), (590, 26453), (592, 26456), (601, 26486), (604, 26498),

Gene: Rosmarinus\_31 Start: 26482, Stop: 27354, Start Num: 221

Candidate Starts for Rosmarinus\_31:

(76, 26152), (151, 26380), (195, 26455), (Start: 221 @26482 has 188 MA's), (Start: 227 @26494 has 1 MA's), (258, 26563), (275, 26590), (287, 26620), (293, 26629), (309, 26665), (313, 26674), (323, 26707), (331, 26725), (347, 26755), (379, 26815), (447, 26950), (469, 26977), (476, 26998), (487, 27022), (521, 27073), (578, 27175), (598, 27211), (604, 27235), (640, 27334), (643, 27343),

Gene: Roy17\_49 Start: 41396, Stop: 42751, Start Num: 82

Candidate Starts for Roy17\_49:

(Start: 82 @41396 has 255 MA's), (98, 41447), (108, 41480), (168, 41609), (170, 41612), (Start: 180 @41627 has 5 MA's), (235, 41723), (251, 41762), (269, 41792), (284, 41828), (333, 41939), (345, 41969), (347, 41972), (379, 42038), (440, 42197), (469, 42245), (475, 42263), (498, 42311), (550, 42455), (571, 42515), (603, 42620), (637, 42707),

Gene: Royals2015\_31 Start: 27614, Stop: 28615, Start Num: 149

Candidate Starts for Royals2015\_31:

(Start: 149 @27614 has 225 MA's), (Start: 192 @27689 has 2 MA's), (229, 27752), (239, 27773), (Start: 279 @27857 has 1 MA's), (292, 27881), (302, 27896), (306, 27908), (365, 28019), (423, 28133), (433, 28151), (454, 28190), (469, 28214), (484, 28250), (497, 28277), (520, 28316), (538, 28364), (559, 28424), (585, 28484), (601, 28529), (604, 28541), (614, 28571),

Gene: Rubeelu\_27 Start: 22757, Stop: 23917, Start Num: 102

Candidate Starts for Rubeelu\_27:

(10, 21803), (15, 21998), (31, 22232), (41, 22385), (Start: 102 @22757 has 88 MA's), (123, 22814), (168, 22901), (235, 23021), (305, 23165), (309, 23177), (333, 23231), (345, 23261), (359, 23282), (379, 23327), (440, 23477), (447, 23489), (469, 23516), (476, 23537), (500, 23585), (510, 23603), (563, 23681), (572, 23696), (598, 23762), (640, 23879),

Gene: Rubeus\_10 Start: 5590, Stop: 6558, Start Num: 163

Candidate Starts for Rubeus\_10:

(Start: 163 @5590 has 304 MA's), (Start: 180 @5623 has 5 MA's), (Start: 190 @5641 has 1 MA's), (Start: 192 @5644 has 2 MA's), (335, 5911), (365, 5962), (368, 5974), (415, 6049), (442, 6112), (450, 6124), (462, 6145), (469, 6157), (474, 6175), (484, 6193), (496, 6217), (520, 6256), (551, 6337), (559, 6361), (561, 6364), (563, 6367), (567, 6376), (600, 6463), (629, 6550),

Gene: Ruby\_33 Start: 28455, Stop: 29525, Start Num: 149

Candidate Starts for Ruby\_33:

(122, 28404), (Start: 149 @28455 has 225 MA's), (Start: 163 @28476 has 304 MA's), (Start: 166 @28482 has 14 MA's), (Start: 180 @28509 has 5 MA's), (185, 28518), (219, 28578), (235, 28605), (269, 28671), (297, 28725), (314, 28767), (335, 28818), (377, 28902), (391, 28932), (404, 28965), (431, 29040), (442, 29061), (512, 29190), (538, 29262), (574, 29358), (578, 29370), (604, 29439), (623, 29496), (627, 29505),

Gene: Rufus\_10 Start: 5647, Stop: 6615, Start Num: 163

Candidate Starts for Rufus\_10:

(Start: 163 @5647 has 304 MA's), (Start: 180 @5680 has 5 MA's), (Start: 190 @5698 has 1 MA's), (Start: 192 @5701 has 2 MA's), (335, 5968), (365, 6019), (368, 6031), (415, 6106), (442, 6169), (462, 6202), (474, 6232), (484, 6250), (496, 6274), (520, 6313), (551, 6394), (559, 6418), (561, 6421), (563, 6424), (567, 6433), (600, 6520), (629, 6607),

Gene: Ruin\_10 Start: 5880, Stop: 6860, Start Num: 164

Candidate Starts for Ruin\_10:

(Start: 164 @5880 has 109 MA's), (Start: 166 @5883 has 14 MA's), (178, 5907), (Start: 190 @5928 has 1 MA's), (Start: 192 @5931 has 2 MA's), (330, 6180), (365, 6237), (416, 6321), (422, 6342), (437, 6369), (474, 6426), (551, 6576), (598, 6687), (601, 6699), (604, 6711), (627, 6777),

Gene: Rummer\_12 Start: 6046, Stop: 7011, Start Num: 153

Candidate Starts for Rummer\_12:

(Start: 153 @6046 has 92 MA's), (Start: 180 @6091 has 5 MA's), (Start: 192 @6112 has 2 MA's), (256, 6232), (330, 6370), (365, 6427), (371, 6442), (422, 6523), (430, 6538), (439, 6556), (469, 6607), (474, 6625), (497, 6670), (538, 6766), (561, 6829), (575, 6868), (597, 6919),

Gene: Rumpelstiltskin\_28 Start: 26523, Stop: 27551, Start Num: 142

Candidate Starts for Rumpelstiltskin\_28:

(Start: 142 @26523 has 200 MA's), (233, 26673), (Start: 296 @26802 has 2 MA's), (301, 26811), (365, 26943), (425, 27060), (430, 27069), (431, 27072), (439, 27087), (474, 27162), (482, 27177), (537, 27291), (548, 27318), (557, 27345), (561, 27360), (567, 27372), (595, 27438),

Gene: Ruotula\_9 Start: 6208, Stop: 7176, Start Num: 163

Candidate Starts for Ruotula\_9:

(Start: 163 @6208 has 304 MA's), (Start: 180 @6241 has 5 MA's), (Start: 190 @6259 has 1 MA's), (Start: 192 @6262 has 2 MA's), (335, 6529), (365, 6580), (368, 6592), (415, 6667), (442, 6730), (450, 6742), (462, 6763), (469, 6775), (474, 6793), (484, 6811), (496, 6835), (520, 6874), (551, 6955), (559, 6979), (561, 6982), (563, 6985), (567, 6994), (600, 7081), (629, 7168),

Gene: Rutherferd\_11 Start: 6108, Stop: 7076, Start Num: 163

Candidate Starts for Rutherferd\_11:

(Start: 163 @6108 has 304 MA's), (Start: 180 @6141 has 5 MA's), (Start: 190 @6159 has 1 MA's), (Start: 192 @6162 has 2 MA's), (302, 6351), (335, 6429), (365, 6480), (368, 6492), (415, 6567), (442, 6630), (462, 6663), (469, 6675), (474, 6693), (484, 6711), (496, 6735), (520, 6774), (551, 6855), (559, 6879), (561, 6882), (563, 6885), (567, 6894), (600, 6981), (629, 7068),

Gene: Ruthiejr\_33 Start: 27519, Stop: 28310, Start Num: 200

Candidate Starts for Ruthiejr\_33:

(Start: 200 @27519 has 20 MA's), (Start: 227 @27552 has 1 MA's), (242, 27585), (251, 27609), (264, 27630), (270, 27639), (283, 27669), (287, 27678), (293, 27687), (309, 27723), (350, 27804), (447, 28011), (469, 28038), (476, 28059), (483, 28074), (487, 28083), (576, 28107), (601, 28161), (604,

28173), (625, 28245),

Gene: Ryadel\_71 Start: 44253, Stop: 45293, Start Num: 148

Candidate Starts for Ryadel\_71:

(Start: 148 @44253 has 26 MA's), (Start: 192 @44328 has 2 MA's), (229, 44409), (232, 44415), (239, 44430), (278, 44511), (Start: 279 @44514 has 1 MA's), (306, 44568), (312, 44583), (365, 44679), (385, 44718), (397, 44748), (411, 44778), (414, 44781), (425, 44814), (462, 44880), (479, 44919), (484, 44928), (497, 44955), (520, 44994), (589, 45168), (604, 45219),

Gene: SDcharge11\_49 Start: 41683, Stop: 43038, Start Num: 82

Candidate Starts for SDcharge11\_49:

(Start: 82 @41683 has 255 MA's), (98, 41734), (108, 41767), (114, 41785), (168, 41896), (170, 41899), (Start: 180 @41914 has 5 MA's), (235, 42010), (251, 42049), (269, 42079), (284, 42115), (333, 42226), (345, 42256), (347, 42259), (379, 42325), (440, 42484), (469, 42532), (475, 42550), (498, 42598), (550, 42742), (571, 42802), (603, 42907), (637, 42994),

Gene: SG4\_32 Start: 28164, Stop: 29234, Start Num: 149

Candidate Starts for SG4\_32:

(122, 28110), (Start: 149 @28164 has 225 MA's), (269, 28380), (270, 28383), (297, 28434), (314, 28476), (335, 28527), (391, 28641), (404, 28674), (431, 28749), (442, 28770), (512, 28899), (538, 28971), (574, 29067), (578, 29079), (604, 29148), (623, 29205), (627, 29214),

Gene: STLscum\_11 Start: 6179, Stop: 7147, Start Num: 163

Candidate Starts for STLscum\_11:

(Start: 163 @6179 has 304 MA's), (Start: 180 @6212 has 5 MA's), (Start: 190 @6230 has 1 MA's), (Start: 192 @6233 has 2 MA's), (302, 6422), (335, 6500), (365, 6551), (368, 6563), (415, 6638), (442, 6701), (462, 6734), (469, 6746), (474, 6764), (484, 6782), (520, 6845), (551, 6926), (559, 6950), (561, 6953), (563, 6956), (567, 6965), (600, 7052), (614, 7097), (629, 7139),

Gene: Saal\_31 Start: 27571, Stop: 28572, Start Num: 149

Candidate Starts for Saal\_31:

(Start: 149 @27571 has 225 MA's), (Start: 192 @27646 has 2 MA's), (210, 27679), (229, 27709), (239, 27730), (251, 27760), (259, 27772), (Start: 279 @27814 has 1 MA's), (292, 27838), (302, 27853), (306, 27865), (365, 27976), (423, 28090), (433, 28108), (454, 28147), (469, 28171), (484, 28207), (520, 28273), (559, 28381), (578, 28429), (585, 28441), (601, 28486), (604, 28498), (614, 28528),

Gene: Sabbb\_32 Start: 27916, Stop: 28917, Start Num: 149

Candidate Starts for Sabbb\_32:

(Start: 149 @27916 has 225 MA's), (Start: 192 @27991 has 2 MA's), (210, 28024), (229, 28054), (239, 28075), (251, 28105), (Start: 279 @28159 has 1 MA's), (292, 28183), (302, 28198), (306, 28210), (365, 28321), (423, 28435), (433, 28453), (454, 28492), (469, 28516), (484, 28552), (497, 28579), (520, 28618), (559, 28726), (578, 28774), (585, 28786), (601, 28831), (604, 28843), (614, 28873),

Gene: Sabertooth\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Sabertooth\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Sabia\_12 Start: 5955, Stop: 6920, Start Num: 153

Candidate Starts for Sabia\_12:

(Start: 153 @5955 has 92 MA's), (Start: 180 @6000 has 5 MA's), (Start: 192 @6021 has 2 MA's), (256, 6141), (330, 6279), (365, 6336), (371, 6351), (422, 6432), (430, 6447), (439, 6465), (469, 6516),

(474, 6534), (497, 6579), (538, 6675), (561, 6738), (575, 6777), (597, 6828),

Gene: Sabinator\_12 Start: 5960, Stop: 6925, Start Num: 153

Candidate Starts for Sabinator\_12:

(Start: 153 @5960 has 92 MA's), (Start: 180 @6005 has 5 MA's), (Start: 192 @6026 has 2 MA's), (256, 6146), (365, 6341), (371, 6356), (422, 6437), (430, 6452), (439, 6470), (469, 6521), (474, 6539), (497, 6584), (538, 6680), (561, 6743), (575, 6782), (597, 6833),

Gene: Sagefire\_11 Start: 6861, Stop: 7829, Start Num: 163

Candidate Starts for Sagefire\_11:

(Start: 163 @6861 has 304 MA's), (Start: 180 @6894 has 5 MA's), (Start: 190 @6912 has 1 MA's), (Start: 192 @6915 has 2 MA's), (335, 7182), (365, 7233), (368, 7245), (415, 7320), (442, 7383), (450, 7395), (462, 7416), (469, 7428), (474, 7446), (484, 7464), (496, 7488), (520, 7527), (551, 7608), (559, 7632), (561, 7635), (563, 7638), (567, 7647), (600, 7734), (629, 7821),

Gene: Saints25\_36 Start: 31516, Stop: 32373, Start Num: 198

Candidate Starts for Saints25\_36:

(Start: 198 @31516 has 122 MA's), (220, 31555), (232, 31585), (242, 31606), (257, 31642), (275, 31672), (309, 31747), (334, 31795), (336, 31798), (345, 31822), (347, 31825), (356, 31840), (426, 32011), (487, 32125), (495, 32140), (498, 32146), (575, 32188), (576, 32191), (601, 32245), (624, 32323), (641, 32356),

Gene: Saintus\_8 Start: 4850, Stop: 5659, Start Num: 221

Candidate Starts for Saintus\_8:

(Start: 221 @4850 has 188 MA's), (263, 4934), (284, 4979), (337, 5105), (440, 5339), (469, 5378), (475, 5396), (490, 5429), (500, 5447), (602, 5516), (645, 5645),

Gene: Salacia\_254 Start: 146399, Stop: 147427, Start Num: 142

Candidate Starts for Salacia\_254:

(Start: 142 @146399 has 200 MA's), (Start: 163 @146429 has 304 MA's), (170, 146441), (Start: 192 @146483 has 2 MA's), (229, 146546), (239, 146567), (Start: 279 @146651 has 1 MA's), (302, 146693), (306, 146705), (312, 146720), (344, 146789), (365, 146816), (393, 146870), (411, 146915), (414, 146918), (449, 146996), (462, 147017), (520, 147128), (554, 147218), (559, 147236), (590, 147308), (601, 147341),

Gene: SamScheppers\_32 Start: 28032, Stop: 28823, Start Num: 200

Candidate Starts for SamScheppers\_32:

(Start: 200 @28032 has 20 MA's), (Start: 227 @28065 has 1 MA's), (242, 28098), (251, 28122), (264, 28143), (270, 28152), (283, 28182), (287, 28191), (293, 28200), (309, 28236), (350, 28317), (447, 28524), (469, 28551), (476, 28572), (483, 28587), (487, 28596), (576, 28620), (601, 28674), (604, 28686), (625, 28758),

Gene: Samaymay\_49 Start: 41696, Stop: 43051, Start Num: 82

Candidate Starts for Samaymay\_49:

(Start: 82 @41696 has 255 MA's), (98, 41747), (108, 41780), (168, 41909), (170, 41912), (Start: 180 @41927 has 5 MA's), (235, 42023), (251, 42062), (269, 42092), (284, 42128), (333, 42239), (345, 42269), (347, 42272), (379, 42338), (440, 42497), (469, 42545), (475, 42563), (498, 42611), (550, 42755), (571, 42815), (603, 42920), (637, 43007),

Gene: Samty\_28 Start: 26853, Stop: 27896, Start Num: 102

Candidate Starts for Samty\_28:

(Start: 102 @26853 has 88 MA's), (Start: 103 @26859 has 3 MA's), (112, 26886), (120, 26907), (143, 26958), (186, 27039), (245, 27144), (289, 27225), (293, 27231), (341, 27327), (349, 27345), (352,

27351), (355, 27357), (392, 27429), (418, 27486), (420, 27489), (452, 27546), (489, 27621), (499, 27642), (572, 27666), (576, 27681), (580, 27693), (604, 27750), (640, 27852), (645, 27873),

Gene: SamuelLPlaqson\_31 Start: 26382, Stop: 27254, Start Num: 221

Candidate Starts for SamuelLPlaqson\_31:

(151, 26280), (195, 26355), (Start: 221 @26382 has 188 MA's), (Start: 227 @26394 has 1 MA's), (258, 26463), (275, 26490), (287, 26520), (293, 26529), (309, 26565), (313, 26574), (323, 26607), (331, 26625), (379, 26715), (447, 26850), (469, 26877), (476, 26898), (487, 26922), (521, 26973), (578, 27075), (598, 27111), (604, 27135), (640, 27234), (643, 27243),

Gene: Sandaddy\_9 Start: 6038, Stop: 6952, Start Num: 192

Candidate Starts for Sandaddy\_9:

(Start: 163 @5984 has 304 MA's), (Start: 180 @6017 has 5 MA's), (Start: 190 @6035 has 1 MA's), (Start: 192 @6038 has 2 MA's), (335, 6305), (365, 6356), (368, 6368), (415, 6443), (442, 6506), (462, 6539), (469, 6551), (474, 6569), (484, 6587), (520, 6650), (551, 6731), (559, 6755), (561, 6758), (563, 6761), (567, 6770), (600, 6857), (614, 6902), (629, 6944),

Gene: Sandalphon\_32 Start: 28302, Stop: 29303, Start Num: 149

Candidate Starts for Sandalphon\_32:

(Start: 149 @28302 has 225 MA's), (Start: 192 @28377 has 2 MA's), (210, 28410), (229, 28440), (239, 28461), (Start: 279 @28545 has 1 MA's), (292, 28569), (302, 28584), (306, 28596), (365, 28707), (423, 28821), (433, 28839), (454, 28878), (469, 28902), (484, 28938), (497, 28965), (520, 29004), (559, 29112), (585, 29172), (604, 29229), (614, 29259),

Gene: Sanya\_9 Start: 6646, Stop: 7614, Start Num: 163

Candidate Starts for Sanya\_9:

(Start: 163 @6646 has 304 MA's), (Start: 180 @6679 has 5 MA's), (Start: 190 @6697 has 1 MA's), (Start: 192 @6700 has 2 MA's), (335, 6967), (365, 7018), (368, 7030), (415, 7105), (442, 7168), (450, 7180), (462, 7201), (469, 7213), (474, 7231), (484, 7249), (496, 7273), (520, 7312), (551, 7393), (559, 7417), (561, 7420), (563, 7423), (567, 7432), (600, 7519), (629, 7606),

Gene: SarFire\_10 Start: 5845, Stop: 6813, Start Num: 163

Candidate Starts for SarFire\_10:

(Start: 163 @5845 has 304 MA's), (Start: 180 @5878 has 5 MA's), (Start: 190 @5896 has 1 MA's), (Start: 192 @5899 has 2 MA's), (335, 6166), (357, 6202), (365, 6217), (368, 6229), (415, 6304), (442, 6367), (462, 6400), (469, 6412), (474, 6430), (484, 6448), (496, 6472), (520, 6511), (551, 6592), (559, 6616), (561, 6619), (563, 6622), (567, 6631), (600, 6718), (629, 6805),

Gene: Sarma624\_27 Start: 23733, Stop: 24731, Start Num: 149

Candidate Starts for Sarma624\_27:

(Start: 149 @23733 has 225 MA's), (Start: 192 @23808 has 2 MA's), (229, 23868), (239, 23889), (Start: 279 @23973 has 1 MA's), (306, 24024), (312, 24039), (365, 24135), (415, 24222), (422, 24246), (433, 24267), (454, 24306), (462, 24318), (484, 24366), (497, 24393), (511, 24417), (520, 24432), (559, 24540), (578, 24588), (604, 24657), (614, 24687),

Gene: Sassafra\_32 Start: 28184, Stop: 29200, Start Num: 149

Candidate Starts for Sassafra\_32:

(74, 27953), (75, 27956), (83, 28004), (126, 28139), (132, 28148), (Start: 149 @28184 has 225 MA's), (Start: 221 @28316 has 188 MA's), (229, 28337), (239, 28358), (251, 28388), (259, 28400), (Start: 279 @28442 has 1 MA's), (306, 28493), (365, 28604), (423, 28718), (433, 28736), (454, 28775), (469, 28799), (484, 28835), (497, 28862), (520, 28901), (538, 28949), (559, 29009), (578, 29057), (585, 29069), (601, 29114), (604, 29126), (614, 29156),



Gene: Sassay\_34 Start: 31362, Stop: 32219, Start Num: 198

Candidate Starts for Sassay\_34:

(Start: 198 @31362 has 122 MA's), (220, 31401), (232, 31431), (242, 31452), (257, 31488), (275, 31518), (309, 31593), (334, 31641), (336, 31644), (345, 31668), (347, 31671), (356, 31686), (426, 31857), (487, 31971), (495, 31986), (498, 31992), (575, 32034), (576, 32037), (601, 32091), (624, 32169), (641, 32202),

Gene: SassyB\_31 Start: 27830, Stop: 28831, Start Num: 149

Candidate Starts for SassyB\_31:

(Start: 149 @27830 has 225 MA's), (Start: 192 @27905 has 2 MA's), (210, 27938), (229, 27968), (239, 27989), (Start: 279 @28073 has 1 MA's), (292, 28097), (302, 28112), (306, 28124), (365, 28235), (433, 28367), (454, 28406), (469, 28430), (484, 28466), (497, 28493), (520, 28532), (559, 28640), (585, 28700), (601, 28745), (604, 28757), (614, 28787),

Gene: SassyCat97\_48 Start: 41423, Stop: 42778, Start Num: 82

Candidate Starts for SassyCat97\_48:

(Start: 82 @41423 has 255 MA's), (98, 41474), (108, 41507), (114, 41525), (168, 41636), (170, 41639), (Start: 180 @41654 has 5 MA's), (235, 41750), (251, 41789), (269, 41819), (284, 41855), (333, 41966), (345, 41996), (347, 41999), (379, 42065), (440, 42224), (469, 42272), (475, 42290), (498, 42338), (550, 42482), (571, 42542), (603, 42647), (637, 42734),

Gene: SaturnRing\_10 Start: 5739, Stop: 6479, Start Num: 285

Candidate Starts for SaturnRing\_10:

(209, 5622), (Start: 285 @5739 has 17 MA's), (330, 5826), (365, 5883), (368, 5895), (371, 5898), (385, 5922), (400, 5937), (408, 5955), (422, 5985), (425, 5991), (430, 6000), (439, 6018), (469, 6069), (474, 6087), (512, 6159), (535, 6201), (538, 6228), (549, 6255), (559, 6288), (561, 6291), (575, 6330), (631, 6471),

Gene: Sauce\_249 Start: 144258, Stop: 145286, Start Num: 142

Candidate Starts for Sauce\_249:

(Start: 142 @144258 has 200 MA's), (Start: 163 @144288 has 304 MA's), (170, 144300), (Start: 192 @144342 has 2 MA's), (229, 144405), (239, 144426), (Start: 279 @144510 has 1 MA's), (302, 144552), (306, 144564), (312, 144579), (344, 144648), (365, 144675), (393, 144729), (411, 144774), (414, 144777), (449, 144855), (462, 144876), (520, 144987), (554, 145077), (559, 145095), (590, 145167), (601, 145200),

Gene: Sbash\_26 Start: 24238, Stop: 25410, Start Num: 103

Candidate Starts for Sbash\_26:

(Start: 82 @24169 has 255 MA's), (Start: 103 @24238 has 3 MA's), (123, 24292), (125, 24295), (145, 24337), (168, 24379), (235, 24502), (245, 24523), (284, 24607), (305, 24646), (359, 24763), (379, 24808), (388, 24823), (417, 24904), (440, 24958), (447, 24970), (469, 24997), (476, 25018), (502, 25069), (510, 25084), (527, 25102), (553, 25162), (598, 25255), (620, 25330),

Gene: Scamp\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Scamp\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Scarlett\_30 Start: 25696, Stop: 26436, Start Num: 221

Candidate Starts for Scarlett\_30:

(195, 25669), (Start: 221 @25696 has 188 MA's), (242, 25741), (258, 25777), (293, 25834), (309, 25870), (323, 25912), (347, 25960), (379, 26020), (447, 26155), (469, 26182), (480, 26209), (487,

26227), (576, 26251), (598, 26293), (603, 26314), (604, 26317), (640, 26416),

Gene: Schadenfreude\_48 Start: 41262, Stop: 42617, Start Num: 82

Candidate Starts for Schadenfreude\_48:

(Start: 82 @41262 has 255 MA's), (98, 41313), (108, 41346), (168, 41475), (170, 41478), (Start: 180 @41493 has 5 MA's), (235, 41589), (251, 41628), (269, 41658), (284, 41694), (333, 41805), (345, 41835), (347, 41838), (379, 41904), (440, 42063), (469, 42111), (475, 42129), (498, 42177), (550, 42321), (571, 42381), (603, 42486), (637, 42573),

Gene: Schatzie\_46 Start: 41633, Stop: 42505, Start Num: 89

Candidate Starts for Schatzie\_46:

(Start: 89 @41633 has 30 MA's), (Start: 97 @41660 has 1 MA's), (115, 41720), (Start: 138 @41768 has 44 MA's), (174, 41834), (189, 41855), (206, 41876), (233, 41930), (274, 42011), (403, 42290), (405, 42293), (413, 42317), (424, 42353), (432, 42368), (438, 42380), (444, 42401),

Gene: Schiebel\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Schiebel\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (263, 25567), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: SchoolBus\_67 Start: 43413, Stop: 44453, Start Num: 148

Candidate Starts for SchoolBus\_67:

(Start: 148 @43413 has 26 MA's), (Start: 192 @43488 has 2 MA's), (229, 43569), (232, 43575), (239, 43590), (278, 43671), (Start: 279 @43674 has 1 MA's), (306, 43728), (312, 43743), (365, 43839), (385, 43878), (397, 43908), (411, 43938), (414, 43941), (425, 43974), (462, 44040), (484, 44088), (497, 44115), (520, 44154), (589, 44328), (604, 44379),

Gene: Schueller\_49 Start: 41421, Stop: 42776, Start Num: 82

Candidate Starts for Schueller\_49:

(Start: 82 @41421 has 255 MA's), (98, 41472), (108, 41505), (114, 41523), (168, 41634), (170, 41637), (Start: 180 @41652 has 5 MA's), (235, 41748), (251, 41787), (269, 41817), (284, 41853), (333, 41964), (345, 41994), (347, 41997), (379, 42063), (440, 42222), (469, 42270), (475, 42288), (498, 42336), (550, 42480), (571, 42540), (603, 42645), (637, 42732),

Gene: Schuy\_68 Start: 43204, Stop: 44244, Start Num: 148

Candidate Starts for Schuy\_68:

(Start: 148 @43204 has 26 MA's), (Start: 192 @43279 has 2 MA's), (229, 43360), (232, 43366), (239, 43381), (278, 43462), (Start: 279 @43465 has 1 MA's), (306, 43519), (312, 43534), (365, 43630), (385, 43669), (397, 43699), (411, 43729), (414, 43732), (425, 43765), (462, 43831), (479, 43870), (484, 43879), (497, 43906), (520, 43945), (589, 44119), (604, 44170),

Gene: Scoot17C\_50 Start: 41839, Stop: 43194, Start Num: 82

Candidate Starts for Scoot17C\_50:

(Start: 82 @41839 has 255 MA's), (98, 41890), (108, 41923), (168, 42052), (170, 42055), (Start: 180 @42070 has 5 MA's), (235, 42166), (251, 42205), (269, 42235), (284, 42271), (333, 42382), (345, 42412), (347, 42415), (379, 42481), (440, 42640), (469, 42688), (475, 42706), (498, 42754), (550, 42898), (571, 42958), (603, 43063), (637, 43150),

Gene: Scorpia\_9 Start: 5152, Stop: 5961, Start Num: 221

Candidate Starts for Scorpia\_9:

(177, 5089), (207, 5128), (Start: 221 @5152 has 188 MA's), (251, 5215), (284, 5281), (293, 5296), (309, 5329), (420, 5599), (440, 5641), (469, 5680), (475, 5698), (489, 5728), (640, 5926),

Gene: ScottMcG\_244 Start: 143459, Stop: 144487, Start Num: 142

Candidate Starts for ScottMcG\_244:

(Start: 142 @143459 has 200 MA's), (Start: 163 @143489 has 304 MA's), (170, 143501), (Start: 192 @143543 has 2 MA's), (229, 143606), (239, 143627), (Start: 279 @143711 has 1 MA's), (302, 143753), (306, 143765), (312, 143780), (344, 143849), (365, 143876), (393, 143930), (411, 143975), (414, 143978), (449, 144056), (462, 144077), (520, 144188), (554, 144278), (559, 144296), (590, 144368), (601, 144401),

Gene: Scottish\_32 Start: 28820, Stop: 29821, Start Num: 149

Candidate Starts for Scottish\_32:

(91, 28658), (Start: 149 @28820 has 225 MA's), (Start: 192 @28895 has 2 MA's), (210, 28928), (229, 28958), (239, 28979), (251, 29009), (259, 29021), (Start: 279 @29063 has 1 MA's), (292, 29087), (302, 29102), (306, 29114), (365, 29225), (423, 29339), (433, 29357), (454, 29396), (469, 29420), (484, 29456), (497, 29483), (520, 29522), (538, 29570), (559, 29630), (578, 29678), (585, 29690), (601, 29735), (604, 29747), (614, 29777),

Gene: Scout\_10 Start: 5032, Stop: 5772, Start Num: 285

Candidate Starts for Scout\_10:

(Start: 285 @5032 has 17 MA's), (330, 5119), (365, 5176), (368, 5188), (371, 5191), (385, 5215), (400, 5230), (408, 5248), (422, 5278), (425, 5284), (439, 5311), (474, 5380), (512, 5452), (535, 5494), (538, 5521), (549, 5548), (559, 5581), (561, 5584), (575, 5623), (631, 5764),

Gene: Scowl\_11 Start: 6537, Stop: 7505, Start Num: 163

Candidate Starts for Scowl\_11:

(Start: 163 @6537 has 304 MA's), (Start: 180 @6570 has 5 MA's), (Start: 190 @6588 has 1 MA's), (Start: 192 @6591 has 2 MA's), (335, 6858), (365, 6909), (368, 6921), (415, 6996), (442, 7059), (450, 7071), (462, 7092), (469, 7104), (474, 7122), (484, 7140), (496, 7164), (520, 7203), (551, 7284), (559, 7308), (561, 7311), (563, 7314), (567, 7323), (600, 7410), (629, 7497),

Gene: Scrick\_49 Start: 41432, Stop: 42787, Start Num: 82

Candidate Starts for Scrick\_49:

(Start: 82 @41432 has 255 MA's), (98, 41483), (108, 41516), (168, 41645), (170, 41648), (Start: 180 @41663 has 5 MA's), (235, 41759), (251, 41798), (269, 41828), (284, 41864), (333, 41975), (345, 42005), (347, 42008), (379, 42074), (440, 42233), (469, 42281), (475, 42299), (498, 42347), (550, 42491), (571, 42551), (603, 42656), (637, 42743),

Gene: Seabastian\_31 Start: 27728, Stop: 28729, Start Num: 149

Candidate Starts for Seabastian\_31:

(33, 27107), (39, 27185), (42, 27248), (47, 27287), (58, 27419), (62, 27440), (69, 27476), (107, 27629), (Start: 149 @27728 has 225 MA's), (Start: 163 @27749 has 304 MA's), (170, 27761), (Start: 192 @27803 has 2 MA's), (210, 27836), (229, 27866), (239, 27887), (Start: 279 @27971 has 1 MA's), (292, 27995), (302, 28010), (306, 28022), (365, 28133), (423, 28247), (433, 28265), (454, 28304), (469, 28328), (484, 28364), (497, 28391), (520, 28430), (559, 28538), (578, 28586), (585, 28598), (600, 28640), (601, 28643), (604, 28655), (614, 28685),

Gene: Seabiscuit\_11 Start: 5728, Stop: 6696, Start Num: 163

Candidate Starts for Seabiscuit\_11:

(Start: 163 @5728 has 304 MA's), (Start: 180 @5761 has 5 MA's), (Start: 190 @5779 has 1 MA's), (Start: 192 @5782 has 2 MA's), (335, 6049), (365, 6100), (368, 6112), (415, 6187), (442, 6250), (462, 6283), (469, 6295), (474, 6313), (484, 6331), (496, 6355), (520, 6394), (551, 6475), (559, 6499), (561,

6502), (563, 6505), (567, 6514), (600, 6601), (629, 6688),

Gene: Seagreen\_32 Start: 27637, Stop: 28638, Start Num: 149

Candidate Starts for Seagreen\_32:

(Start: 149 @27637 has 225 MA's), (Start: 192 @27712 has 2 MA's), (210, 27745), (229, 27775), (239, 27796), (Start: 279 @27880 has 1 MA's), (292, 27904), (302, 27919), (306, 27931), (365, 28042), (423, 28156), (433, 28174), (454, 28213), (469, 28237), (484, 28273), (497, 28300), (520, 28339), (559, 28447), (578, 28495), (585, 28507), (601, 28552), (604, 28564), (614, 28594),

Gene: Seanderson\_11 Start: 6516, Stop: 7478, Start Num: 163

Candidate Starts for Seanderson\_11:

(Start: 163 @6516 has 304 MA's), (Start: 180 @6549 has 5 MA's), (Start: 190 @6567 has 1 MA's), (Start: 192 @6570 has 2 MA's), (306, 6771), (335, 6837), (365, 6882), (416, 6972), (454, 7053), (462, 7065), (469, 7077), (474, 7095), (484, 7113), (496, 7137), (520, 7176), (551, 7257), (559, 7281), (561, 7284), (563, 7287), (567, 7296), (595, 7362), (600, 7383), (629, 7470),

Gene: Sebata\_252 Start: 145118, Stop: 146146, Start Num: 142

Candidate Starts for Sebata\_252:

(Start: 142 @145118 has 200 MA's), (Start: 163 @145148 has 304 MA's), (Start: 192 @145202 has 2 MA's), (229, 145265), (239, 145286), (Start: 279 @145370 has 1 MA's), (302, 145412), (306, 145424), (312, 145439), (344, 145508), (365, 145535), (393, 145589), (411, 145634), (414, 145637), (449, 145715), (462, 145736), (520, 145847), (554, 145937), (559, 145955), (590, 146027), (601, 146060),

Gene: Selr12\_51 Start: 41435, Stop: 42790, Start Num: 82

Candidate Starts for Selr12\_51:

(Start: 82 @41435 has 255 MA's), (98, 41486), (108, 41519), (168, 41648), (170, 41651), (Start: 180 @41666 has 5 MA's), (235, 41762), (251, 41801), (269, 41831), (284, 41867), (333, 41978), (345, 42008), (347, 42011), (379, 42077), (440, 42236), (469, 42284), (475, 42302), (498, 42350), (550, 42494), (571, 42554), (603, 42659), (637, 42746),

Gene: SemperFi\_13 Start: 6800, Stop: 7792, Start Num: 163

Candidate Starts for SemperFi\_13:

(Start: 163 @6800 has 304 MA's), (Start: 190 @6851 has 1 MA's), (Start: 192 @6854 has 2 MA's), (212, 6887), (223, 6902), (299, 7022), (302, 7028), (338, 7115), (365, 7160), (437, 7292), (467, 7331), (494, 7379), (540, 7460), (555, 7502), (588, 7589), (604, 7637), (624, 7703), (651, 7778),

Gene: Send513\_39 Start: 35346, Stop: 36395, Start Num: 142

Candidate Starts for Send513\_39:

(Start: 142 @35346 has 200 MA's), (Start: 192 @35430 has 2 MA's), (199, 35439), (211, 35463), (229, 35493), (239, 35514), (248, 35532), (254, 35550), (269, 35571), (274, 35580), (Start: 279 @35598 has 1 MA's), (297, 35625), (314, 35667), (358, 35757), (383, 35799), (394, 35820), (432, 35919), (448, 35946), (484, 36018), (515, 36072), (574, 36222), (587, 36249), (590, 36258), (603, 36300), (604, 36303), (606, 36309), (610, 36318), (622, 36354), (626, 36363), (632, 36372),

Gene: Serendipity\_49 Start: 41720, Stop: 43075, Start Num: 82

Candidate Starts for Serendipity\_49:

(Start: 82 @41720 has 255 MA's), (98, 41771), (108, 41804), (168, 41933), (170, 41936), (Start: 180 @41951 has 5 MA's), (235, 42047), (251, 42086), (269, 42116), (284, 42152), (333, 42263), (345, 42293), (347, 42296), (379, 42362), (440, 42521), (469, 42569), (475, 42587), (498, 42635), (550, 42779), (571, 42839), (603, 42944), (637, 43031),

Gene: Serenity\_10 Start: 5599, Stop: 6363, Start Num: 294

Candidate Starts for Serenity\_10:

(Start: 294 @5599 has 16 MA's), (365, 5743), (423, 5857), (430, 5869), (469, 5938), (474, 5956), (507, 6019), (538, 6097), (549, 6124), (554, 6139), (559, 6157), (561, 6160), (597, 6250), (615, 6319),

Gene: Serpentine\_0049 Start: 41719, Stop: 43074, Start Num: 82

Candidate Starts for Serpentine\_0049:

(Start: 82 @41719 has 255 MA's), (98, 41770), (108, 41803), (168, 41932), (170, 41935), (Start: 180 @41950 has 5 MA's), (235, 42046), (251, 42085), (269, 42115), (284, 42151), (333, 42262), (345, 42292), (347, 42295), (379, 42361), (440, 42520), (469, 42568), (475, 42586), (498, 42634), (550, 42778), (571, 42838), (603, 42943), (637, 43030),

Gene: Severus\_9 Start: 3780, Stop: 4754, Start Num: 163

Candidate Starts for Severus\_9:

(115, 3741), (Start: 163 @3780 has 304 MA's), (Start: 180 @3813 has 5 MA's), (Start: 192 @3834 has 2 MA's), (283, 4002), (306, 4044), (312, 4059), (365, 4164), (415, 4236), (423, 4263), (425, 4266), (430, 4275), (474, 4362), (538, 4509), (561, 4572), (575, 4611), (595, 4653),

Gene: SgtBeansprout\_27 Start: 25978, Stop: 26736, Start Num: 221

Candidate Starts for SgtBeansprout\_27:

(151, 25876), (183, 25930), (195, 25951), (Start: 221 @25978 has 188 MA's), (242, 26023), (258, 26059), (289, 26119), (293, 26125), (307, 26155), (323, 26203), (343, 26245), (379, 26311), (395, 26347), (447, 26446), (469, 26473), (476, 26494), (480, 26500), (573, 26539), (576, 26551), (578, 26557), (595, 26581), (601, 26605), (640, 26716), (643, 26725),

Gene: ShaboiShabazz\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for ShaboiShabazz\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: Shadow1\_30 Start: 25713, Stop: 26456, Start Num: 217

Candidate Starts for Shadow1\_30:

(151, 25611), (Start: 162 @25632 has 2 MA's), (183, 25665), (195, 25686), (Start: 217 @25713 has 11 MA's), (239, 25755), (242, 25761), (258, 25797), (287, 25845), (293, 25854), (309, 25890), (323, 25932), (379, 26040), (447, 26175), (462, 26190), (469, 26202), (476, 26223), (496, 26238), (538, 26247), (573, 26259), (601, 26325), (624, 26406), (637, 26427), (640, 26436),

Gene: Shaka\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Shaka\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: ShamWow\_35 Start: 31858, Stop: 32715, Start Num: 198

Candidate Starts for ShamWow\_35:

(Start: 198 @31858 has 122 MA's), (220, 31897), (232, 31927), (242, 31948), (257, 31984), (275, 32014), (309, 32089), (334, 32137), (336, 32140), (345, 32164), (347, 32167), (356, 32182), (426, 32353), (481, 32452), (487, 32467), (495, 32482), (498, 32488), (575, 32530), (576, 32533), (601, 32587), (624, 32665), (641, 32698),

Gene: Shaobing\_31 Start: 25850, Stop: 26611, Start Num: 221

Candidate Starts for Shaobing\_31:

(195, 25820), (Start: 221 @25850 has 188 MA's), (242, 25895), (258, 25931), (289, 25991), (293, 25997), (307, 26027), (309, 26033), (313, 26042), (323, 26075), (343, 26117), (370, 26168), (379, 26183), (447, 26318), (469, 26345), (476, 26366), (480, 26372), (487, 26390), (576, 26423), (578, 26429), (601, 26477), (621, 26549), (640, 26591), (643, 26600),

Gene: Shaqnato\_243 Start: 143667, Stop: 144695, Start Num: 142

Candidate Starts for Shaqnato\_243:

(Start: 142 @143667 has 200 MA's), (Start: 163 @143697 has 304 MA's), (Start: 192 @143751 has 2 MA's), (229, 143814), (239, 143835), (Start: 279 @143919 has 1 MA's), (302, 143961), (306, 143973), (312, 143988), (344, 144057), (365, 144084), (393, 144138), (411, 144183), (414, 144186), (449, 144264), (462, 144285), (520, 144396), (554, 144486), (559, 144504), (590, 144576), (601, 144609),

Gene: Shauna1\_28 Start: 26660, Stop: 27658, Start Num: 149

Candidate Starts for Shauna1\_28:

(Start: 149 @26660 has 225 MA's), (Start: 192 @26735 has 2 MA's), (229, 26795), (239, 26816), (Start: 279 @26900 has 1 MA's), (306, 26951), (312, 26966), (365, 27062), (415, 27149), (422, 27173), (433, 27194), (454, 27233), (462, 27245), (484, 27293), (497, 27320), (511, 27344), (520, 27359), (559, 27467), (578, 27515), (604, 27584), (614, 27614),

Gene: ShedlockHolmes\_32 Start: 27460, Stop: 28248, Start Num: 221

Candidate Starts for ShedlockHolmes\_32:

(195, 27436), (Start: 221 @27460 has 188 MA's), (242, 27505), (258, 27541), (287, 27598), (293, 27607), (309, 27643), (331, 27697), (343, 27721), (416, 27862), (447, 27925), (469, 27967), (476, 27988), (480, 27994), (487, 28012), (575, 28042), (604, 28111), (625, 28183), (640, 28213),

Gene: Sheen\_12 Start: 7592, Stop: 8332, Start Num: 288

Candidate Starts for Sheen\_12:

(261, 7544), (Start: 288 @7592 has 1 MA's), (312, 7628), (365, 7733), (415, 7805), (423, 7832), (430, 7844), (439, 7862), (474, 7931), (507, 7994), (535, 8045), (538, 8072), (549, 8099), (561, 8135), (578, 8183), (597, 8225),

Gene: Sheila\_49 Start: 41745, Stop: 43100, Start Num: 82

Candidate Starts for Sheila\_49:

(Start: 82 @41745 has 255 MA's), (98, 41796), (108, 41829), (168, 41958), (170, 41961), (Start: 180 @41976 has 5 MA's), (235, 42072), (251, 42111), (269, 42141), (284, 42177), (333, 42288), (345, 42318), (347, 42321), (379, 42387), (440, 42546), (469, 42594), (475, 42612), (498, 42660), (550, 42804), (571, 42864), (603, 42969), (637, 43056),

Gene: SheldonCooper\_10 Start: 5859, Stop: 6839, Start Num: 164

Candidate Starts for SheldonCooper\_10:

(Start: 164 @5859 has 109 MA's), (178, 5886), (Start: 190 @5907 has 1 MA's), (Start: 192 @5910 has 2 MA's), (330, 6159), (365, 6216), (368, 6228), (401, 6279), (416, 6300), (437, 6348), (474, 6405), (551, 6555), (601, 6678), (604, 6690), (627, 6756),

Gene: Shelob\_253 Start: 146393, Stop: 147421, Start Num: 142

Candidate Starts for Shelob\_253:

(Start: 142 @146393 has 200 MA's), (Start: 163 @146423 has 304 MA's), (170, 146435), (Start: 192 @146477 has 2 MA's), (229, 146540), (239, 146561), (Start: 279 @146645 has 1 MA's), (302, 146687), (306, 146699), (312, 146714), (344, 146783), (365, 146810), (393, 146864), (411, 146909), (414, 146912), (449, 146990), (462, 147011), (520, 147122), (554, 147212), (559, 147230), (590, 147302), (601, 147335),

Gene: ShereKhan\_37 Start: 32841, Stop: 33698, Start Num: 198

Candidate Starts for ShereKhan\_37:

(Start: 198 @32841 has 122 MA's), (220, 32880), (232, 32910), (242, 32931), (257, 32967), (275, 32997), (309, 33072), (334, 33120), (336, 33123), (345, 33147), (347, 33150), (356, 33165), (426, 33336), (487, 33450), (495, 33465), (498, 33471), (575, 33513), (576, 33516), (601, 33570), (624, 33648), (641, 33681),

Gene: ShiLan\_31 Start: 27740, Stop: 28741, Start Num: 149

Candidate Starts for ShiLan\_31:

(Start: 149 @27740 has 225 MA's), (Start: 163 @27761 has 304 MA's), (170, 27773), (Start: 192 @27815 has 2 MA's), (229, 27878), (239, 27899), (251, 27929), (Start: 279 @27983 has 1 MA's), (292, 28007), (302, 28022), (306, 28034), (365, 28145), (423, 28259), (433, 28277), (454, 28316), (469, 28340), (484, 28376), (497, 28403), (520, 28442), (538, 28490), (559, 28550), (585, 28610), (604, 28667), (614, 28697),

Gene: ShiVal\_49 Start: 41706, Stop: 43058, Start Num: 82

Candidate Starts for ShiVal\_49:

(Start: 82 @41706 has 255 MA's), (98, 41757), (108, 41790), (168, 41919), (170, 41922), (Start: 180 @41937 has 5 MA's), (235, 42033), (251, 42072), (269, 42102), (284, 42138), (333, 42249), (345, 42279), (347, 42282), (379, 42348), (440, 42507), (469, 42555), (475, 42573), (498, 42621), (550, 42762), (571, 42822), (603, 42927), (637, 43014),

Gene: ShiaLabeouf\_250 Start: 144252, Stop: 145280, Start Num: 142

Candidate Starts for ShiaLabeouf\_250:

(Start: 142 @144252 has 200 MA's), (Start: 163 @144282 has 304 MA's), (170, 144294), (Start: 192 @144336 has 2 MA's), (229, 144399), (239, 144420), (Start: 279 @144504 has 1 MA's), (302, 144546), (306, 144558), (312, 144573), (344, 144642), (365, 144669), (393, 144723), (411, 144768), (414, 144771), (449, 144849), (462, 144870), (520, 144981), (554, 145071), (559, 145089), (590, 145161), (601, 145194),

Gene: ShiaSurprise\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for ShiaSurprise\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: Shida\_67 Start: 43111, Stop: 44151, Start Num: 148

Candidate Starts for Shida\_67:

(Start: 148 @43111 has 26 MA's), (Start: 192 @43186 has 2 MA's), (229, 43267), (232, 43273), (239, 43288), (278, 43369), (Start: 279 @43372 has 1 MA's), (306, 43426), (312, 43441), (365, 43537), (385, 43576), (397, 43606), (411, 43636), (414, 43639), (425, 43672), (462, 43738), (479, 43777), (484, 43786), (497, 43813), (520, 43852), (589, 44026), (604, 44077),

Gene: Shifa\_228 Start: 143726, Stop: 144754, Start Num: 142

Candidate Starts for Shifa\_228:

(Start: 142 @143726 has 200 MA's), (Start: 163 @143756 has 304 MA's), (Start: 192 @143810 has 2 MA's), (229, 143873), (239, 143894), (Start: 279 @143978 has 1 MA's), (302, 144020), (306, 144032), (312, 144047), (344, 144116), (365, 144143), (393, 144197), (411, 144242), (414, 144245), (449, 144323), (462, 144344), (520, 144455), (554, 144545), (559, 144563), (590, 144635), (601, 144668),

Gene: Shipwreck\_29 Start: 25866, Stop: 27032, Start Num: 102

Candidate Starts for Shipwreck\_29:

(31, 25332), (36, 25380), (41, 25485), (Start: 102 @25866 has 88 MA's), (106, 25875), (122, 25920), (123, 25923), (168, 26010), (Start: 198 @26055 has 122 MA's), (235, 26130), (245, 26151), (251, 26169), (284, 26235), (305, 26274), (309, 26286), (333, 26340), (345, 26370), (359, 26391), (379, 26436), (417, 26532), (434, 26571), (440, 26586), (447, 26598), (469, 26625), (510, 26712), (527, 26730), (530, 26736), (553, 26784), (571, 26805), (598, 26877), (620, 26952),

Gene: Shnickers\_251 Start: 144316, Stop: 145344, Start Num: 142

Candidate Starts for Shnickers\_251:

(Start: 142 @144316 has 200 MA's), (Start: 163 @144346 has 304 MA's), (170, 144358), (Start: 192 @144400 has 2 MA's), (229, 144463), (239, 144484), (Start: 279 @144568 has 1 MA's), (302, 144610), (306, 144622), (312, 144637), (344, 144706), (365, 144733), (393, 144787), (411, 144832), (414, 144835), (449, 144913), (462, 144934), (520, 145045), (554, 145135), (559, 145153), (590, 145225), (601, 145258),

Gene: ShortQueendom\_9 Start: 5652, Stop: 6620, Start Num: 163

Candidate Starts for ShortQueendom\_9:

(Start: 163 @5652 has 304 MA's), (Start: 180 @5685 has 5 MA's), (Start: 190 @5703 has 1 MA's), (Start: 192 @5706 has 2 MA's), (335, 5973), (365, 6024), (368, 6036), (415, 6111), (442, 6174), (450, 6186), (462, 6207), (469, 6219), (474, 6237), (484, 6255), (496, 6279), (520, 6318), (551, 6399), (559, 6423), (561, 6426), (563, 6429), (567, 6438), (579, 6474), (600, 6525), (629, 6612),

Gene: ShowerHandel\_31 Start: 27699, Stop: 28700, Start Num: 149

Candidate Starts for ShowerHandel\_31:

(Start: 149 @27699 has 225 MA's), (Start: 163 @27720 has 304 MA's), (170, 27732), (Start: 192 @27774 has 2 MA's), (229, 27837), (239, 27858), (251, 27888), (Start: 279 @27942 has 1 MA's), (292, 27966), (302, 27981), (306, 27993), (365, 28104), (423, 28218), (433, 28236), (454, 28275), (469, 28299), (484, 28335), (497, 28362), (520, 28401), (538, 28449), (559, 28509), (585, 28569), (604, 28626), (614, 28656),

Gene: Shrimp\_255 Start: 146010, Stop: 147038, Start Num: 142

Candidate Starts for Shrimp\_255:

(Start: 142 @146010 has 200 MA's), (Start: 163 @146040 has 304 MA's), (170, 146052), (Start: 192 @146094 has 2 MA's), (229, 146157), (239, 146178), (Start: 279 @146262 has 1 MA's), (302, 146304), (306, 146316), (312, 146331), (344, 146400), (365, 146427), (393, 146481), (411, 146526), (414, 146529), (449, 146607), (462, 146628), (520, 146739), (554, 146829), (559, 146847), (590, 146919), (601, 146952),

Gene: ShroomBoi\_28 Start: 26597, Stop: 27598, Start Num: 149

Candidate Starts for ShroomBoi\_28:

(50, 26156), (52, 26195), (66, 26327), (71, 26348), (79, 26384), (Start: 149 @26597 has 225 MA's), (Start: 192 @26672 has 2 MA's), (210, 26705), (229, 26735), (239, 26756), (251, 26786), (259, 26798), (Start: 279 @26840 has 1 MA's), (306, 26891), (312, 26906), (365, 27002), (422, 27113), (433, 27134), (454, 27173), (462, 27185), (484, 27233), (497, 27260), (511, 27284), (520, 27299), (559, 27407), (578, 27455), (604, 27524), (614, 27554),

Gene: Shygu2\_10 Start: 5881, Stop: 6864, Start Num: 163

Candidate Starts for Shygu2\_10:

(Start: 163 @5881 has 304 MA's), (178, 5911), (Start: 190 @5932 has 1 MA's), (Start: 192 @5935 has 2 MA's), (304, 6115), (330, 6184), (365, 6241), (368, 6253), (387, 6283), (401, 6304), (416, 6325), (437, 6373), (474, 6430), (551, 6580), (601, 6703), (604, 6715), (607, 6724), (627, 6781), (652, 6856),

Gene: SiSi\_31 Start: 27498, Stop: 28499, Start Num: 149

Candidate Starts for SiSi\_31:



(Start: 149 @27498 has 225 MA's), (Start: 163 @27519 has 304 MA's), (Start: 192 @27573 has 2 MA's), (210, 27606), (229, 27636), (239, 27657), (Start: 279 @27741 has 1 MA's), (292, 27765), (302, 27780), (306, 27792), (365, 27903), (423, 28017), (433, 28035), (454, 28074), (469, 28098), (484, 28134), (497, 28161), (520, 28200), (538, 28248), (559, 28308), (585, 28368), (604, 28425), (614, 28455),

Gene: Sibs6\_11 Start: 5783, Stop: 6751, Start Num: 163

Candidate Starts for Sibs6\_11:

(Start: 163 @5783 has 304 MA's), (Start: 180 @5816 has 5 MA's), (Start: 190 @5834 has 1 MA's), (Start: 192 @5837 has 2 MA's), (335, 6104), (365, 6155), (368, 6167), (415, 6242), (442, 6305), (450, 6317), (462, 6338), (469, 6350), (474, 6368), (484, 6386), (496, 6410), (520, 6449), (551, 6530), (559, 6554), (561, 6557), (563, 6560), (567, 6569), (600, 6656), (629, 6743),

Gene: Sigman\_50 Start: 41830, Stop: 43185, Start Num: 82

Candidate Starts for Sigman\_50:

(Start: 82 @41830 has 255 MA's), (98, 41881), (108, 41914), (168, 42043), (170, 42046), (Start: 180 @42061 has 5 MA's), (235, 42157), (251, 42196), (269, 42226), (284, 42262), (333, 42373), (345, 42403), (347, 42406), (379, 42472), (440, 42631), (469, 42679), (475, 42697), (498, 42745), (550, 42889), (571, 42949), (603, 43054), (637, 43141),

Gene: SilverDipper\_257 Start: 145052, Stop: 146080, Start Num: 142

Candidate Starts for SilverDipper\_257:

(Start: 142 @145052 has 200 MA's), (Start: 163 @145082 has 304 MA's), (170, 145094), (Start: 192 @145136 has 2 MA's), (229, 145199), (239, 145220), (Start: 279 @145304 has 1 MA's), (302, 145346), (306, 145358), (312, 145373), (344, 145442), (365, 145469), (393, 145523), (411, 145568), (414, 145571), (449, 145649), (462, 145670), (520, 145781), (554, 145871), (559, 145889), (590, 145961), (601, 145994),

Gene: Silverleaf\_26 Start: 25547, Stop: 26578, Start Num: 142

Candidate Starts for Silverleaf\_26:

(Start: 142 @25547 has 200 MA's), (235, 25700), (236, 25703), (247, 25727), (251, 25739), (261, 25757), (272, 25775), (278, 25793), (281, 25799), (286, 25808), (303, 25838), (330, 25910), (365, 25967), (385, 26006), (425, 26084), (430, 26093), (431, 26096), (439, 26111), (467, 26165), (474, 26186), (482, 26201), (526, 26285), (537, 26315), (561, 26384), (567, 26396), (575, 26420), (581, 26438), (585, 26441), (590, 26453), (592, 26456), (601, 26486), (604, 26498),

Gene: Simielle\_48 Start: 41389, Stop: 42744, Start Num: 82

Candidate Starts for Simielle\_48:

(Start: 82 @41389 has 255 MA's), (98, 41440), (108, 41473), (168, 41602), (170, 41605), (Start: 180 @41620 has 5 MA's), (235, 41716), (251, 41755), (269, 41785), (284, 41821), (333, 41932), (345, 41962), (347, 41965), (379, 42031), (440, 42190), (469, 42238), (475, 42256), (498, 42304), (550, 42448), (571, 42508), (603, 42613), (637, 42700),

Gene: Simpliphy\_36 Start: 31603, Stop: 32460, Start Num: 198

Candidate Starts for Simpliphy\_36:

(Start: 198 @31603 has 122 MA's), (220, 31642), (232, 31672), (242, 31693), (257, 31729), (275, 31759), (309, 31834), (334, 31882), (336, 31885), (345, 31909), (347, 31912), (356, 31927), (426, 32098), (487, 32212), (495, 32227), (498, 32233), (575, 32275), (576, 32278), (601, 32332), (624, 32410), (641, 32443),

Gene: SimranZ1\_34 Start: 27818, Stop: 28819, Start Num: 149

Candidate Starts for SimranZ1\_34:

(45, 27359), (47, 27374), (69, 27566), (107, 27719), (Start: 149 @27818 has 225 MA's), (170, 27851), (Start: 192 @27893 has 2 MA's), (210, 27926), (229, 27956), (239, 27977), (Start: 279 @28061 has 1 MA's), (292, 28085), (302, 28100), (306, 28112), (365, 28223), (423, 28337), (433, 28355), (454, 28394), (469, 28418), (484, 28454), (497, 28481), (520, 28520), (559, 28628), (585, 28688), (601, 28733), (604, 28745), (614, 28775),

Gene: SirDuracell\_34 Start: 30523, Stop: 31380, Start Num: 198

Candidate Starts for SirDuracell\_34:

(Start: 198 @30523 has 122 MA's), (220, 30562), (232, 30592), (242, 30613), (257, 30649), (275, 30679), (309, 30754), (334, 30802), (336, 30805), (345, 30829), (347, 30832), (356, 30847), (426, 31018), (487, 31132), (495, 31147), (498, 31153), (575, 31195), (576, 31198), (601, 31252), (624, 31330), (641, 31363),

Gene: SirPhilip\_30 Start: 25363, Stop: 26103, Start Num: 221

Candidate Starts for SirPhilip\_30:

(Start: 221 @25363 has 188 MA's), (242, 25408), (258, 25444), (287, 25492), (293, 25501), (313, 25546), (323, 25579), (352, 25636), (378, 25684), (379, 25687), (416, 25759), (447, 25822), (462, 25837), (469, 25849), (497, 25888), (538, 25894), (598, 25960), (640, 26083), (643, 26092),

Gene: Sizemore\_28 Start: 25202, Stop: 26410, Start Num: 88

Candidate Starts for Sizemore\_28:

(65, 25109), (Start: 88 @25202 has 62 MA's), (154, 25376), (202, 25448), (251, 25547), (255, 25556), (263, 25568), (270, 25580), (275, 25589), (284, 25613), (295, 25634), (309, 25661), (314, 25673), (342, 25745), (361, 25784), (440, 25973), (459, 25997), (469, 26012), (476, 26033), (498, 26078), (500, 26081), (534, 26132),

Gene: SkiPole\_12 Start: 6159, Stop: 7127, Start Num: 163

Candidate Starts for SkiPole\_12:

(Start: 163 @6159 has 304 MA's), (Start: 180 @6192 has 5 MA's), (Start: 190 @6210 has 1 MA's), (Start: 192 @6213 has 2 MA's), (335, 6480), (365, 6531), (368, 6543), (415, 6618), (442, 6681), (450, 6693), (462, 6714), (469, 6726), (474, 6744), (484, 6762), (496, 6786), (520, 6825), (551, 6906), (559, 6930), (561, 6933), (563, 6936), (567, 6945), (600, 7032), (614, 7077), (629, 7119),

Gene: Skinny\_39 Start: 32223, Stop: 33194, Start Num: 169

Candidate Starts for Skinny\_39:

(Start: 169 @32223 has 13 MA's), (183, 32247), (191, 32262), (266, 32400), (281, 32427), (300, 32445), (305, 32457), (308, 32466), (325, 32511), (330, 32523), (346, 32550), (365, 32577), (368, 32589), (397, 32634), (410, 32661), (423, 32691), (428, 32700), (430, 32703), (475, 32790), (485, 32805), (551, 32958), (552, 32961), (574, 33021), (578, 33033), (581, 33042), (598, 33078), (602, 33093), (618, 33132), (632, 33165),

Gene: Skipitt\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Skipitt\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (401, 6301), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Skippy\_49 Start: 41690, Stop: 43045, Start Num: 82

Candidate Starts for Skippy\_49:

(Start: 82 @41690 has 255 MA's), (98, 41741), (108, 41774), (168, 41903), (170, 41906), (Start: 180 @41921 has 5 MA's), (235, 42017), (251, 42056), (269, 42086), (284, 42122), (333, 42233), (345, 42263), (347, 42266), (379, 42332), (440, 42491), (469, 42539), (475, 42557), (498, 42605), (550,

42749), (571, 42809), (603, 42914), (637, 43001),

Gene: Slagathor\_10 Start: 5601, Stop: 6569, Start Num: 163

Candidate Starts for Slagathor\_10:

(Start: 163 @5601 has 304 MA's), (Start: 180 @5634 has 5 MA's), (Start: 190 @5652 has 1 MA's), (Start: 192 @5655 has 2 MA's), (335, 5922), (365, 5973), (368, 5985), (415, 6060), (442, 6123), (450, 6135), (462, 6156), (469, 6168), (474, 6186), (484, 6204), (496, 6228), (520, 6267), (551, 6348), (559, 6372), (561, 6375), (563, 6378), (567, 6387), (600, 6474), (629, 6561),

Gene: Slarp\_32 Start: 27640, Stop: 28431, Start Num: 200

Candidate Starts for Slarp\_32:

(Start: 200 @27640 has 20 MA's), (Start: 227 @27673 has 1 MA's), (242, 27706), (251, 27730), (264, 27751), (270, 27760), (283, 27790), (287, 27799), (293, 27808), (309, 27844), (350, 27925), (447, 28132), (469, 28159), (476, 28180), (487, 28204), (576, 28228), (601, 28282), (604, 28294), (625, 28366),

Gene: Slatt\_49 Start: 41716, Stop: 43071, Start Num: 82

Candidate Starts for Slatt\_49:

(Start: 82 @41716 has 255 MA's), (98, 41767), (108, 41800), (168, 41929), (170, 41932), (Start: 180 @41947 has 5 MA's), (235, 42043), (251, 42082), (269, 42112), (284, 42148), (333, 42259), (345, 42289), (347, 42292), (379, 42358), (440, 42517), (469, 42565), (475, 42583), (498, 42631), (550, 42775), (571, 42835), (603, 42940), (637, 43027),

Gene: SlimJimmy\_37 Start: 31777, Stop: 32748, Start Num: 169

Candidate Starts for SlimJimmy\_37:

(Start: 169 @31777 has 13 MA's), (183, 31801), (191, 31816), (266, 31954), (281, 31981), (300, 31999), (305, 32011), (308, 32020), (325, 32065), (330, 32077), (346, 32104), (365, 32131), (368, 32143), (397, 32188), (410, 32215), (423, 32245), (428, 32254), (430, 32257), (485, 32359), (551, 32512), (552, 32515), (574, 32575), (578, 32587), (581, 32596), (598, 32632), (602, 32647), (618, 32686), (632, 32719),

Gene: Slimphazie\_31 Start: 26461, Stop: 27333, Start Num: 221

Candidate Starts for Slimphazie\_31:

(195, 26434), (Start: 221 @26461 has 188 MA's), (Start: 227 @26473 has 1 MA's), (258, 26542), (275, 26569), (287, 26599), (293, 26608), (309, 26644), (313, 26653), (323, 26686), (331, 26704), (347, 26734), (378, 26791), (379, 26794), (447, 26929), (469, 26956), (476, 26977), (487, 27001), (521, 27052), (578, 27154), (598, 27190), (604, 27214), (640, 27313), (643, 27322),

Gene: SlippinJimmy\_47 Start: 42302, Stop: 43366, Start Num: 138

Candidate Starts for SlippinJimmy\_47:

(Start: 138 @42302 has 44 MA's), (173, 42365), (219, 42446), (252, 42512), (260, 42527), (269, 42539), (280, 42566), (311, 42623), (314, 42632), (391, 42779), (401, 42794), (422, 42848), (439, 42881), (463, 42920), (470, 42932), (512, 43013), (520, 43031), (523, 43034), (538, 43079), (578, 43190), (617, 43301), (626, 43322), (641, 43355),

Gene: Smairt\_11 Start: 6456, Stop: 7424, Start Num: 163

Candidate Starts for Smairt\_11:

(Start: 163 @6456 has 304 MA's), (Start: 180 @6489 has 5 MA's), (Start: 190 @6507 has 1 MA's), (Start: 192 @6510 has 2 MA's), (335, 6777), (365, 6828), (368, 6840), (415, 6915), (442, 6978), (450, 6990), (462, 7011), (469, 7023), (474, 7041), (484, 7059), (496, 7083), (520, 7122), (551, 7203), (559, 7227), (561, 7230), (563, 7233), (567, 7242), (600, 7329), (629, 7416),

Gene: SmallFry\_253 Start: 144410, Stop: 145438, Start Num: 142

Candidate Starts for SmallFry\_253:

(Start: 142 @144410 has 200 MA's), (Start: 163 @144440 has 304 MA's), (170, 144452), (Start: 192 @144494 has 2 MA's), (229, 144557), (239, 144578), (Start: 279 @144662 has 1 MA's), (302, 144704), (306, 144716), (312, 144731), (344, 144800), (365, 144827), (393, 144881), (411, 144926), (414, 144929), (449, 145007), (462, 145028), (520, 145139), (554, 145229), (559, 145247), (590, 145319), (601, 145352),

Gene: Smeadley\_8 Start: 4870, Stop: 5679, Start Num: 221

Candidate Starts for Smeadley\_8:

(Start: 221 @4870 has 188 MA's), (263, 4954), (284, 4999), (314, 5059), (337, 5125), (440, 5359), (469, 5398), (475, 5416), (490, 5449), (500, 5467), (578, 5512), (602, 5536), (645, 5665),

Gene: Smeagan\_13 Start: 6868, Stop: 7860, Start Num: 163

Candidate Starts for Smeagan\_13:

(Start: 163 @6868 has 304 MA's), (Start: 192 @6922 has 2 MA's), (299, 7090), (302, 7096), (312, 7123), (338, 7183), (365, 7228), (412, 7315), (437, 7360), (467, 7399), (494, 7447), (540, 7528), (555, 7570), (588, 7657), (604, 7705), (624, 7771),

Gene: Smeagol\_11 Start: 6874, Stop: 7845, Start Num: 163

Candidate Starts for Smeagol\_11:

(Start: 163 @6874 has 304 MA's), (Start: 180 @6907 has 5 MA's), (Start: 190 @6925 has 1 MA's), (Start: 192 @6928 has 2 MA's), (335, 7195), (365, 7246), (368, 7258), (390, 7294), (415, 7336), (442, 7399), (450, 7411), (462, 7432), (469, 7444), (474, 7462), (484, 7480), (496, 7504), (520, 7543), (551, 7624), (559, 7648), (561, 7651), (563, 7654), (567, 7663), (600, 7750), (614, 7795), (629, 7837),

Gene: Smooch\_70 Start: 45157, Stop: 46197, Start Num: 148

Candidate Starts for Smooch\_70:

(Start: 148 @45157 has 26 MA's), (Start: 192 @45232 has 2 MA's), (229, 45313), (232, 45319), (239, 45334), (278, 45415), (Start: 279 @45418 has 1 MA's), (306, 45472), (312, 45487), (365, 45583), (385, 45622), (397, 45652), (411, 45682), (414, 45685), (425, 45718), (462, 45784), (479, 45823), (484, 45832), (497, 45859), (520, 45898), (589, 46072), (604, 46123),

Gene: SnapTap\_11 Start: 6372, Stop: 7364, Start Num: 163

Candidate Starts for SnapTap\_11:

(Start: 163 @6372 has 304 MA's), (Start: 190 @6423 has 1 MA's), (Start: 192 @6426 has 2 MA's), (212, 6459), (223, 6474), (299, 6594), (302, 6600), (338, 6687), (365, 6732), (437, 6864), (467, 6903), (494, 6951), (540, 7032), (555, 7074), (588, 7161), (604, 7209), (624, 7275), (651, 7350),

Gene: Snazzy\_8 Start: 5466, Stop: 6434, Start Num: 163

Candidate Starts for Snazzy\_8:

(Start: 163 @5466 has 304 MA's), (Start: 180 @5499 has 5 MA's), (Start: 190 @5517 has 1 MA's), (Start: 192 @5520 has 2 MA's), (335, 5787), (365, 5838), (368, 5850), (415, 5925), (442, 5988), (450, 6000), (462, 6021), (469, 6033), (474, 6051), (484, 6069), (496, 6093), (520, 6132), (551, 6213), (559, 6237), (561, 6240), (563, 6243), (567, 6252), (600, 6339), (614, 6384), (629, 6426),

Gene: Sneeze\_28 Start: 25283, Stop: 26491, Start Num: 88

Candidate Starts for Sneeze\_28:

(65, 25190), (Start: 88 @25283 has 62 MA's), (154, 25457), (202, 25529), (251, 25628), (255, 25637), (270, 25661), (275, 25670), (284, 25694), (295, 25715), (309, 25742), (314, 25754), (342, 25826), (361, 25865), (440, 26054), (469, 26093), (476, 26114), (495, 26153), (498, 26159),

Gene: Snenia\_28 Start: 26851, Stop: 27894, Start Num: 102

Candidate Starts for Snenia\_28:

(Start: 102 @26851 has 88 MA's), (Start: 103 @26857 has 3 MA's), (112, 26884), (120, 26905), (143, 26956), (186, 27037), (245, 27142), (289, 27223), (293, 27229), (341, 27325), (349, 27343), (352, 27349), (355, 27355), (392, 27427), (418, 27484), (452, 27544), (489, 27619), (499, 27640), (572, 27664), (576, 27679), (580, 27691), (604, 27748), (640, 27850), (645, 27871),

Gene: Snickers\_12 Start: 5936, Stop: 6901, Start Num: 153

Candidate Starts for Snickers\_12:

(Start: 153 @5936 has 92 MA's), (Start: 180 @5981 has 5 MA's), (Start: 192 @6002 has 2 MA's), (256, 6122), (330, 6260), (365, 6317), (371, 6332), (422, 6413), (430, 6428), (439, 6446), (469, 6497), (474, 6515), (497, 6560), (538, 6656), (561, 6719), (575, 6758), (597, 6809),

Gene: SoSeph\_30 Start: 27195, Stop: 28064, Start Num: 221

Candidate Starts for SoSeph\_30:

(151, 27093), (183, 27147), (Start: 221 @27195 has 188 MA's), (Start: 227 @27207 has 1 MA's), (229, 27213), (242, 27240), (253, 27270), (258, 27276), (287, 27330), (293, 27339), (300, 27351), (313, 27384), (323, 27417), (347, 27465), (372, 27513), (416, 27597), (469, 27687), (475, 27705), (476, 27708), (507, 27771), (521, 27786), (538, 27810), (578, 27882), (598, 27918), (599, 27921), (604, 27942), (620, 27999), (637, 28035), (640, 28044), (643, 28053),

Gene: SoYo\_12 Start: 5873, Stop: 6838, Start Num: 153

Candidate Starts for SoYo\_12:

(Start: 153 @5873 has 92 MA's), (Start: 180 @5918 has 5 MA's), (Start: 192 @5939 has 2 MA's), (256, 6059), (330, 6197), (365, 6254), (371, 6269), (422, 6350), (430, 6365), (439, 6383), (469, 6434), (474, 6452), (497, 6497), (538, 6593), (561, 6656), (575, 6695), (597, 6746),

Gene: SoilDragon\_12 Start: 5647, Stop: 6612, Start Num: 153

Candidate Starts for SoilDragon\_12:

(Start: 153 @5647 has 92 MA's), (Start: 180 @5692 has 5 MA's), (Start: 192 @5713 has 2 MA's), (256, 5833), (330, 5971), (365, 6028), (371, 6043), (422, 6124), (430, 6139), (439, 6157), (469, 6208), (474, 6226), (497, 6271), (538, 6367), (561, 6430), (575, 6469), (597, 6520),

Gene: Soile\_49 Start: 41419, Stop: 42774, Start Num: 82

Candidate Starts for Soile\_49:

(Start: 82 @41419 has 255 MA's), (98, 41470), (108, 41503), (114, 41521), (168, 41632), (170, 41635), (Start: 180 @41650 has 5 MA's), (235, 41746), (251, 41785), (269, 41815), (284, 41851), (333, 41962), (345, 41992), (347, 41995), (379, 42061), (440, 42220), (469, 42268), (475, 42286), (498, 42334), (550, 42478), (571, 42538), (603, 42643), (637, 42730),

Gene: Solon\_10 Start: 6618, Stop: 7586, Start Num: 163

Candidate Starts for Solon\_10:

(Start: 163 @6618 has 304 MA's), (Start: 180 @6651 has 5 MA's), (Start: 190 @6669 has 1 MA's), (Start: 192 @6672 has 2 MA's), (335, 6939), (365, 6990), (368, 7002), (415, 7077), (442, 7140), (450, 7152), (462, 7173), (469, 7185), (474, 7203), (484, 7221), (496, 7245), (520, 7284), (551, 7365), (559, 7389), (561, 7392), (563, 7395), (567, 7404), (600, 7491), (614, 7536), (629, 7578),

Gene: Solosis\_48 Start: 41417, Stop: 42772, Start Num: 82

Candidate Starts for Solosis\_48:

(Start: 82 @41417 has 255 MA's), (98, 41468), (108, 41501), (168, 41630), (170, 41633), (Start: 180 @41648 has 5 MA's), (235, 41744), (251, 41783), (269, 41813), (284, 41849), (333, 41960), (345, 41990), (347, 41993), (379, 42059), (440, 42218), (469, 42266), (475, 42284), (498, 42332), (550, 42476), (571, 42536), (603, 42641), (637, 42728),

Gene: Sonah\_27 Start: 24039, Stop: 25205, Start Num: 102

Candidate Starts for Sonah\_27:

(Start: 102 @24039 has 88 MA's), (122, 24093), (123, 24096), (168, 24183), (Start: 198 @24228 has 122 MA's), (235, 24303), (245, 24324), (251, 24342), (284, 24408), (305, 24447), (333, 24513), (345, 24543), (359, 24564), (379, 24609), (417, 24705), (434, 24744), (440, 24759), (469, 24798), (510, 24885), (527, 24903), (530, 24909), (553, 24957), (571, 24978), (598, 25050), (620, 25125),

Gene: SophKB\_35 Start: 31857, Stop: 32714, Start Num: 198

Candidate Starts for SophKB\_35:

(Start: 198 @31857 has 122 MA's), (220, 31896), (232, 31926), (242, 31947), (257, 31983), (275, 32013), (309, 32088), (334, 32136), (336, 32139), (345, 32163), (347, 32166), (356, 32181), (426, 32352), (487, 32466), (495, 32481), (498, 32487), (575, 32529), (576, 32532), (601, 32586), (624, 32664), (641, 32697),

Gene: Sophia\_48 Start: 41411, Stop: 42766, Start Num: 82

Candidate Starts for Sophia\_48:

(Start: 82 @41411 has 255 MA's), (98, 41462), (108, 41495), (114, 41513), (168, 41624), (170, 41627), (Start: 180 @41642 has 5 MA's), (235, 41738), (251, 41777), (269, 41807), (284, 41843), (333, 41954), (345, 41984), (347, 41987), (379, 42053), (440, 42212), (469, 42260), (475, 42278), (498, 42326), (550, 42470), (571, 42530), (603, 42635), (637, 42722),

Gene: Sorpresa\_9 Start: 5984, Stop: 6952, Start Num: 163

Candidate Starts for Sorpresa\_9:

(Start: 163 @5984 has 304 MA's), (Start: 180 @6017 has 5 MA's), (Start: 190 @6035 has 1 MA's), (Start: 192 @6038 has 2 MA's), (335, 6305), (365, 6356), (368, 6368), (415, 6443), (442, 6506), (462, 6539), (469, 6551), (474, 6569), (484, 6587), (520, 6650), (551, 6731), (559, 6755), (561, 6758), (563, 6761), (567, 6770), (600, 6857), (614, 6902), (629, 6944),

Gene: Soshari\_14 Start: 6045, Stop: 7010, Start Num: 153

Candidate Starts for Soshari\_14:

(Start: 153 @6045 has 92 MA's), (Start: 180 @6090 has 5 MA's), (Start: 192 @6111 has 2 MA's), (256, 6231), (330, 6369), (365, 6426), (371, 6441), (422, 6522), (430, 6537), (439, 6555), (469, 6606), (474, 6624), (497, 6669), (538, 6765), (561, 6828), (575, 6867), (597, 6918),

Gene: Soto\_49 Start: 41717, Stop: 43072, Start Num: 82

Candidate Starts for Soto\_49:

(Start: 82 @41717 has 255 MA's), (98, 41768), (108, 41801), (114, 41819), (168, 41930), (170, 41933), (Start: 180 @41948 has 5 MA's), (235, 42044), (251, 42083), (269, 42113), (284, 42149), (333, 42260), (345, 42290), (347, 42293), (379, 42359), (440, 42518), (469, 42566), (475, 42584), (498, 42632), (550, 42776), (571, 42836), (603, 42941), (637, 43028),

Gene: Sotrice96\_35 Start: 31812, Stop: 32669, Start Num: 198

Candidate Starts for Sotrice96\_35:

(Start: 198 @31812 has 122 MA's), (220, 31851), (232, 31881), (242, 31902), (257, 31938), (275, 31968), (309, 32043), (334, 32091), (336, 32094), (345, 32118), (347, 32121), (356, 32136), (426, 32307), (487, 32421), (495, 32436), (498, 32442), (575, 32484), (576, 32487), (601, 32541), (624, 32619), (641, 32652),

Gene: Soul22\_36 Start: 27795, Stop: 28865, Start Num: 149

Candidate Starts for Soul22\_36:

(122, 27744), (Start: 149 @27795 has 225 MA's), (Start: 166 @27822 has 14 MA's), (Start: 180 @27849 has 5 MA's), (185, 27858), (219, 27918), (235, 27945), (269, 28011), (297, 28065), (314, 28107), (335, 28158), (391, 28272), (404, 28305), (431, 28380), (442, 28401), (512, 28530), (538, 28602), (574, 28698), (578, 28710), (604, 28779), (623, 28836), (627, 28845),

Gene: Sparkdehlily\_31 Start: 27617, Stop: 28618, Start Num: 149

Candidate Starts for Sparkdehlily\_31:

(Start: 149 @27617 has 225 MA's), (Start: 192 @27692 has 2 MA's), (210, 27725), (229, 27755), (239, 27776), (251, 27806), (259, 27818), (Start: 279 @27860 has 1 MA's), (292, 27884), (302, 27899), (306, 27911), (365, 28022), (423, 28136), (433, 28154), (454, 28193), (469, 28217), (484, 28253), (520, 28319), (559, 28427), (578, 28475), (585, 28487), (601, 28532), (604, 28544), (614, 28574),

Gene: Spartacus\_33 Start: 28027, Stop: 29028, Start Num: 149

Candidate Starts for Spartacus\_33:

(Start: 149 @28027 has 225 MA's), (Start: 192 @28102 has 2 MA's), (210, 28135), (229, 28165), (239, 28186), (Start: 279 @28270 has 1 MA's), (306, 28321), (312, 28336), (365, 28432), (422, 28543), (433, 28564), (454, 28603), (462, 28615), (484, 28663), (497, 28690), (511, 28714), (520, 28729), (559, 28837), (578, 28885), (604, 28954), (614, 28984),

Gene: Spartan300\_49 Start: 41702, Stop: 43057, Start Num: 82

Candidate Starts for Spartan300\_49:

(Start: 82 @41702 has 255 MA's), (98, 41753), (108, 41786), (168, 41915), (170, 41918), (Start: 180 @41933 has 5 MA's), (235, 42029), (251, 42068), (269, 42098), (284, 42134), (333, 42245), (345, 42275), (347, 42278), (379, 42344), (440, 42503), (469, 42551), (475, 42569), (498, 42617), (550, 42761), (571, 42821), (603, 42926), (637, 43013),

Gene: Sparxx\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Sparxx\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Spec\_246 Start: 144422, Stop: 145450, Start Num: 142

Candidate Starts for Spec\_246:

(Start: 142 @144422 has 200 MA's), (Start: 163 @144452 has 304 MA's), (170, 144464), (Start: 192 @144506 has 2 MA's), (229, 144569), (239, 144590), (Start: 279 @144674 has 1 MA's), (302, 144716), (306, 144728), (312, 144743), (344, 144812), (365, 144839), (393, 144893), (411, 144938), (414, 144941), (449, 145019), (462, 145040), (520, 145151), (554, 145241), (559, 145259), (590, 145331), (601, 145364),

Gene: Specks\_257 Start: 145350, Stop: 146378, Start Num: 142

Candidate Starts for Specks\_257:

(Start: 142 @145350 has 200 MA's), (Start: 163 @145380 has 304 MA's), (170, 145392), (Start: 192 @145434 has 2 MA's), (229, 145497), (239, 145518), (Start: 279 @145602 has 1 MA's), (302, 145644), (306, 145656), (312, 145671), (344, 145740), (365, 145767), (393, 145821), (411, 145866), (414, 145869), (449, 145947), (462, 145968), (520, 146079), (554, 146169), (559, 146187), (590, 146259), (601, 146292),

Gene: Spike509\_12 Start: 6046, Stop: 7011, Start Num: 153

Candidate Starts for Spike509\_12:

(Start: 153 @6046 has 92 MA's), (Start: 180 @6091 has 5 MA's), (Start: 192 @6112 has 2 MA's), (256, 6232), (330, 6370), (365, 6427), (371, 6442), (422, 6523), (430, 6538), (439, 6556), (469, 6607), (474, 6625), (497, 6670), (538, 6766), (561, 6829), (575, 6868), (597, 6919),

Gene: SpikeBT\_11 Start: 6419, Stop: 7387, Start Num: 163

Candidate Starts for SpikeBT\_11:

(Start: 163 @6419 has 304 MA's), (Start: 180 @6452 has 5 MA's), (Start: 190 @6470 has 1 MA's), (Start: 192 @6473 has 2 MA's), (335, 6740), (365, 6791), (368, 6803), (415, 6878), (442, 6941), (450, 6953), (462, 6974), (469, 6986), (474, 7004), (484, 7022), (496, 7046), (520, 7085), (551, 7166), (559, 7190), (561, 7193), (563, 7196), (567, 7205), (600, 7292), (614, 7337), (629, 7379),

Gene: Spikelee\_33 Start: 27770, Stop: 28771, Start Num: 149

Candidate Starts for Spikelee\_33:

(Start: 149 @27770 has 225 MA's), (Start: 192 @27845 has 2 MA's), (210, 27878), (229, 27908), (239, 27929), (251, 27959), (259, 27971), (Start: 279 @28013 has 1 MA's), (292, 28037), (302, 28052), (306, 28064), (365, 28175), (423, 28289), (433, 28307), (454, 28346), (469, 28370), (484, 28406), (497, 28433), (520, 28472), (559, 28580), (578, 28628), (604, 28697), (614, 28727),

Gene: Spino\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Spino\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Spock\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for Spock\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: Spoonbill\_31 Start: 27781, Stop: 28782, Start Num: 149

Candidate Starts for Spoonbill\_31:

(Start: 149 @27781 has 225 MA's), (Start: 192 @27856 has 2 MA's), (210, 27889), (229, 27919), (239, 27940), (251, 27970), (259, 27982), (Start: 279 @28024 has 1 MA's), (292, 28048), (302, 28063), (306, 28075), (365, 28186), (423, 28300), (433, 28318), (454, 28357), (469, 28381), (484, 28417), (520, 28483), (559, 28591), (578, 28639), (585, 28651), (601, 28696), (604, 28708), (614, 28738),

Gene: Sprinklers\_250 Start: 144118, Stop: 145146, Start Num: 142

Candidate Starts for Sprinklers\_250:

(Start: 142 @144118 has 200 MA's), (Start: 163 @144148 has 304 MA's), (170, 144160), (Start: 192 @144202 has 2 MA's), (229, 144265), (239, 144286), (Start: 279 @144370 has 1 MA's), (302, 144412), (306, 144424), (312, 144439), (344, 144508), (365, 144535), (393, 144589), (411, 144634), (414, 144637), (449, 144715), (462, 144736), (520, 144847), (554, 144937), (559, 144955), (590, 145027), (601, 145060),

Gene: Spud\_244 Start: 143867, Stop: 144895, Start Num: 142

Candidate Starts for Spud\_244:

(Start: 142 @143867 has 200 MA's), (Start: 163 @143897 has 304 MA's), (170, 143909), (Start: 192 @143951 has 2 MA's), (229, 144014), (239, 144035), (Start: 279 @144119 has 1 MA's), (302, 144161), (306, 144173), (312, 144188), (344, 144257), (365, 144284), (393, 144338), (411, 144383), (414, 144386), (449, 144464), (462, 144485), (520, 144596), (554, 144686), (559, 144704), (590, 144776), (601, 144809),

Gene: Squee\_10 Start: 6125, Stop: 7093, Start Num: 163

Candidate Starts for Squee\_10:

(Start: 163 @6125 has 304 MA's), (Start: 180 @6158 has 5 MA's), (Start: 190 @6176 has 1 MA's), (Start: 192 @6179 has 2 MA's), (335, 6446), (365, 6497), (368, 6509), (415, 6584), (442, 6647), (462, 6680), (474, 6710), (520, 6791), (551, 6872), (559, 6896), (561, 6899), (563, 6902), (567, 6911), (600,



6998), (629, 7085),

Gene: Squid\_49 Start: 41423, Stop: 42778, Start Num: 82

Candidate Starts for Squid\_49:

(Start: 82 @41423 has 255 MA's), (98, 41474), (108, 41507), (114, 41525), (168, 41636), (170, 41639), (Start: 180 @41654 has 5 MA's), (235, 41750), (251, 41789), (269, 41819), (284, 41855), (333, 41966), (345, 41996), (347, 41999), (379, 42065), (440, 42224), (469, 42272), (475, 42290), (498, 42338), (550, 42482), (571, 42542), (603, 42647), (637, 42734),

Gene: Squiggle\_49 Start: 41426, Stop: 42781, Start Num: 82

Candidate Starts for Squiggle\_49:

(Start: 82 @41426 has 255 MA's), (98, 41477), (108, 41510), (168, 41639), (170, 41642), (Start: 180 @41657 has 5 MA's), (235, 41753), (251, 41792), (269, 41822), (284, 41858), (333, 41969), (345, 41999), (347, 42002), (379, 42068), (440, 42227), (469, 42275), (475, 42293), (498, 42341), (550, 42485), (571, 42545), (603, 42650), (637, 42737),

Gene: Squint\_47 Start: 39016, Stop: 40020, Start Num: 100

Candidate Starts for Squint\_47:

(Start: 100 @39016 has 10 MA's), (117, 39070), (141, 39121), (184, 39193), (232, 39268), (293, 39382), (300, 39394), (313, 39427), (345, 39496), (352, 39508), (363, 39520), (364, 39523), (384, 39568), (392, 39586), (469, 39748), (473, 39763), (478, 39772), (637, 39973),

Gene: SrishMeg2525\_250 Start: 145505, Stop: 146533, Start Num: 142

Candidate Starts for SrishMeg2525\_250:

(Start: 142 @145505 has 200 MA's), (Start: 163 @145535 has 304 MA's), (170, 145547), (Start: 192 @145589 has 2 MA's), (229, 145652), (239, 145673), (Start: 279 @145757 has 1 MA's), (302, 145799), (306, 145811), (312, 145826), (344, 145895), (365, 145922), (393, 145976), (411, 146021), (414, 146024), (449, 146102), (462, 146123), (520, 146234), (554, 146324), (559, 146342), (590, 146414), (601, 146447),

Gene: StAnnes\_30 Start: 27994, Stop: 29064, Start Num: 149

Candidate Starts for StAnnes\_30:

(122, 27943), (Start: 149 @27994 has 225 MA's), (Start: 166 @28021 has 14 MA's), (Start: 180 @28048 has 5 MA's), (185, 28057), (219, 28117), (235, 28144), (269, 28210), (297, 28264), (314, 28306), (335, 28357), (391, 28471), (404, 28504), (431, 28579), (442, 28600), (512, 28729), (538, 28801), (574, 28897), (578, 28909), (604, 28978), (623, 29035), (627, 29044),

Gene: Stagni\_12 Start: 5964, Stop: 6929, Start Num: 153

Candidate Starts for Stagni\_12:

(Start: 153 @5964 has 92 MA's), (Start: 180 @6009 has 5 MA's), (Start: 192 @6030 has 2 MA's), (256, 6150), (330, 6288), (365, 6345), (371, 6360), (422, 6441), (430, 6456), (439, 6474), (469, 6525), (474, 6543), (497, 6588), (538, 6684), (561, 6747), (575, 6786), (597, 6837),

Gene: Stank\_38 Start: 32364, Stop: 33221, Start Num: 198

Candidate Starts for Stank\_38:

(Start: 198 @32364 has 122 MA's), (220, 32403), (232, 32433), (242, 32454), (257, 32490), (275, 32520), (309, 32595), (334, 32643), (336, 32646), (345, 32670), (347, 32673), (356, 32688), (426, 32859), (487, 32973), (495, 32988), (498, 32994), (575, 33036), (576, 33039), (601, 33093), (624, 33171), (641, 33204),

Gene: Stap\_32 Start: 27675, Stop: 28676, Start Num: 149

Candidate Starts for Stap\_32:

(107, 27576), (Start: 149 @27675 has 225 MA's), (Start: 192 @27750 has 2 MA's), (229, 27813), (232, 27819), (239, 27834), (262, 27882), (Start: 279 @27918 has 1 MA's), (302, 27957), (303, 27960), (306, 27969), (312, 27984), (340, 28041), (365, 28080), (422, 28191), (454, 28251), (462, 28263), (484, 28311), (497, 28338), (520, 28377), (559, 28485), (578, 28533), (604, 28602), (614, 28632),

Gene: StarStuff\_14 Start: 6597, Stop: 7361, Start Num: 294

Candidate Starts for StarStuff\_14:

(Start: 294 @6597 has 16 MA's), (365, 6741), (415, 6828), (423, 6855), (430, 6867), (474, 6954), (538, 7095), (559, 7155), (561, 7158), (574, 7194), (597, 7248), (611, 7296),

Gene: Starcevich\_35 Start: 28400, Stop: 29401, Start Num: 149

Candidate Starts for Starcevich\_35:

(Start: 149 @28400 has 225 MA's), (Start: 163 @28421 has 304 MA's), (170, 28433), (Start: 192 @28475 has 2 MA's), (229, 28538), (239, 28559), (251, 28589), (Start: 279 @28643 has 1 MA's), (292, 28667), (302, 28682), (306, 28694), (365, 28805), (423, 28919), (433, 28937), (454, 28976), (469, 29000), (484, 29036), (497, 29063), (520, 29102), (559, 29210), (578, 29258), (585, 29270), (601, 29315), (604, 29327), (614, 29357),

Gene: Stargaze\_28 Start: 26950, Stop: 28173, Start Num: 88

Candidate Starts for Stargaze\_28:

(1, 25669), (12, 26116), (13, 26167), (21, 26383), (30, 26503), (35, 26530), (37, 26572), (Start: 88 @26950 has 62 MA's), (146, 27112), (170, 27154), (202, 27196), (218, 27232), (235, 27268), (275, 27349), (284, 27373), (309, 27421), (320, 27445), (342, 27505), (354, 27532), (361, 27544), (395, 27622), (440, 27733), (469, 27772), (492, 27826), (639, 28135),

Gene: Stark\_36 Start: 31616, Stop: 32473, Start Num: 198

Candidate Starts for Stark\_36:

(Start: 198 @31616 has 122 MA's), (220, 31655), (232, 31685), (242, 31706), (257, 31742), (275, 31772), (309, 31847), (334, 31895), (336, 31898), (345, 31922), (347, 31925), (356, 31940), (426, 32111), (487, 32225), (495, 32240), (498, 32246), (575, 32288), (576, 32291), (601, 32345), (624, 32423), (641, 32456),

Gene: Stasia\_11 Start: 6326, Stop: 7306, Start Num: 164

Candidate Starts for Stasia\_11:

(Start: 164 @6326 has 109 MA's), (Start: 166 @6329 has 14 MA's), (178, 6353), (Start: 190 @6374 has 1 MA's), (Start: 192 @6377 has 2 MA's), (330, 6626), (365, 6683), (368, 6695), (416, 6767), (437, 6815), (474, 6872), (551, 7022), (598, 7133), (604, 7157), (627, 7223), (637, 7244), (646, 7277),

Gene: StellaBean\_35 Start: 31857, Stop: 32714, Start Num: 198

Candidate Starts for StellaBean\_35:

(Start: 198 @31857 has 122 MA's), (220, 31896), (232, 31926), (242, 31947), (257, 31983), (275, 32013), (309, 32088), (334, 32136), (336, 32139), (345, 32163), (347, 32166), (356, 32181), (426, 32352), (487, 32466), (495, 32481), (498, 32487), (575, 32529), (576, 32532), (601, 32586), (624, 32664), (641, 32697),

Gene: StepMih\_12 Start: 5955, Stop: 6920, Start Num: 153

Candidate Starts for StepMih\_12:

(Start: 153 @5955 has 92 MA's), (Start: 180 @6000 has 5 MA's), (Start: 192 @6021 has 2 MA's), (256, 6141), (330, 6279), (365, 6336), (371, 6351), (422, 6432), (430, 6447), (439, 6465), (469, 6516), (474, 6534), (497, 6579), (538, 6675), (561, 6738), (575, 6777), (597, 6828),

Gene: StephanieG\_246 Start: 145053, Stop: 146081, Start Num: 142

Candidate Starts for StephanieG\_246:

(Start: 142 @145053 has 200 MA's), (Start: 163 @145083 has 304 MA's), (170, 145095), (Start: 192 @145137 has 2 MA's), (229, 145200), (239, 145221), (Start: 279 @145305 has 1 MA's), (302, 145347), (306, 145359), (312, 145374), (344, 145443), (365, 145470), (393, 145524), (411, 145569), (414, 145572), (449, 145650), (462, 145671), (520, 145782), (554, 145872), (559, 145890), (590, 145962), (601, 145995),

Gene: Stephig9\_8 Start: 4838, Stop: 5647, Start Num: 221

Candidate Starts for Stephig9\_8:

(Start: 221 @4838 has 188 MA's), (263, 4922), (284, 4967), (314, 5027), (337, 5093), (440, 5327), (452, 5345), (469, 5366), (475, 5384), (490, 5417), (500, 5435), (578, 5480), (602, 5504), (645, 5633),

Gene: StevieRay\_27 Start: 24031, Stop: 25197, Start Num: 102

Candidate Starts for StevieRay\_27:

(Start: 102 @24031 has 88 MA's), (123, 24088), (168, 24175), (Start: 198 @24220 has 122 MA's), (235, 24295), (245, 24316), (284, 24400), (305, 24439), (309, 24451), (333, 24505), (345, 24535), (359, 24556), (379, 24601), (417, 24697), (434, 24736), (440, 24751), (469, 24790), (510, 24877), (527, 24895), (530, 24901), (553, 24949), (571, 24970), (598, 25042), (620, 25117),

Gene: StewieG\_9 Start: 5834, Stop: 6802, Start Num: 163

Candidate Starts for StewieG\_9:

(Start: 163 @5834 has 304 MA's), (Start: 180 @5867 has 5 MA's), (Start: 190 @5885 has 1 MA's), (Start: 192 @5888 has 2 MA's), (335, 6155), (365, 6206), (368, 6218), (415, 6293), (442, 6356), (450, 6368), (462, 6389), (469, 6401), (474, 6419), (484, 6437), (496, 6461), (520, 6500), (551, 6581), (559, 6605), (561, 6608), (563, 6611), (567, 6620), (600, 6707), (629, 6794),

Gene: Stink\_10 Start: 5846, Stop: 6826, Start Num: 164

Candidate Starts for Stink\_10:

(Start: 164 @5846 has 109 MA's), (178, 5873), (Start: 190 @5894 has 1 MA's), (Start: 192 @5897 has 2 MA's), (330, 6146), (365, 6203), (368, 6215), (401, 6266), (416, 6287), (437, 6335), (474, 6392), (551, 6542), (601, 6665), (604, 6677), (627, 6743), (652, 6818),

Gene: Stinson\_32 Start: 26696, Stop: 27568, Start Num: 221

Candidate Starts for Stinson\_32:

(195, 26669), (Start: 221 @26696 has 188 MA's), (Start: 227 @26708 has 1 MA's), (258, 26777), (275, 26804), (287, 26834), (293, 26843), (309, 26879), (313, 26888), (323, 26921), (331, 26939), (379, 27029), (447, 27164), (469, 27191), (476, 27212), (487, 27236), (521, 27287), (578, 27389), (598, 27425), (604, 27449), (640, 27548), (643, 27557),

Gene: StolenFromERC\_37 Start: 31848, Stop: 32705, Start Num: 198

Candidate Starts for StolenFromERC\_37:

(Start: 198 @31848 has 122 MA's), (220, 31887), (232, 31917), (242, 31938), (257, 31974), (275, 32004), (309, 32079), (334, 32127), (336, 32130), (345, 32154), (347, 32157), (356, 32172), (426, 32343), (487, 32457), (495, 32472), (498, 32478), (575, 32520), (576, 32523), (601, 32577), (624, 32655), (641, 32688),

Gene: StressBall\_27 Start: 24311, Stop: 25477, Start Num: 102

Candidate Starts for StressBall\_27:

(15, 23558), (26, 23729), (36, 23825), (41, 23930), (Start: 102 @24311 has 88 MA's), (106, 24320), (122, 24365), (123, 24368), (168, 24455), (Start: 198 @24500 has 122 MA's), (235, 24575), (245, 24596), (251, 24614), (284, 24680), (305, 24719), (333, 24785), (345, 24815), (359, 24836), (379, 24881), (417, 24977), (434, 25016), (440, 25031), (469, 25070), (510, 25157), (527, 25175), (530, 25181), (553, 25229), (598, 25322), (620, 25397),

Gene: Strobilo\_29 Start: 24780, Stop: 25982, Start Num: 99

Candidate Starts for Strobilo\_29:

(87, 24738), (Start: 99 @24780 has 10 MA's), (104, 24807), (111, 24828), (125, 24864), (136, 24885), (150, 24912), (182, 24972), (205, 25008), (Start: 227 @25041 has 1 MA's), (228, 25044), (242, 25074), (275, 25140), (293, 25179), (330, 25257), (353, 25302), (384, 25359), (392, 25377), (469, 25542), (476, 25563), (486, 25584), (539, 25689), (545, 25704), (575, 25773), (601, 25830), (624, 25911),

Gene: Strokeseat\_32 Start: 28331, Stop: 29347, Start Num: 149

Candidate Starts for Strokeseat\_32:

(58, 28013), (59, 28019), (60, 28031), (Start: 63 @28043 has 1 MA's), (64, 28055), (Start: 149 @28331 has 225 MA's), (Start: 221 @28463 has 188 MA's), (229, 28484), (239, 28505), (251, 28535), (259, 28547), (Start: 279 @28589 has 1 MA's), (292, 28613), (302, 28628), (306, 28640), (312, 28655), (365, 28751), (422, 28862), (433, 28883), (454, 28922), (462, 28934), (484, 28982), (497, 29009), (511, 29033), (520, 29048), (559, 29156), (578, 29204), (604, 29273), (614, 29303),

Gene: StrongArm\_9 Start: 5686, Stop: 6654, Start Num: 163

Candidate Starts for StrongArm\_9:

(Start: 163 @5686 has 304 MA's), (Start: 180 @5719 has 5 MA's), (Start: 190 @5737 has 1 MA's), (Start: 192 @5740 has 2 MA's), (335, 6007), (365, 6058), (368, 6070), (415, 6145), (442, 6208), (462, 6241), (469, 6253), (474, 6271), (484, 6289), (520, 6352), (551, 6433), (559, 6457), (561, 6460), (563, 6463), (567, 6472), (600, 6559), (629, 6646),

Gene: Struggle\_48 Start: 41258, Stop: 42613, Start Num: 82

Candidate Starts for Struggle\_48:

(Start: 82 @41258 has 255 MA's), (98, 41309), (108, 41342), (168, 41471), (170, 41474), (Start: 180 @41489 has 5 MA's), (235, 41585), (251, 41624), (269, 41654), (284, 41690), (333, 41801), (345, 41831), (347, 41834), (379, 41900), (440, 42059), (469, 42107), (475, 42125), (498, 42173), (550, 42317), (571, 42377), (603, 42482), (637, 42569),

Gene: Stubby\_235 Start: 141838, Stop: 142866, Start Num: 142

Candidate Starts for Stubby\_235:

(Start: 142 @141838 has 200 MA's), (Start: 163 @141868 has 304 MA's), (Start: 192 @141922 has 2 MA's), (229, 141985), (239, 142006), (Start: 279 @142090 has 1 MA's), (302, 142132), (306, 142144), (312, 142159), (344, 142228), (365, 142255), (393, 142309), (411, 142354), (414, 142357), (449, 142435), (462, 142456), (520, 142567), (554, 142657), (559, 142675), (590, 142747), (601, 142780),

Gene: StubbySaigey\_259 Start: 145035, Stop: 146063, Start Num: 142

Candidate Starts for StubbySaigey\_259:

(Start: 142 @145035 has 200 MA's), (Start: 163 @145065 has 304 MA's), (170, 145077), (Start: 192 @145119 has 2 MA's), (229, 145182), (239, 145203), (Start: 279 @145287 has 1 MA's), (302, 145329), (306, 145341), (312, 145356), (344, 145425), (365, 145452), (393, 145506), (411, 145551), (414, 145554), (449, 145632), (462, 145653), (520, 145764), (554, 145854), (559, 145872), (590, 145944), (601, 145977),

Gene: Suffolk\_49 Start: 41707, Stop: 43062, Start Num: 82

Candidate Starts for Suffolk\_49:

(Start: 82 @41707 has 255 MA's), (98, 41758), (108, 41791), (168, 41920), (170, 41923), (Start: 180 @41938 has 5 MA's), (235, 42034), (251, 42073), (269, 42103), (284, 42139), (333, 42250), (345, 42280), (347, 42283), (379, 42349), (440, 42508), (469, 42556), (475, 42574), (498, 42622), (550, 42766), (571, 42826), (603, 42931), (637, 43018),

Gene: Sulley\_31 Start: 26427, Stop: 27299, Start Num: 221

Candidate Starts for Sulley\_31:

(76, 26097), (151, 26325), (195, 26400), (Start: 221 @26427 has 188 MA's), (Start: 227 @26439 has 1 MA's), (258, 26508), (275, 26535), (287, 26565), (293, 26574), (309, 26610), (313, 26619), (323, 26652), (331, 26670), (347, 26700), (379, 26760), (447, 26895), (469, 26922), (476, 26943), (487, 26967), (521, 27018), (578, 27120), (598, 27156), (604, 27180), (640, 27279), (643, 27288),

Gene: Sumter\_9 Start: 5577, Stop: 6545, Start Num: 163

Candidate Starts for Sumter\_9:

(Start: 163 @5577 has 304 MA's), (Start: 180 @5610 has 5 MA's), (Start: 190 @5628 has 1 MA's), (Start: 192 @5631 has 2 MA's), (335, 5898), (365, 5949), (368, 5961), (415, 6036), (442, 6099), (450, 6111), (462, 6132), (469, 6144), (474, 6162), (484, 6180), (496, 6204), (520, 6243), (551, 6324), (559, 6348), (561, 6351), (563, 6354), (567, 6363), (600, 6450), (614, 6495), (629, 6537),

Gene: Sunflower1121\_30 Start: 25725, Stop: 26468, Start Num: 217

Candidate Starts for Sunflower1121\_30:

(151, 25623), (Start: 162 @25644 has 2 MA's), (183, 25677), (195, 25698), (Start: 217 @25725 has 11 MA's), (239, 25767), (242, 25773), (258, 25809), (287, 25857), (293, 25866), (309, 25902), (323, 25944), (379, 26052), (447, 26187), (462, 26202), (469, 26214), (476, 26235), (496, 26250), (538, 26259), (573, 26271), (601, 26337), (624, 26418), (637, 26439), (640, 26448),

Gene: Sunshine924\_9 Start: 5560, Stop: 6528, Start Num: 163

Candidate Starts for Sunshine924\_9:

(Start: 163 @5560 has 304 MA's), (Start: 180 @5593 has 5 MA's), (Start: 190 @5611 has 1 MA's), (Start: 192 @5614 has 2 MA's), (335, 5881), (365, 5932), (368, 5944), (415, 6019), (442, 6082), (462, 6115), (469, 6127), (474, 6145), (484, 6163), (496, 6187), (520, 6226), (551, 6307), (559, 6331), (561, 6334), (563, 6337), (567, 6346), (600, 6433), (629, 6520),

Gene: SuperGrey\_32 Start: 28493, Stop: 29494, Start Num: 149

Candidate Starts for SuperGrey\_32:

(Start: 149 @28493 has 225 MA's), (Start: 192 @28568 has 2 MA's), (210, 28601), (229, 28631), (239, 28652), (Start: 279 @28736 has 1 MA's), (306, 28787), (312, 28802), (365, 28898), (422, 29009), (433, 29030), (454, 29069), (462, 29081), (484, 29129), (497, 29156), (511, 29180), (520, 29195), (559, 29303), (578, 29351), (604, 29420), (614, 29450),

Gene: Superphikiman\_48 Start: 39088, Stop: 40092, Start Num: 100

Candidate Starts for Superphikiman\_48:

(Start: 100 @39088 has 10 MA's), (117, 39142), (141, 39193), (184, 39265), (232, 39340), (293, 39454), (300, 39466), (313, 39499), (345, 39568), (352, 39580), (363, 39592), (364, 39595), (384, 39640), (392, 39658), (469, 39820), (473, 39835), (478, 39844), (637, 40045),

Gene: Surely\_49 Start: 41713, Stop: 43068, Start Num: 82

Candidate Starts for Surely\_49:

(Start: 82 @41713 has 255 MA's), (98, 41764), (108, 41797), (168, 41926), (170, 41929), (Start: 180 @41944 has 5 MA's), (235, 42040), (251, 42079), (269, 42109), (284, 42145), (333, 42256), (345, 42286), (347, 42289), (379, 42355), (440, 42514), (469, 42562), (475, 42580), (498, 42628), (550, 42772), (571, 42832), (603, 42937), (620, 42991), (637, 43024),

Gene: SwagPigglett\_31 Start: 27510, Stop: 28511, Start Num: 149

Candidate Starts for SwagPigglett\_31:

(Start: 149 @27510 has 225 MA's), (Start: 163 @27531 has 304 MA's), (170, 27543), (Start: 192 @27585 has 2 MA's), (229, 27648), (239, 27669), (251, 27699), (Start: 279 @27753 has 1 MA's), (292, 27777), (302, 27792), (306, 27804), (365, 27915), (423, 28029), (433, 28047), (454, 28086), (469, 28110), (484, 28146), (497, 28173), (520, 28212), (538, 28260), (559, 28320), (585, 28380),

(604, 28437), (614, 28467),

Gene: SweetiePie\_11 Start: 6372, Stop: 7364, Start Num: 163

Candidate Starts for SweetiePie\_11:

(Start: 163 @6372 has 304 MA's), (Start: 190 @6423 has 1 MA's), (Start: 192 @6426 has 2 MA's), (212, 6459), (223, 6474), (299, 6594), (302, 6600), (338, 6687), (365, 6732), (437, 6864), (467, 6903), (494, 6951), (540, 7032), (555, 7074), (588, 7161), (604, 7209), (624, 7275), (651, 7350),

Gene: Sweets\_28 Start: 25196, Stop: 26404, Start Num: 88

Candidate Starts for Sweets\_28:

(65, 25103), (Start: 88 @25196 has 62 MA's), (154, 25370), (202, 25442), (251, 25541), (255, 25550), (270, 25574), (275, 25583), (284, 25607), (295, 25628), (309, 25655), (314, 25667), (342, 25739), (361, 25778), (440, 25967), (459, 25991), (469, 26006), (476, 26027), (498, 26072), (500, 26075), (534, 26126),

Gene: Swiphy\_51 Start: 41708, Stop: 43063, Start Num: 82

Candidate Starts for Swiphy\_51:

(Start: 82 @41708 has 255 MA's), (98, 41759), (108, 41792), (168, 41921), (170, 41924), (Start: 180 @41939 has 5 MA's), (235, 42035), (251, 42074), (269, 42104), (284, 42140), (333, 42251), (345, 42281), (347, 42284), (379, 42350), (440, 42509), (469, 42557), (475, 42575), (498, 42623), (550, 42767), (571, 42827), (603, 42932), (637, 43019),

Gene: Swirley\_8 Start: 5325, Stop: 6134, Start Num: 221

Candidate Starts for Swirley\_8:

(Start: 221 @5325 has 188 MA's), (251, 5388), (255, 5397), (284, 5454), (309, 5502), (339, 5583), (420, 5772), (440, 5814), (475, 5871), (495, 5913), (645, 6120),

Gene: Swish\_50 Start: 41831, Stop: 43207, Start Num: 82

Candidate Starts for Swish\_50:

(Start: 82 @41831 has 255 MA's), (98, 41882), (108, 41915), (168, 42044), (170, 42047), (Start: 180 @42062 has 5 MA's), (235, 42158), (251, 42197), (269, 42227), (284, 42263), (333, 42374), (345, 42404), (347, 42407), (379, 42473), (440, 42632), (469, 42680), (475, 42698), (498, 42746), (550, 42911), (571, 42971), (603, 43076), (637, 43163),

Gene: SwissCheese\_10 Start: 6022, Stop: 6990, Start Num: 163

Candidate Starts for SwissCheese\_10:

(Start: 163 @6022 has 304 MA's), (Start: 180 @6055 has 5 MA's), (Start: 190 @6073 has 1 MA's), (Start: 192 @6076 has 2 MA's), (335, 6343), (365, 6394), (368, 6406), (415, 6481), (442, 6544), (462, 6577), (469, 6589), (474, 6607), (484, 6625), (496, 6649), (520, 6688), (551, 6769), (559, 6793), (561, 6796), (563, 6799), (567, 6808), (600, 6895), (614, 6940), (629, 6982),

Gene: Switzer\_10 Start: 5607, Stop: 6575, Start Num: 163

Candidate Starts for Switzer\_10:

(Start: 163 @5607 has 304 MA's), (Start: 180 @5640 has 5 MA's), (Start: 190 @5658 has 1 MA's), (Start: 192 @5661 has 2 MA's), (335, 5928), (365, 5979), (368, 5991), (415, 6066), (442, 6129), (450, 6141), (462, 6162), (469, 6174), (474, 6192), (484, 6210), (496, 6234), (520, 6273), (551, 6354), (559, 6378), (561, 6381), (563, 6384), (567, 6393), (595, 6459), (600, 6480), (629, 6567),

Gene: Swole\_12 Start: 6545, Stop: 7459, Start Num: 192

Candidate Starts for Swole\_12:

(Start: 163 @6491 has 304 MA's), (Start: 180 @6524 has 5 MA's), (Start: 190 @6542 has 1 MA's), (Start: 192 @6545 has 2 MA's), (335, 6812), (365, 6863), (368, 6875), (415, 6950), (442, 7013), (450, 7025), (462, 7046), (474, 7076), (484, 7094), (496, 7118), (520, 7157), (551, 7238), (559, 7262), (561,

7265), (563, 7268), (567, 7277), (600, 7364), (614, 7409), (629, 7451),

Gene: SydNat\_8 Start: 5432, Stop: 6241, Start Num: 221

Candidate Starts for SydNat\_8:

(Start: 221 @5432 has 188 MA's), (251, 5495), (255, 5504), (284, 5561), (309, 5609), (329, 5666), (339, 5690), (420, 5879), (440, 5921), (475, 5978), (645, 6227),

Gene: SynergyX\_47 Start: 41537, Stop: 42601, Start Num: 138

Candidate Starts for SynergyX\_47:

(Start: 138 @41537 has 44 MA's), (173, 41600), (219, 41681), (252, 41747), (260, 41762), (269, 41774), (280, 41801), (311, 41858), (314, 41867), (391, 42014), (401, 42029), (422, 42083), (439, 42116), (463, 42155), (470, 42167), (512, 42248), (520, 42266), (523, 42269), (538, 42314), (578, 42425), (617, 42536), (626, 42557), (641, 42590),

Gene: Syra333\_31 Start: 25735, Stop: 26478, Start Num: 217

Candidate Starts for Syra333\_31:

(195, 25708), (Start: 217 @25735 has 11 MA's), (239, 25777), (242, 25783), (258, 25819), (287, 25867), (293, 25876), (309, 25912), (323, 25954), (379, 26062), (447, 26197), (462, 26212), (469, 26224), (476, 26245), (496, 26260), (538, 26269), (573, 26281), (624, 26428), (637, 26449), (640, 26458),

Gene: TBond007\_31 Start: 26937, Stop: 27725, Start Num: 221

Candidate Starts for TBond007\_31:

(195, 26913), (Start: 221 @26937 has 188 MA's), (242, 26982), (258, 27018), (287, 27075), (293, 27084), (309, 27120), (331, 27174), (343, 27198), (416, 27339), (447, 27402), (469, 27444), (476, 27465), (480, 27471), (487, 27489), (575, 27519), (604, 27588), (625, 27660), (640, 27690),

Gene: TBrady12\_37 Start: 31848, Stop: 32705, Start Num: 198

Candidate Starts for TBrady12\_37:

(Start: 198 @31848 has 122 MA's), (220, 31887), (232, 31917), (242, 31938), (257, 31974), (275, 32004), (309, 32079), (334, 32127), (336, 32130), (345, 32154), (347, 32157), (356, 32172), (426, 32343), (487, 32457), (495, 32472), (498, 32478), (575, 32520), (576, 32523), (601, 32577), (624, 32655), (641, 32688),

Gene: TChen\_31 Start: 28122, Stop: 29198, Start Num: 149

Candidate Starts for TChen\_31:

(Start: 149 @28122 has 225 MA's), (Start: 166 @28149 has 14 MA's), (182, 28179), (185, 28185), (229, 28260), (235, 28272), (244, 28290), (274, 28347), (311, 28425), (314, 28434), (335, 28485), (358, 28527), (367, 28551), (369, 28560), (391, 28602), (404, 28635), (422, 28692), (423, 28695), (431, 28710), (437, 28722), (450, 28743), (455, 28755), (470, 28779), (512, 28860), (517, 28884), (538, 28935), (568, 29013), (578, 29043), (579, 29046), (599, 29091), (604, 29112), (627, 29178),

Gene: TClif\_33 Start: 26185, Stop: 27048, Start Num: 221

Candidate Starts for TClif\_33:

(151, 26083), (Start: 162 @26104 has 2 MA's), (183, 26137), (195, 26158), (Start: 221 @26185 has 188 MA's), (Start: 227 @26197 has 1 MA's), (242, 26230), (258, 26266), (287, 26314), (293, 26323), (313, 26368), (323, 26401), (370, 26494), (379, 26509), (447, 26644), (469, 26671), (476, 26692), (487, 26716), (497, 26737), (576, 26863), (578, 26869), (599, 26908), (640, 27028), (643, 27037),

Gene: TDanisky\_31 Start: 27617, Stop: 28618, Start Num: 149

Candidate Starts for TDanisky\_31:

(Start: 149 @27617 has 225 MA's), (Start: 192 @27692 has 2 MA's), (210, 27725), (229, 27755), (239, 27776), (251, 27806), (259, 27818), (Start: 279 @27860 has 1 MA's), (292, 27884), (302, 27899),

(306, 27911), (365, 28022), (423, 28136), (433, 28154), (454, 28193), (469, 28217), (484, 28253), (520, 28319), (559, 28427), (578, 28475), (585, 28487), (601, 28532), (604, 28544), (614, 28574),

Gene: TM4\_30 Start: 24984, Stop: 26186, Start Num: 99

Candidate Starts for TM4\_30:

(70, 24861), (73, 24882), (87, 24945), (Start: 99 @24984 has 10 MA's), (104, 25011), (111, 25032), (125, 25068), (150, 25113), (205, 25209), (Start: 227 @25242 has 1 MA's), (228, 25245), (242, 25275), (275, 25341), (293, 25380), (330, 25458), (353, 25503), (392, 25578), (418, 25650), (469, 25743), (476, 25764), (486, 25785), (487, 25788), (539, 25902), (545, 25917), (575, 25977), (601, 26034), (624, 26115),

Gene: TNguyen7\_10 Start: 5709, Stop: 6449, Start Num: 285

Candidate Starts for TNguyen7\_10:

(209, 5592), (Start: 285 @5709 has 17 MA's), (330, 5796), (365, 5853), (368, 5865), (371, 5868), (385, 5892), (400, 5907), (408, 5925), (422, 5955), (425, 5961), (430, 5970), (439, 5988), (469, 6039), (474, 6057), (512, 6129), (535, 6171), (538, 6198), (549, 6225), (559, 6258), (561, 6261), (575, 6300), (631, 6441),

Gene: Tachez\_31 Start: 26423, Stop: 27295, Start Num: 221

Candidate Starts for Tachez\_31:

(195, 26396), (Start: 221 @26423 has 188 MA's), (Start: 227 @26435 has 1 MA's), (258, 26504), (275, 26531), (287, 26561), (293, 26570), (309, 26606), (313, 26615), (323, 26648), (331, 26666), (347, 26696), (378, 26753), (379, 26756), (447, 26891), (469, 26918), (476, 26939), (487, 26963), (521, 27014), (578, 27116), (598, 27152), (604, 27176), (640, 27275), (643, 27284),

Gene: Taheera\_28 Start: 25310, Stop: 26527, Start Num: 88

Candidate Starts for Taheera\_28:

(3, 24155), (4, 24215), (7, 24341), (8, 24374), (11, 24458), (22, 24761), (24, 24767), (27, 24818), (29, 24854), (32, 24872), (38, 24938), (57, 25166), (65, 25217), (Start: 88 @25310 has 62 MA's), (154, 25484), (202, 25556), (235, 25625), (251, 25664), (270, 25697), (275, 25706), (284, 25730), (309, 25778), (320, 25802), (361, 25901), (379, 25943), (440, 26090), (469, 26129), (476, 26150), (495, 26189), (498, 26195),

Gene: TaiwanKao\_32 Start: 26427, Stop: 27299, Start Num: 221

Candidate Starts for TaiwanKao\_32:

(195, 26400), (Start: 221 @26427 has 188 MA's), (Start: 227 @26439 has 1 MA's), (258, 26508), (275, 26535), (287, 26565), (293, 26574), (309, 26610), (313, 26619), (323, 26652), (331, 26670), (379, 26760), (447, 26895), (469, 26922), (476, 26943), (487, 26967), (521, 27018), (547, 27069), (578, 27120), (598, 27156), (604, 27180), (640, 27279), (643, 27288),

Gene: Taj\_31 Start: 27685, Stop: 28683, Start Num: 149

Candidate Starts for Taj\_31:

(Start: 149 @27685 has 225 MA's), (Start: 192 @27760 has 2 MA's), (229, 27820), (239, 27841), (Start: 279 @27925 has 1 MA's), (306, 27976), (312, 27991), (365, 28087), (422, 28198), (433, 28219), (454, 28258), (462, 28270), (484, 28318), (497, 28345), (511, 28369), (520, 28384), (559, 28492), (578, 28540), (604, 28609), (614, 28639),

Gene: TallGrassMM\_49 Start: 41326, Stop: 42681, Start Num: 82

Candidate Starts for TallGrassMM\_49:

(Start: 82 @41326 has 255 MA's), (98, 41377), (108, 41410), (168, 41539), (170, 41542), (Start: 180 @41557 has 5 MA's), (235, 41653), (251, 41692), (269, 41722), (284, 41758), (333, 41869), (345, 41899), (347, 41902), (379, 41968), (440, 42127), (469, 42175), (475, 42193), (498, 42241), (550, 42385), (571, 42445), (603, 42550), (637, 42637),



Gene: Taquarus\_10 Start: 5884, Stop: 6864, Start Num: 164

Candidate Starts for Taquarus\_10:

(Start: 164 @5884 has 109 MA's), (Start: 166 @5887 has 14 MA's), (178, 5911), (Start: 190 @5932 has 1 MA's), (Start: 192 @5935 has 2 MA's), (330, 6184), (365, 6241), (401, 6304), (416, 6325), (422, 6346), (437, 6373), (464, 6403), (474, 6430), (551, 6580), (598, 6691), (601, 6703), (604, 6715), (627, 6781),

Gene: Taquito\_32 Start: 28079, Stop: 28870, Start Num: 200

Candidate Starts for Taquito\_32:

(Start: 200 @28079 has 20 MA's), (Start: 227 @28112 has 1 MA's), (242, 28145), (251, 28169), (264, 28190), (270, 28199), (283, 28229), (287, 28238), (293, 28247), (309, 28283), (350, 28364), (447, 28571), (469, 28598), (476, 28619), (483, 28634), (487, 28643), (576, 28667), (601, 28721), (604, 28733), (625, 28805),

Gene: Target\_11 Start: 6279, Stop: 7247, Start Num: 163

Candidate Starts for Target\_11:

(Start: 163 @6279 has 304 MA's), (Start: 180 @6312 has 5 MA's), (Start: 190 @6330 has 1 MA's), (Start: 192 @6333 has 2 MA's), (335, 6600), (365, 6651), (368, 6663), (415, 6738), (442, 6801), (456, 6825), (474, 6864), (484, 6882), (520, 6945), (551, 7026), (559, 7050), (561, 7053), (563, 7056), (567, 7065), (600, 7152),

Gene: Tarkin\_37 Start: 32847, Stop: 33704, Start Num: 198

Candidate Starts for Tarkin\_37:

(Start: 198 @32847 has 122 MA's), (220, 32886), (232, 32916), (242, 32937), (257, 32973), (275, 33003), (309, 33078), (334, 33126), (336, 33129), (345, 33153), (347, 33156), (356, 33171), (426, 33342), (487, 33456), (495, 33471), (498, 33477), (575, 33519), (576, 33522), (601, 33576), (624, 33654), (641, 33687),

Gene: TarsusIV\_11 Start: 6440, Stop: 7432, Start Num: 163

Candidate Starts for TarsusIV\_11:

(Start: 163 @6440 has 304 MA's), (Start: 192 @6494 has 2 MA's), (273, 6629), (299, 6662), (302, 6668), (312, 6695), (338, 6755), (365, 6800), (376, 6824), (437, 6932), (467, 6971), (494, 7019), (540, 7100), (541, 7103), (555, 7142), (588, 7229), (624, 7343), (651, 7418),

Gene: Tarynearal\_7 Start: 5352, Stop: 6161, Start Num: 221

Candidate Starts for Tarynearal\_7:

(Start: 221 @5352 has 188 MA's), (251, 5415), (255, 5424), (284, 5481), (309, 5529), (339, 5610), (420, 5799), (440, 5841), (475, 5898), (495, 5940), (645, 6147),

Gene: Tasp14\_11 Start: 6262, Stop: 7230, Start Num: 163

Candidate Starts for Tasp14\_11:

(Start: 163 @6262 has 304 MA's), (Start: 180 @6295 has 5 MA's), (Start: 190 @6313 has 1 MA's), (Start: 192 @6316 has 2 MA's), (335, 6583), (365, 6634), (368, 6646), (415, 6721), (442, 6784), (462, 6817), (469, 6829), (474, 6847), (484, 6865), (496, 6889), (520, 6928), (551, 7009), (559, 7033), (561, 7036), (563, 7039), (567, 7048), (600, 7135), (614, 7180), (629, 7222),

Gene: Taurus\_12 Start: 5960, Stop: 6925, Start Num: 153

Candidate Starts for Taurus\_12:

(Start: 153 @5960 has 92 MA's), (Start: 180 @6005 has 5 MA's), (Start: 192 @6026 has 2 MA's), (256, 6146), (365, 6341), (371, 6356), (422, 6437), (430, 6452), (439, 6470), (469, 6521), (474, 6539), (497, 6584), (538, 6680), (561, 6743), (575, 6782), (597, 6833),

Gene: Teardrop\_251 Start: 144362, Stop: 145390, Start Num: 142

Candidate Starts for Teardrop\_251:

(Start: 142 @144362 has 200 MA's), (Start: 163 @144392 has 304 MA's), (170, 144404), (Start: 192 @144446 has 2 MA's), (229, 144509), (239, 144530), (Start: 279 @144614 has 1 MA's), (302, 144656), (306, 144668), (312, 144683), (344, 144752), (365, 144779), (393, 144833), (411, 144878), (414, 144881), (449, 144959), (462, 144980), (520, 145091), (554, 145181), (559, 145199), (590, 145271), (601, 145304),

Gene: TeardropMSU\_34 Start: 31758, Stop: 32615, Start Num: 198

Candidate Starts for TeardropMSU\_34:

(Start: 198 @31758 has 122 MA's), (220, 31797), (232, 31827), (242, 31848), (257, 31884), (275, 31914), (309, 31989), (334, 32037), (336, 32040), (345, 32064), (347, 32067), (356, 32082), (426, 32253), (487, 32367), (495, 32382), (498, 32388), (575, 32430), (576, 32433), (601, 32487), (624, 32565), (641, 32598),

Gene: Teaspoon\_36 Start: 31811, Stop: 32668, Start Num: 198

Candidate Starts for Teaspoon\_36:

(Start: 198 @31811 has 122 MA's), (220, 31850), (232, 31880), (242, 31901), (257, 31937), (275, 31967), (309, 32042), (334, 32090), (336, 32093), (345, 32117), (347, 32120), (356, 32135), (426, 32306), (487, 32420), (495, 32435), (498, 32441), (575, 32483), (576, 32486), (601, 32540), (624, 32618), (641, 32651),

Gene: Techage\_27 Start: 24043, Stop: 25209, Start Num: 102

Candidate Starts for Techage\_27:

(Start: 102 @24043 has 88 MA's), (123, 24100), (168, 24187), (Start: 198 @24232 has 122 MA's), (201, 24235), (235, 24307), (245, 24328), (284, 24412), (305, 24451), (333, 24517), (345, 24547), (359, 24568), (379, 24613), (417, 24709), (434, 24748), (440, 24763), (469, 24802), (510, 24889), (527, 24907), (530, 24913), (553, 24961), (571, 24982), (598, 25054), (620, 25129),

Gene: TelAviv\_64 Start: 43386, Stop: 44426, Start Num: 148

Candidate Starts for TelAviv\_64:

(Start: 148 @43386 has 26 MA's), (Start: 192 @43461 has 2 MA's), (229, 43542), (232, 43548), (239, 43563), (278, 43644), (Start: 279 @43647 has 1 MA's), (306, 43701), (312, 43716), (365, 43812), (385, 43851), (397, 43881), (411, 43911), (414, 43914), (425, 43947), (462, 44013), (484, 44061), (497, 44088), (520, 44127), (589, 44301), (604, 44352),

Gene: Telesworld\_48 Start: 41405, Stop: 42760, Start Num: 82

Candidate Starts for Telesworld\_48:

(Start: 82 @41405 has 255 MA's), (98, 41456), (108, 41489), (168, 41618), (170, 41621), (Start: 180 @41636 has 5 MA's), (235, 41732), (251, 41771), (269, 41801), (284, 41837), (333, 41948), (345, 41978), (347, 41981), (379, 42047), (440, 42206), (469, 42254), (475, 42272), (498, 42320), (550, 42464), (571, 42524), (603, 42629), (637, 42716),

Gene: Teodoridan\_8 Start: 5393, Stop: 6361, Start Num: 163

Candidate Starts for Teodoridan\_8:

(Start: 163 @5393 has 304 MA's), (Start: 180 @5426 has 5 MA's), (Start: 190 @5444 has 1 MA's), (Start: 192 @5447 has 2 MA's), (335, 5714), (365, 5765), (368, 5777), (415, 5852), (442, 5915), (456, 5939), (474, 5978), (484, 5996), (520, 6059), (551, 6140), (559, 6164), (561, 6167), (563, 6170), (567, 6179), (600, 6266), (629, 6353),

Gene: Terminus\_35 Start: 31945, Stop: 32802, Start Num: 198

Candidate Starts for Terminus\_35:

(Start: 198 @31945 has 122 MA's), (220, 31984), (232, 32014), (242, 32035), (257, 32071), (275, 32101), (309, 32176), (334, 32224), (336, 32227), (345, 32251), (347, 32254), (356, 32269), (426, 32440), (487, 32554), (495, 32569), (498, 32575), (575, 32617), (576, 32620), (601, 32674), (624, 32752), (641, 32785),

Gene: Terror\_28 Start: 25310, Stop: 26527, Start Num: 88

Candidate Starts for Terror\_28:

(3, 24155), (4, 24215), (7, 24341), (8, 24374), (11, 24458), (22, 24761), (24, 24767), (27, 24818), (29, 24854), (32, 24872), (38, 24938), (57, 25166), (65, 25217), (Start: 88 @25310 has 62 MA's), (154, 25484), (202, 25556), (235, 25625), (251, 25664), (270, 25697), (275, 25706), (284, 25730), (309, 25778), (320, 25802), (361, 25901), (379, 25943), (440, 26090), (469, 26129), (476, 26150), (495, 26189), (498, 26195),

Gene: Texage\_10 Start: 6052, Stop: 7017, Start Num: 153

Candidate Starts for Texage\_10:

(Start: 153 @6052 has 92 MA's), (Start: 180 @6097 has 5 MA's), (Start: 192 @6118 has 2 MA's), (256, 6238), (267, 6253), (Start: 296 @6292 has 2 MA's), (330, 6376), (365, 6433), (371, 6448), (422, 6529), (430, 6544), (439, 6562), (469, 6613), (474, 6631), (497, 6676), (538, 6772), (561, 6835), (575, 6874), (597, 6925),

Gene: Thanksgivukkah\_10 Start: 5886, Stop: 6866, Start Num: 164

Candidate Starts for Thanksgivukkah\_10:

(Start: 164 @5886 has 109 MA's), (Start: 166 @5889 has 14 MA's), (178, 5913), (Start: 190 @5934 has 1 MA's), (Start: 192 @5937 has 2 MA's), (330, 6186), (365, 6243), (401, 6306), (416, 6327), (422, 6348), (437, 6375), (464, 6405), (474, 6432), (551, 6582), (598, 6693), (601, 6705), (604, 6717), (627, 6783),

Gene: Theia\_7 Start: 5291, Stop: 6100, Start Num: 221

Candidate Starts for Theia\_7:

(Start: 221 @5291 has 188 MA's), (251, 5354), (255, 5363), (284, 5420), (309, 5468), (420, 5738), (440, 5780), (475, 5837), (495, 5879), (645, 6086),

Gene: TheloniousMonk\_11 Start: 6506, Stop: 7474, Start Num: 163

Candidate Starts for TheloniousMonk\_11:

(Start: 163 @6506 has 304 MA's), (Start: 180 @6539 has 5 MA's), (Start: 190 @6557 has 1 MA's), (Start: 192 @6560 has 2 MA's), (335, 6827), (365, 6878), (368, 6890), (415, 6965), (442, 7028), (450, 7040), (462, 7061), (469, 7073), (474, 7091), (484, 7109), (496, 7133), (520, 7172), (551, 7253), (559, 7277), (561, 7280), (563, 7283), (567, 7292), (600, 7379),

Gene: Thespis\_27 Start: 24047, Stop: 25213, Start Num: 102

Candidate Starts for Thespis\_27:

(5, 22928), (9, 23081), (15, 23294), (36, 23561), (41, 23666), (Start: 102 @24047 has 88 MA's), (106, 24056), (122, 24101), (123, 24104), (168, 24191), (Start: 198 @24236 has 122 MA's), (235, 24311), (245, 24332), (284, 24416), (305, 24455), (333, 24521), (345, 24551), (359, 24572), (379, 24617), (417, 24713), (434, 24752), (440, 24767), (447, 24779), (469, 24806), (508, 24890), (510, 24893), (527, 24911), (530, 24917), (553, 24965), (578, 25010), (598, 25058), (620, 25133),

Gene: ThetaBob\_30 Start: 27001, Stop: 28077, Start Num: 149

Candidate Starts for ThetaBob\_30:

(44, 26533), (46, 26548), (68, 26740), (105, 26902), (Start: 149 @27001 has 225 MA's), (Start: 166 @27028 has 14 MA's), (182, 27058), (235, 27151), (239, 27160), (244, 27169), (274, 27226), (283, 27250), (284, 27253), (297, 27271), (311, 27304), (314, 27313), (328, 27349), (335, 27364), (358, 27406), (367, 27430), (369, 27439), (377, 27451), (391, 27481), (403, 27511), (404, 27514), (422,

27571), (423, 27574), (431, 27589), (437, 27601), (442, 27610), (455, 27634), (470, 27658), (512, 27739), (538, 27814), (596, 27958), (598, 27967), (599, 27970), (600, 27976), (604, 27991), (627, 28057),

Gene: Thibault\_42 Start: 39661, Stop: 40665, Start Num: 100

Candidate Starts for Thibault\_42:

(Start: 100 @39661 has 10 MA's), (117, 39715), (141, 39766), (181, 39835), (184, 39838), (287, 40018), (293, 40027), (313, 40072), (345, 40141), (363, 40165), (364, 40168), (384, 40213), (392, 40231), (469, 40393), (478, 40417), (575, 40459), (637, 40618),

Gene: Thor\_10 Start: 5845, Stop: 6813, Start Num: 163

Candidate Starts for Thor\_10:

(Start: 163 @5845 has 304 MA's), (Start: 180 @5878 has 5 MA's), (Start: 190 @5896 has 1 MA's), (Start: 192 @5899 has 2 MA's), (335, 6166), (365, 6217), (368, 6229), (415, 6304), (442, 6367), (462, 6400), (469, 6412), (474, 6430), (484, 6448), (496, 6472), (520, 6511), (551, 6592), (559, 6616), (561, 6619), (563, 6622), (567, 6631), (600, 6718), (629, 6805),

Gene: Thora\_49 Start: 41712, Stop: 43067, Start Num: 82

Candidate Starts for Thora\_49:

(Start: 82 @41712 has 255 MA's), (98, 41763), (108, 41796), (168, 41925), (170, 41928), (Start: 180 @41943 has 5 MA's), (235, 42039), (251, 42078), (269, 42108), (284, 42144), (333, 42255), (345, 42285), (347, 42288), (379, 42354), (440, 42513), (469, 42561), (475, 42579), (498, 42627), (550, 42771), (571, 42831), (603, 42936), (620, 42990), (637, 43023),

Gene: ThreeOh3D2\_50 Start: 41845, Stop: 43200, Start Num: 82

Candidate Starts for ThreeOh3D2\_50:

(Start: 82 @41845 has 255 MA's), (98, 41896), (108, 41929), (168, 42058), (170, 42061), (Start: 180 @42076 has 5 MA's), (235, 42172), (251, 42211), (269, 42241), (284, 42277), (333, 42388), (345, 42418), (347, 42421), (379, 42487), (440, 42646), (469, 42694), (475, 42712), (498, 42760), (550, 42904), (571, 42964), (603, 43069), (620, 43123), (637, 43156),

Gene: ThreeRngTarjay\_47 Start: 42712, Stop: 43584, Start Num: 89

Candidate Starts for ThreeRngTarjay\_47:

(Start: 89 @42712 has 30 MA's), (Start: 97 @42739 has 1 MA's), (115, 42799), (Start: 138 @42847 has 44 MA's), (174, 42913), (189, 42934), (206, 42955), (233, 43009), (274, 43090), (403, 43369), (405, 43372), (413, 43396), (424, 43432), (432, 43447), (438, 43459), (444, 43480),

Gene: Thresher\_36 Start: 32612, Stop: 33469, Start Num: 198

Candidate Starts for Thresher\_36:

(Start: 198 @32612 has 122 MA's), (220, 32651), (232, 32681), (242, 32702), (257, 32738), (275, 32768), (309, 32843), (334, 32891), (336, 32894), (345, 32918), (347, 32921), (356, 32936), (426, 33107), (487, 33221), (495, 33236), (498, 33242), (575, 33284), (576, 33287), (601, 33341), (624, 33419), (641, 33452),

Gene: Thunderbird\_49 Start: 41413, Stop: 42768, Start Num: 82

Candidate Starts for Thunderbird\_49:

(Start: 82 @41413 has 255 MA's), (98, 41464), (108, 41497), (168, 41626), (170, 41629), (Start: 180 @41644 has 5 MA's), (235, 41740), (251, 41779), (269, 41809), (284, 41845), (333, 41956), (345, 41986), (347, 41989), (379, 42055), (440, 42214), (469, 42262), (475, 42280), (498, 42328), (550, 42472), (571, 42532), (603, 42637), (637, 42724),

Gene: Thyatira\_30 Start: 27046, Stop: 27918, Start Num: 221

Candidate Starts for Thyatira\_30:

(151, 26944), (183, 26998), (Start: 221 @27046 has 188 MA's), (Start: 227 @27058 has 1 MA's), (228, 27061), (229, 27064), (242, 27091), (253, 27121), (258, 27127), (287, 27181), (293, 27190), (300, 27202), (313, 27235), (323, 27268), (347, 27316), (384, 27385), (423, 27469), (469, 27538), (475, 27556), (476, 27559), (506, 27619), (538, 27664), (578, 27736), (598, 27772), (599, 27775), (604, 27796), (620, 27853), (637, 27889), (640, 27898), (643, 27907),

Gene: Tierra\_31 Start: 26561, Stop: 27304, Start Num: 217

Candidate Starts for Tierra\_31:

(195, 26534), (Start: 217 @26561 has 11 MA's), (228, 26579), (239, 26603), (242, 26609), (258, 26645), (287, 26693), (293, 26702), (309, 26738), (323, 26780), (379, 26888), (447, 27023), (462, 27038), (469, 27050), (476, 27071), (496, 27086), (497, 27089), (538, 27095), (601, 27173), (624, 27254), (637, 27275), (640, 27284),

Gene: Tiffany\_12 Start: 5856, Stop: 6821, Start Num: 153

Candidate Starts for Tiffany\_12:

(Start: 153 @5856 has 92 MA's), (Start: 180 @5901 has 5 MA's), (Start: 192 @5922 has 2 MA's), (256, 6042), (330, 6180), (365, 6237), (371, 6252), (422, 6333), (430, 6348), (439, 6366), (469, 6417), (474, 6435), (497, 6480), (538, 6576), (561, 6639), (575, 6678), (597, 6729),

Gene: Tiger\_8 Start: 5172, Stop: 5981, Start Num: 221

Candidate Starts for Tiger\_8:

(Start: 221 @5172 has 188 MA's), (251, 5235), (255, 5244), (269, 5265), (284, 5301), (309, 5349), (329, 5406), (339, 5430), (440, 5661), (475, 5718), (645, 5967),

Gene: Timmi\_48 Start: 41412, Stop: 42767, Start Num: 82

Candidate Starts for Timmi\_48:

(Start: 82 @41412 has 255 MA's), (98, 41463), (108, 41496), (168, 41625), (170, 41628), (Start: 180 @41643 has 5 MA's), (235, 41739), (251, 41778), (269, 41808), (284, 41844), (333, 41955), (345, 41985), (347, 41988), (379, 42054), (440, 42213), (469, 42261), (475, 42279), (498, 42327), (550, 42471), (571, 42531), (603, 42636), (637, 42723),

Gene: Timshel\_11 Start: 7306, Stop: 8283, Start Num: 163

Candidate Starts for Timshel\_11:

(Start: 163 @7306 has 304 MA's), (Start: 192 @7360 has 2 MA's), (226, 7414), (241, 7447), (312, 7579), (365, 7684), (415, 7756), (423, 7783), (430, 7795), (439, 7813), (474, 7882), (507, 7945), (538, 8023), (549, 8050), (561, 8086), (578, 8134), (597, 8176), (603, 8200), (615, 8242),

Gene: TinaFeyge\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for TinaFeyge\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: TiniBug\_31 Start: 26379, Stop: 27251, Start Num: 221

Candidate Starts for TiniBug\_31:

(151, 26277), (195, 26352), (Start: 221 @26379 has 188 MA's), (Start: 227 @26391 has 1 MA's), (258, 26460), (275, 26487), (287, 26517), (293, 26526), (309, 26562), (313, 26571), (323, 26604), (331, 26622), (379, 26712), (447, 26847), (469, 26874), (476, 26895), (487, 26919), (576, 27066), (578, 27072), (598, 27108), (604, 27132), (640, 27231), (643, 27240),

Gene: TinyTim\_251 Start: 144329, Stop: 145357, Start Num: 142

Candidate Starts for TinyTim\_251:

(Start: 142 @144329 has 200 MA's), (Start: 163 @144359 has 304 MA's), (170, 144371), (Start: 192 @144413 has 2 MA's), (229, 144476), (239, 144497), (Start: 279 @144581 has 1 MA's), (302, 144623), (306, 144635), (312, 144650), (344, 144719), (365, 144746), (393, 144800), (411, 144845), (414, 144848), (449, 144926), (462, 144947), (520, 145058), (554, 145148), (559, 145166), (590, 145238), (601, 145271),

Gene: Tinybot\_9 Start: 5861, Stop: 6841, Start Num: 164

Candidate Starts for Tinybot\_9:

(Start: 164 @5861 has 109 MA's), (178, 5888), (Start: 190 @5909 has 1 MA's), (Start: 192 @5912 has 2 MA's), (330, 6161), (365, 6218), (368, 6230), (401, 6281), (416, 6302), (437, 6350), (474, 6407), (551, 6557), (601, 6680), (604, 6692), (627, 6758),

Gene: TopsytheTRex\_10 Start: 5561, Stop: 6493, Start Num: 225

Candidate Starts for TopsytheTRex\_10:

(Start: 225 @5561 has 4 MA's), (269, 5651), (284, 5687), (309, 5735), (379, 5888), (440, 6035), (447, 6047), (469, 6074), (513, 6167), (527, 6182), (543, 6203), (583, 6308), (595, 6332),

Gene: Tiri\_31 Start: 26466, Stop: 27338, Start Num: 221

Candidate Starts for Tiri\_31:

(195, 26439), (Start: 221 @26466 has 188 MA's), (Start: 227 @26478 has 1 MA's), (258, 26547), (275, 26574), (287, 26604), (293, 26613), (309, 26649), (313, 26658), (323, 26691), (331, 26709), (347, 26739), (379, 26799), (447, 26934), (469, 26961), (476, 26982), (487, 27006), (521, 27057), (578, 27159), (598, 27195), (604, 27219), (640, 27318), (643, 27327),

Gene: TiroTheta9\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for TiroTheta9\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Todacoro\_11 Start: 6052, Stop: 7017, Start Num: 153

Candidate Starts for Todacoro\_11:

(Start: 153 @6052 has 92 MA's), (Start: 180 @6097 has 5 MA's), (Start: 192 @6118 has 2 MA's), (256, 6238), (267, 6253), (Start: 296 @6292 has 2 MA's), (330, 6376), (365, 6433), (371, 6448), (422, 6529), (430, 6544), (439, 6562), (469, 6613), (474, 6631), (497, 6676), (538, 6772), (561, 6835), (575, 6874), (597, 6925),

Gene: TomBombadil\_49 Start: 41697, Stop: 43052, Start Num: 82

Candidate Starts for TomBombadil\_49:

(Start: 82 @41697 has 255 MA's), (98, 41748), (108, 41781), (168, 41910), (170, 41913), (Start: 180 @41928 has 5 MA's), (235, 42024), (251, 42063), (269, 42093), (284, 42129), (333, 42240), (345, 42270), (347, 42273), (379, 42339), (440, 42498), (469, 42546), (475, 42564), (498, 42612), (550, 42756), (571, 42816), (603, 42921), (637, 43008),

Gene: TomBrady\_28 Start: 25202, Stop: 26410, Start Num: 88

Candidate Starts for TomBrady\_28:

(65, 25109), (Start: 88 @25202 has 62 MA's), (154, 25376), (202, 25448), (251, 25547), (255, 25556), (270, 25580), (275, 25589), (284, 25613), (295, 25634), (309, 25661), (314, 25673), (342, 25745), (361, 25784), (440, 25973), (459, 25997), (469, 26012), (476, 26033), (498, 26078), (500, 26081), (534, 26132),

Gene: Tomaszewski\_34 Start: 31455, Stop: 32312, Start Num: 198

Candidate Starts for Tomaszewski\_34:

(Start: 198 @31455 has 122 MA's), (220, 31494), (232, 31524), (242, 31545), (257, 31581), (275, 31611), (309, 31686), (334, 31734), (336, 31737), (345, 31761), (347, 31764), (356, 31779), (426, 31950), (487, 32064), (495, 32079), (498, 32085), (575, 32127), (576, 32130), (601, 32184), (624, 32262), (641, 32295),

Gene: Tomathan\_14 Start: 6597, Stop: 7361, Start Num: 294

Candidate Starts for Tomathan\_14:

(Start: 294 @6597 has 16 MA's), (365, 6741), (415, 6828), (423, 6855), (430, 6867), (474, 6954), (538, 7095), (559, 7155), (561, 7158), (574, 7194), (597, 7248), (611, 7296),

Gene: Tomlarah\_49 Start: 41700, Stop: 43055, Start Num: 82

Candidate Starts for Tomlarah\_49:

(Start: 82 @41700 has 255 MA's), (98, 41751), (108, 41784), (168, 41913), (170, 41916), (Start: 180 @41931 has 5 MA's), (235, 42027), (251, 42066), (269, 42096), (284, 42132), (333, 42243), (345, 42273), (347, 42276), (379, 42342), (440, 42501), (469, 42549), (475, 42567), (498, 42615), (550, 42759), (571, 42819), (603, 42924), (637, 43011),

Gene: Tonenili\_274 Start: 149660, Stop: 150688, Start Num: 142

Candidate Starts for Tonenili\_274:

(Start: 142 @149660 has 200 MA's), (Start: 192 @149744 has 2 MA's), (229, 149807), (239, 149828), (Start: 279 @149912 has 1 MA's), (302, 149954), (312, 149981), (344, 150050), (365, 150077), (393, 150131), (407, 150161), (411, 150176), (449, 150257), (462, 150278), (516, 150386), (520, 150389), (554, 150479), (559, 150497), (600, 150599), (601, 150602), (604, 150614),

Gene: Toni\_48 Start: 41404, Stop: 42759, Start Num: 82

Candidate Starts for Toni\_48:

(Start: 82 @41404 has 255 MA's), (98, 41455), (108, 41488), (168, 41617), (170, 41620), (Start: 180 @41635 has 5 MA's), (235, 41731), (251, 41770), (269, 41800), (284, 41836), (333, 41947), (345, 41977), (347, 41980), (379, 42046), (440, 42205), (469, 42253), (475, 42271), (498, 42319), (550, 42463), (571, 42523), (603, 42628), (637, 42715),

Gene: Tooj\_49 Start: 41779, Stop: 43134, Start Num: 82

Candidate Starts for Tooj\_49:

(Start: 82 @41779 has 255 MA's), (98, 41830), (108, 41863), (168, 41992), (170, 41995), (Start: 180 @42010 has 5 MA's), (235, 42106), (251, 42145), (269, 42175), (284, 42211), (333, 42322), (345, 42352), (347, 42355), (379, 42421), (440, 42580), (469, 42628), (475, 42646), (498, 42694), (550, 42838), (571, 42898), (603, 43003), (620, 43057), (637, 43090),

Gene: TootsiePop\_32 Start: 27407, Stop: 28408, Start Num: 149

Candidate Starts for TootsiePop\_32:

(69, 27146), (107, 27308), (Start: 149 @27407 has 225 MA's), (Start: 192 @27482 has 2 MA's), (229, 27545), (239, 27566), (Start: 279 @27650 has 1 MA's), (292, 27674), (302, 27689), (306, 27701), (365, 27812), (423, 27926), (433, 27944), (454, 27983), (469, 28007), (484, 28043), (497, 28070), (520, 28109), (559, 28217), (578, 28265), (585, 28277), (604, 28334), (614, 28364),

Gene: Tootsieroll\_32 Start: 27571, Stop: 28572, Start Num: 149

Candidate Starts for Tootsieroll\_32:

(107, 27472), (Start: 149 @27571 has 225 MA's), (Start: 192 @27646 has 2 MA's), (229, 27709), (232, 27715), (239, 27730), (262, 27778), (Start: 279 @27814 has 1 MA's), (302, 27853), (303, 27856), (306, 27865), (312, 27880), (340, 27937), (365, 27976), (422, 28087), (454, 28147), (462, 28159), (484, 28207), (497, 28234), (520, 28273), (559, 28381), (578, 28429), (604, 28498), (614, 28528),

Gene: Topanga\_10 Start: 5820, Stop: 6794, Start Num: 163

Candidate Starts for Topanga\_10:

(Start: 163 @5820 has 304 MA's), (Start: 166 @5826 has 14 MA's), (Start: 192 @5874 has 2 MA's), (276, 6027), (365, 6189), (371, 6204), (382, 6225), (422, 6297), (425, 6303), (430, 6312), (469, 6381), (474, 6399), (497, 6444), (507, 6462), (538, 6540), (549, 6567), (554, 6582), (561, 6603), (575, 6642), (597, 6693), (609, 6735), (632, 6786),

Gene: Topgun\_10 Start: 5783, Stop: 6718, Start Num: 180

Candidate Starts for Topgun\_10:

(Start: 163 @5750 has 304 MA's), (Start: 180 @5783 has 5 MA's), (Start: 190 @5801 has 1 MA's), (Start: 192 @5804 has 2 MA's), (335, 6071), (365, 6122), (368, 6134), (415, 6209), (442, 6272), (450, 6284), (462, 6305), (469, 6317), (474, 6335), (484, 6353), (496, 6377), (520, 6416), (551, 6497), (559, 6521), (561, 6524), (563, 6527), (567, 6536), (600, 6623), (629, 6710),

Gene: Topper\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for Topper\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: Tortoise16\_250 Start: 144342, Stop: 145370, Start Num: 142

Candidate Starts for Tortoise16\_250:

(Start: 142 @144342 has 200 MA's), (Start: 163 @144372 has 304 MA's), (170, 144384), (Start: 192 @144426 has 2 MA's), (229, 144489), (239, 144510), (Start: 279 @144594 has 1 MA's), (302, 144636), (306, 144648), (312, 144663), (344, 144732), (365, 144759), (393, 144813), (411, 144858), (414, 144861), (449, 144939), (462, 144960), (520, 145071), (554, 145161), (559, 145179), (590, 145251), (601, 145284),

Gene: Tote\_12 Start: 6491, Stop: 7459, Start Num: 163

Candidate Starts for Tote\_12:

(Start: 163 @6491 has 304 MA's), (Start: 180 @6524 has 5 MA's), (Start: 190 @6542 has 1 MA's), (Start: 192 @6545 has 2 MA's), (335, 6812), (365, 6863), (368, 6875), (415, 6950), (442, 7013), (450, 7025), (462, 7046), (474, 7076), (484, 7094), (496, 7118), (520, 7157), (551, 7238), (559, 7262), (561, 7265), (563, 7268), (567, 7277), (600, 7364), (614, 7409), (629, 7451),

Gene: Totinger\_35 Start: 27501, Stop: 28502, Start Num: 149

Candidate Starts for Totinger\_35:

(Start: 149 @27501 has 225 MA's), (Start: 192 @27576 has 2 MA's), (210, 27609), (229, 27639), (239, 27660), (251, 27690), (259, 27702), (Start: 279 @27744 has 1 MA's), (292, 27768), (302, 27783), (306, 27795), (365, 27906), (423, 28020), (433, 28038), (454, 28077), (469, 28101), (484, 28137), (497, 28164), (520, 28203), (538, 28251), (559, 28311), (585, 28371), (600, 28413), (601, 28416), (604, 28428), (614, 28458),

Gene: Toto\_35 Start: 31858, Stop: 32715, Start Num: 198

Candidate Starts for Toto\_35:

(Start: 198 @31858 has 122 MA's), (220, 31897), (232, 31927), (242, 31948), (257, 31984), (275, 32014), (309, 32089), (334, 32137), (336, 32140), (345, 32164), (347, 32167), (356, 32182), (426, 32353), (481, 32452), (487, 32467), (495, 32482), (498, 32488), (575, 32530), (576, 32533), (601, 32587), (624, 32665), (641, 32698),

Gene: Tourach\_28 Start: 26300, Stop: 27271, Start Num: 102

Candidate Starts for Tourach\_28:



(Start: 102 @26300 has 88 MA's), (120, 26354), (179, 26474), (Start: 198 @26504 has 122 MA's), (208, 26519), (242, 26585), (293, 26675), (319, 26729), (345, 26780), (352, 26792), (367, 26819), (386, 26855), (392, 26870), (396, 26885), (419, 26945), (469, 27026), (475, 27044), (476, 27047), (478, 27050), (491, 27077), (579, 27101), (601, 27146), (613, 27188), (628, 27230),

Gene: Traaww1\_33 Start: 31496, Stop: 32353, Start Num: 198

Candidate Starts for Traaww1\_33:

(Start: 198 @31496 has 122 MA's), (220, 31535), (232, 31565), (242, 31586), (257, 31622), (275, 31652), (309, 31727), (334, 31775), (336, 31778), (345, 31802), (347, 31805), (356, 31820), (426, 31991), (487, 32105), (495, 32120), (498, 32126), (575, 32168), (576, 32171), (601, 32225), (624, 32303), (641, 32336),

Gene: Traft412\_12 Start: 6678, Stop: 7646, Start Num: 163

Candidate Starts for Traft412\_12:

(Start: 163 @6678 has 304 MA's), (Start: 180 @6711 has 5 MA's), (Start: 190 @6729 has 1 MA's), (Start: 192 @6732 has 2 MA's), (335, 6999), (365, 7050), (368, 7062), (415, 7137), (442, 7200), (450, 7212), (462, 7233), (469, 7245), (474, 7263), (484, 7281), (496, 7305), (520, 7344), (551, 7425), (559, 7449), (561, 7452), (563, 7455), (567, 7464), (600, 7551), (614, 7596), (629, 7638),

Gene: Treddle\_11 Start: 6485, Stop: 7453, Start Num: 163

Candidate Starts for Treddle\_11:

(Start: 163 @6485 has 304 MA's), (Start: 180 @6518 has 5 MA's), (Start: 190 @6536 has 1 MA's), (335, 6806), (365, 6857), (368, 6869), (415, 6944), (442, 7007), (450, 7019), (462, 7040), (469, 7052), (474, 7070), (484, 7088), (496, 7112), (520, 7151), (551, 7232), (559, 7256), (561, 7259), (563, 7262), (567, 7271), (600, 7358), (607, 7382), (614, 7403), (629, 7445),

Gene: TreyKay\_31 Start: 26427, Stop: 27299, Start Num: 221

Candidate Starts for TreyKay\_31:

(195, 26400), (Start: 221 @26427 has 188 MA's), (Start: 227 @26439 has 1 MA's), (258, 26508), (275, 26535), (287, 26565), (293, 26574), (309, 26610), (313, 26619), (323, 26652), (331, 26670), (379, 26760), (447, 26895), (469, 26922), (476, 26943), (487, 26967), (521, 27018), (578, 27120), (598, 27156), (604, 27180), (640, 27279), (643, 27288),

Gene: TribelTrouble\_30 Start: 26988, Stop: 27776, Start Num: 221

Candidate Starts for TribelTrouble\_30:

(183, 26943), (Start: 221 @26988 has 188 MA's), (242, 27033), (258, 27069), (287, 27126), (293, 27135), (331, 27225), (343, 27249), (416, 27390), (447, 27453), (469, 27495), (475, 27513), (476, 27516), (480, 27522), (487, 27540), (575, 27570), (604, 27639), (625, 27711), (640, 27741),

Gene: Trike\_8 Start: 3772, Stop: 4746, Start Num: 163

Candidate Starts for Trike\_8:

(115, 3733), (Start: 163 @3772 has 304 MA's), (Start: 180 @3805 has 5 MA's), (Start: 192 @3826 has 2 MA's), (283, 3994), (306, 4036), (312, 4051), (365, 4156), (415, 4228), (423, 4255), (425, 4258), (430, 4267), (448, 4303), (474, 4354), (538, 4501), (561, 4564), (575, 4603), (595, 4645),

Gene: Trinitium\_249 Start: 143083, Stop: 144111, Start Num: 142

Candidate Starts for Trinitium\_249:

(Start: 142 @143083 has 200 MA's), (Start: 163 @143113 has 304 MA's), (170, 143125), (Start: 192 @143167 has 2 MA's), (229, 143230), (239, 143251), (Start: 279 @143335 has 1 MA's), (302, 143377), (306, 143389), (312, 143404), (344, 143473), (365, 143500), (393, 143554), (411, 143599), (414, 143602), (449, 143680), (462, 143701), (520, 143812), (554, 143902), (559, 143920), (590, 143992), (601, 144025),

Gene: Tripl3t\_11 Start: 6673, Stop: 7641, Start Num: 163

Candidate Starts for Tripl3t\_11:

(Start: 163 @6673 has 304 MA's), (Start: 180 @6706 has 5 MA's), (Start: 190 @6724 has 1 MA's), (Start: 192 @6727 has 2 MA's), (335, 6994), (365, 7045), (368, 7057), (415, 7132), (442, 7195), (450, 7207), (462, 7228), (469, 7240), (474, 7258), (484, 7276), (496, 7300), (520, 7339), (551, 7420), (559, 7444), (561, 7447), (563, 7450), (567, 7459), (600, 7546), (607, 7570), (629, 7633),

Gene: Trixie\_14 Start: 8087, Stop: 9064, Start Num: 163

Candidate Starts for Trixie\_14:

(131, 8045), (Start: 163 @8087 has 304 MA's), (Start: 192 @8141 has 2 MA's), (330, 8378), (365, 8435), (415, 8519), (430, 8558), (469, 8627), (470, 8630), (474, 8645), (507, 8708), (516, 8729), (528, 8750), (538, 8798), (549, 8825), (554, 8840), (559, 8858), (561, 8861), (597, 8951),

Gene: Trooper\_11 Start: 6230, Stop: 7222, Start Num: 163

Candidate Starts for Trooper\_11:

(Start: 163 @6230 has 304 MA's), (Start: 180 @6263 has 5 MA's), (Start: 190 @6281 has 1 MA's), (Start: 192 @6284 has 2 MA's), (273, 6419), (299, 6452), (302, 6458), (303, 6461), (312, 6485), (338, 6545), (365, 6590), (412, 6677), (437, 6722), (467, 6761), (494, 6809), (504, 6824), (540, 6890), (541, 6893), (555, 6932), (569, 6968), (588, 7019), (624, 7133), (651, 7208),

Gene: Trouble\_10 Start: 6322, Stop: 7290, Start Num: 163

Candidate Starts for Trouble\_10:

(Start: 163 @6322 has 304 MA's), (Start: 180 @6355 has 5 MA's), (Start: 190 @6373 has 1 MA's), (Start: 192 @6376 has 2 MA's), (335, 6643), (365, 6694), (368, 6706), (415, 6781), (442, 6844), (462, 6877), (469, 6889), (474, 6907), (484, 6925), (496, 6949), (520, 6988), (551, 7069), (559, 7093), (561, 7096), (563, 7099), (567, 7108), (600, 7195), (629, 7282),

Gene: TroyPia\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for TroyPia\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: True\_48 Start: 41410, Stop: 42765, Start Num: 82

Candidate Starts for True\_48:

(Start: 82 @41410 has 255 MA's), (98, 41461), (108, 41494), (168, 41623), (170, 41626), (Start: 180 @41641 has 5 MA's), (235, 41737), (251, 41776), (269, 41806), (284, 41842), (333, 41953), (345, 41983), (347, 41986), (379, 42052), (440, 42211), (469, 42259), (475, 42277), (498, 42325), (550, 42469), (571, 42529), (603, 42634), (637, 42721),

Gene: TruffulaTree\_31 Start: 26457, Stop: 27329, Start Num: 221

Candidate Starts for TruffulaTree\_31:

(76, 26127), (151, 26355), (195, 26430), (Start: 221 @26457 has 188 MA's), (Start: 227 @26469 has 1 MA's), (258, 26538), (275, 26565), (287, 26595), (293, 26604), (309, 26640), (313, 26649), (323, 26682), (331, 26700), (347, 26730), (378, 26787), (379, 26790), (447, 26925), (469, 26952), (476, 26973), (487, 26997), (521, 27048), (578, 27150), (598, 27186), (604, 27210), (640, 27309), (643, 27318),

Gene: Trypo\_50 Start: 41841, Stop: 43196, Start Num: 82

Candidate Starts for Trypo\_50:

(Start: 82 @41841 has 255 MA's), (98, 41892), (108, 41925), (168, 42054), (170, 42057), (Start: 180 @42072 has 5 MA's), (235, 42168), (251, 42207), (269, 42237), (284, 42273), (333, 42384), (345, 42414), (347, 42417), (379, 42483), (440, 42642), (469, 42690), (475, 42708), (498, 42756), (550,

42900), (571, 42960), (603, 43065), (637, 43152),

Gene: Tuco\_36 Start: 32366, Stop: 33223, Start Num: 198

Candidate Starts for Tuco\_36:

(Start: 198 @32366 has 122 MA's), (220, 32405), (232, 32435), (242, 32456), (257, 32492), (275, 32522), (309, 32597), (334, 32645), (336, 32648), (345, 32672), (347, 32675), (356, 32690), (426, 32861), (487, 32975), (495, 32990), (498, 32996), (575, 33038), (576, 33041), (601, 33095), (624, 33173), (641, 33206),

Gene: Turbido\_13 Start: 6895, Stop: 7887, Start Num: 163

Candidate Starts for Turbido\_13:

(Start: 163 @6895 has 304 MA's), (Start: 180 @6928 has 5 MA's), (Start: 190 @6946 has 1 MA's), (Start: 192 @6949 has 2 MA's), (299, 7117), (302, 7123), (312, 7150), (338, 7210), (365, 7255), (412, 7342), (437, 7387), (467, 7426), (494, 7474), (504, 7489), (540, 7555), (555, 7597), (588, 7684), (624, 7798),

Gene: Turj99\_9 Start: 5766, Stop: 6734, Start Num: 163

Candidate Starts for Turj99\_9:

(Start: 163 @5766 has 304 MA's), (Start: 180 @5799 has 5 MA's), (Start: 190 @5817 has 1 MA's), (Start: 192 @5820 has 2 MA's), (335, 6087), (365, 6138), (368, 6150), (415, 6225), (442, 6288), (450, 6300), (462, 6321), (469, 6333), (474, 6351), (484, 6369), (496, 6393), (520, 6432), (551, 6513), (559, 6537), (561, 6540), (563, 6543), (567, 6552), (600, 6639), (614, 6684), (629, 6726),

Gene: Turret\_243 Start: 142216, Stop: 143244, Start Num: 142

Candidate Starts for Turret\_243:

(Start: 142 @142216 has 200 MA's), (Start: 163 @142246 has 304 MA's), (170, 142258), (Start: 192 @142300 has 2 MA's), (229, 142363), (239, 142384), (Start: 279 @142468 has 1 MA's), (302, 142510), (306, 142522), (312, 142537), (344, 142606), (365, 142633), (393, 142687), (411, 142732), (414, 142735), (449, 142813), (462, 142834), (520, 142945), (554, 143035), (559, 143053), (590, 143125), (601, 143158),

Gene: Tweety\_31 Start: 27740, Stop: 28741, Start Num: 149

Candidate Starts for Tweety\_31:

(Start: 149 @27740 has 225 MA's), (Start: 192 @27815 has 2 MA's), (210, 27848), (229, 27878), (239, 27899), (Start: 279 @27983 has 1 MA's), (306, 28034), (312, 28049), (365, 28145), (433, 28277), (454, 28316), (462, 28328), (484, 28376), (497, 28403), (511, 28427), (520, 28442), (559, 28550), (578, 28598), (604, 28667), (614, 28697),

Gene: Twister\_10 Start: 5719, Stop: 6693, Start Num: 163

Candidate Starts for Twister\_10:

(Start: 163 @5719 has 304 MA's), (Start: 166 @5725 has 14 MA's), (Start: 192 @5773 has 2 MA's), (276, 5926), (365, 6088), (371, 6103), (382, 6124), (422, 6196), (425, 6202), (430, 6211), (469, 6280), (474, 6298), (497, 6343), (507, 6361), (538, 6439), (549, 6466), (554, 6481), (561, 6502), (575, 6541), (597, 6592), (609, 6634), (632, 6685),

Gene: Twitch\_31 Start: 26494, Stop: 27366, Start Num: 221

Candidate Starts for Twitch\_31:

(76, 26164), (151, 26392), (195, 26467), (Start: 221 @26494 has 188 MA's), (Start: 227 @26506 has 1 MA's), (258, 26575), (275, 26602), (287, 26632), (293, 26641), (309, 26677), (313, 26686), (323, 26719), (331, 26737), (347, 26767), (379, 26827), (447, 26962), (469, 26989), (476, 27010), (487, 27034), (521, 27085), (578, 27187), (598, 27223), (604, 27247), (640, 27346), (643, 27355),

Gene: TwoPeat\_11 Start: 6284, Stop: 7252, Start Num: 163

Candidate Starts for TwoPeat\_11:

(Start: 163 @6284 has 304 MA's), (Start: 180 @6317 has 5 MA's), (Start: 190 @6335 has 1 MA's), (Start: 192 @6338 has 2 MA's), (335, 6605), (365, 6656), (368, 6668), (415, 6743), (442, 6806), (450, 6818), (462, 6839), (469, 6851), (474, 6869), (484, 6887), (496, 6911), (520, 6950), (551, 7031), (559, 7055), (561, 7058), (563, 7061), (567, 7070), (600, 7157), (614, 7202), (629, 7244),

Gene: TyDawg\_38 Start: 31794, Stop: 32765, Start Num: 169

Candidate Starts for TyDawg\_38:

(Start: 169 @31794 has 13 MA's), (183, 31818), (191, 31833), (266, 31971), (281, 31998), (300, 32016), (305, 32028), (308, 32037), (325, 32082), (330, 32094), (346, 32121), (365, 32148), (368, 32160), (397, 32205), (410, 32232), (423, 32262), (428, 32271), (430, 32274), (475, 32361), (485, 32376), (551, 32529), (552, 32532), (574, 32592), (578, 32604), (581, 32613), (598, 32649), (602, 32664), (618, 32703), (632, 32736),

Gene: Tydolla\_47 Start: 42271, Stop: 43335, Start Num: 138

Candidate Starts for Tydolla\_47:

(Start: 138 @42271 has 44 MA's), (173, 42334), (219, 42415), (252, 42481), (260, 42496), (269, 42508), (280, 42535), (311, 42592), (314, 42601), (391, 42748), (401, 42763), (422, 42817), (439, 42850), (463, 42889), (470, 42901), (512, 42982), (520, 43000), (523, 43003), (538, 43048), (578, 43159), (617, 43270), (626, 43291), (641, 43324),

Gene: TygerBlood\_10 Start: 5883, Stop: 6863, Start Num: 164

Candidate Starts for TygerBlood\_10:

(Start: 164 @5883 has 109 MA's), (Start: 166 @5886 has 14 MA's), (178, 5910), (Start: 190 @5931 has 1 MA's), (Start: 192 @5934 has 2 MA's), (330, 6183), (365, 6240), (401, 6303), (416, 6324), (422, 6345), (437, 6372), (464, 6402), (474, 6429), (551, 6579), (598, 6690), (601, 6702), (604, 6714), (627, 6780),

Gene: Tyke\_249 Start: 146465, Stop: 147493, Start Num: 142

Candidate Starts for Tyke\_249:

(Start: 142 @146465 has 200 MA's), (Start: 163 @146495 has 304 MA's), (170, 146507), (Start: 192 @146549 has 2 MA's), (229, 146612), (239, 146633), (Start: 279 @146717 has 1 MA's), (302, 146759), (306, 146771), (312, 146786), (344, 146855), (365, 146882), (393, 146936), (411, 146981), (414, 146984), (449, 147062), (462, 147083), (520, 147194), (554, 147284), (559, 147302), (590, 147374), (601, 147407),

Gene: Typha\_32 Start: 29089, Stop: 30312, Start Num: 84

Candidate Starts for Typha\_32:

(Start: 84 @29089 has 24 MA's), (113, 29185), (122, 29209), (Start: 138 @29236 has 44 MA's), (154, 29269), (170, 29299), (235, 29404), (251, 29443), (255, 29452), (270, 29476), (284, 29509), (309, 29557), (314, 29569), (342, 29641), (367, 29698), (405, 29785), (440, 29872), (447, 29884), (469, 29911), (475, 29929), (476, 29932), (481, 29941), (534, 30031), (593, 30136), (616, 30223), (620, 30232),

Gene: TyrionL\_48 Start: 41266, Stop: 42621, Start Num: 82

Candidate Starts for TyrionL\_48:

(Start: 82 @41266 has 255 MA's), (98, 41317), (108, 41350), (168, 41479), (170, 41482), (Start: 180 @41497 has 5 MA's), (235, 41593), (251, 41632), (269, 41662), (284, 41698), (333, 41809), (345, 41839), (347, 41842), (379, 41908), (440, 42067), (469, 42115), (475, 42133), (498, 42181), (550, 42325), (571, 42385), (603, 42490), (637, 42577),

Gene: Tyson\_26 Start: 25547, Stop: 26578, Start Num: 142

Candidate Starts for Tyson\_26:

(Start: 142 @25547 has 200 MA's), (235, 25700), (236, 25703), (247, 25727), (251, 25739), (261, 25757), (272, 25775), (278, 25793), (281, 25799), (286, 25808), (Start: 294 @25823 has 16 MA's), (303, 25838), (330, 25910), (365, 25967), (385, 26006), (425, 26084), (430, 26093), (431, 26096), (439, 26111), (467, 26165), (474, 26186), (482, 26201), (526, 26285), (537, 26315), (561, 26384), (567, 26396), (575, 26420), (581, 26438), (585, 26441), (590, 26453), (592, 26456), (601, 26486), (604, 26498),

Gene: U2\_9 Start: 5609, Stop: 6577, Start Num: 163

Candidate Starts for U2\_9:

(Start: 163 @5609 has 304 MA's), (Start: 180 @5642 has 5 MA's), (Start: 190 @5660 has 1 MA's), (Start: 192 @5663 has 2 MA's), (335, 5930), (365, 5981), (368, 5993), (415, 6068), (442, 6131), (450, 6143), (462, 6164), (469, 6176), (474, 6194), (484, 6212), (496, 6236), (520, 6275), (551, 6356), (559, 6380), (561, 6383), (563, 6386), (567, 6395), (595, 6461), (600, 6482), (629, 6569),

Gene: UAch1\_49 Start: 41734, Stop: 43089, Start Num: 82

Candidate Starts for UAch1\_49:

(Start: 82 @41734 has 255 MA's), (98, 41785), (108, 41818), (168, 41947), (170, 41950), (Start: 180 @41965 has 5 MA's), (235, 42061), (251, 42100), (269, 42130), (284, 42166), (333, 42277), (345, 42307), (347, 42310), (379, 42376), (440, 42535), (469, 42583), (475, 42601), (498, 42649), (550, 42793), (571, 42853), (603, 42958), (637, 43045),

Gene: UPIE\_26 Start: 25545, Stop: 26576, Start Num: 142

Candidate Starts for UPIE\_26:

(Start: 142 @25545 has 200 MA's), (236, 25701), (247, 25725), (251, 25737), (261, 25755), (272, 25773), (278, 25791), (281, 25797), (286, 25806), (Start: 294 @25821 has 16 MA's), (303, 25836), (321, 25884), (330, 25908), (365, 25965), (385, 26004), (425, 26082), (430, 26091), (431, 26094), (439, 26109), (467, 26163), (474, 26184), (482, 26199), (526, 26283), (537, 26313), (561, 26382), (567, 26394), (575, 26418), (581, 26436), (585, 26439), (590, 26451), (592, 26454), (601, 26484), (604, 26496),

Gene: Ubuntu\_33 Start: 28339, Stop: 29574, Start Num: 84

Candidate Starts for Ubuntu\_33:

(Start: 84 @28339 has 24 MA's), (110, 28432), (122, 28465), (128, 28477), (136, 28489), (Start: 138 @28492 has 44 MA's), (170, 28555), (Start: 180 @28573 has 5 MA's), (204, 28606), (235, 28666), (251, 28705), (255, 28714), (257, 28717), (269, 28735), (284, 28771), (309, 28819), (314, 28831), (318, 28837), (339, 28900), (342, 28903), (354, 28930), (361, 28942), (403, 29044), (440, 29131), (469, 29170), (476, 29191), (522, 29260), (534, 29290), (553, 29323), (561, 29332), (564, 29338), (573, 29350), (575, 29359), (601, 29422), (620, 29491),

Gene: Ukulele\_35 Start: 31616, Stop: 32473, Start Num: 198

Candidate Starts for Ukulele\_35:

(Start: 198 @31616 has 122 MA's), (220, 31655), (232, 31685), (242, 31706), (257, 31742), (275, 31772), (309, 31847), (334, 31895), (336, 31898), (345, 31922), (347, 31925), (356, 31940), (426, 32111), (487, 32225), (495, 32240), (498, 32246), (575, 32288), (576, 32291), (601, 32345), (624, 32423), (641, 32456),

Gene: Ulysses\_9 Start: 5600, Stop: 6580, Start Num: 164

Candidate Starts for Ulysses\_9:

(Start: 164 @5600 has 109 MA's), (178, 5627), (Start: 192 @5651 has 2 MA's), (297, 5816), (330, 5900), (365, 5957), (368, 5969), (401, 6020), (416, 6041), (422, 6062), (437, 6089), (461, 6116), (474, 6146), (551, 6296), (601, 6419), (604, 6431), (627, 6497),

Gene: UncleHowie\_49 Start: 41409, Stop: 42764, Start Num: 82

Candidate Starts for UncleHowie\_49:

(Start: 82 @41409 has 255 MA's), (98, 41460), (108, 41493), (168, 41622), (170, 41625), (Start: 180 @41640 has 5 MA's), (235, 41736), (251, 41775), (269, 41805), (284, 41841), (333, 41952), (345, 41982), (347, 41985), (379, 42051), (440, 42210), (469, 42258), (475, 42276), (498, 42324), (550, 42468), (571, 42528), (603, 42633), (637, 42720),

Gene: UncleRicky\_34 Start: 28832, Stop: 29833, Start Num: 149

Candidate Starts for UncleRicky\_34:

(69, 28580), (107, 28733), (Start: 149 @28832 has 225 MA's), (Start: 163 @28853 has 304 MA's), (170, 28865), (Start: 192 @28907 has 2 MA's), (229, 28970), (239, 28991), (251, 29021), (Start: 279 @29075 has 1 MA's), (292, 29099), (306, 29126), (365, 29237), (423, 29351), (433, 29369), (454, 29408), (469, 29432), (484, 29468), (497, 29495), (520, 29534), (538, 29582), (559, 29642), (585, 29702), (604, 29759), (614, 29789),

Gene: Unicorn\_31 Start: 25890, Stop: 26633, Start Num: 217

Candidate Starts for Unicorn\_31:

(195, 25863), (Start: 217 @25890 has 11 MA's), (239, 25932), (242, 25938), (258, 25974), (287, 26022), (293, 26031), (309, 26067), (323, 26109), (379, 26217), (447, 26352), (462, 26367), (469, 26379), (476, 26400), (497, 26418), (538, 26424), (601, 26502), (624, 26583), (637, 26604), (640, 26613),

Gene: UnionJack\_8 Start: 4891, Stop: 5700, Start Num: 221

Candidate Starts for UnionJack\_8:

(Start: 221 @4891 has 188 MA's), (255, 4963), (284, 5020), (309, 5068), (339, 5149), (420, 5338), (440, 5380), (475, 5437), (645, 5686),

Gene: Updawg\_13 Start: 6926, Stop: 7903, Start Num: 163

Candidate Starts for Updawg\_13:

(Start: 163 @6926 has 304 MA's), (Start: 192 @6980 has 2 MA's), (234, 7037), (312, 7169), (330, 7217), (365, 7274), (382, 7310), (415, 7358), (430, 7397), (470, 7469), (474, 7484), (497, 7529), (507, 7547), (528, 7589), (538, 7637), (549, 7664), (554, 7679), (559, 7697), (561, 7700), (597, 7790),

Gene: Urkel\_31 Start: 26382, Stop: 27254, Start Num: 221

Candidate Starts for Urkel\_31:

(151, 26280), (195, 26355), (Start: 221 @26382 has 188 MA's), (Start: 227 @26394 has 1 MA's), (258, 26463), (275, 26490), (287, 26520), (293, 26529), (309, 26565), (313, 26574), (323, 26607), (331, 26625), (379, 26715), (447, 26850), (469, 26877), (476, 26898), (487, 26922), (521, 26973), (578, 27075), (598, 27111), (604, 27135), (640, 27234), (643, 27243),

Gene: Usavi\_49 Start: 41708, Stop: 43063, Start Num: 82

Candidate Starts for Usavi\_49:

(Start: 82 @41708 has 255 MA's), (98, 41759), (108, 41792), (168, 41921), (170, 41924), (Start: 180 @41939 has 5 MA's), (235, 42035), (251, 42074), (269, 42104), (284, 42140), (333, 42251), (345, 42281), (347, 42284), (379, 42350), (440, 42509), (469, 42557), (475, 42575), (498, 42623), (550, 42767), (571, 42827), (603, 42932), (637, 43019),

Gene: VA6\_11 Start: 6428, Stop: 7405, Start Num: 163

Candidate Starts for VA6\_11:

(49, 5960), (Start: 163 @6428 has 304 MA's), (Start: 192 @6482 has 2 MA's), (312, 6671), (325, 6707), (330, 6719), (365, 6776), (382, 6812), (415, 6860), (430, 6899), (454, 6947), (467, 6965), (470, 6971), (474, 6986), (507, 7049), (528, 7091), (538, 7139), (549, 7166), (554, 7181), (559, 7199), (561, 7202), (575, 7241), (597, 7292),

Gene: VC3\_14 Start: 6596, Stop: 7345, Start Num: 294

Candidate Starts for VC3\_14:

(Start: 294 @6596 has 16 MA's), (298, 6602), (366, 6743), (415, 6830), (422, 6854), (425, 6860), (439, 6887), (469, 6938), (474, 6956), (538, 7100), (561, 7163), (578, 7211), (579, 7214), (595, 7244), (597, 7253),

Gene: VRedHorse\_31 Start: 27690, Stop: 28691, Start Num: 149

Candidate Starts for VRedHorse\_31:

(Start: 149 @27690 has 225 MA's), (Start: 192 @27765 has 2 MA's), (210, 27798), (229, 27828), (239, 27849), (Start: 279 @27933 has 1 MA's), (306, 27984), (365, 28095), (422, 28206), (433, 28227), (454, 28266), (462, 28278), (484, 28326), (497, 28353), (511, 28377), (520, 28392), (559, 28500), (585, 28560), (604, 28617), (614, 28647),

Gene: Vaishali24\_48 Start: 41380, Stop: 42735, Start Num: 82

Candidate Starts for Vaishali24\_48:

(Start: 82 @41380 has 255 MA's), (98, 41431), (108, 41464), (168, 41593), (170, 41596), (Start: 180 @41611 has 5 MA's), (235, 41707), (251, 41746), (269, 41776), (284, 41812), (333, 41923), (345, 41953), (347, 41956), (379, 42022), (440, 42181), (469, 42229), (475, 42247), (498, 42295), (550, 42439), (571, 42499), (603, 42604), (637, 42691),

Gene: Validus\_31 Start: 25785, Stop: 26546, Start Num: 221

Candidate Starts for Validus\_31:

(Start: 221 @25785 has 188 MA's), (242, 25830), (258, 25866), (293, 25932), (307, 25962), (309, 25968), (313, 25977), (323, 26010), (343, 26052), (370, 26103), (379, 26118), (447, 26253), (469, 26280), (476, 26301), (480, 26307), (487, 26325), (576, 26358), (578, 26364), (601, 26412), (620, 26481), (640, 26526), (643, 26535),

Gene: Valjean\_49 Start: 41705, Stop: 43060, Start Num: 82

Candidate Starts for Valjean\_49:

(Start: 82 @41705 has 255 MA's), (98, 41756), (108, 41789), (168, 41918), (170, 41921), (Start: 180 @41936 has 5 MA's), (235, 42032), (251, 42071), (269, 42101), (284, 42137), (333, 42248), (345, 42278), (347, 42281), (379, 42347), (440, 42506), (469, 42554), (475, 42572), (498, 42620), (550, 42764), (571, 42824), (603, 42929), (637, 43016),

Gene: ValleyTerrace\_253 Start: 143793, Stop: 144821, Start Num: 142

Candidate Starts for ValleyTerrace\_253:

(Start: 142 @143793 has 200 MA's), (Start: 163 @143823 has 304 MA's), (170, 143835), (Start: 192 @143877 has 2 MA's), (229, 143940), (239, 143961), (Start: 279 @144045 has 1 MA's), (302, 144087), (306, 144099), (312, 144114), (344, 144183), (365, 144210), (393, 144264), (411, 144309), (414, 144312), (449, 144390), (462, 144411), (520, 144522), (554, 144612), (559, 144630), (590, 144702), (601, 144735),

Gene: Vaticameos\_45 Start: 39391, Stop: 40746, Start Num: 82

Candidate Starts for Vaticameos\_45:

(Start: 82 @39391 has 255 MA's), (98, 39442), (108, 39475), (168, 39604), (170, 39607), (Start: 180 @39622 has 5 MA's), (235, 39718), (251, 39757), (269, 39787), (284, 39823), (333, 39934), (345, 39964), (347, 39967), (379, 40033), (440, 40192), (469, 40240), (475, 40258), (498, 40306), (550, 40450), (571, 40510), (603, 40615), (637, 40702),

Gene: Veliki\_31 Start: 26497, Stop: 27369, Start Num: 221

Candidate Starts for Veliki\_31:

(195, 26470), (Start: 221 @26497 has 188 MA's), (Start: 227 @26509 has 1 MA's), (258, 26578), (275, 26605), (287, 26635), (293, 26644), (309, 26680), (313, 26689), (323, 26722), (331, 26740), (347,

26770), (378, 26827), (379, 26830), (447, 26965), (469, 26992), (476, 27013), (487, 27037), (521, 27088), (578, 27190), (598, 27226), (604, 27250), (640, 27349), (643, 27358),

Gene: Velveteen\_27 Start: 23733, Stop: 24731, Start Num: 149

Candidate Starts for Velveteen\_27:

(Start: 149 @23733 has 225 MA's), (Start: 192 @23808 has 2 MA's), (229, 23868), (239, 23889), (Start: 279 @23973 has 1 MA's), (306, 24024), (312, 24039), (365, 24135), (415, 24222), (422, 24246), (433, 24267), (454, 24306), (462, 24318), (484, 24366), (497, 24393), (511, 24417), (520, 24432), (559, 24540), (578, 24588), (604, 24657), (614, 24687),

Gene: Venti\_27 Start: 24052, Stop: 25218, Start Num: 102

Candidate Starts for Venti\_27:

(Start: 102 @24052 has 88 MA's), (123, 24109), (168, 24196), (Start: 198 @24241 has 122 MA's), (235, 24316), (245, 24337), (284, 24421), (305, 24460), (333, 24526), (345, 24556), (359, 24577), (379, 24622), (417, 24718), (434, 24757), (440, 24772), (447, 24784), (469, 24811), (510, 24898), (527, 24916), (530, 24922), (553, 24970), (571, 24991), (598, 25063), (620, 25138),

Gene: Veracruz\_10 Start: 6052, Stop: 7017, Start Num: 153

Candidate Starts for Veracruz\_10:

(Start: 153 @6052 has 92 MA's), (Start: 180 @6097 has 5 MA's), (Start: 192 @6118 has 2 MA's), (256, 6238), (267, 6253), (Start: 296 @6292 has 2 MA's), (330, 6376), (365, 6433), (371, 6448), (422, 6529), (430, 6544), (439, 6562), (469, 6613), (474, 6631), (497, 6676), (538, 6772), (561, 6835), (575, 6874), (597, 6925),

Gene: Veritas\_48 Start: 41287, Stop: 42642, Start Num: 82

Candidate Starts for Veritas\_48:

(Start: 82 @41287 has 255 MA's), (98, 41338), (108, 41371), (168, 41500), (170, 41503), (Start: 180 @41518 has 5 MA's), (235, 41614), (251, 41653), (269, 41683), (284, 41719), (333, 41830), (345, 41860), (347, 41863), (379, 41929), (440, 42088), (469, 42136), (475, 42154), (498, 42202), (550, 42346), (571, 42406), (603, 42511), (637, 42598),

Gene: Veteran\_31 Start: 27537, Stop: 28538, Start Num: 149

Candidate Starts for Veteran\_31:

(34, 26916), (40, 26994), (43, 27057), (48, 27096), (62, 27249), (69, 27285), (Start: 149 @27537 has 225 MA's), (Start: 163 @27558 has 304 MA's), (170, 27570), (Start: 192 @27612 has 2 MA's), (229, 27675), (239, 27696), (251, 27726), (Start: 279 @27780 has 1 MA's), (292, 27804), (306, 27831), (365, 27942), (423, 28056), (433, 28074), (454, 28113), (469, 28137), (484, 28173), (497, 28200), (520, 28239), (538, 28287), (559, 28347), (585, 28407), (604, 28464), (614, 28494),

Gene: Vetrrix\_28 Start: 26309, Stop: 27280, Start Num: 102

Candidate Starts for Vetrrix\_28:

(Start: 102 @26309 has 88 MA's), (120, 26363), (179, 26483), (Start: 198 @26513 has 122 MA's), (Start: 227 @26561 has 1 MA's), (228, 26564), (232, 26573), (242, 26594), (275, 26657), (293, 26684), (305, 26708), (319, 26738), (345, 26789), (352, 26801), (386, 26864), (392, 26879), (415, 26939), (419, 26954), (469, 27035), (476, 27056), (478, 27059), (579, 27110), (601, 27155), (613, 27197), (628, 27239),

Gene: Vidya\_27 Start: 24052, Stop: 25218, Start Num: 102

Candidate Starts for Vidya\_27:

(Start: 102 @24052 has 88 MA's), (123, 24109), (168, 24196), (Start: 198 @24241 has 122 MA's), (235, 24316), (245, 24337), (284, 24421), (305, 24460), (333, 24526), (345, 24556), (359, 24577), (379, 24622), (417, 24718), (434, 24757), (440, 24772), (447, 24784), (469, 24811), (510, 24898), (527, 24916), (530, 24922), (553, 24970), (571, 24991), (598, 25063), (620, 25138),



Gene: Violet\_9 Start: 5558, Stop: 6526, Start Num: 163

Candidate Starts for Violet\_9:

(Start: 163 @5558 has 304 MA's), (Start: 180 @5591 has 5 MA's), (Start: 190 @5609 has 1 MA's), (Start: 192 @5612 has 2 MA's), (335, 5879), (365, 5930), (368, 5942), (415, 6017), (442, 6080), (450, 6092), (462, 6113), (469, 6125), (474, 6143), (484, 6161), (496, 6185), (520, 6224), (551, 6305), (559, 6329), (561, 6332), (563, 6335), (567, 6344), (600, 6431), (629, 6518),

Gene: Virapocalypse\_49 Start: 41700, Stop: 43055, Start Num: 82

Candidate Starts for Virapocalypse\_49:

(Start: 82 @41700 has 255 MA's), (98, 41751), (108, 41784), (168, 41913), (170, 41916), (Start: 180 @41931 has 5 MA's), (235, 42027), (251, 42066), (269, 42096), (284, 42132), (333, 42243), (345, 42273), (347, 42276), (379, 42342), (440, 42501), (469, 42549), (475, 42567), (498, 42615), (550, 42759), (571, 42819), (603, 42924), (637, 43011),

Gene: Virgeve\_48 Start: 41477, Stop: 42832, Start Num: 82

Candidate Starts for Virgeve\_48:

(Start: 82 @41477 has 255 MA's), (98, 41528), (108, 41561), (168, 41690), (170, 41693), (Start: 180 @41708 has 5 MA's), (235, 41804), (251, 41843), (269, 41873), (284, 41909), (333, 42020), (345, 42050), (347, 42053), (379, 42119), (440, 42278), (469, 42326), (475, 42344), (498, 42392), (550, 42536), (571, 42596), (603, 42701), (637, 42788),

Gene: Vista\_49 Start: 41710, Stop: 43065, Start Num: 82

Candidate Starts for Vista\_49:

(Start: 82 @41710 has 255 MA's), (98, 41761), (108, 41794), (168, 41923), (170, 41926), (Start: 180 @41941 has 5 MA's), (235, 42037), (251, 42076), (269, 42106), (284, 42142), (333, 42253), (345, 42283), (347, 42286), (379, 42352), (440, 42511), (469, 42559), (475, 42577), (498, 42625), (550, 42769), (571, 42829), (603, 42934), (637, 43021),

Gene: Vivaldi\_50 Start: 42145, Stop: 43500, Start Num: 82

Candidate Starts for Vivaldi\_50:

(Start: 82 @42145 has 255 MA's), (98, 42196), (108, 42229), (168, 42358), (170, 42361), (Start: 180 @42376 has 5 MA's), (235, 42472), (251, 42511), (269, 42541), (284, 42577), (333, 42688), (345, 42718), (347, 42721), (379, 42787), (440, 42946), (469, 42994), (475, 43012), (498, 43060), (550, 43204), (571, 43264), (603, 43369), (637, 43456),

Gene: Vix\_12 Start: 6044, Stop: 7009, Start Num: 153

Candidate Starts for Vix\_12:

(Start: 153 @6044 has 92 MA's), (Start: 180 @6089 has 5 MA's), (Start: 192 @6110 has 2 MA's), (256, 6230), (330, 6368), (365, 6425), (371, 6440), (422, 6521), (430, 6536), (439, 6554), (469, 6605), (474, 6623), (497, 6668), (538, 6764), (561, 6827), (575, 6866), (597, 6917),

Gene: Vorrrps\_67 Start: 43461, Stop: 44501, Start Num: 148

Candidate Starts for Vorrrps\_67:

(Start: 148 @43461 has 26 MA's), (Start: 192 @43536 has 2 MA's), (229, 43617), (232, 43623), (239, 43638), (278, 43719), (Start: 279 @43722 has 1 MA's), (306, 43776), (312, 43791), (365, 43887), (385, 43926), (397, 43956), (411, 43986), (414, 43989), (425, 44022), (462, 44088), (479, 44127), (484, 44136), (497, 44163), (520, 44202), (589, 44376), (604, 44427),

Gene: Vortex\_49 Start: 41407, Stop: 42762, Start Num: 82

Candidate Starts for Vortex\_49:

(Start: 82 @41407 has 255 MA's), (98, 41458), (108, 41491), (168, 41620), (170, 41623), (Start: 180 @41638 has 5 MA's), (235, 41734), (251, 41773), (269, 41803), (284, 41839), (333, 41950), (345,

41980), (347, 41983), (379, 42049), (440, 42208), (469, 42256), (475, 42274), (498, 42322), (550, 42466), (571, 42526), (603, 42631), (637, 42718),

Gene: Wachhund\_31 Start: 27697, Stop: 28698, Start Num: 149

Candidate Starts for Wachhund\_31:

(Start: 149 @27697 has 225 MA's), (Start: 163 @27718 has 304 MA's), (170, 27730), (Start: 192 @27772 has 2 MA's), (239, 27856), (251, 27886), (Start: 279 @27940 has 1 MA's), (292, 27964), (302, 27979), (306, 27991), (365, 28102), (422, 28213), (433, 28234), (454, 28273), (462, 28285), (484, 28333), (497, 28360), (511, 28384), (520, 28399), (559, 28507), (578, 28555), (604, 28624), (614, 28654),

Gene: Wallhey\_48 Start: 41270, Stop: 42625, Start Num: 82

Candidate Starts for Wallhey\_48:

(Start: 82 @41270 has 255 MA's), (98, 41321), (108, 41354), (168, 41483), (170, 41486), (Start: 180 @41501 has 5 MA's), (235, 41597), (251, 41636), (269, 41666), (284, 41702), (333, 41813), (345, 41843), (347, 41846), (379, 41912), (440, 42071), (469, 42119), (475, 42137), (498, 42185), (550, 42329), (571, 42389), (603, 42494), (637, 42581),

Gene: Wally\_250 Start: 143777, Stop: 144805, Start Num: 142

Candidate Starts for Wally\_250:

(Start: 142 @143777 has 200 MA's), (Start: 163 @143807 has 304 MA's), (170, 143819), (Start: 192 @143861 has 2 MA's), (229, 143924), (239, 143945), (Start: 279 @144029 has 1 MA's), (302, 144071), (306, 144083), (312, 144098), (344, 144167), (365, 144194), (393, 144248), (411, 144293), (414, 144296), (449, 144374), (462, 144395), (520, 144506), (554, 144596), (559, 144614), (590, 144686), (601, 144719),

Gene: WalterMcMickey\_10 Start: 5719, Stop: 6693, Start Num: 163

Candidate Starts for WalterMcMickey\_10:

(Start: 163 @5719 has 304 MA's), (Start: 166 @5725 has 14 MA's), (Start: 192 @5773 has 2 MA's), (276, 5926), (365, 6088), (371, 6103), (382, 6124), (422, 6196), (425, 6202), (430, 6211), (469, 6280), (474, 6298), (497, 6343), (507, 6361), (538, 6439), (549, 6466), (554, 6481), (561, 6502), (575, 6541), (597, 6592), (609, 6634), (632, 6685),

Gene: Wamburgxpress\_26 Start: 25560, Stop: 26591, Start Num: 142

Candidate Starts for Wamburgxpress\_26:

(Start: 142 @25560 has 200 MA's), (235, 25713), (236, 25716), (247, 25740), (251, 25752), (261, 25770), (272, 25788), (278, 25806), (281, 25812), (286, 25821), (Start: 294 @25836 has 16 MA's), (303, 25851), (330, 25923), (365, 25980), (385, 26019), (425, 26097), (430, 26106), (431, 26109), (439, 26124), (467, 26178), (474, 26199), (482, 26214), (526, 26298), (537, 26328), (561, 26397), (567, 26409), (575, 26433), (581, 26451), (585, 26454), (590, 26466), (592, 26469), (601, 26499), (604, 26511),

Gene: Wanda\_55 Start: 42450, Stop: 43322, Start Num: 89

Candidate Starts for Wanda\_55:

(Start: 89 @42450 has 30 MA's), (Start: 97 @42477 has 1 MA's), (115, 42537), (Start: 138 @42585 has 44 MA's), (174, 42651), (189, 42672), (206, 42693), (233, 42747), (274, 42828), (403, 43107), (405, 43110), (413, 43134), (424, 43170), (432, 43185), (438, 43197), (444, 43218),

Gene: Wander\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for Wander\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (598, 6688), (601, 6700), (604, 6712), (627, 6778),

Gene: Waterdiva\_49 Start: 41702, Stop: 43057, Start Num: 82

Candidate Starts for Waterdiva\_49:

(Start: 82 @41702 has 255 MA's), (98, 41753), (108, 41786), (168, 41915), (170, 41918), (Start: 180 @41933 has 5 MA's), (235, 42029), (251, 42068), (269, 42098), (284, 42134), (333, 42245), (345, 42275), (347, 42278), (379, 42344), (440, 42503), (469, 42551), (475, 42569), (498, 42617), (550, 42761), (571, 42821), (603, 42926), (637, 43013),

Gene: Waterfoul\_30 Start: 27070, Stop: 27942, Start Num: 221

Candidate Starts for Waterfoul\_30:

(151, 26968), (183, 27022), (Start: 221 @27070 has 188 MA's), (Start: 227 @27082 has 1 MA's), (228, 27085), (229, 27088), (242, 27115), (253, 27145), (258, 27151), (287, 27205), (293, 27214), (300, 27226), (307, 27244), (313, 27259), (323, 27292), (331, 27310), (347, 27340), (384, 27409), (469, 27562), (475, 27580), (476, 27583), (506, 27643), (521, 27661), (538, 27688), (578, 27760), (593, 27775), (598, 27796), (599, 27799), (604, 27820), (637, 27913), (640, 27922), (643, 27931),

Gene: Watermelon\_12 Start: 6873, Stop: 7841, Start Num: 163

Candidate Starts for Watermelon\_12:

(Start: 163 @6873 has 304 MA's), (Start: 180 @6906 has 5 MA's), (Start: 190 @6924 has 1 MA's), (Start: 192 @6927 has 2 MA's), (335, 7194), (365, 7245), (368, 7257), (415, 7332), (442, 7395), (462, 7428), (469, 7440), (474, 7458), (484, 7476), (520, 7539), (551, 7620), (559, 7644), (561, 7647), (563, 7650), (567, 7659), (600, 7746), (614, 7791), (629, 7833),

Gene: Watson\_12 Start: 5954, Stop: 6919, Start Num: 153

Candidate Starts for Watson\_12:

(Start: 153 @5954 has 92 MA's), (Start: 180 @5999 has 5 MA's), (Start: 192 @6020 has 2 MA's), (256, 6140), (330, 6278), (365, 6335), (371, 6350), (422, 6431), (430, 6446), (439, 6464), (469, 6515), (474, 6533), (497, 6578), (538, 6674), (561, 6737), (575, 6776), (597, 6827),

Gene: Webster2\_33 Start: 28339, Stop: 29574, Start Num: 84

Candidate Starts for Webster2\_33:

(Start: 84 @28339 has 24 MA's), (110, 28432), (122, 28465), (128, 28477), (136, 28489), (Start: 138 @28492 has 44 MA's), (170, 28555), (Start: 180 @28573 has 5 MA's), (204, 28606), (235, 28666), (251, 28705), (255, 28714), (257, 28717), (269, 28735), (284, 28771), (309, 28819), (314, 28831), (318, 28837), (339, 28900), (342, 28903), (354, 28930), (361, 28942), (403, 29044), (440, 29131), (469, 29170), (476, 29191), (522, 29260), (534, 29290), (553, 29323), (561, 29332), (564, 29338), (573, 29350), (575, 29359), (601, 29422), (620, 29491),

Gene: Wee\_32 Start: 28223, Stop: 29221, Start Num: 149

Candidate Starts for Wee\_32:

(Start: 149 @28223 has 225 MA's), (Start: 192 @28298 has 2 MA's), (229, 28358), (239, 28379), (Start: 279 @28463 has 1 MA's), (306, 28514), (312, 28529), (365, 28625), (422, 28736), (433, 28757), (454, 28796), (462, 28808), (484, 28856), (497, 28883), (511, 28907), (520, 28922), (559, 29030), (578, 29078), (604, 29147), (614, 29177),

Gene: Weher20\_49 Start: 41701, Stop: 43056, Start Num: 82

Candidate Starts for Weher20\_49:

(Start: 82 @41701 has 255 MA's), (98, 41752), (108, 41785), (170, 41917), (Start: 180 @41932 has 5 MA's), (235, 42028), (251, 42067), (269, 42097), (284, 42133), (333, 42244), (345, 42274), (347, 42277), (379, 42343), (440, 42502), (469, 42550), (475, 42568), (498, 42616), (550, 42760), (571, 42820), (603, 42925), (620, 42979), (637, 43012),

Gene: WeiHuaDA\_17 Start: 8697, Stop: 9674, Start Num: 163

Candidate Starts for WeiHuaDA\_17:

(131, 8655), (Start: 163 @8697 has 304 MA's), (Start: 192 @8751 has 2 MA's), (330, 8988), (365, 9045), (415, 9129), (430, 9168), (469, 9237), (474, 9255), (507, 9318), (528, 9360), (538, 9408), (549, 9435), (554, 9450), (559, 9468), (561, 9471), (597, 9561), (626, 9660),

Gene: Weirido19\_29 Start: 26675, Stop: 27889, Start Num: 88

Candidate Starts for Weirido19\_29:

(53, 26498), (55, 26516), (61, 26561), (Start: 88 @26675 has 62 MA's), (146, 26831), (Start: 180 @26888 has 5 MA's), (197, 26909), (204, 26921), (224, 26954), (235, 26978), (245, 26999), (255, 27026), (284, 27083), (295, 27104), (309, 27131), (356, 27245), (379, 27296), (416, 27386), (440, 27443), (459, 27467), (469, 27482), (476, 27503), (503, 27557), (510, 27569), (531, 27593), (534, 27602), (564, 27650), (572, 27659), (593, 27710), (646, 27872),

Gene: Weiss13\_39 Start: 35042, Stop: 36091, Start Num: 142

Candidate Starts for Weiss13\_39:

(Start: 142 @35042 has 200 MA's), (Start: 192 @35126 has 2 MA's), (199, 35135), (211, 35159), (229, 35189), (239, 35210), (254, 35246), (269, 35267), (274, 35276), (Start: 279 @35294 has 1 MA's), (314, 35363), (358, 35453), (383, 35495), (394, 35516), (432, 35615), (448, 35642), (484, 35714), (515, 35768), (575, 35921), (587, 35945), (590, 35954), (603, 35996), (604, 35999), (606, 36005), (610, 36014), (622, 36050), (626, 36059), (632, 36068),

Gene: Whabigail7\_13 Start: 6883, Stop: 7875, Start Num: 163

Candidate Starts for Whabigail7\_13:

(Start: 163 @6883 has 304 MA's), (Start: 190 @6934 has 1 MA's), (Start: 192 @6937 has 2 MA's), (299, 7105), (302, 7111), (312, 7138), (338, 7198), (365, 7243), (412, 7330), (437, 7375), (467, 7414), (494, 7462), (504, 7477), (540, 7543), (555, 7585), (588, 7672), (624, 7786),

Gene: Whatsapiecost\_32 Start: 27956, Stop: 28957, Start Num: 149

Candidate Starts for Whatsapiecost\_32:

(Start: 149 @27956 has 225 MA's), (Start: 192 @28031 has 2 MA's), (229, 28094), (239, 28115), (Start: 279 @28199 has 1 MA's), (292, 28223), (302, 28238), (306, 28250), (365, 28361), (423, 28475), (433, 28493), (454, 28532), (469, 28556), (484, 28592), (497, 28619), (520, 28658), (559, 28766), (578, 28814), (604, 28883), (614, 28913),

Gene: Wheeler\_10 Start: 6039, Stop: 7007, Start Num: 163

Candidate Starts for Wheeler\_10:

(Start: 163 @6039 has 304 MA's), (Start: 180 @6072 has 5 MA's), (Start: 190 @6090 has 1 MA's), (Start: 192 @6093 has 2 MA's), (335, 6360), (365, 6411), (368, 6423), (415, 6498), (442, 6561), (450, 6573), (462, 6594), (469, 6606), (474, 6624), (484, 6642), (496, 6666), (520, 6705), (551, 6786), (559, 6810), (561, 6813), (563, 6816), (567, 6825), (600, 6912), (629, 6999),

Gene: Whirlwind\_29 Start: 26586, Stop: 27629, Start Num: 102

Candidate Starts for Whirlwind\_29:

(Start: 102 @26586 has 88 MA's), (Start: 103 @26592 has 3 MA's), (106, 26598), (112, 26619), (120, 26640), (143, 26691), (160, 26721), (186, 26772), (211, 26805), (216, 26817), (245, 26877), (289, 26958), (293, 26964), (313, 27009), (341, 27060), (349, 27078), (352, 27084), (355, 27090), (392, 27162), (418, 27219), (452, 27279), (489, 27354), (499, 27375), (572, 27399), (576, 27414), (578, 27420), (604, 27483), (640, 27585), (645, 27606), (648, 27612),

Gene: Whouxphf\_32 Start: 28010, Stop: 29011, Start Num: 149

Candidate Starts for Whouxphf\_32:

(Start: 149 @28010 has 225 MA's), (Start: 192 @28085 has 2 MA's), (210, 28118), (229, 28148), (239, 28169), (251, 28199), (259, 28211), (Start: 279 @28253 has 1 MA's), (292, 28277), (302, 28292),

(306, 28304), (365, 28415), (423, 28529), (433, 28547), (454, 28586), (469, 28610), (484, 28646), (497, 28673), (520, 28712), (538, 28760), (559, 28820), (578, 28868), (585, 28880), (601, 28925), (604, 28937), (614, 28967),

Gene: WideWale\_13 Start: 6926, Stop: 7903, Start Num: 163

Candidate Starts for WideWale\_13:

(Start: 163 @6926 has 304 MA's), (Start: 192 @6980 has 2 MA's), (234, 7037), (312, 7169), (330, 7217), (365, 7274), (382, 7310), (415, 7358), (430, 7397), (470, 7469), (474, 7484), (497, 7529), (507, 7547), (528, 7589), (538, 7637), (549, 7664), (554, 7679), (559, 7697), (561, 7700), (597, 7790),

Gene: Wiggin\_38 Start: 32362, Stop: 33219, Start Num: 198

Candidate Starts for Wiggin\_38:

(Start: 198 @32362 has 122 MA's), (220, 32401), (232, 32431), (242, 32452), (257, 32488), (275, 32518), (309, 32593), (334, 32641), (336, 32644), (345, 32668), (347, 32671), (356, 32686), (426, 32857), (487, 32971), (495, 32986), (498, 32992), (575, 33034), (576, 33037), (601, 33091), (624, 33169), (641, 33202),

Gene: Wigglewigggle\_28 Start: 26335, Stop: 27306, Start Num: 102

Candidate Starts for Wigglewigggle\_28:

(Start: 102 @26335 has 88 MA's), (120, 26389), (179, 26509), (Start: 198 @26539 has 122 MA's), (208, 26554), (Start: 227 @26587 has 1 MA's), (228, 26590), (232, 26599), (242, 26620), (275, 26683), (293, 26710), (305, 26734), (319, 26764), (345, 26815), (352, 26827), (386, 26890), (392, 26905), (415, 26965), (419, 26980), (469, 27061), (475, 27079), (476, 27082), (478, 27085), (579, 27136), (601, 27181), (613, 27223), (628, 27265),

Gene: Wilbur\_10 Start: 5880, Stop: 6860, Start Num: 164

Candidate Starts for Wilbur\_10:

(Start: 164 @5880 has 109 MA's), (Start: 166 @5883 has 14 MA's), (178, 5907), (Start: 190 @5928 has 1 MA's), (Start: 192 @5931 has 2 MA's), (330, 6180), (365, 6237), (416, 6321), (422, 6342), (437, 6369), (474, 6426), (551, 6576), (598, 6687), (601, 6699), (604, 6711), (627, 6777),

Gene: Wildcat\_52 Start: 38376, Stop: 39341, Start Num: 149

Candidate Starts for Wildcat\_52:

(Start: 149 @38376 has 225 MA's), (185, 38439), (231, 38499), (238, 38514), (239, 38517), (246, 38529), (249, 38535), (269, 38571), (270, 38574), (306, 38646), (312, 38661), (314, 38667), (344, 38730), (365, 38760), (381, 38793), (422, 38856), (423, 38859), (442, 38898), (462, 38931), (474, 38958), (479, 38967), (496, 39000), (557, 39135), (561, 39150), (578, 39195), (597, 39237), (604, 39264), (617, 39306),

Gene: Wilder\_28 Start: 26308, Stop: 27279, Start Num: 102

Candidate Starts for Wilder\_28:

(Start: 102 @26308 has 88 MA's), (120, 26362), (179, 26482), (Start: 198 @26512 has 122 MA's), (208, 26527), (Start: 227 @26560 has 1 MA's), (228, 26563), (232, 26572), (242, 26593), (275, 26656), (293, 26683), (305, 26707), (319, 26737), (345, 26788), (352, 26800), (386, 26863), (392, 26878), (415, 26938), (419, 26953), (469, 27034), (475, 27052), (476, 27055), (478, 27058), (579, 27109), (601, 27154), (613, 27196), (628, 27238),

Gene: Wildflower\_67 Start: 42973, Stop: 44013, Start Num: 148

Candidate Starts for Wildflower\_67:

(Start: 148 @42973 has 26 MA's), (Start: 192 @43048 has 2 MA's), (229, 43129), (232, 43135), (239, 43150), (278, 43231), (Start: 279 @43234 has 1 MA's), (306, 43288), (312, 43303), (365, 43399), (385, 43438), (397, 43468), (411, 43498), (414, 43501), (425, 43534), (462, 43600), (479, 43639), (484, 43648), (497, 43675), (520, 43714), (589, 43888), (604, 43939),

Gene: Wile\_10 Start: 5888, Stop: 6871, Start Num: 163

Candidate Starts for Wile\_10:

(Start: 163 @5888 has 304 MA's), (178, 5918), (Start: 190 @5939 has 1 MA's), (Start: 192 @5942 has 2 MA's), (330, 6191), (362, 6242), (365, 6248), (368, 6260), (387, 6290), (416, 6332), (437, 6380), (464, 6410), (474, 6437), (551, 6587), (601, 6710), (604, 6722), (607, 6731), (627, 6788), (652, 6863),

Gene: Wilkins\_10 Start: 5750, Stop: 6718, Start Num: 163

Candidate Starts for Wilkins\_10:

(Start: 163 @5750 has 304 MA's), (Start: 180 @5783 has 5 MA's), (Start: 190 @5801 has 1 MA's), (Start: 192 @5804 has 2 MA's), (335, 6071), (365, 6122), (368, 6134), (415, 6209), (442, 6272), (450, 6284), (462, 6305), (469, 6317), (474, 6335), (484, 6353), (496, 6377), (520, 6416), (551, 6497), (559, 6521), (561, 6524), (563, 6527), (567, 6536), (600, 6623), (629, 6710),

Gene: WillSterrel\_33 Start: 29145, Stop: 30146, Start Num: 149

Candidate Starts for WillSterrel\_33:

(107, 29046), (137, 29118), (Start: 149 @29145 has 225 MA's), (Start: 163 @29166 has 304 MA's), (170, 29178), (Start: 192 @29220 has 2 MA's), (210, 29253), (229, 29283), (239, 29304), (Start: 279 @29388 has 1 MA's), (292, 29412), (302, 29427), (306, 29439), (365, 29550), (422, 29661), (433, 29682), (454, 29721), (484, 29781), (497, 29808), (520, 29847), (559, 29955), (567, 29970), (578, 30003), (604, 30072), (614, 30102),

Gene: Willez\_34 Start: 31362, Stop: 32219, Start Num: 198

Candidate Starts for Willez\_34:

(Start: 198 @31362 has 122 MA's), (220, 31401), (232, 31431), (242, 31452), (257, 31488), (275, 31518), (309, 31593), (334, 31641), (336, 31644), (345, 31668), (347, 31671), (356, 31686), (426, 31857), (487, 31971), (495, 31986), (498, 31992), (575, 32034), (576, 32037), (601, 32091), (624, 32169), (641, 32202),

Gene: Willis\_253 Start: 144716, Stop: 145744, Start Num: 142

Candidate Starts for Willis\_253:

(Start: 142 @144716 has 200 MA's), (Start: 163 @144746 has 304 MA's), (170, 144758), (Start: 192 @144800 has 2 MA's), (229, 144863), (239, 144884), (Start: 279 @144968 has 1 MA's), (302, 145010), (306, 145022), (312, 145037), (344, 145106), (365, 145133), (393, 145187), (411, 145232), (414, 145235), (449, 145313), (462, 145334), (520, 145445), (554, 145535), (559, 145553), (590, 145625), (601, 145658),

Gene: Windsor\_48 Start: 41406, Stop: 42761, Start Num: 82

Candidate Starts for Windsor\_48:

(Start: 82 @41406 has 255 MA's), (98, 41457), (108, 41490), (168, 41619), (170, 41622), (Start: 180 @41637 has 5 MA's), (235, 41733), (251, 41772), (269, 41802), (284, 41838), (333, 41949), (345, 41979), (347, 41982), (379, 42048), (440, 42207), (469, 42255), (475, 42273), (498, 42321), (550, 42465), (571, 42525), (603, 42630), (637, 42717),

Gene: Winget\_68 Start: 43679, Stop: 44719, Start Num: 148

Candidate Starts for Winget\_68:

(Start: 148 @43679 has 26 MA's), (Start: 192 @43754 has 2 MA's), (229, 43835), (232, 43841), (239, 43856), (278, 43937), (Start: 279 @43940 has 1 MA's), (306, 43994), (312, 44009), (365, 44105), (385, 44144), (397, 44174), (411, 44204), (414, 44207), (425, 44240), (462, 44306), (479, 44345), (484, 44354), (497, 44381), (520, 44420), (589, 44594), (604, 44645),

Gene: Winky\_28 Start: 26303, Stop: 27274, Start Num: 102

Candidate Starts for Winky\_28:

(Start: 102 @26303 has 88 MA's), (120, 26357), (Start: 198 @26507 has 122 MA's), (203, 26516), (208, 26522), (Start: 227 @26555 has 1 MA's), (228, 26558), (232, 26567), (242, 26588), (275, 26651), (293, 26678), (305, 26702), (345, 26783), (352, 26795), (386, 26858), (392, 26873), (415, 26933), (419, 26948), (469, 27029), (475, 27047), (476, 27050), (478, 27053), (579, 27104), (601, 27149), (613, 27191), (628, 27233),

Gene: Wintermute\_32 Start: 27629, Stop: 28420, Start Num: 200

Candidate Starts for Wintermute\_32:

(Start: 200 @27629 has 20 MA's), (Start: 227 @27662 has 1 MA's), (242, 27695), (251, 27719), (264, 27740), (287, 27788), (293, 27797), (309, 27833), (350, 27914), (447, 28121), (469, 28148), (471, 28154), (476, 28169), (487, 28193), (576, 28217), (593, 28238), (601, 28271), (604, 28283), (625, 28355),

Gene: Wishmaker\_32 Start: 28339, Stop: 29574, Start Num: 84

Candidate Starts for Wishmaker\_32:

(Start: 84 @28339 has 24 MA's), (110, 28432), (122, 28465), (128, 28477), (136, 28489), (Start: 138 @28492 has 44 MA's), (170, 28555), (Start: 180 @28573 has 5 MA's), (204, 28606), (235, 28666), (251, 28705), (255, 28714), (257, 28717), (269, 28735), (284, 28771), (309, 28819), (314, 28831), (318, 28837), (339, 28900), (342, 28903), (354, 28930), (361, 28942), (403, 29044), (440, 29131), (469, 29170), (476, 29191), (522, 29260), (534, 29290), (553, 29323), (561, 29332), (564, 29338), (573, 29350), (575, 29359), (601, 29422), (620, 29491),

Gene: Wizard007\_10 Start: 5883, Stop: 6863, Start Num: 164

Candidate Starts for Wizard007\_10:

(Start: 164 @5883 has 109 MA's), (Start: 166 @5886 has 14 MA's), (178, 5910), (Start: 190 @5931 has 1 MA's), (Start: 192 @5934 has 2 MA's), (330, 6183), (365, 6240), (416, 6324), (422, 6345), (437, 6372), (464, 6402), (474, 6429), (551, 6579), (598, 6690), (601, 6702), (604, 6714), (627, 6780),

Gene: Wooldri\_14 Start: 5873, Stop: 6838, Start Num: 153

Candidate Starts for Wooldri\_14:

(Start: 153 @5873 has 92 MA's), (Start: 180 @5918 has 5 MA's), (Start: 192 @5939 has 2 MA's), (256, 6059), (330, 6197), (365, 6254), (371, 6269), (422, 6350), (430, 6365), (439, 6383), (469, 6434), (474, 6452), (497, 6497), (538, 6593), (561, 6656), (575, 6695), (597, 6746),

Gene: Wyatt2\_26 Start: 25547, Stop: 26578, Start Num: 142

Candidate Starts for Wyatt2\_26:

(Start: 142 @25547 has 200 MA's), (235, 25700), (236, 25703), (247, 25727), (251, 25739), (261, 25757), (272, 25775), (278, 25793), (281, 25799), (286, 25808), (Start: 294 @25823 has 16 MA's), (303, 25838), (330, 25910), (365, 25967), (385, 26006), (425, 26084), (430, 26093), (431, 26096), (439, 26111), (467, 26165), (474, 26186), (482, 26201), (526, 26285), (537, 26315), (561, 26384), (567, 26396), (575, 26420), (581, 26438), (585, 26441), (590, 26453), (592, 26456), (601, 26486), (604, 26498),

Gene: XFactor\_31 Start: 27697, Stop: 28698, Start Num: 149

Candidate Starts for XFactor\_31:

(Start: 149 @27697 has 225 MA's), (Start: 163 @27718 has 304 MA's), (170, 27730), (Start: 192 @27772 has 2 MA's), (229, 27835), (239, 27856), (251, 27886), (Start: 279 @27940 has 1 MA's), (292, 27964), (306, 27991), (365, 28102), (423, 28216), (433, 28234), (454, 28273), (469, 28297), (484, 28333), (497, 28360), (520, 28399), (538, 28447), (559, 28507), (585, 28567), (604, 28624), (614, 28654),

Gene: Xandras\_37 Start: 31848, Stop: 32705, Start Num: 198

Candidate Starts for Xandras\_37:

(Start: 198 @31848 has 122 MA's), (220, 31887), (232, 31917), (242, 31938), (257, 31974), (275, 32004), (309, 32079), (334, 32127), (336, 32130), (345, 32154), (347, 32157), (356, 32172), (426, 32343), (487, 32457), (495, 32472), (498, 32478), (575, 32520), (576, 32523), (601, 32577), (624, 32655), (641, 32688),

Gene: Xavia\_27 Start: 24676, Stop: 25842, Start Num: 102

Candidate Starts for Xavia\_27:

(Start: 102 @24676 has 88 MA's), (106, 24685), (122, 24730), (123, 24733), (168, 24820), (Start: 198 @24865 has 122 MA's), (214, 24898), (235, 24940), (245, 24961), (251, 24979), (284, 25045), (305, 25084), (333, 25150), (359, 25201), (379, 25246), (417, 25342), (434, 25381), (440, 25396), (447, 25408), (469, 25435), (510, 25522), (527, 25540), (530, 25546), (534, 25558), (546, 25570), (564, 25606), (598, 25687), (620, 25762), (640, 25804), (645, 25825), (648, 25831),

Gene: Xavier\_48 Start: 41414, Stop: 42769, Start Num: 82

Candidate Starts for Xavier\_48:

(Start: 82 @41414 has 255 MA's), (98, 41465), (108, 41498), (168, 41627), (170, 41630), (Start: 180 @41645 has 5 MA's), (235, 41741), (251, 41780), (269, 41810), (284, 41846), (333, 41957), (345, 41987), (347, 41990), (379, 42056), (440, 42215), (469, 42263), (475, 42281), (498, 42329), (550, 42473), (571, 42533), (603, 42638), (637, 42725),

Gene: Xena\_10 Start: 5878, Stop: 6858, Start Num: 164

Candidate Starts for Xena\_10:

(123, 5818), (134, 5836), (Start: 164 @5878 has 109 MA's), (Start: 166 @5881 has 14 MA's), (178, 5905), (Start: 190 @5926 has 1 MA's), (Start: 192 @5929 has 2 MA's), (330, 6178), (362, 6229), (365, 6235), (368, 6247), (387, 6277), (416, 6319), (437, 6367), (464, 6397), (474, 6424), (551, 6574), (601, 6697), (604, 6709), (607, 6718), (627, 6775), (652, 6850),

Gene: XianYue\_11 Start: 6359, Stop: 7345, Start Num: 163

Candidate Starts for XianYue\_11:

(Start: 163 @6359 has 304 MA's), (178, 6389), (Start: 192 @6413 has 2 MA's), (273, 6548), (330, 6662), (344, 6689), (362, 6713), (365, 6719), (437, 6851), (474, 6908), (551, 7058), (562, 7082), (579, 7127), (599, 7172), (604, 7193), (614, 7229), (627, 7265), (640, 7295),

Gene: Ximenita\_32 Start: 25917, Stop: 26660, Start Num: 217

Candidate Starts for Ximenita\_32:

(195, 25890), (Start: 217 @25917 has 11 MA's), (239, 25959), (242, 25965), (258, 26001), (287, 26049), (293, 26058), (309, 26094), (323, 26136), (379, 26244), (447, 26379), (462, 26394), (469, 26406), (476, 26427), (496, 26442), (538, 26451), (624, 26610), (637, 26631), (640, 26640),

Gene: Xula\_25 Start: 23743, Stop: 24909, Start Num: 102

Candidate Starts for Xula\_25:

(15, 22999), (41, 23371), (Start: 102 @23743 has 88 MA's), (123, 23800), (168, 23887), (201, 23935), (235, 24007), (245, 24028), (284, 24112), (305, 24151), (333, 24217), (345, 24247), (359, 24268), (379, 24313), (417, 24409), (434, 24448), (440, 24463), (469, 24502), (510, 24589), (527, 24607), (530, 24613), (553, 24661), (598, 24754), (620, 24829), (640, 24871), (645, 24892), (648, 24898),

Gene: Y10\_32 Start: 27629, Stop: 28420, Start Num: 200

Candidate Starts for Y10\_32:

(Start: 200 @27629 has 20 MA's), (Start: 227 @27662 has 1 MA's), (242, 27695), (251, 27719), (264, 27740), (287, 27788), (293, 27797), (309, 27833), (350, 27914), (447, 28121), (469, 28148), (471, 28154), (476, 28169), (487, 28193), (576, 28217), (593, 28238), (601, 28271), (604, 28283), (625, 28355),



Gene: Y2\_32 Start: 27629, Stop: 28420, Start Num: 200

Candidate Starts for Y2\_32:

(Start: 200 @27629 has 20 MA's), (Start: 227 @27662 has 1 MA's), (242, 27695), (251, 27719), (264, 27740), (287, 27788), (293, 27797), (309, 27833), (350, 27914), (447, 28121), (469, 28148), (471, 28154), (476, 28169), (487, 28193), (576, 28217), (593, 28238), (601, 28271), (604, 28283), (625, 28355),

Gene: Yahalom\_47 Start: 41547, Stop: 42611, Start Num: 138

Candidate Starts for Yahalom\_47:

(Start: 138 @41547 has 44 MA's), (173, 41610), (219, 41691), (252, 41757), (260, 41772), (269, 41784), (280, 41811), (311, 41868), (314, 41877), (391, 42024), (401, 42039), (422, 42093), (439, 42126), (463, 42165), (470, 42177), (512, 42258), (520, 42276), (523, 42279), (538, 42324), (578, 42435), (617, 42546), (626, 42567), (641, 42600),

Gene: YassJohnny\_36 Start: 32373, Stop: 33230, Start Num: 198

Candidate Starts for YassJohnny\_36:

(Start: 198 @32373 has 122 MA's), (220, 32412), (232, 32442), (242, 32463), (257, 32499), (275, 32529), (309, 32604), (334, 32652), (336, 32655), (345, 32679), (347, 32682), (356, 32697), (426, 32868), (487, 32982), (495, 32997), (498, 33003), (575, 33045), (576, 33048), (601, 33102), (624, 33180), (641, 33213),

Gene: Yassified\_248 Start: 143912, Stop: 144940, Start Num: 142

Candidate Starts for Yassified\_248:

(Start: 142 @143912 has 200 MA's), (Start: 163 @143942 has 304 MA's), (Start: 192 @143996 has 2 MA's), (229, 144059), (239, 144080), (Start: 279 @144164 has 1 MA's), (302, 144206), (306, 144218), (312, 144233), (344, 144302), (365, 144329), (393, 144383), (411, 144428), (414, 144431), (449, 144509), (462, 144530), (520, 144641), (554, 144731), (559, 144749), (590, 144821), (601, 144854),

Gene: Yeet\_47 Start: 41871, Stop: 42743, Start Num: 89

Candidate Starts for Yeet\_47:

(Start: 89 @41871 has 30 MA's), (Start: 97 @41898 has 1 MA's), (115, 41958), (Start: 138 @42006 has 44 MA's), (174, 42072), (189, 42093), (206, 42114), (233, 42168), (274, 42249), (403, 42528), (405, 42531), (413, 42555), (424, 42591), (432, 42606), (438, 42618), (444, 42639),

Gene: Yelo\_39 Start: 35335, Stop: 36384, Start Num: 142

Candidate Starts for Yelo\_39:

(Start: 142 @35335 has 200 MA's), (Start: 192 @35419 has 2 MA's), (199, 35428), (211, 35452), (229, 35482), (239, 35503), (248, 35521), (254, 35539), (269, 35560), (274, 35569), (Start: 279 @35587 has 1 MA's), (297, 35614), (314, 35656), (383, 35788), (394, 35809), (432, 35908), (484, 36007), (515, 36061), (574, 36211), (587, 36238), (590, 36247), (603, 36289), (604, 36292), (606, 36298), (610, 36307), (622, 36343), (626, 36352), (632, 36361),

Gene: YemiJoy2021\_253 Start: 145447, Stop: 146475, Start Num: 142

Candidate Starts for YemiJoy2021\_253:

(Start: 142 @145447 has 200 MA's), (Start: 163 @145477 has 304 MA's), (170, 145489), (Start: 192 @145531 has 2 MA's), (229, 145594), (239, 145615), (Start: 279 @145699 has 1 MA's), (302, 145741), (306, 145753), (312, 145768), (344, 145837), (365, 145864), (393, 145918), (411, 145963), (414, 145966), (449, 146044), (462, 146065), (520, 146176), (554, 146266), (559, 146284), (590, 146356), (601, 146389),

Gene: Yinz\_47 Start: 41573, Stop: 42637, Start Num: 138

Candidate Starts for Yinz\_47:

(Start: 138 @41573 has 44 MA's), (173, 41636), (219, 41717), (252, 41783), (260, 41798), (269, 41810), (280, 41837), (311, 41894), (314, 41903), (391, 42050), (401, 42065), (422, 42119), (439, 42152), (463, 42191), (470, 42203), (512, 42284), (520, 42302), (523, 42305), (578, 42461), (617, 42572), (626, 42593), (641, 42626),

Gene: YoSam321\_10 Start: 5881, Stop: 6861, Start Num: 164

Candidate Starts for YoSam321\_10:

(Start: 164 @5881 has 109 MA's), (Start: 166 @5884 has 14 MA's), (178, 5908), (Start: 190 @5929 has 1 MA's), (Start: 192 @5932 has 2 MA's), (330, 6181), (365, 6238), (401, 6301), (416, 6322), (422, 6343), (437, 6370), (464, 6400), (474, 6427), (551, 6577), (601, 6700), (604, 6712), (644, 6823),

Gene: Yorick\_31 Start: 27697, Stop: 28698, Start Num: 149

Candidate Starts for Yorick\_31:

(Start: 149 @27697 has 225 MA's), (Start: 163 @27718 has 304 MA's), (170, 27730), (Start: 192 @27772 has 2 MA's), (229, 27835), (239, 27856), (251, 27886), (Start: 279 @27940 has 1 MA's), (292, 27964), (302, 27979), (306, 27991), (365, 28102), (423, 28216), (433, 28234), (454, 28273), (469, 28297), (484, 28333), (497, 28360), (520, 28399), (538, 28447), (559, 28507), (585, 28567), (604, 28624), (614, 28654),

Gene: Yoshand\_50 Start: 41844, Stop: 43220, Start Num: 82

Candidate Starts for Yoshand\_50:

(Start: 82 @41844 has 255 MA's), (98, 41895), (108, 41928), (168, 42057), (170, 42060), (Start: 180 @42075 has 5 MA's), (235, 42171), (251, 42210), (269, 42240), (284, 42276), (333, 42387), (345, 42417), (347, 42420), (379, 42486), (440, 42645), (469, 42693), (475, 42711), (498, 42759), (550, 42924), (571, 42984), (603, 43089), (637, 43176),

Gene: Yoshi\_38 Start: 27091, Stop: 28161, Start Num: 149

Candidate Starts for Yoshi\_38:

(Start: 149 @27091 has 225 MA's), (269, 27307), (274, 27316), (297, 27361), (314, 27403), (335, 27454), (358, 27496), (377, 27538), (391, 27568), (403, 27598), (404, 27601), (431, 27676), (442, 27697), (450, 27709), (455, 27721), (468, 27742), (512, 27826), (538, 27901), (578, 28009), (579, 28012), (581, 28018), (598, 28054), (599, 28057), (600, 28063), (604, 28078), (627, 28144),

Gene: YouGoGlencoco\_49 Start: 41704, Stop: 43059, Start Num: 82

Candidate Starts for YouGoGlencoco\_49:

(Start: 82 @41704 has 255 MA's), (98, 41755), (108, 41788), (168, 41917), (170, 41920), (Start: 180 @41935 has 5 MA's), (235, 42031), (251, 42070), (269, 42100), (284, 42136), (333, 42247), (345, 42277), (347, 42280), (379, 42346), (440, 42505), (469, 42553), (475, 42571), (498, 42619), (550, 42763), (571, 42823), (603, 42928), (637, 43015),

Gene: YoungMoneyMata\_252 Start: 144908, Stop: 145936, Start Num: 142

Candidate Starts for YoungMoneyMata\_252:

(Start: 142 @144908 has 200 MA's), (Start: 163 @144938 has 304 MA's), (170, 144950), (Start: 192 @144992 has 2 MA's), (229, 145055), (239, 145076), (Start: 279 @145160 has 1 MA's), (302, 145202), (306, 145214), (312, 145229), (344, 145298), (365, 145325), (393, 145379), (411, 145424), (414, 145427), (449, 145505), (462, 145526), (520, 145637), (554, 145727), (559, 145745), (590, 145817), (601, 145850),

Gene: Youngblood\_35 Start: 32018, Stop: 32875, Start Num: 198

Candidate Starts for Youngblood\_35:

(Start: 198 @32018 has 122 MA's), (220, 32057), (232, 32087), (242, 32108), (257, 32144), (275, 32174), (309, 32249), (334, 32297), (336, 32300), (345, 32324), (347, 32327), (356, 32342), (426, 32513), (487, 32627), (495, 32642), (498, 32648), (575, 32690), (576, 32693), (601, 32747), (624,

32825), (641, 32858),

Gene: YoureAdopted\_30 Start: 26430, Stop: 27302, Start Num: 221

Candidate Starts for YoureAdopted\_30:

(76, 26100), (151, 26328), (195, 26403), (Start: 221 @26430 has 188 MA's), (Start: 227 @26442 has 1 MA's), (258, 26511), (275, 26538), (287, 26568), (293, 26577), (309, 26613), (323, 26655), (331, 26673), (347, 26703), (379, 26763), (447, 26898), (469, 26925), (476, 26946), (487, 26970), (521, 27021), (578, 27123), (598, 27159), (604, 27183), (640, 27282), (643, 27291),

Gene: Yucca\_253 Start: 145888, Stop: 146916, Start Num: 142

Candidate Starts for Yucca\_253:

(Start: 142 @145888 has 200 MA's), (Start: 163 @145918 has 304 MA's), (170, 145930), (Start: 192 @145972 has 2 MA's), (229, 146035), (239, 146056), (Start: 279 @146140 has 1 MA's), (302, 146182), (306, 146194), (312, 146209), (344, 146278), (365, 146305), (393, 146359), (411, 146404), (414, 146407), (449, 146485), (462, 146506), (520, 146617), (554, 146707), (559, 146725), (590, 146797), (601, 146830),

Gene: Yuna\_32 Start: 26320, Stop: 27069, Start Num: 221

Candidate Starts for Yuna\_32:

(151, 26218), (Start: 162 @26239 has 2 MA's), (183, 26272), (195, 26293), (Start: 221 @26320 has 188 MA's), (Start: 227 @26332 has 1 MA's), (228, 26335), (239, 26359), (242, 26365), (258, 26401), (287, 26449), (293, 26458), (313, 26503), (323, 26536), (347, 26584), (392, 26671), (447, 26779), (469, 26806), (476, 26827), (487, 26851), (598, 26926), (604, 26950), (616, 26998), (637, 27040), (640, 27049),

Gene: YungJamal\_72 Start: 44871, Stop: 45911, Start Num: 148

Candidate Starts for YungJamal\_72:

(Start: 148 @44871 has 26 MA's), (Start: 192 @44946 has 2 MA's), (229, 45027), (232, 45033), (239, 45048), (278, 45129), (Start: 279 @45132 has 1 MA's), (306, 45186), (312, 45201), (365, 45297), (385, 45336), (397, 45366), (411, 45396), (414, 45399), (425, 45432), (462, 45498), (479, 45537), (484, 45546), (497, 45573), (520, 45612), (538, 45660), (589, 45786), (604, 45837),

Gene: Yunkel11\_31 Start: 25718, Stop: 26587, Start Num: 221

Candidate Starts for Yunkel11\_31:

(183, 25670), (195, 25691), (Start: 221 @25718 has 188 MA's), (Start: 227 @25730 has 1 MA's), (239, 25757), (242, 25763), (253, 25793), (258, 25799), (293, 25862), (309, 25898), (313, 25907), (323, 25940), (347, 25988), (384, 26057), (469, 26210), (476, 26231), (487, 26255), (496, 26273), (507, 26294), (538, 26333), (578, 26408), (598, 26444), (624, 26537), (640, 26567), (643, 26576),

Gene: Zabiza\_32 Start: 26461, Stop: 27333, Start Num: 221

Candidate Starts for Zabiza\_32:

(195, 26434), (Start: 221 @26461 has 188 MA's), (Start: 227 @26473 has 1 MA's), (258, 26542), (275, 26569), (287, 26599), (293, 26608), (309, 26644), (313, 26653), (323, 26686), (331, 26704), (347, 26734), (378, 26791), (379, 26794), (447, 26929), (469, 26956), (476, 26977), (487, 27001), (521, 27052), (578, 27154), (598, 27190), (604, 27214), (640, 27313), (643, 27322),

Gene: Zaider\_50 Start: 41934, Stop: 43289, Start Num: 82

Candidate Starts for Zaider\_50:

(Start: 82 @41934 has 255 MA's), (98, 41985), (108, 42018), (114, 42036), (168, 42147), (170, 42150), (Start: 180 @42165 has 5 MA's), (235, 42261), (251, 42300), (269, 42330), (284, 42366), (333, 42477), (345, 42507), (347, 42510), (379, 42576), (440, 42735), (469, 42783), (475, 42801), (498, 42849), (550, 42993), (571, 43053), (603, 43158), (637, 43245),

Gene: Zakai\_28 Start: 26511, Stop: 27539, Start Num: 142

Candidate Starts for Zakai\_28:

(Start: 142 @26511 has 200 MA's), (231, 26655), (233, 26661), (Start: 296 @26790 has 2 MA's), (301, 26799), (365, 26931), (425, 27048), (430, 27057), (431, 27060), (439, 27075), (474, 27150), (482, 27165), (537, 27279), (548, 27306), (557, 27333), (561, 27348), (567, 27360), (595, 27426),

Gene: Zakhe101\_66 Start: 43519, Stop: 44559, Start Num: 148

Candidate Starts for Zakhe101\_66:

(Start: 148 @43519 has 26 MA's), (Start: 192 @43594 has 2 MA's), (229, 43675), (232, 43681), (239, 43696), (278, 43777), (Start: 279 @43780 has 1 MA's), (306, 43834), (312, 43849), (365, 43945), (385, 43984), (397, 44014), (411, 44044), (414, 44047), (425, 44080), (462, 44146), (479, 44185), (484, 44194), (497, 44221), (520, 44260), (589, 44434), (604, 44485),

Gene: Zalkecks\_251 Start: 144545, Stop: 145573, Start Num: 142

Candidate Starts for Zalkecks\_251:

(Start: 142 @144545 has 200 MA's), (Start: 163 @144575 has 304 MA's), (170, 144587), (Start: 192 @144629 has 2 MA's), (229, 144692), (239, 144713), (Start: 279 @144797 has 1 MA's), (302, 144839), (306, 144851), (312, 144866), (344, 144935), (365, 144962), (393, 145016), (411, 145061), (414, 145064), (449, 145142), (462, 145163), (520, 145274), (554, 145364), (559, 145382), (590, 145454), (601, 145487),

Gene: Zapner\_38 Start: 28198, Stop: 29271, Start Num: 149

Candidate Starts for Zapner\_38:

(Start: 149 @28198 has 225 MA's), (Start: 166 @28225 has 14 MA's), (182, 28255), (235, 28348), (239, 28357), (244, 28366), (274, 28423), (297, 28468), (311, 28501), (314, 28510), (335, 28561), (358, 28603), (367, 28627), (369, 28636), (377, 28648), (391, 28678), (403, 28708), (404, 28711), (422, 28768), (423, 28771), (431, 28786), (437, 28798), (442, 28807), (455, 28831), (470, 28855), (512, 28936), (538, 29011), (579, 29122), (598, 29164), (599, 29167), (600, 29173), (604, 29188), (627, 29254),

Gene: Zaria\_26 Start: 25561, Stop: 26592, Start Num: 142

Candidate Starts for Zaria\_26:

(Start: 142 @25561 has 200 MA's), (235, 25714), (236, 25717), (247, 25741), (251, 25753), (261, 25771), (272, 25789), (278, 25807), (281, 25813), (286, 25822), (Start: 294 @25837 has 16 MA's), (303, 25852), (330, 25924), (365, 25981), (385, 26020), (425, 26098), (430, 26107), (431, 26110), (439, 26125), (467, 26179), (474, 26200), (482, 26215), (526, 26299), (537, 26329), (561, 26398), (567, 26410), (575, 26434), (581, 26452), (585, 26455), (590, 26467), (592, 26470), (601, 26500), (604, 26512),

Gene: Zavala\_31 Start: 26436, Stop: 27308, Start Num: 221

Candidate Starts for Zavala\_31:

(195, 26409), (Start: 221 @26436 has 188 MA's), (Start: 227 @26448 has 1 MA's), (258, 26517), (275, 26544), (287, 26574), (293, 26583), (309, 26619), (313, 26628), (323, 26661), (331, 26679), (347, 26709), (379, 26769), (447, 26904), (469, 26931), (476, 26952), (487, 26976), (521, 27027), (578, 27129), (598, 27165), (604, 27189), (640, 27288), (643, 27297),

Gene: Zeeculate\_9 Start: 5734, Stop: 6702, Start Num: 163

Candidate Starts for Zeeculate\_9:

(Start: 163 @5734 has 304 MA's), (Start: 180 @5767 has 5 MA's), (Start: 190 @5785 has 1 MA's), (Start: 192 @5788 has 2 MA's), (335, 6055), (365, 6106), (368, 6118), (415, 6193), (442, 6256), (450, 6268), (462, 6289), (469, 6301), (474, 6319), (484, 6337), (496, 6361), (520, 6400), (551, 6481), (559, 6505), (561, 6508), (563, 6511), (567, 6520), (600, 6607), (614, 6652), (629, 6694),

Gene: Zeenon\_253 Start: 145079, Stop: 146107, Start Num: 142

Candidate Starts for Zeenon\_253:

(Start: 142 @145079 has 200 MA's), (Start: 163 @145109 has 304 MA's), (170, 145121), (Start: 192 @145163 has 2 MA's), (229, 145226), (239, 145247), (Start: 279 @145331 has 1 MA's), (302, 145373), (306, 145385), (312, 145400), (344, 145469), (365, 145496), (393, 145550), (411, 145595), (414, 145598), (449, 145676), (462, 145697), (520, 145808), (554, 145898), (559, 145916), (590, 145988), (601, 146021),

Gene: Zelda\_49 Start: 41751, Stop: 43106, Start Num: 82

Candidate Starts for Zelda\_49:

(Start: 82 @41751 has 255 MA's), (98, 41802), (108, 41835), (168, 41964), (170, 41967), (Start: 180 @41982 has 5 MA's), (235, 42078), (251, 42117), (269, 42147), (284, 42183), (333, 42294), (345, 42324), (347, 42327), (379, 42393), (440, 42552), (469, 42600), (475, 42618), (498, 42666), (550, 42810), (571, 42870), (603, 42975), (637, 43062),

Gene: Zelink\_50 Start: 43683, Stop: 44528, Start Num: 97

Candidate Starts for Zelink\_50:

(Start: 89 @43656 has 30 MA's), (Start: 97 @43683 has 1 MA's), (Start: 148 @43812 has 26 MA's), (174, 43857), (189, 43878), (206, 43899), (233, 43953), (274, 44034), (403, 44313), (405, 44316), (413, 44340), (424, 44376), (432, 44391), (438, 44403), (444, 44424),

Gene: Zenon\_40 Start: 35354, Stop: 36403, Start Num: 142

Candidate Starts for Zenon\_40:

(Start: 142 @35354 has 200 MA's), (Start: 192 @35438 has 2 MA's), (199, 35447), (211, 35471), (229, 35501), (239, 35522), (248, 35540), (254, 35558), (269, 35579), (274, 35588), (Start: 279 @35606 has 1 MA's), (297, 35633), (314, 35675), (358, 35765), (383, 35807), (394, 35828), (432, 35927), (448, 35954), (484, 36026), (515, 36080), (574, 36230), (587, 36257), (590, 36266), (603, 36308), (604, 36311), (606, 36317), (610, 36326), (622, 36362), (626, 36371), (632, 36380),

Gene: Zenteno07\_53 Start: 41898, Stop: 42902, Start Num: 161

Candidate Starts for Zenteno07\_53:

(Start: 161 @41898 has 8 MA's), (178, 41928), (187, 41943), (Start: 190 @41949 has 1 MA's), (Start: 192 @41952 has 2 MA's), (273, 42093), (Start: 279 @42108 has 1 MA's), (362, 42258), (365, 42264), (382, 42300), (401, 42327), (416, 42348), (443, 42411), (474, 42459), (551, 42609), (562, 42633), (565, 42639), (578, 42675), (582, 42687), (604, 42744),

Gene: Zephyr\_10 Start: 5875, Stop: 6843, Start Num: 163

Candidate Starts for Zephyr\_10:

(Start: 163 @5875 has 304 MA's), (Start: 180 @5908 has 5 MA's), (Start: 190 @5926 has 1 MA's), (Start: 192 @5929 has 2 MA's), (335, 6196), (365, 6247), (368, 6259), (415, 6334), (442, 6397), (462, 6430), (469, 6442), (474, 6460), (484, 6478), (496, 6502), (520, 6541), (551, 6622), (559, 6646), (561, 6649), (563, 6652), (567, 6661), (600, 6748), (614, 6793), (629, 6835),

Gene: Zerg\_31 Start: 27550, Stop: 28551, Start Num: 149

Candidate Starts for Zerg\_31:

(42, 27070), (47, 27109), (62, 27262), (69, 27298), (Start: 149 @27550 has 225 MA's), (Start: 192 @27625 has 2 MA's), (210, 27658), (229, 27688), (239, 27709), (Start: 279 @27793 has 1 MA's), (292, 27817), (302, 27832), (306, 27844), (365, 27955), (423, 28069), (433, 28087), (454, 28126), (469, 28150), (484, 28186), (497, 28213), (520, 28252), (559, 28360), (585, 28420), (601, 28465), (604, 28477), (614, 28507),

Gene: Zetzy\_11 Start: 5527, Stop: 6492, Start Num: 153

Candidate Starts for Zetzy\_11:

(Start: 153 @5527 has 92 MA's), (155, 5533), (Start: 180 @5572 has 5 MA's), (Start: 192 @5593 has 2 MA's), (256, 5713), (330, 5851), (365, 5908), (371, 5923), (422, 6004), (430, 6019), (467, 6085), (469, 6088), (470, 6091), (474, 6106), (538, 6247), (549, 6274), (559, 6307), (561, 6310), (575, 6349),

Gene: Zeuska\_11 Start: 6553, Stop: 7521, Start Num: 163

Candidate Starts for Zeuska\_11:

(Start: 163 @6553 has 304 MA's), (Start: 180 @6586 has 5 MA's), (Start: 190 @6604 has 1 MA's), (Start: 192 @6607 has 2 MA's), (335, 6874), (365, 6925), (368, 6937), (415, 7012), (442, 7075), (450, 7087), (462, 7108), (469, 7120), (474, 7138), (484, 7156), (496, 7180), (520, 7219), (551, 7300), (559, 7324), (561, 7327), (563, 7330), (567, 7339), (600, 7426), (614, 7471), (629, 7513),

Gene: ZhongYanYuan\_27 Start: 26124, Stop: 27095, Start Num: 102

Candidate Starts for ZhongYanYuan\_27:

(Start: 102 @26124 has 88 MA's), (120, 26178), (179, 26298), (188, 26313), (Start: 198 @26328 has 122 MA's), (208, 26343), (Start: 227 @26376 has 1 MA's), (232, 26388), (242, 26409), (275, 26472), (293, 26499), (305, 26523), (345, 26604), (352, 26616), (367, 26643), (386, 26679), (392, 26694), (396, 26709), (415, 26754), (419, 26769), (469, 26850), (475, 26868), (476, 26871), (478, 26874), (491, 26901), (579, 26925), (601, 26970), (613, 27012), (628, 27054),

Gene: Zilizebeth\_27 Start: 24052, Stop: 25218, Start Num: 102

Candidate Starts for Zilizebeth\_27:

(Start: 102 @24052 has 88 MA's), (123, 24109), (168, 24196), (Start: 198 @24241 has 122 MA's), (201, 24244), (235, 24316), (245, 24337), (284, 24421), (305, 24460), (333, 24526), (345, 24556), (359, 24577), (379, 24622), (417, 24718), (434, 24757), (440, 24772), (447, 24784), (469, 24811), (510, 24898), (527, 24916), (530, 24922), (553, 24970), (571, 24991), (598, 25063), (620, 25138),

Gene: Zimmer\_13 Start: 8022, Stop: 8996, Start Num: 163

Candidate Starts for Zimmer\_13:

(Start: 163 @8022 has 304 MA's), (Start: 192 @8076 has 2 MA's), (230, 8136), (259, 8196), (322, 8322), (328, 8334), (331, 8343), (365, 8397), (371, 8412), (415, 8481), (422, 8505), (425, 8511), (430, 8520), (474, 8607), (497, 8649), (538, 8748), (561, 8811), (587, 8874), (595, 8892), (609, 8943),

Gene: Zizzle\_31 Start: 27641, Stop: 28642, Start Num: 149

Candidate Starts for Zizzle\_31:

(Start: 149 @27641 has 225 MA's), (Start: 163 @27662 has 304 MA's), (170, 27674), (Start: 192 @27716 has 2 MA's), (229, 27779), (239, 27800), (251, 27830), (Start: 279 @27884 has 1 MA's), (292, 27908), (302, 27923), (306, 27935), (365, 28046), (423, 28160), (433, 28178), (454, 28217), (469, 28241), (484, 28277), (497, 28304), (520, 28343), (538, 28391), (559, 28451), (585, 28511), (604, 28568), (614, 28598),

Gene: ZoMa\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for ZoMa\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: ZoeJ\_29 Start: 24755, Stop: 25963, Start Num: 99

Candidate Starts for ZoeJ\_29:

(87, 24713), (Start: 99 @24755 has 10 MA's), (104, 24782), (109, 24797), (125, 24839), (136, 24860), (150, 24887), (205, 24983), (Start: 227 @25016 has 1 MA's), (228, 25019), (242, 25049), (275, 25115), (293, 25154), (330, 25232), (353, 25277), (392, 25352), (418, 25424), (469, 25517), (476, 25538), (486, 25559), (539, 25670), (545, 25685), (575, 25754), (601, 25811), (624, 25892),

Gene: Zolita\_7 Start: 5433, Stop: 6242, Start Num: 221

Candidate Starts for Zolita\_7:

(Start: 221 @5433 has 188 MA's), (251, 5496), (255, 5505), (284, 5562), (309, 5610), (329, 5667), (339, 5691), (420, 5880), (440, 5922), (475, 5979), (645, 6228),

Gene: Zombie\_28 Start: 25201, Stop: 26409, Start Num: 88

Candidate Starts for Zombie\_28:

(65, 25108), (Start: 88 @25201 has 62 MA's), (154, 25375), (202, 25447), (251, 25546), (255, 25555), (270, 25579), (275, 25588), (284, 25612), (295, 25633), (309, 25660), (314, 25672), (342, 25744), (361, 25783), (440, 25972), (459, 25996), (469, 26011), (476, 26032), (498, 26077), (500, 26080), (534, 26131),

Gene: Zonia\_49 Start: 41721, Stop: 43076, Start Num: 82

Candidate Starts for Zonia\_49:

(Start: 82 @41721 has 255 MA's), (98, 41772), (108, 41805), (168, 41934), (170, 41937), (Start: 180 @41952 has 5 MA's), (235, 42048), (251, 42087), (269, 42117), (284, 42153), (333, 42264), (345, 42294), (347, 42297), (379, 42363), (440, 42522), (469, 42570), (475, 42588), (498, 42636), (550, 42780), (571, 42840), (603, 42945), (637, 43032),

Gene: ZygoTaiga\_249 Start: 146185, Stop: 147213, Start Num: 142

Candidate Starts for ZygoTaiga\_249:

(Start: 142 @146185 has 200 MA's), (Start: 163 @146215 has 304 MA's), (170, 146227), (Start: 192 @146269 has 2 MA's), (229, 146332), (239, 146353), (Start: 279 @146437 has 1 MA's), (302, 146479), (306, 146491), (312, 146506), (344, 146575), (365, 146602), (393, 146656), (411, 146701), (414, 146704), (449, 146782), (462, 146803), (520, 146914), (554, 147004), (559, 147022), (590, 147094), (601, 147127),

Gene: xkcd\_36 Start: 32027, Stop: 32884, Start Num: 198

Candidate Starts for xkcd\_36:

(Start: 198 @32027 has 122 MA's), (220, 32066), (232, 32096), (242, 32117), (257, 32153), (275, 32183), (309, 32258), (334, 32306), (336, 32309), (345, 32333), (347, 32336), (356, 32351), (426, 32522), (481, 32621), (487, 32636), (495, 32651), (498, 32657), (575, 32699), (576, 32702), (601, 32756), (624, 32834), (641, 32867),