





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 281865 Report

This analysis was run 02/23/26 on database version 636.

Pham number 281865 has 542 members, 82 are drafts.

Phages represented in each track:

- Track 1 : Sejanus\_10
- Track 2 : Mao1\_9, Mask\_10
- Track 3 : Dori\_10
- Track 4 : StAugustine\_17, Causa\_19
- Track 5 : Puhltonio\_12, Soto\_12, HSavage\_12, TallGrassMM\_12, Gyarad\_0012, Cornobble\_11, FugateOSU\_11, Doddsville\_12, OliverWalter\_12, Mesmerelda\_11, Dione\_11, Gwilliam\_12, Yoshand\_12, Virgeve\_11, Etaye\_12, Newman\_12, Khan1\_12, Karn\_11, Nacho\_0012, Rimu\_12, JakeO\_11, CheetO\_12, Antonia\_11, Mosaic\_11, KlimbOn\_12, SallyH\_12, BlueHusk\_12, Suffolk\_12, Mikota\_12, ThreeOh3D2\_12, DonSanchon\_11, Grand2040\_11, Selr12\_12, Badfish\_12, Solosis\_11, Jesabah\_12, Crownjwl\_12, Maru\_11, Roy17\_12, Aelin\_11, BlacksBerry\_11, Placalicious\_11, Dati\_12, Swish\_12, DirtJuice\_12, Pherdinand\_12, Jiraiya\_11, Jillium\_11, Carthage\_11, Chorkpop\_12, Burr\_11, KLucky39\_12, DaddyDaniels\_12, MrPhizzler\_12, Basato\_13, UncleHowie\_12, Ricotta\_11, Mulan\_11, Duggie\_11, MiniBoss\_12, FluffyNinja\_12, Horchata\_12, RedRaider89\_12, Mana\_11, Morgushi\_12, Timmi\_11, MitKao\_12, Olak\_11, Thunderbird\_11, SDcharge11\_12, BlackStallion\_12, Riggan\_12, Bishoperium\_11, Mcshane\_11, Mecca\_11, AbsoluteMadLad\_11, Happabalu\_12, Phipps\_12, Manad\_11, Gareth\_11, JDog\_11, Beaglebox\_11, GreenChile\_12, Robyn\_11, Bluephacebaby\_11, Scoot17C\_12, Lasso\_12, Lopsy\_11, LostAndPhound\_11, Tooj\_12, Schadenfreude\_11, Haleema\_11, Scrick\_11, Freya\_11, RedMaple\_11, Pacifista\_11, Lulumae\_11, Olive\_12, AltPhacts\_12, Xavier\_11, Emiris\_12, Vortex\_12, Iridessa\_12, Giraffe\_12, Murdoc\_12, Iridoclysis\_12, Vaticameos\_12, FriarPreacher\_12, Potter\_11, PinheadLarry\_12, Pops\_12, Chunky\_12, Held\_12, Longacauda\_11, FremontTroll\_12, Dingo\_12, Lumine\_11, Oosterbaan\_12, Roliet\_12, Legolas\_11, Triad\_12, Sheila\_12, Inverness\_12, Orwigg\_11, Banjo\_11, MRabcd\_11, Altwerkus\_11, Frankicide\_12, Cornbread\_11, LuckyMarjie\_11, Cher\_11, Buckeye\_12, Colbert\_12, Brilliant\_12, Plata\_12, TooFast2Furius\_13, Usavi\_12, LeiMonet\_12, Cosmolli16\_11, Megamind20\_12, KingVeVeVe\_12, Lehmann\_12
- Track 6 : Simielle\_11, Zaider\_13, HenryJackson\_11, Fringe\_12, Pinkman\_11, Phamished\_12, Andre\_12, OSmaximus\_12, Phergie\_11, Toni\_11, Vivaldi\_12, BoogieWoogie\_11, Plmatters\_12, Mesh1\_12, Hocus\_11, Hartsy\_12, Spartan300\_12, Piglet\_0011, CamL\_12, Chuni\_11, Daffy\_12, Roscoe\_13, Windsor\_11, DelRivs\_11, ABU\_12, Serpentine\_0012, Hamish\_12, Struggle\_11, ShadowBud\_12, ProfessorX\_12, PhenghisKhan\_11, Vista\_12, Sophia\_11, PhatLouie\_12, ImtiyazSitla\_11, Mutante\_11, Keitherie\_12, PhrankReynolds\_11, Serendipity\_12, Numberten\_12, Maskar\_11, Inchworm\_12, CharlieGBrown\_11, BatteryCK\_11,

HighStump\_11, Flake\_13, Gwennie1\_12, Haimas\_12, Oline\_11, DuchessDung\_11, Riverton\_11, JacAttac\_12, Surely\_12, Nicole21\_12, Orfeu\_11, Hetaeria\_12, Phleuron\_11, Slatt\_12, Derpp\_11, Kikipoo\_12, Chipette\_13, Valjean\_12, Virapocalypse\_12, Pipsqueak\_12, Childish\_11, Aonishiki\_12, Soile\_12, Prickles\_12, MichaelPhcott\_11, IsaacEli\_12, Gophee\_12, Kailash\_12, PallasAthena\_12, Magic8\_12, TyrionL\_11, Zonia\_12, True\_11, FleetyMac\_11, Boehler\_12, JangoPhett\_12, DoesntMatter\_12, Durga\_12, Sigman\_12, MelsMeow\_11, UAch1\_12, Labeouficaum\_11, Fang\_12, Quisquiliae\_12, Wallhey\_11, Craff\_12, Kwadwo\_11, Waterdiva\_12, PhrodoBaggins\_11, Kwksand96\_11, Chute\_11, Mag7\_11, Podrick\_12, Cannibal\_12, Ashraf\_11, Chaelin\_11, Orion\_12, AngelCake\_12, Lulwa\_12, SassyCat97\_11, Charles1\_12, PG1\_12, Cobra\_12, Megatron\_12, QueenBeane\_12, Telesworld\_11, Omniscient\_12, LeeLot\_12, KingTut\_11, DoIOn\_13, HogWash\_11, ElvisPhasley\_12, Lego3393\_12, Kahve\_11, Kimbrough\_12, CampRoach\_12, Anderson\_12, Harvey\_12, Tomlarah\_12, Matalotodo\_12, Nyala\_11, GeneCoco\_12, Phareon\_12, LemonSlice\_12, Chah\_12, SilverBell\_12, Caspiboi\_11, Hertubise\_12, Fozzie\_11, Jiminy\_11, Zelda\_12, EmpTee\_12, Apizium\_11, TomBombadil\_12, Squid\_12, SirBeauregard\_11, Morty\_12, Eugenia\_12, Adriana\_12, Thora\_12, LasagnaCat\_12, Larson\_13, Eremos\_12, Katniss\_12, Daka\_12, Dice\_11, Aleia\_12, Trypo\_12, Veritas\_11, Skippy\_12, Coletti\_12, Swiphy\_12, Phunky\_12, YouGoGlencoco\_12, Squiggle\_12, ShiVal\_12, Kloppinator\_12, Nathan\_12, PhatCats2014\_12

- Track 7 : Vaishali24\_11

- Track 8 : Melc17\_12, Weher20\_12, Schueller\_11

- Track 9 : Samaymay\_12

- Track 10 : Imvubu\_9

- Track 11 : Indlovu\_12

- Track 12 : LilMcDreamy\_13

- Track 13 : Zenteno07\_17

- Track 14 : Hashim76\_17

- Track 15 : LittleMinkey\_18

- Track 16 : BirdsNest\_17

- Track 17 : Boyle\_15, Arbiter\_15, Lephleur\_15, Calamitous\_15, Phantasmagoria\_15, Rhinoforte\_15, Faze9\_15, MasterPo\_15, Kaleb\_15, Tres\_15, Rosebush\_15, West99\_15, Qyrzula\_14, LilSmirk\_15, Kolhan\_15, Opia\_15, Bananafish\_15, Coffee\_15

- Track 18 : LizLemon\_15, Kheth\_15, Ares\_15, Eaglehorse\_15, ItsyBitsy1\_15, FrenchFry\_15, Blocker23\_15, TA17A\_15, Laurie\_15, Vic9\_00015, Tinciduntolum\_16, Lars\_15, Godines\_15, Brownie5\_15, PrinceCharming\_15, Glass\_15, Holeinone\_15, Allegro\_15, Sabella\_15, Hedgerow\_15

- Track 19 : Jackstina\_13

- Track 20 : Yinz\_14

- Track 21 : Gervas\_14

- Track 22 : SynergyX\_14, RagingRooster\_14, Neos5\_14, Corofin\_14, Baloo\_14, Chalmers\_14, SwainyDoc\_14, ChaChing\_14, Akoma\_14, Glubnar\_14, Casbah\_13, Mulaychimus\_14, RomaT\_14, OrangeOswald\_14, Nozo\_14, LestyG\_14, Deenasa\_14, Devonte\_14, SlippinJimmy\_14, Phaedrus\_13

- Track 23 : GlenHope\_15, Chentzyk\_13, Compostia\_15, HarveySr\_14, Ben11\_13, Marlia\_14, Briakila\_14, Kronus\_13, Halfpint\_13, MmasiCarm\_14, Philly\_13, Rita1961\_14, Mortcellus\_13, Tydolla\_14, Obutu\_14, Phayeta\_14, Shenandoah\_14

- Track 24 : Audrey\_14, Athena\_15, Daisy\_14, Morty007\_14, Marley1013\_14, TinyTerror\_14, Olivio\_13, Abinghost\_14, Gadjet\_15

- Track 25 : Pipefish\_14

- Track 26 : Bernardo\_14, Heathcliff\_14, Kamiyu\_14, Phlyer\_14

- Track 27 : Yahalom\_14
- Track 28 : Chandler\_14
- Track 29 : BobbyK\_12, Austelle\_13, Zemanar\_13, Mudslide\_12, RawrgerThat\_12, Heath\_12, Hydro\_12, JoyceMaria\_12, Mithril\_12, Lolalove\_12, Prince\_12, Hangman\_12, Waleliano\_12, BrownCNA\_13
- Track 30 : Xincheng\_12, JaguarMi\_13
- Track 31 : Hally898\_11, Lambano\_11, ChrisnMich\_11, Nanao\_11, Epah\_11, Poster\_11, GinPorsche\_11, Antihero\_11, Ahwei\_11
- Track 32 : VioletZ\_12
- Track 33 : Nigel\_10
- Track 34 : AlanGrant\_13, Vincenzo\_13
- Track 35 : Apex\_12, Frederick\_12, Fanaw\_12
- Track 36 : QueenPie\_12
- Track 37 : Magpie\_12
- Track 38 : Cooper\_12
- Track 39 : Stinger\_10
- Track 40 : LittleDigger\_11, Renkei\_11
- Track 41 : Fortunato\_12
- Track 42 : JAMaL\_12
- Track 43 : DigitDog\_13
- Track 44 : KarasumaRum\_14, StinkyVeggy\_14
- Track 45 : Shenyu\_13, Nangang\_13
- Track 46 : Rich\_13
- Track 47 : Nehemiah\_12, Mysterious\_13
- Track 48 : SirJeffery\_13, Acadian\_13
- Track 49 : Donny\_13, Reccee\_14, Rita130\_13
- Track 50 : Reprobate\_13, Phelemich\_13
- Track 51 : Suigeneris\_13
- Track 52 : Bae\_13
- Track 53 : Serendipitous\_13
- Track 54 : EastView9101\_13
- Track 55 : 39HC\_010, 40BC\_010, Hosp\_08
- Track 56 : ForDig\_10
- Track 57 : Jolie1\_010
- Track 58 : KayaCho\_10
- Track 59 : Saguaro\_14
- Track 60 : Thonko\_13
- Track 61 : PenguinLover67\_15
- Track 62 : Rinkes\_17
- Track 63 : Knocker\_17
- Track 64 : Quesadilla\_14
- Track 65 : Funsized\_17
- Track 66 : CRB2\_15
- Track 67 : Grumio\_44
- Track 68 : Makar\_45
- Track 69 : KingstonB\_44, Purplicious\_42, Jollymon\_44, Sting\_43, ColdSoup\_45, Amo99\_45, DonTron\_44
- Track 70 : Stillion\_44
- Track 71 : Clawz\_44
- Track 72 : Soos\_40
- Track 73 : Evaa\_12
- Track 74 : Wooper\_13, CaiB\_13, Blackpen\_13, MakoManhole\_13, CloverMinnie\_13, FelixTres\_13, TraderJ\_13, MossRose\_13, AnarQue\_13

- Track 75 : BobRoss2024\_10
- Track 76 : Yago84\_11, AnClar\_11
- Track 77 : Fresco\_11, Ligma\_11, Axumite\_11, Shatter\_11
- Track 78 : Sisko\_11
- Track 79 : AksarBAT\_11
- Track 80 : CharlottesWeb\_11
- Track 81 : Coldpizza\_13
- Track 82 : LittleMunchkin\_12
- Track 83 : NHagos\_11
- Track 84 : Mariokart\_11
- Track 85 : Yeshua\_13
- Track 86 : Sour\_14
- Track 87 : BiggityBass\_10
- Track 88 : Taptic\_9
- Track 89 : Argie\_10
- Track 90 : PR\_09
- Track 91 : Jeon\_9, GodPhather\_10
- Track 92 : Megabear\_9
- Track 93 : D12\_09
- Track 94 : Cepens\_9
- Track 95 : Kithara\_25
- Track 96 : Pine5\_14
- Track 97 : Sunfish\_32
- Track 98 : TPA2\_21
- Track 99 : Tonitrus\_30

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

The start number called the most often in the published annotations is 49, it was called in 280 of the 460 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ABU\_12, AbsoluteMadLad\_11, Adriana\_12, Aelin\_11, Aleia\_12, AltPhacts\_12, Altwerkus\_11, Anderson\_12, Andre\_12, AngelCake\_12, Antonia\_11, Aonishiki\_12, Apizium\_11, Ashraf\_11, Badfish\_12, Banjo\_11, Basato\_13, BatteryCK\_11, Beaglebox\_11, Bishoperium\_11, BlackStallion\_12, BlacksBerry\_11, BlueHusk\_12, Bluephacebaby\_11, Boehler\_12, BoogieWoogie\_11, Brilliant\_12, Buckeye\_12, Burr\_11, CamL\_12, CampRoach\_12, Cannibal\_12, Carthage\_11, Caspiboi\_11, Chaelin\_11, Chah\_12, Charles1\_12, CharlieGBrown\_11, CheetO\_12, Cher\_11, Childish\_11, Chipette\_13, Chorkpop\_12, Chuni\_11, Chunky\_12, Chute\_11, Cobra\_12, Colbert\_12, Coletti\_12, Cornbread\_11, Cornobble\_11, Cosmolli16\_11, Craff\_12, Crownjwl\_12, DaddyDaniels\_12, Daffy\_12, Daka\_12, Dati\_12, DelRivs\_11, Derpp\_11, Dice\_11, Dingo\_12, Dione\_11, DirtJuice\_12, Doddsville\_12, DoesntMatter\_12, DoIOn\_13, DonSanchon\_11, DuchessDung\_11, Duggie\_11, Durga\_12, ElvisPhasley\_12, Emiris\_12, EmpTee\_12, Eremos\_12, Etaye\_12, Eugenia\_12, Fang\_12, Flake\_13, FleetyMac\_11, FluffyNinja\_12, Fozzie\_11, Frankicide\_12, FremontTroll\_12, Freya\_11, FriarPreacher\_12, Fringe\_12, FugateOSU\_11, Gareth\_11, GeneCoco\_12, Giraffe\_12, Gophee\_12, Grand2040\_11, GreenChile\_12, Gwennie1\_12, Gwilliam\_12, Gyarad\_0012, HSavage\_12, Haimas\_12, Haleema\_11, Hamish\_12, Happabalu\_12, Hartsy\_12, Harvey\_12,

Held\_12, HenryJackson\_11, Hertubise\_12, Hetaeria\_12, HighStump\_11, Hocus\_11, HogWash\_11, Horchata\_12, ImtiyazSitla\_11, Inchworm\_12, Inverness\_12, Iridessa\_12, Iridoclysis\_12, IsaacEli\_12, JDog\_11, JacAttac\_12, JakeO\_11, JangoPhett\_12, Jesabah\_12, Jillium\_11, Jiminy\_11, Jiraiya\_11, KLucky39\_12, Kahve\_11, Kailash\_12, Karn\_11, Katniss\_12, Keitherie\_12, Khan1\_12, Kikipoo\_12, Kimbrough\_12, KingTut\_11, KingVeVeVe\_12, KlimbOn\_12, Kloppinator\_12, Kwadwo\_11, Kwksand96\_11, Labeouficaum\_11, Larson\_13, LasagnaCat\_12, Lasso\_12, LeeLot\_12, Lego3393\_12, Legolas\_11, Lehmann\_12, LeiMonet\_12, LemonSlice\_12, Longacauda\_11, Lopsy\_11, LostAndPhound\_11, LuckyMarjie\_11, Lulumae\_11, Lulwa\_12, Lumine\_11, MRabcd\_11, Mag7\_11, Magic8\_12, Mana\_11, Manad\_11, Maru\_11, Maskar\_11, Matalotodo\_12, Mcshane\_11, Mecca\_11, Megamind20\_12, Megatron\_12, Melc17\_12, MelsMeow\_11, Mesh1\_12, Mesmerelda\_11, MichaelPhcott\_11, Mikota\_12, MiniBoss\_12, MitKao\_12, Morgushi\_12, Morty\_12, Mosaic\_11, MrPhizzler\_12, Mulan\_11, Murdoc\_12, Mutante\_11, Nacho\_0012, Nathan\_12, Newman\_12, Nicole21\_12, Numberten\_12, Nyala\_11, OSmaximus\_12, Olak\_11, Oline\_11, Olive\_12, OliverWalter\_12, Omniscient\_12, Oosterbaan\_12, Orfeu\_11, Orion\_12, Orwig\_11, PG1\_12, Pacifista\_11, PallasAthena\_12, Phamished\_12, Phareon\_12, PhatCats2014\_12, PhatLouie\_12, PhenghisKhan\_11, Pherdinand\_12, Phergie\_11, Phipps\_12, Phleuron\_11, PhrankReynolds\_11, PhrodoBaggins\_11, Phunky\_12, Piglet\_0011, Pine5\_14, PinheadLarry\_12, Pinkman\_11, Pipsqueak\_12, Placalicious\_11, Plata\_12, Plmatters\_12, Podrick\_12, Pops\_12, Potter\_11, Prickles\_12, ProfessorX\_12, Puhltonio\_12, QueenBeane\_12, Quisquilliae\_12, RedMaple\_11, RedRaider89\_12, Ricotta\_11, Riggan\_12, Rimu\_12, Riverton\_11, Robyn\_11, Roliet\_12, Roscoe\_13, Roy17\_12, SDcharge11\_12, SallyH\_12, Samaymay\_12, SassyCat97\_11, Schadenfreude\_11, Schueller\_11, Scoot17C\_12, Scrick\_11, Selr12\_12, Serendipity\_12, Serpentine\_0012, ShadowBud\_12, Sheila\_12, ShiVal\_12, Sigman\_12, SilverBell\_12, Simielle\_11, SirBeauregard\_11, Skippy\_12, Slatt\_12, Soile\_12, Solosis\_11, Sophia\_11, Soto\_12, Spartan300\_12, Squid\_12, Squiggle\_12, Struggle\_11, Suffolk\_12, Surely\_12, Swiphy\_12, Swish\_12, TallGrassMM\_12, Telesworld\_11, Thora\_12, ThreeOh3D2\_12, Thunderbird\_11, Timmi\_11, TomBombadil\_12, Tomlarah\_12, Toni\_11, TooFast2Furius\_13, Tooj\_12, Triad\_12, True\_11, Trypo\_12, TyrionL\_11, UAch1\_12, UncleHowie\_12, Usavi\_12, Vaishali24\_11, Valjean\_12, Vaticameos\_12, Veritas\_11, Virapocalypse\_12, Virgeve\_11, Vista\_12, Vivaldi\_12, Vortex\_12, Wallhey\_11, Waterdiva\_12, Weher20\_12, Windsor\_11, Xavier\_11, Yoshand\_12, YouGoGlencoco\_12, Zaider\_13, Zelda\_12, Zonia\_12,

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

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

- 39HC\_010, 40BC\_010, Abinghost\_14, Acadian\_13, Ahwei\_11, Akoma\_14, AksarBAT\_11, AlanGrant\_13, Allegro\_15, Amo99\_45, AnClar\_11, AnarQue\_13, Antihero\_11, Apex\_12, Arbiter\_15, Ares\_15, Argie\_10, Athena\_15, Audrey\_14, Austelle\_13, Axumite\_11, Bae\_13, Baloo\_14, Bananafish\_15, Ben11\_13, Bernardo\_14, BiggityBass\_10, BirdsNest\_17, Blackpen\_13, Blocker23\_15, BobRoss2024\_10, BobbyK\_12, Boyle\_15, Briakila\_14, BrownCNA\_13, Brownie5\_15, CRB2\_15, CaiB\_13, Calamitous\_15, Casbah\_13, Causa\_19, Cepens\_9, ChaChing\_14, Chalmers\_14, Chandler\_14, CharlottesWeb\_11, Chentzyk\_13, ChrisnMich\_11, Clawz\_44, CloverMinnie\_13, Coffee\_15, ColdSoup\_45, Coldpizza\_13, Compostia\_15, Cooper\_12, Corofin\_14, D12\_09, Daisy\_14, Deenasa\_14, Devonte\_14, DigitDog\_13, DonTron\_44, Donny\_13, Dori\_10,

Eaglehorse\_15, EastView9101\_13, Epah\_11, Evaa\_12, Fanaw\_12, Faze9\_15, FelixTres\_13, ForDig\_10, Fortunato\_12, Frederick\_12, FrenchFry\_15, Fresco\_11, Funsized\_17, Gadget\_15, Gervas\_14, GinPorsche\_11, Glass\_15, GlenHope\_15, Glubnar\_14, GodPhather\_10, Godines\_15, Grumio\_44, Halfpint\_13, Hally898\_11, Hangman\_12, HarveySr\_14, Hashim76\_17, Heath\_12, Heathcliff\_14, Hedgerow\_15, Holeinone\_15, Hosp\_08, Hydro\_12, Imvubu\_9, Indlovu\_12, ItsyBitsy1\_15, JAMaL\_12, Jackstina\_13, JaguarMi\_13, Jeon\_9, Jolie1\_010, Jollymon\_44, JoyceMaria\_12, Kaleb\_15, Kamiyu\_14, KarasumaRum\_14, KayaCho\_10, Kheth\_15, KingstonB\_44, Kithara\_25, Knocker\_17, Kolhan\_15, Kronus\_13, Lambano\_11, Lars\_15, Laurie\_15, Lephleur\_15, LestyG\_14, Ligma\_11, LilMcDreamy\_13, LilSmirk\_15, LittleDigger\_11, LittleMinkey\_18, LittleMunchkin\_12, LizLemon\_15, Lolalove\_12, Magpie\_12, Makar\_45, MakoManhole\_13, Mao1\_9, Mariokart\_11, Marley1013\_14, Marlia\_14, Mask\_10, MasterPo\_15, Megabear\_9, Mithril\_12, MmasiCarm\_14, Mortcellus\_13, Morty007\_14, MossRose\_13, Mudslide\_12, Mulaychimus\_14, Mysterious\_13, NHagos\_11, Nanao\_11, Nangang\_13, Nehemiah\_12, Neos5\_14, Nigel\_10, Nozo\_14, Obutu\_14, Olivio\_13, Opia\_15, OrangeOswald\_14, PR\_09, PenguinLover67\_15, Phaedrus\_13, Phantasmagoria\_15, Phayeta\_14, Phelemich\_13, Philly\_13, Phlyer\_14, Pipefish\_14, Poster\_11, PrinceCharming\_15, Prince\_12, Purplicious\_42, QueenPie\_12, Quesadilla\_14, Qyrzula\_14, RagingRooster\_14, RawrgerThat\_12, Reccee\_14, Renkei\_11, Reprobate\_13, Rhinoforte\_15, Rich\_13, Rinkes\_17, Rita130\_13, Rita1961\_14, RomaT\_14, Rosebush\_15, Sabella\_15, Saguaro\_14, Sejanus\_10, Serendipitous\_13, Shatter\_11, Shenandoah\_14, Shenyu\_13, SirJeffery\_13, Sisko\_11, SlippinJimmy\_14, Soos\_40, Sour\_14, StAugustine\_17, Stillion\_44, Sting\_43, Stinger\_10, StinkyVeggy\_14, Suigeneris\_13, Sunfish\_32, SwainyDoc\_14, SynergyX\_14, TA17A\_15, TPA2\_21, Taptic\_9, Thonko\_13, Tinciduntolum\_16, TinyTerror\_14, Tonitrus\_30, TraderJ\_13, Tres\_15, Tydolla\_14, Vic9\_00015, Vincenzo\_13, VioletZ\_12, Waleliano\_12, West99\_15, Wooper\_13, Xincheng\_12, Yago84\_11, Yahalom\_14, Yeshua\_13, Yinz\_14, Zemanar\_13, Zenteno07\_17,

### Summary by start number:

#### Start 10:

- Found in 1 of 542 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 460
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Knocker\_17 (B9),

#### Start 11:

- Found in 1 of 542 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 460
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BirdsNest\_17 (B13),

#### Start 14:

- Found in 6 of 542 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 1 of 460
- Called 83.3% of time when present
- Phage (with cluster) where this start called: 39HC\_010 (B6), 40BC\_010 (B6), Hosp\_08 (B6), Jolie1\_010 (B6), KayaCho\_10 (B6),

#### Start 18:

- Found in 3 of 542 ( 0.6% ) of genes in pham

- Manual Annotations of this start: 1 of 460
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Quesadilla\_14 (B9),

Start 19:

- Found in 4 of 542 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 1 of 460
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Bae\_13 (B5),

Start 22:

- Found in 4 of 542 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 1 of 460
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Dori\_10 (AD),

Start 23:

- Found in 6 of 542 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 1 of 460
- Called 16.7% of time when present
- Phage (with cluster) where this start called: ForDig\_10 (B6),

Start 25:

- Found in 13 of 542 ( 2.4% ) of genes in pham
- Manual Annotations of this start: 2 of 460
- Called 30.8% of time when present
- Phage (with cluster) where this start called: Acadian\_13 (B5), DigitDog\_13 (B5), Serendipitous\_13 (B5), SirJeffery\_13 (B5),

Start 28:

- Found in 12 of 542 ( 2.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Grumio\_44 (CP),

Start 30:

- Found in 86 of 542 ( 15.9% ) of genes in pham
- Manual Annotations of this start: 45 of 460
- Called 84.9% of time when present
- Phage (with cluster) where this start called: Ahwei\_11 (B4), AlanGrant\_13 (B4), Amo99\_45 (CP), Antihero\_11 (B4), Apex\_12 (B4), Austelle\_13 (B4), BobbyK\_12 (B4), BrownCNA\_13 (B4), CRB2\_15 (B9), ChrisMich\_11 (B4), Clawz\_44 (CP), ColdSoup\_45 (CP), Cooper\_12 (B4), DonTron\_44 (CP), Donny\_13 (B5), EastView9101\_13 (B5), Epah\_11 (B4), Fanaw\_12 (B4), Fortunato\_12 (B4), Frederick\_12 (B4), Funsized\_17 (B9), GinPorsche\_11 (B4), Hally898\_11 (B4), Hangman\_12 (B4), Heath\_12 (B4), Hydro\_12 (B4), Imvubu\_9 (B10), Indlovu\_12 (B11), JAMaL\_12 (B4), JaguarMi\_13 (B4), Jollymon\_44 (CP), JoyceMaria\_12 (B4), KarasumaRum\_14 (B5), KingstonB\_44 (CP), Lambano\_11 (B4), LilMcDreamy\_13 (B12), LittleDigger\_11 (B4), Lolalove\_12 (B4), Magpie\_12 (B4), Makar\_45 (CP), Mithril\_12 (B4), Mudslide\_12 (B4), Mysterious\_13 (B5), Nanao\_11 (B4), Nangang\_13 (B5), Nehemiah\_12 (B5), Nigel\_10 (B4), PenguinLover67\_15 (B9), Phelemich\_13 (B5), Poster\_11 (B4), Prince\_12 (B4), Purplicious\_42 (CP), QueenPie\_12 (B4), RawrgerThat\_12 (B4), Reccee\_14 (B5), Renkei\_11 (B4), Reprobate\_13 (B5),

Rich\_13 (B5), Rinkes\_17 (B9), Rita130\_13 (B5), Saguaro\_14 (B7), Shenyu\_13 (B5), Soos\_40 (CP), Stillion\_44 (CP), Sting\_43 (CP), Stinger\_10 (B4), StinkyVeggy\_14 (B5), Suigeneris\_13 (B5), Vincenzo\_13 (B4), VioletZ\_12 (B4), Waleliano\_12 (B4), Xincheng\_12 (B4), Zemanar\_13 (B4),

Start 31:

- Found in 1 of 542 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 460
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Tonitrus\_30 (singleton),

Start 32:

- Found in 4 of 542 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 2 of 460
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Hashim76\_17 (B13), LittleMinkey\_18 (B13), Zenteno07\_17 (B13),

Start 34:

- Found in 1 of 542 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 460
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kithara\_25 (singleton),

Start 42:

- Found in 2 of 542 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 2 of 460
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Causa\_19 (A1), StAugustine\_17 (A1),

Start 43:

- Found in 25 of 542 ( 4.6% ) of genes in pham
- Manual Annotations of this start: 6 of 460
- Called 24.0% of time when present
- Phage (with cluster) where this start called: Bernardo\_14 (B3), Chandler\_14 (B3), Heathcliff\_14 (B3), Kamiyu\_14 (B3), Phlyer\_14 (B3), Pipefish\_14 (B3),

Start 44:

- Found in 38 of 542 ( 7.0% ) of genes in pham
- Manual Annotations of this start: 36 of 460
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Allegro\_15 (B2), Arbiter\_15 (B2), Ares\_15 (B2), Bananafish\_15 (B2), Blocker23\_15 (B2), Boyle\_15 (B2), Brownie5\_15 (B2), Calamitous\_15 (B2), Coffee\_15 (B2), Eaglehorse\_15 (B2), Faze9\_15 (B2), FrenchFry\_15 (B2), Glass\_15 (B2), Godines\_15 (B2), Hedgerow\_15 (B2), Holeinone\_15 (B2), ItsyBitsy1\_15 (B2), Kaleb\_15 (B2), Kheth\_15 (B2), Kolhan\_15 (B2), Lars\_15 (B2), Laurie\_15 (B2), Lephleur\_15 (B2), LilSmirk\_15 (B2), LizLemon\_15 (B2), MasterPo\_15 (B2), Opia\_15 (B2), Phantasmagoria\_15 (B2), PrinceCharming\_15 (B2), Qyrzula\_14 (B2), Rhinoforte\_15 (B2), Rosebush\_15 (B2), Sabella\_15 (B2), TA17A\_15 (B2), Tinciduntolum\_16 (B2), Tres\_15 (B2), Vic9\_00015 (B2), West99\_15 (B2),

Start 45:

- Found in 1 of 542 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 460
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Thonko\_13 (B8),

#### Start 46:

- Found in 83 of 542 ( 15.3% ) of genes in pham
- Manual Annotations of this start: 65 of 460
- Called 92.8% of time when present
- Phage (with cluster) where this start called: Abinghost\_14 (B3), Akoma\_14 (B3), AksarBAT\_11 (DR), AnClar\_11 (DR), AnarQue\_13 (DR), Athena\_15 (B3), Audrey\_14 (B3), Axumite\_11 (DR), Baloo\_14 (B3), Ben11\_13 (B3), BiggityBass\_10 (DR), Blackpen\_13 (DR), BobRoss2024\_10 (DR), Briakila\_14 (B3), CaiB\_13 (DR), Casbah\_13 (B3), ChaChing\_14 (B3), Chalmers\_14 (B3), CharlottesWeb\_11 (DR), Chentzyk\_13 (B3), CloverMinnie\_13 (DR), Coldpizza\_13 (DR), Compostia\_15 (B3), Corofin\_14 (B3), Daisy\_14 (B3), Deenasa\_14 (B3), Devonte\_14 (B3), Evaa\_12 (DR), FelixTres\_13 (DR), Fresco\_11 (DR), Gadget\_15 (B3), Gervas\_14 (B3), GlenHope\_15 (B3), Glubnar\_14 (B3), Halfpint\_13 (B3), HarveySr\_14 (B3), Jackstina\_13 (B3), Kronus\_13 (B3), LestyG\_14 (B3), Ligma\_11 (DR), LittleMunchkin\_12 (DR), MakoManhole\_13 (DR), Mariokart\_11 (DR), Marley1013\_14 (B3), Marlia\_14 (B3), MmasiCarm\_14 (B3), Mortcellus\_13 (B3), Morty007\_14 (B3), MossRose\_13 (DR), Mulaychimus\_14 (B3), NHagos\_11 (DR), Neos5\_14 (B3), Nozo\_14 (B3), Obutu\_14 (B3), Olivio\_13 (B3), OrangeOswald\_14 (B3), Phaedrus\_13 (B3), Phayeta\_14 (B3), Philly\_13 (B3), RagingRooster\_14 (B3), Rita1961\_14 (B3), RomaT\_14 (B3), Shatter\_11 (DR), Shenandoah\_14 (B3), Sisko\_11 (DR), SlippinJimmy\_14 (B3), Sour\_14 (DR), SwainyDoc\_14 (B3), SynergyX\_14 (B3), TinyTerror\_14 (B3), TraderJ\_13 (DR), Tydolla\_14 (B3), Wooper\_13 (DR), Yago84\_11 (DR), Yahalom\_14 (B3), Yeshua\_13 (DR), Yinz\_14 (B3),

#### Start 48:

- Found in 12 of 542 ( 2.2% ) of genes in pham
- Manual Annotations of this start: 10 of 460
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Argie\_10 (W), Cepens\_9 (W), GodPhather\_10 (W), Jeon\_9 (W), Mao1\_9 (AD), Mask\_10 (AD), Megabear\_9 (W), PR\_09 (W), Sejanus\_10 (AD), Taptic\_9 (W),

#### Start 49:

- Found in 311 of 542 ( 57.4% ) of genes in pham
- Manual Annotations of this start: 280 of 460
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ABU\_12 (B1), AbsoluteMadLad\_11 (B1), Adriana\_12 (B1), Aelin\_11 (B1), Aleia\_12 (B1), AltPhacts\_12 (B1), Altwerkus\_11 (B1), Anderson\_12 (B1), Andre\_12 (B1), AngelCake\_12 (B1), Antonia\_11 (B1), Aonishiki\_12 (B1), Apizium\_11 (B1), Ashraf\_11 (B1), Badfish\_12 (B1), Banjo\_11 (B1), Basato\_13 (B1), BatteryCK\_11 (B1), Beaglebox\_11 (B1), Bishoperium\_11 (B1), BlackStallion\_12 (B1), BlacksBerry\_11 (B1), BlueHusk\_12 (B1), Bluephacebaby\_11 (B1), Boehler\_12 (B1), BoogieWoogie\_11 (B1), Brilliant\_12 (B1), Buckeye\_12 (B1), Burr\_11 (B1), CamL\_12 (B1), CampRoach\_12 (B1), Cannibal\_12 (B1), Carthage\_11 (B1), Caspiboi\_11 (B1), Chaelin\_11 (B1), Chah\_12 (B1), Charles1\_12 (B1), CharlieGBrown\_11 (B1), CheetO\_12 (B1), Cher\_11 (B1), Childish\_11 (B1), Chipette\_13 (B1), Chorkpop\_12 (B1), Chuni\_11 (B1), Chunky\_12 (B1), Chute\_11 (B1), Cobra\_12 (B1), Colbert\_12 (B1), Coletti\_12 (B1), Cornbread\_11 (B1),

Cornobble\_11 (B1), Cosmolli16\_11 (B1), Craff\_12 (B1), Crownjwl\_12 (B1), DaddyDaniels\_12 (B1), Daffy\_12 (B1), Daka\_12 (B1), Dati\_12 (B1), DelRivs\_11 (B1), Derpp\_11 (B1), Dice\_11 (B1), Dingo\_12 (B1), Dione\_11 (B1), DirtJuice\_12 (B1), Doddsville\_12 (B1), DoesntMatter\_12 (B1), DolOn\_13 (B1), DonSancho\_11 (B1), DuchessDung\_11 (B1), Duggie\_11 (B1), Durga\_12 (B1), ElvisPhasley\_12 (B1), Emiris\_12 (B1), EmpTee\_12 (B1), Eremos\_12 (B1), Etaye\_12 (B1), Eugenia\_12 (B1), Fang\_12 (B1), Flake\_13 (B1), FleetyMac\_11 (B1), FluffyNinja\_12 (B1), Fozzie\_11 (B1), Frankicide\_12 (B1), FremontTroll\_12 (B1), Freya\_11 (B1), FriarPreacher\_12 (B1), Fringe\_12 (B1), FugateOSU\_11 (B1), Gareth\_11 (B1), GeneCoco\_12 (B1), Giraffe\_12 (B1), Gophee\_12 (B1), Grand2040\_11 (B1), GreenChile\_12 (B1), Gwennie1\_12 (B1), Gwilliam\_12 (B1), Gyarad\_0012 (B1), HSavage\_12 (B1), Haimas\_12 (B1), Haleema\_11 (B1), Hamish\_12 (B1), Happabalu\_12 (B1), Hartsy\_12 (B1), Harvey\_12 (B1), Held\_12 (B1), HenryJackson\_11 (B1), Hertubise\_12 (B1), Hetaeria\_12 (B1), HighStump\_11 (B1), Hocus\_11 (B1), HogWash\_11 (B1), Horchata\_12 (B1), ImtiyazSitla\_11 (B1), Inchworm\_12 (B1), Inverness\_12 (B1), Iridessa\_12 (B1), Iridoclysis\_12 (B1), IsaacEli\_12 (B1), JDog\_11 (B1), JacAttac\_12 (B1), JakeO\_11 (B1), JangoPhett\_12 (B1), Jesabah\_12 (B1), Jillium\_11 (B1), Jiminy\_11 (B1), Jiraiya\_11 (B1), KLUcky39\_12 (B1), Kahve\_11 (B1), Kailash\_12 (B1), Karn\_11 (B1), Katniss\_12 (B1), Keitherie\_12 (B1), Khan1\_12 (B1), Kikipoo\_12 (B1), Kimbrough\_12 (B1), KingTut\_11 (B1), KingVeVeVe\_12 (B1), KlimbOn\_12 (B1), Kloppinator\_12 (B1), Kwadwo\_11 (B1), Kwksand96\_11 (B1), Labeouficaum\_11 (B1), Larson\_13 (B1), LasagnaCat\_12 (B1), Lasso\_12 (B1), LeeLot\_12 (B1), Lego3393\_12 (B1), Legolas\_11 (B1), Lehmann\_12 (B1), LeiMonet\_12 (B1), LemonSlice\_12 (B1), Longacauda\_11 (B1), Lopsy\_11 (B1), LostAndPhound\_11 (B1), LuckyMarjie\_11 (B1), Lulumae\_11 (B1), Lulwa\_12 (B1), Lumine\_11 (B1), MRabcd\_11 (B1), Mag7\_11 (B1), Magic8\_12 (B1), Mana\_11 (B1), Manad\_11 (B1), Maru\_11 (B1), Maskar\_11 (B1), Matalotodo\_12 (B1), Mcshane\_11 (B1), Mecca\_11 (B1), Megamind20\_12 (B1), Megatron\_12 (B1), Melc17\_12 (B1), MelsMeow\_11 (B1), Mesh1\_12 (B1), Mesmerelda\_11 (B1), MichaelPhcott\_11 (B1), Mikota\_12 (B1), MiniBoss\_12 (B1), MitKao\_12 (B1), Morgushi\_12 (B1), Morty\_12 (B1), Mosaic\_11 (B1), MrPhizzler\_12 (B1), Mulan\_11 (B1), Murdoc\_12 (B1), Mutante\_11 (B1), Nacho\_0012 (B1), Nathan\_12 (B1), Newman\_12 (B1), Nicole21\_12 (B1), Numberten\_12 (B1), Nyala\_11 (B1), OSmaximus\_12 (B1), Olak\_11 (B1), Oline\_11 (B1), Olive\_12 (B1), OliverWalter\_12 (B1), Omniscient\_12 (B1), Oosterbaan\_12 (B1), Orfeu\_11 (B1), Orion\_12 (B1), Orwigg\_11 (B1), PG1\_12 (B1), Pacifista\_11 (B1), PallasAthena\_12 (B1), Phamished\_12 (B1), Phareon\_12 (B1), PhatCats2014\_12 (B1), PhatLouie\_12 (B1), PhenghisKhan\_11 (B1), Pherdinand\_12 (B1), Phergie\_11 (B1), Phipps\_12 (B1), Phleuron\_11 (B1), PhrankReynolds\_11 (B1), PhrodoBaggins\_11 (B1), Phunky\_12 (B1), Piglet\_0011 (B1), Pine5\_14 (singleton), PinheadLarry\_12 (B1), Pinkman\_11 (B1), Pipsqueak\_12 (B1), Placalicious\_11 (B1), Plata\_12 (B1), Plmatters\_12 (B1), Podrick\_12 (B1), Pops\_12 (B1), Potter\_11 (B1), Prickles\_12 (B1), ProfessorX\_12 (B1), Puhltonio\_12 (B1), QueenBeane\_12 (B1), Quisquiliae\_12 (B1), RedMaple\_11 (B1), RedRaider89\_12 (B1), Ricotta\_11 (B1), Riggan\_12 (B1), Rimu\_12 (B1), Riverton\_11 (B1), Robyn\_11 (B1), Roliet\_12 (B1), Roscoe\_13 (B1), Roy17\_12 (B1), SDcharge11\_12 (B1), SallyH\_12 (B1), Samaymay\_12 (B1), SassyCat97\_11 (B1), Schadenfreude\_11 (B1), Schueller\_11 (B1), Scoot17C\_12 (B1), Scrick\_11 (B1), Selr12\_12 (B1), Serendipity\_12 (B1), Serpentine\_0012 (B1), ShadowBud\_12 (B1), Sheila\_12 (B1), ShiVal\_12 (B1), Sigman\_12 (B1), SilverBell\_12 (B1), Simielle\_11 (B1), SirBeauregard\_11 (B1), Skippy\_12 (B1), Slatt\_12 (B1), Soile\_12 (B1), Solosis\_11 (B1), Sophia\_11 (B1), Soto\_12 (B1), Spartan300\_12 (B1), Squid\_12 (B1), Squiggle\_12 (B1), Struggle\_11 (B1), Suffolk\_12 (B1), Surely\_12 (B1), Swiphy\_12 (B1), Swish\_12 (B1), TallGrassMM\_12 (B1), Telesworld\_11 (B1), Thora\_12 (B1), ThreeOh3D2\_12 (B1), Thunderbird\_11 (B1), Timmi\_11 (B1), TomBombadil\_12 (B1),

Tomlarah\_12 (B1), Toni\_11 (B1), TooFast2Furius\_13 (B1), Tooj\_12 (B1), Triad\_12 (B1), True\_11 (B1), Trypo\_12 (B1), TyrionL\_11 (B1), UAch1\_12 (B1), UncleHowie\_12 (B1), Usavi\_12 (B1), Vaishali24\_11 (B1), Valjean\_12 (B1), Vaticameos\_12 (B1), Veritas\_11 (B1), Virapocalypse\_12 (B1), Virgeve\_11 (B1), Vista\_12 (B1), Vivaldi\_12 (B1), Vortex\_12 (B1), Wallhey\_11 (B1), Waterdiva\_12 (B1), Weher20\_12 (B1), Windsor\_11 (B1), Xavier\_11 (B1), Yoshand\_12 (B1), YouGoGlencoco\_12 (B1), Zaider\_13 (B1), Zelda\_12 (B1), Zonia\_12 (B1),

Start 53:

- Found in 1 of 542 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 460
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sunfish\_32 (singleton),

Start 82:

- Found in 8 of 542 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 1 of 460
- Called 12.5% of time when present
- Phage (with cluster) where this start called: D12\_09 (W),

Start 115:

- Found in 191 of 542 ( 35.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 0.5% of time when present
- Phage (with cluster) where this start called: TPA2\_21 (singleton),

### **Summary by clusters:**

There are 19 clusters represented in this pham: singleton, B2, B10, AI, B8, B11, B4, B5, B6, B7, B12, B1, W, B3, AD, CP, DR, B9, B13,

Info for manual annotations of cluster AD:

- Start number 22 was manually annotated 1 time for cluster AD.
- Start number 48 was manually annotated 3 times for cluster AD.

Info for manual annotations of cluster AI:

- Start number 42 was manually annotated 2 times for cluster AI.

Info for manual annotations of cluster B1:

- Start number 49 was manually annotated 280 times for cluster B1.

Info for manual annotations of cluster B10:

- Start number 30 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B11:

- Start number 30 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B12:

- Start number 30 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B13:

- Start number 11 was manually annotated 1 time for cluster B13.
- Start number 32 was manually annotated 2 times for cluster B13.

Info for manual annotations of cluster B2:

- Start number 44 was manually annotated 36 times for cluster B2.

Info for manual annotations of cluster B3:

- Start number 43 was manually annotated 6 times for cluster B3.
- Start number 46 was manually annotated 44 times for cluster B3.

Info for manual annotations of cluster B4:

- Start number 30 was manually annotated 25 times for cluster B4.

Info for manual annotations of cluster B5:

- Start number 19 was manually annotated 1 time for cluster B5.
- Start number 25 was manually annotated 2 times for cluster B5.
- Start number 30 was manually annotated 7 times for cluster B5.

Info for manual annotations of cluster B6:

- Start number 14 was manually annotated 1 time for cluster B6.
- Start number 23 was manually annotated 1 time for cluster B6.

Info for manual annotations of cluster B7:

- Start number 30 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B8:

- Start number 45 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:

- Start number 10 was manually annotated 1 time for cluster B9.
- Start number 18 was manually annotated 1 time for cluster B9.
- Start number 30 was manually annotated 4 times for cluster B9.

Info for manual annotations of cluster CP:

- Start number 30 was manually annotated 5 times for cluster CP.

Info for manual annotations of cluster DR:

- Start number 46 was manually annotated 21 times for cluster DR.

Info for manual annotations of cluster W:

- Start number 48 was manually annotated 7 times for cluster W.
- Start number 82 was manually annotated 1 time for cluster W.

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

Gene: 39HC\_010 Start: 9835, Stop: 11733, Start Num: 14

Candidate Starts for 39HC\_010:

(7, 9730), (13, 9832), (Start: 14 @9835 has 1 MA's), (Start: 23 @9865 has 1 MA's), (Start: 30 @9898 has 45 MA's), (35, 9931), (41, 9952), (72, 10183), (89, 10366), (121, 10513), (134, 10606), (140, 10636), (144, 10666), (164, 10807), (169, 10834), (195, 11101), (202, 11161), (203, 11185), (206, 11206), (213, 11245), (224, 11326), (231, 11374), (238, 11455), (240, 11473), (245, 11509), (246, 11512), (247, 11542), (251, 11566), (252, 11569), (256, 11593), (257, 11611), (266, 11671), (268, 11683), (270, 11707),

Gene: 40BC\_010 Start: 9835, Stop: 11733, Start Num: 14

Candidate Starts for 40BC\_010:

(7, 9730), (13, 9832), (Start: 14 @9835 has 1 MA's), (Start: 23 @9865 has 1 MA's), (Start: 30 @9898 has 45 MA's), (35, 9931), (41, 9952), (72, 10183), (89, 10366), (121, 10513), (134, 10606), (140, 10636), (144, 10666), (164, 10807), (169, 10834), (195, 11101), (202, 11161), (203, 11185), (206, 11206), (213, 11245), (224, 11326), (231, 11374), (238, 11455), (240, 11473), (245, 11509), (246, 11512), (247, 11542), (251, 11566), (252, 11569), (256, 11593), (257, 11611), (266, 11671), (268, 11683), (270, 11707),

Gene: ABU\_12 Start: 9755, Stop: 11500, Start Num: 49

Candidate Starts for ABU\_12:

(Start: 49 @9755 has 280 MA's), (121, 10289), (141, 10415), (149, 10466), (164, 10574), (195, 10868), (201, 10925), (206, 10970), (207, 10979), (208, 10988), (226, 11111), (236, 11189), (237, 11198), (244, 11273), (247, 11309), (252, 11336), (254, 11354), (257, 11378), (265, 11432), (266, 11438), (268, 11450),

Gene: Abinghost\_14 Start: 11026, Stop: 13041, Start Num: 46

Candidate Starts for Abinghost\_14:

(Start: 46 @11026 has 65 MA's), (50, 11041), (59, 11119), (61, 11167), (115, 11524), (120, 11548), (149, 11713), (158, 11761), (164, 11833), (175, 11914), (178, 11968), (201, 12187), (202, 12190), (207, 12244), (216, 12292), (224, 12355), (226, 12376), (227, 12379), (247, 12571), (248, 12580), (252, 12598), (254, 12616), (255, 12619), (260, 12661), (265, 12694), (282, 12934),

Gene: AbsoluteMadLad\_11 Start: 9753, Stop: 11498, Start Num: 49

Candidate Starts for AbsoluteMadLad\_11:

(Start: 49 @9753 has 280 MA's), (63, 9900), (121, 10287), (141, 10413), (149, 10464), (164, 10572), (195, 10866), (201, 10923), (206, 10968), (207, 10977), (208, 10986), (226, 11109), (236, 11187), (237, 11196), (244, 11271), (247, 11307), (252, 11334), (254, 11352), (257, 11376), (265, 11430), (266, 11436), (268, 11448),

Gene: Acadian\_13 Start: 11375, Stop: 13246, Start Num: 25

Candidate Starts for Acadian\_13:

(Start: 25 @11375 has 2 MA's), (Start: 30 @11399 has 45 MA's), (36, 11432), (50, 11483), (54, 11507), (62, 11612), (68, 11642), (69, 11651), (115, 11981), (121, 12014), (131, 12083), (140, 12137), (143, 12161), (144, 12167), (164, 12320), (185, 12503), (195, 12611), (201, 12668), (202, 12671), (206, 12716), (207, 12725), (208, 12734), (212, 12752), (219, 12812), (226, 12857), (229, 12878), (231, 12887), (234, 12914), (237, 12944), (243, 13013), (247, 13055), (251, 13079), (252, 13082), (257, 13124), (263, 13172),

Gene: Adriana\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Adriana\_12:

(Start: 49 @9757 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Aelin\_11 Start: 9307, Stop: 11049, Start Num: 49

Candidate Starts for Aelin\_11:

(Start: 49 @9307 has 280 MA's), (63, 9454), (121, 9838), (141, 9964), (149, 10015), (164, 10123), (195, 10417), (201, 10474), (206, 10519), (207, 10528), (208, 10537), (226, 10660), (236, 10738), (237, 10747), (244, 10822), (247, 10858), (252, 10885), (254, 10903), (257, 10927), (265, 10981), (266, 10987), (268, 10999),

Gene: Ahwei\_11 Start: 10371, Stop: 12158, Start Num: 30

Candidate Starts for Ahwei\_11:

(Start: 30 @10371 has 45 MA's), (50, 10437), (68, 10587), (70, 10620), (73, 10650), (96, 10809), (115, 10905), (122, 10944), (131, 11001), (135, 11028), (141, 11058), (143, 11079), (156, 11139), (164, 11226), (181, 11373), (195, 11520), (202, 11580), (203, 11604), (206, 11625), (208, 11643), (213, 11664), (224, 11745), (231, 11793), (237, 11850), (245, 11928), (247, 11961), (252, 11988), (256, 12012), (257, 12030), (261, 12054), (263, 12078), (265, 12084), (266, 12090), (268, 12102),

Gene: Akoma\_14 Start: 11026, Stop: 13041, Start Num: 46

Candidate Starts for Akoma\_14:

(Start: 46 @11026 has 65 MA's), (50, 11041), (59, 11119), (61, 11167), (115, 11524), (120, 11548), (149, 11713), (158, 11761), (164, 11833), (175, 11914), (178, 11968), (201, 12187), (202, 12190), (207, 12244), (216, 12292), (224, 12355), (226, 12376), (227, 12379), (247, 12571), (248, 12580), (252, 12598), (254, 12616), (255, 12619), (260, 12661), (265, 12694), (278, 12784), (279, 12817), (282, 12934),

Gene: AksarBAT\_11 Start: 9810, Stop: 11495, Start Num: 46

Candidate Starts for AksarBAT\_11:

(Start: 46 @9810 has 65 MA's), (59, 9897), (61, 9945), (100, 10182), (115, 10251), (127, 10323), (143, 10413), (158, 10488), (166, 10572), (168, 10581), (180, 10704), (188, 10785), (195, 10851), (201, 10908), (202, 10911), (209, 10983), (215, 11001), (226, 11097), (228, 11109), (231, 11124), (243, 11250), (247, 11292), (248, 11301), (252, 11319), (256, 11343), (274, 11481),

Gene: AlanGrant\_13 Start: 12220, Stop: 14025, Start Num: 30

Candidate Starts for AlanGrant\_13:

(1, 11848), (2, 11857), (Start: 30 @12220 has 45 MA's), (35, 12250), (41, 12271), (50, 12292), (70, 12475), (86, 12649), (115, 12769), (131, 12868), (135, 12895), (141, 12925), (143, 12946), (144, 12952), (145, 12955), (172, 13150), (182, 13249), (184, 13273), (188, 13321), (195, 13387), (206, 13492), (208, 13510), (213, 13531), (224, 13612), (231, 13660), (242, 13771), (243, 13786), (245, 13795), (247, 13828), (252, 13855), (257, 13897), (261, 13921), (265, 13951), (268, 13969),

Gene: Aleia\_12 Start: 9324, Stop: 11069, Start Num: 49

Candidate Starts for Aleia\_12:

(Start: 49 @9324 has 280 MA's), (121, 9858), (141, 9984), (149, 10035), (164, 10143), (195, 10437), (201, 10494), (206, 10539), (207, 10548), (208, 10557), (226, 10680), (236, 10758), (237, 10767), (244, 10842), (247, 10878), (252, 10905), (254, 10923), (257, 10947), (265, 11001), (266, 11007), (268, 11019),

Gene: Allegro\_15 Start: 12411, Stop: 14441, Start Num: 44

Candidate Starts for Allegro\_15:

(Start: 44 @12411 has 36 MA's), (61, 12555), (64, 12576), (71, 12633), (84, 12747), (115, 12912), (127, 12984), (149, 13101), (159, 13161), (162, 13179), (164, 13233), (175, 13314), (201, 13587), (202, 13590), (208, 13656), (241, 13914), (247, 13974), (248, 13983), (252, 14001), (256, 14025), (265, 14097), (272, 14145), (280, 14289), (282, 14328), (286, 14385), (287, 14421), (288, 14427),

Gene: AltPhacts\_12 Start: 9758, Stop: 11503, Start Num: 49

Candidate Starts for AltPhacts\_12:

(Start: 49 @9758 has 280 MA's), (63, 9905), (121, 10292), (141, 10418), (149, 10469), (164, 10577), (195, 10871), (201, 10928), (206, 10973), (207, 10982), (208, 10991), (226, 11114), (236, 11192), (237, 11201), (244, 11276), (247, 11312), (252, 11339), (254, 11357), (257, 11381), (265, 11435), (266, 11441), (268, 11453),

Gene: Altwerkus\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Altwerkus\_11:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Amo99\_45 Start: 23180, Stop: 24970, Start Num: 30

Candidate Starts for Amo99\_45:

(17, 23120), (28, 23174), (Start: 30 @23180 has 45 MA's), (112, 23717), (116, 23750), (118, 23762), (138, 23882), (139, 23885), (146, 23942), (170, 24095), (171, 24101), (174, 24128), (177, 24170), (205, 24428), (206, 24431), (214, 24473), (215, 24476), (220, 24530), (221, 24536), (235, 24632), (236, 24647), (237, 24656), (261, 24881), (266, 24917), (268, 24929), (270, 24953),

Gene: AnClar\_11 Start: 10669, Stop: 12366, Start Num: 46

Candidate Starts for AnClar\_11:

(Start: 46 @10669 has 65 MA's), (98, 11035), (103, 11050), (115, 11110), (127, 11182), (143, 11272), (161, 11362), (168, 11440), (195, 11710), (201, 11767), (207, 11824), (208, 11833), (224, 11935), (226, 11956), (229, 11974), (247, 12151), (250, 12169), (251, 12175), (252, 12178), (256, 12202), (260, 12241), (265, 12274), (266, 12280),

Gene: AnarQue\_13 Start: 11332, Stop: 13026, Start Num: 46

Candidate Starts for AnarQue\_13:

(Start: 46 @11332 has 65 MA's), (59, 11419), (61, 11467), (85, 11668), (115, 11779), (120, 11803), (127, 11851), (143, 11941), (166, 12100), (168, 12109), (174, 12157), (181, 12235), (184, 12268), (188, 12316), (195, 12382), (200, 12430), (201, 12439), (202, 12442), (209, 12514), (215, 12532), (219, 12583), (226, 12628), (228, 12640), (231, 12655), (243, 12781), (247, 12823), (251, 12847), (252, 12850), (254, 12868),

Gene: Anderson\_12 Start: 9757, Stop: 11505, Start Num: 49

Candidate Starts for Anderson\_12:

(Start: 49 @9757 has 280 MA's), (121, 10294), (141, 10420), (149, 10471), (164, 10579), (195, 10873), (201, 10930), (206, 10975), (207, 10984), (208, 10993), (226, 11116), (236, 11194), (237, 11203), (244, 11278), (247, 11314), (252, 11341), (254, 11359), (257, 11383), (265, 11437), (266, 11443), (268, 11455),

Gene: Andre\_12 Start: 9758, Stop: 11503, Start Num: 49

Candidate Starts for Andre\_12:

(Start: 49 @9758 has 280 MA's), (121, 10292), (141, 10418), (149, 10469), (164, 10577), (195, 10871), (201, 10928), (206, 10973), (207, 10982), (208, 10991), (226, 11114), (236, 11192), (237, 11201), (244, 11276), (247, 11312), (252, 11339), (254, 11357), (257, 11381), (265, 11435), (266, 11441), (268, 11453),

Gene: AngelCake\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for AngelCake\_12:

(Start: 49 @9754 has 280 MA's), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: Antihero\_11 Start: 10371, Stop: 12158, Start Num: 30

Candidate Starts for Antihero\_11:

(Start: 30 @10371 has 45 MA's), (50, 10437), (68, 10587), (70, 10620), (73, 10650), (96, 10809), (115, 10905), (122, 10944), (131, 11001), (135, 11028), (141, 11058), (143, 11079), (156, 11139), (164, 11226), (181, 11373), (195, 11520), (202, 11580), (203, 11604), (206, 11625), (208, 11643), (213, 11664), (224, 11745), (231, 11793), (237, 11850), (245, 11928), (247, 11961), (252, 11988), (256, 12012), (257, 12030), (261, 12054), (263, 12078), (265, 12084), (266, 12090), (268, 12102),

Gene: Antonia\_11 Start: 9307, Stop: 11049, Start Num: 49

Candidate Starts for Antonia\_11:

(Start: 49 @9307 has 280 MA's), (63, 9454), (121, 9838), (141, 9964), (149, 10015), (164, 10123), (195, 10417), (201, 10474), (206, 10519), (207, 10528), (208, 10537), (226, 10660), (236, 10738), (237, 10747), (244, 10822), (247, 10858), (252, 10885), (254, 10903), (257, 10927), (265, 10981), (266, 10987), (268, 10999),

Gene: Aonishiki\_12 Start: 9757, Stop: 11505, Start Num: 49

Candidate Starts for Aonishiki\_12:

(Start: 49 @9757 has 280 MA's), (121, 10294), (141, 10420), (149, 10471), (164, 10579), (195, 10873), (201, 10930), (206, 10975), (207, 10984), (208, 10993), (226, 11116), (236, 11194), (237, 11203), (244, 11278), (247, 11314), (252, 11341), (254, 11359), (257, 11383), (265, 11437), (266, 11443), (268, 11455),

Gene: Apex\_12 Start: 11654, Stop: 13435, Start Num: 30

Candidate Starts for Apex\_12:

(Start: 30 @11654 has 45 MA's), (50, 11720), (68, 11870), (70, 11903), (73, 11933), (86, 12065), (96, 12098), (115, 12194), (131, 12290), (135, 12317), (140, 12344), (141, 12347), (143, 12368), (164, 12515), (181, 12662), (195, 12809), (202, 12869), (203, 12893), (205, 12911), (207, 12923), (208, 12932), (213, 12953), (224, 13034), (231, 13082), (237, 13139), (240, 13181), (243, 13208), (246, 13220), (247, 13250), (252, 13277), (256, 13301), (257, 13319), (261, 13343), (265, 13373), (266, 13379),

Gene: Apizium\_11 Start: 9462, Stop: 11207, Start Num: 49

Candidate Starts for Apizium\_11:

(Start: 49 @9462 has 280 MA's), (121, 9996), (141, 10122), (149, 10173), (164, 10281), (195, 10575), (201, 10632), (206, 10677), (207, 10686), (208, 10695), (226, 10818), (236, 10896), (237, 10905), (244, 10980), (247, 11016), (252, 11043), (254, 11061), (257, 11085), (265, 11139), (266, 11145), (268, 11157),

Gene: Arbiter\_15 Start: 12501, Stop: 14528, Start Num: 44

Candidate Starts for Arbiter\_15:

(Start: 44 @12501 has 36 MA's), (61, 12645), (64, 12666), (71, 12720), (76, 12747), (84, 12834), (115, 12999), (127, 13071), (149, 13188), (159, 13248), (162, 13266), (164, 13320), (175, 13401), (201, 13674), (202, 13677), (208, 13743), (241, 14001), (247, 14061), (248, 14070), (252, 14088), (256, 14112), (265, 14184), (272, 14232), (280, 14376), (282, 14415), (286, 14472), (287, 14508), (288, 14514),

Gene: Ares\_15 Start: 12411, Stop: 14441, Start Num: 44

Candidate Starts for Ares\_15:

(Start: 44 @12411 has 36 MA's), (61, 12555), (64, 12576), (71, 12633), (84, 12747), (115, 12912), (127, 12984), (149, 13101), (159, 13161), (162, 13179), (164, 13233), (175, 13314), (201, 13587), (202, 13590), (208, 13656), (241, 13914), (247, 13974), (248, 13983), (252, 14001), (256, 14025), (265, 14097), (272, 14145), (280, 14289), (282, 14328), (286, 14385), (287, 14421), (288, 14427),

Gene: Argie\_10 Start: 10843, Stop: 12906, Start Num: 48

Candidate Starts for Argie\_10:

(Start: 48 @10843 has 10 MA's), (50, 10855), (52, 10882), (59, 10936), (61, 10984), (74, 11089), (Start: 82 @11206 has 1 MA's), (96, 11278), (124, 11413), (127, 11428), (132, 11452), (136, 11482), (144, 11527), (147, 11548), (163, 11656), (164, 11674), (173, 11743), (174, 11749), (183, 11842), (199, 12001), (201, 12025), (204, 12055), (208, 12091), (215, 12118), (224, 12193), (229, 12232), (234, 12268), (237, 12298), (244, 12373), (251, 12433), (265, 12532), (266, 12538), (275, 12601), (281, 12757), (284, 12808), (285, 12814), (289, 12898),

Gene: Ashraf\_11 Start: 9304, Stop: 11049, Start Num: 49

Candidate Starts for Ashraf\_11:

(Start: 49 @9304 has 280 MA's), (121, 9838), (141, 9964), (149, 10015), (164, 10123), (195, 10417), (201, 10474), (206, 10519), (207, 10528), (208, 10537), (226, 10660), (236, 10738), (237, 10747), (244, 10822), (247, 10858), (252, 10885), (254, 10903), (257, 10927), (265, 10981), (266, 10987), (268, 10999),

Gene: Athena\_15 Start: 11789, Stop: 13804, Start Num: 46

Candidate Starts for Athena\_15:

(Start: 46 @11789 has 65 MA's), (50, 11804), (59, 11882), (61, 11930), (115, 12287), (120, 12311), (149, 12476), (158, 12524), (164, 12596), (175, 12677), (178, 12731), (201, 12950), (202, 12953), (207, 13007), (216, 13055), (224, 13118), (226, 13139), (227, 13142), (247, 13334), (248, 13343), (252, 13361), (254, 13379), (255, 13382), (260, 13424), (265, 13457), (282, 13697),

Gene: Audrey\_14 Start: 11026, Stop: 13041, Start Num: 46

Candidate Starts for Audrey\_14:

(Start: 46 @11026 has 65 MA's), (50, 11041), (59, 11119), (61, 11167), (115, 11524), (120, 11548), (149, 11713), (158, 11761), (164, 11833), (175, 11914), (178, 11968), (201, 12187), (202, 12190), (207, 12244), (216, 12292), (224, 12355), (226, 12376), (227, 12379), (247, 12571), (248, 12580), (252, 12598), (254, 12616), (255, 12619), (260, 12661), (265, 12694), (282, 12934),

Gene: Austelle\_13 Start: 12110, Stop: 13888, Start Num: 30

Candidate Starts for Austelle\_13:

(Start: 30 @12110 has 45 MA's), (50, 12176), (68, 12326), (70, 12359), (73, 12389), (86, 12518), (96, 12551), (115, 12647), (131, 12743), (135, 12770), (140, 12797), (141, 12800), (143, 12821), (164, 12968), (181, 13115), (195, 13262), (202, 13322), (203, 13346), (205, 13364), (208, 13385), (213, 13406), (224, 13487), (231, 13535), (237, 13592), (240, 13634), (243, 13661), (246, 13673), (247, 13703), (252, 13730), (256, 13754), (257, 13772), (261, 13796), (265, 13826), (266, 13832),

Gene: Axumite\_11 Start: 9837, Stop: 11540, Start Num: 46

Candidate Starts for Axumite\_11:

(Start: 46 @9837 has 65 MA's), (61, 9972), (90, 10188), (98, 10209), (115, 10284), (125, 10347), (143, 10446), (156, 10506), (166, 10605), (195, 10884), (201, 10941), (208, 11007), (224, 11109), (226, 11130), (229, 11148), (241, 11265), (247, 11325), (252, 11352), (256, 11376), (259, 11412), (265, 11448), (266, 11454), (277, 11529),

Gene: Badfish\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Badfish\_12:

(Start: 49 @9757 has 280 MA's), (63, 9904), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Bae\_13 Start: 11353, Stop: 13248, Start Num: 19

Candidate Starts for Bae\_13:

(Start: 19 @11353 has 1 MA's), (Start: 30 @11407 has 45 MA's), (36, 11440), (50, 11491), (54, 11515), (58, 11557), (62, 11620), (63, 11629), (69, 11659), (115, 11983), (121, 12016), (131, 12085), (140, 12139), (144, 12169), (163, 12304), (164, 12322), (168, 12343), (185, 12505), (192, 12598), (195, 12613), (201, 12670), (202, 12673), (206, 12718), (207, 12727), (208, 12736), (213, 12757), (218, 12802), (219, 12814), (226, 12859), (229, 12880), (231, 12889), (237, 12946), (243, 13015), (247, 13057), (248, 13066), (251, 13081), (252, 13084), (256, 13108), (257, 13126), (263, 13174),

Gene: Baloo\_14 Start: 11026, Stop: 13041, Start Num: 46

Candidate Starts for Baloo\_14:

(Start: 46 @11026 has 65 MA's), (50, 11041), (59, 11119), (61, 11167), (115, 11524), (120, 11548), (149, 11713), (158, 11761), (164, 11833), (175, 11914), (178, 11968), (201, 12187), (202, 12190), (207, 12244), (216, 12292), (224, 12355), (226, 12376), (227, 12379), (247, 12571), (248, 12580), (252, 12598), (254, 12616), (255, 12619), (260, 12661), (265, 12694), (278, 12784), (279, 12817), (282, 12934),

Gene: Bananafish\_15 Start: 12411, Stop: 14438, Start Num: 44

Candidate Starts for Bananafish\_15:

(Start: 44 @12411 has 36 MA's), (61, 12555), (64, 12576), (71, 12630), (76, 12657), (84, 12744), (115, 12909), (127, 12981), (149, 13098), (159, 13158), (162, 13176), (164, 13230), (175, 13311), (201, 13584), (202, 13587), (208, 13653), (241, 13911), (247, 13971), (248, 13980), (252, 13998), (256, 14022), (265, 14094), (272, 14142), (280, 14286), (282, 14325), (286, 14382), (287, 14418), (288, 14424),

Gene: Banjo\_11 Start: 9465, Stop: 11210, Start Num: 49

Candidate Starts for Banjo\_11:

(Start: 49 @9465 has 280 MA's), (63, 9612), (121, 9999), (141, 10125), (149, 10176), (164, 10284), (195, 10578), (201, 10635), (206, 10680), (207, 10689), (208, 10698), (226, 10821), (236, 10899), (237, 10908), (244, 10983), (247, 11019), (252, 11046), (254, 11064), (257, 11088), (265, 11142), (266, 11148), (268, 11160),

Gene: Basato\_13 Start: 9991, Stop: 11736, Start Num: 49

Candidate Starts for Basato\_13:

(Start: 49 @9991 has 280 MA's), (63, 10138), (121, 10525), (141, 10651), (149, 10702), (164, 10810), (195, 11104), (201, 11161), (206, 11206), (207, 11215), (208, 11224), (226, 11347), (236, 11425), (237, 11434), (244, 11509), (247, 11545), (252, 11572), (254, 11590), (257, 11614), (265, 11668), (266, 11674), (268, 11686),

Gene: BatteryCK\_11 Start: 9310, Stop: 11055, Start Num: 49

Candidate Starts for BatteryCK\_11:

(Start: 49 @9310 has 280 MA's), (121, 9844), (141, 9970), (149, 10021), (164, 10129), (195, 10423), (201, 10480), (206, 10525), (207, 10534), (208, 10543), (226, 10666), (236, 10744), (237, 10753), (244, 10828), (247, 10864), (252, 10891), (254, 10909), (257, 10933), (265, 10987), (266, 10993), (268, 11005),

Gene: Beaglebox\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Beaglebox\_11:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Ben11\_13 Start: 10850, Stop: 12865, Start Num: 46

Candidate Starts for Ben11\_13:

(Start: 43 @10838 has 6 MA's), (Start: 46 @10850 has 65 MA's), (50, 10865), (59, 10943), (61, 10991), (115, 11348), (120, 11372), (149, 11537), (158, 11585), (164, 11657), (175, 11738), (178, 11792), (201, 12011), (202, 12014), (207, 12068), (216, 12116), (224, 12179), (226, 12200), (227, 12203), (247, 12395), (248, 12404), (252, 12422), (254, 12440), (255, 12443), (260, 12485), (265, 12518), (278, 12608), (279, 12641), (282, 12758),

Gene: Bernardo\_14 Start: 11013, Stop: 13040, Start Num: 43

Candidate Starts for Bernardo\_14:

(Start: 43 @11013 has 6 MA's), (Start: 46 @11025 has 65 MA's), (50, 11040), (59, 11118), (61, 11166), (115, 11523), (120, 11547), (149, 11712), (158, 11760), (164, 11832), (175, 11913), (178, 11967), (201, 12186), (202, 12189), (207, 12243), (216, 12291), (224, 12354), (226, 12375), (227, 12378), (247, 12570), (248, 12579), (252, 12597), (254, 12615), (255, 12618), (260, 12660), (265, 12693), (278, 12783), (279, 12816), (282, 12933),

Gene: BiggityBass\_10 Start: 9650, Stop: 11347, Start Num: 46

Candidate Starts for BiggityBass\_10:

(Start: 46 @9650 has 65 MA's), (103, 10031), (115, 10091), (127, 10163), (168, 10421), (195, 10691), (201, 10748), (207, 10805), (208, 10814), (224, 10916), (226, 10937), (229, 10955), (247, 11132), (250, 11150), (252, 11159), (256, 11183), (260, 11222), (266, 11261),

Gene: BirdsNest\_17 Start: 10414, Stop: 12351, Start Num: 11

Candidate Starts for BirdsNest\_17:

(Start: 11 @10414 has 1 MA's), (12, 10432), (Start: 19 @10465 has 1 MA's), (26, 10501), (Start: 32 @10525 has 2 MA's), (38, 10555), (50, 10597), (89, 10984), (101, 11017), (112, 11062), (121, 11122), (135, 11218), (140, 11245), (164, 11425), (185, 11608), (188, 11650), (195, 11716), (201, 11773), (202, 11776), (213, 11860), (226, 11962), (229, 11983), (242, 12103), (243, 12118), (247, 12160), (252, 12187), (256, 12211), (257, 12229), (264, 12280), (265, 12283), (268, 12301), (270, 12325),

Gene: Bishoperium\_11 Start: 9465, Stop: 11210, Start Num: 49

Candidate Starts for Bishoperium\_11:

(Start: 49 @9465 has 280 MA's), (63, 9612), (121, 9999), (141, 10125), (149, 10176), (164, 10284), (195, 10578), (201, 10635), (206, 10680), (207, 10689), (208, 10698), (226, 10821), (236, 10899), (237, 10908), (244, 10983), (247, 11019), (252, 11046), (254, 11064), (257, 11088), (265, 11142), (266, 11148), (268, 11160),

Gene: BlackStallion\_12 Start: 9755, Stop: 11500, Start Num: 49

Candidate Starts for BlackStallion\_12:

(Start: 49 @9755 has 280 MA's), (63, 9902), (121, 10289), (141, 10415), (149, 10466), (164, 10574), (195, 10868), (201, 10925), (206, 10970), (207, 10979), (208, 10988), (226, 11111), (236, 11189), (237, 11198), (244, 11273), (247, 11309), (252, 11336), (254, 11354), (257, 11378), (265, 11432), (266, 11438), (268, 11450),

Gene: Blackpen\_13 Start: 10824, Stop: 12506, Start Num: 46

Candidate Starts for Blackpen\_13:

(Start: 46 @10824 has 65 MA's), (59, 10911), (61, 10959), (85, 11148), (115, 11259), (120, 11283), (127, 11331), (143, 11421), (166, 11580), (168, 11589), (174, 11637), (181, 11715), (184, 11748), (188, 11796), (195, 11862), (200, 11910), (201, 11919), (202, 11922), (209, 11994), (215, 12012), (219, 12063), (226, 12108), (228, 12120), (231, 12135), (243, 12261), (247, 12303), (251, 12327), (252, 12330), (254, 12348),

Gene: BlackBerry\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for BlackBerry\_11:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Blocker23\_15 Start: 12528, Stop: 14558, Start Num: 44

Candidate Starts for Blocker23\_15:

(Start: 44 @12528 has 36 MA's), (61, 12672), (64, 12693), (71, 12750), (84, 12864), (115, 13029), (127, 13101), (149, 13218), (159, 13278), (162, 13296), (164, 13350), (175, 13431), (201, 13704), (202, 13707), (208, 13773), (241, 14031), (247, 14091), (248, 14100), (252, 14118), (256, 14142), (265, 14214), (272, 14262), (280, 14406), (282, 14445), (286, 14502), (287, 14538), (288, 14544),

Gene: BlueHusk\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for BlueHusk\_12:

(Start: 49 @9754 has 280 MA's), (63, 9901), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: Bluephacebaby\_11 Start: 9465, Stop: 11210, Start Num: 49

Candidate Starts for Bluephacebaby\_11:

(Start: 49 @9465 has 280 MA's), (63, 9612), (121, 9999), (141, 10125), (149, 10176), (164, 10284), (195, 10578), (201, 10635), (206, 10680), (207, 10689), (208, 10698), (226, 10821), (236, 10899), (237, 10908), (244, 10983), (247, 11019), (252, 11046), (254, 11064), (257, 11088), (265, 11142), (266, 11148), (268, 11160),

Gene: BobRoss2024\_10 Start: 9683, Stop: 11377, Start Num: 46

Candidate Starts for BobRoss2024\_10:

(Start: 46 @9683 has 65 MA's), (59, 9770), (115, 10109), (127, 10181), (143, 10280), (153, 10328), (168, 10451), (172, 10487), (174, 10499), (195, 10721), (201, 10778), (208, 10844), (215, 10871), (224, 10946), (226, 10967), (241, 11102), (245, 11129), (247, 11162), (248, 11171), (252, 11189), (254, 11207), (266, 11291),

Gene: BobbyK\_12 Start: 11473, Stop: 13251, Start Num: 30

Candidate Starts for BobbyK\_12:

(Start: 30 @11473 has 45 MA's), (50, 11539), (68, 11689), (70, 11722), (73, 11752), (86, 11881), (96, 11914), (115, 12010), (131, 12106), (135, 12133), (140, 12160), (141, 12163), (143, 12184), (164, 12331), (181, 12478), (195, 12625), (202, 12685), (203, 12709), (205, 12727), (208, 12748), (213, 12769), (224, 12850), (231, 12898), (237, 12955), (240, 12997), (243, 13024), (246, 13036), (247, 13066), (252, 13093), (256, 13117), (257, 13135), (261, 13159), (265, 13189), (266, 13195),

Gene: Boehler\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Boehler\_12:

(Start: 49 @9757 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: BoogieWoogie\_11 Start: 9461, Stop: 11209, Start Num: 49

Candidate Starts for BoogieWoogie\_11:

(Start: 49 @9461 has 280 MA's), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147),

(268, 11159),

Gene: Boyle\_15 Start: 12529, Stop: 14559, Start Num: 44

Candidate Starts for Boyle\_15:

(Start: 44 @12529 has 36 MA's), (61, 12673), (64, 12694), (71, 12748), (76, 12775), (84, 12862), (115, 13030), (127, 13102), (149, 13219), (159, 13279), (162, 13297), (164, 13351), (175, 13432), (201, 13705), (202, 13708), (208, 13774), (241, 14032), (247, 14092), (248, 14101), (252, 14119), (256, 14143), (265, 14215), (272, 14263), (280, 14407), (282, 14446), (286, 14503), (287, 14539), (288, 14545),

Gene: Briakila\_14 Start: 11791, Stop: 13806, Start Num: 46

Candidate Starts for Briakila\_14:

(Start: 43 @11779 has 6 MA's), (Start: 46 @11791 has 65 MA's), (50, 11806), (59, 11884), (61, 11932), (115, 12289), (120, 12313), (149, 12478), (158, 12526), (164, 12598), (175, 12679), (178, 12733), (201, 12952), (202, 12955), (207, 13009), (216, 13057), (224, 13120), (226, 13141), (227, 13144), (247, 13336), (248, 13345), (252, 13363), (254, 13381), (255, 13384), (260, 13426), (265, 13459), (278, 13549), (279, 13582), (282, 13699),

Gene: Brilliant\_12 Start: 9463, Stop: 11208, Start Num: 49

Candidate Starts for Brilliant\_12:

(Start: 49 @9463 has 280 MA's), (63, 9610), (121, 9997), (141, 10123), (149, 10174), (164, 10282), (195, 10576), (201, 10633), (206, 10678), (207, 10687), (208, 10696), (226, 10819), (236, 10897), (237, 10906), (244, 10981), (247, 11017), (252, 11044), (254, 11062), (257, 11086), (265, 11140), (266, 11146), (268, 11158),

Gene: BrownCNA\_13 Start: 11727, Stop: 13505, Start Num: 30

Candidate Starts for BrownCNA\_13:

(Start: 30 @11727 has 45 MA's), (50, 11793), (68, 11943), (70, 11976), (73, 12006), (86, 12135), (96, 12168), (115, 12264), (131, 12360), (135, 12387), (140, 12414), (141, 12417), (143, 12438), (164, 12585), (181, 12732), (195, 12879), (202, 12939), (203, 12963), (205, 12981), (208, 13002), (213, 13023), (224, 13104), (231, 13152), (237, 13209), (240, 13251), (243, 13278), (246, 13290), (247, 13320), (252, 13347), (256, 13371), (257, 13389), (261, 13413), (265, 13443), (266, 13449),

Gene: Brownie5\_15 Start: 12528, Stop: 14558, Start Num: 44

Candidate Starts for Brownie5\_15:

(Start: 44 @12528 has 36 MA's), (61, 12672), (64, 12693), (71, 12750), (84, 12864), (115, 13029), (127, 13101), (149, 13218), (159, 13278), (162, 13296), (164, 13350), (175, 13431), (201, 13704), (202, 13707), (208, 13773), (241, 14031), (247, 14091), (248, 14100), (252, 14118), (256, 14142), (265, 14214), (272, 14262), (280, 14406), (282, 14445), (286, 14502), (287, 14538), (288, 14544),

Gene: Buckeye\_12 Start: 9759, Stop: 11504, Start Num: 49

Candidate Starts for Buckeye\_12:

(Start: 49 @9759 has 280 MA's), (63, 9906), (121, 10293), (141, 10419), (149, 10470), (164, 10578), (195, 10872), (201, 10929), (206, 10974), (207, 10983), (208, 10992), (226, 11115), (236, 11193), (237, 11202), (244, 11277), (247, 11313), (252, 11340), (254, 11358), (257, 11382), (265, 11436), (266, 11442), (268, 11454),

Gene: Burr\_11 Start: 9465, Stop: 11210, Start Num: 49

Candidate Starts for Burr\_11:

(Start: 49 @9465 has 280 MA's), (63, 9612), (121, 9999), (141, 10125), (149, 10176), (164, 10284), (195, 10578), (201, 10635), (206, 10680), (207, 10689), (208, 10698), (226, 10821), (236, 10899), (237, 10908), (244, 10983), (247, 11019), (252, 11046), (254, 11064), (257, 11088), (265, 11142), (266, 11148), (268, 11160),

Gene: CRB2\_15 Start: 12281, Stop: 14131, Start Num: 30

Candidate Starts for CRB2\_15:

(17, 12224), (Start: 30 @12281 has 45 MA's), (54, 12386), (115, 12872), (135, 13001), (137, 13010), (141, 13031), (145, 13061), (161, 13151), (164, 13208), (169, 13235), (188, 13433), (189, 13445), (195, 13499), (201, 13556), (207, 13613), (208, 13622), (213, 13643), (224, 13724), (226, 13745), (229, 13763), (243, 13898), (247, 13940), (248, 13949), (252, 13967), (256, 13991), (257, 14009), (261, 14033), (265, 14063), (266, 14069), (268, 14081),

Gene: CaiB\_13 Start: 11332, Stop: 13014, Start Num: 46

Candidate Starts for CaiB\_13:

(Start: 46 @11332 has 65 MA's), (59, 11419), (61, 11467), (85, 11656), (115, 11767), (120, 11791), (127, 11839), (143, 11929), (166, 12088), (168, 12097), (174, 12145), (181, 12223), (184, 12256), (188, 12304), (195, 12370), (200, 12418), (201, 12427), (202, 12430), (209, 12502), (215, 12520), (219, 12571), (226, 12616), (228, 12628), (231, 12643), (243, 12769), (247, 12811), (251, 12835), (252, 12838), (254, 12856),

Gene: Calamitous\_15 Start: 12411, Stop: 14438, Start Num: 44

Candidate Starts for Calamitous\_15:

(Start: 44 @12411 has 36 MA's), (61, 12555), (64, 12576), (71, 12630), (76, 12657), (84, 12744), (115, 12909), (127, 12981), (149, 13098), (159, 13158), (162, 13176), (164, 13230), (175, 13311), (201, 13584), (202, 13587), (208, 13653), (241, 13911), (247, 13971), (248, 13980), (252, 13998), (256, 14022), (265, 14094), (272, 14142), (280, 14286), (282, 14325), (286, 14382), (287, 14418), (288, 14424),

Gene: CamL\_12 Start: 9754, Stop: 11502, Start Num: 49

Candidate Starts for CamL\_12:

(Start: 49 @9754 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: CampRoach\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for CampRoach\_12:

(Start: 49 @9754 has 280 MA's), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: Cannibal\_12 Start: 9757, Stop: 11505, Start Num: 49

Candidate Starts for Cannibal\_12:

(Start: 49 @9757 has 280 MA's), (121, 10294), (141, 10420), (149, 10471), (164, 10579), (195, 10873), (201, 10930), (206, 10975), (207, 10984), (208, 10993), (226, 11116), (236, 11194), (237, 11203), (244, 11278), (247, 11314), (252, 11341), (254, 11359), (257, 11383), (265, 11437), (266, 11443), (268, 11455),

Gene: Carthage\_11 Start: 9429, Stop: 11177, Start Num: 49

Candidate Starts for Carthage\_11:

(Start: 49 @9429 has 280 MA's), (63, 9576), (121, 9966), (141, 10092), (149, 10143), (164, 10251), (195, 10545), (201, 10602), (206, 10647), (207, 10656), (208, 10665), (226, 10788), (236, 10866), (237, 10875), (244, 10950), (247, 10986), (252, 11013), (254, 11031), (257, 11055), (265, 11109), (266, 11115), (268, 11127),

Gene: Casbah\_13 Start: 10878, Stop: 12893, Start Num: 46

Candidate Starts for Casbah\_13:

(Start: 46 @10878 has 65 MA's), (50, 10893), (59, 10971), (61, 11019), (115, 11376), (120, 11400), (149, 11565), (158, 11613), (164, 11685), (175, 11766), (178, 11820), (201, 12039), (202, 12042), (207, 12096), (216, 12144), (224, 12207), (226, 12228), (227, 12231), (247, 12423), (248, 12432), (252, 12450), (254, 12468), (255, 12471), (260, 12513), (265, 12546), (278, 12636), (279, 12669), (282, 12786),

Gene: Caspiboi\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Caspiboi\_11:

(Start: 49 @9464 has 280 MA's), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Causa\_19 Start: 13260, Stop: 15380, Start Num: 42

Candidate Starts for Causa\_19:

(Start: 42 @13260 has 2 MA's), (47, 13275), (102, 13725), (115, 13788), (122, 13824), (140, 13926), (164, 14118), (175, 14199), (187, 14313), (195, 14394), (201, 14451), (208, 14514), (213, 14535), (232, 14679), (243, 14793), (247, 14835), (252, 14862), (257, 14904), (265, 14958), (283, 15210),

Gene: Cepens\_9 Start: 10582, Stop: 12645, Start Num: 48

Candidate Starts for Cepens\_9:

(Start: 48 @10582 has 10 MA's), (50, 10594), (52, 10621), (59, 10675), (61, 10723), (74, 10828), (Start: 82 @10945 has 1 MA's), (96, 11017), (124, 11152), (127, 11167), (132, 11191), (136, 11221), (144, 11266), (147, 11287), (163, 11395), (164, 11413), (173, 11482), (174, 11488), (183, 11581), (195, 11707), (199, 11740), (201, 11764), (204, 11794), (208, 11830), (215, 11857), (224, 11932), (229, 11971), (234, 12007), (237, 12037), (244, 12112), (251, 12172), (265, 12271), (266, 12277), (275, 12340), (281, 12496), (284, 12547), (285, 12553), (289, 12637),

Gene: ChaChing\_14 Start: 11041, Stop: 13056, Start Num: 46

Candidate Starts for ChaChing\_14:

(Start: 46 @11041 has 65 MA's), (50, 11056), (59, 11134), (61, 11182), (115, 11539), (120, 11563), (149, 11728), (158, 11776), (164, 11848), (175, 11929), (178, 11983), (201, 12202), (202, 12205), (207, 12259), (216, 12307), (224, 12370), (226, 12391), (227, 12394), (247, 12586), (248, 12595), (252, 12613), (254, 12631), (255, 12634), (260, 12676), (265, 12709), (278, 12799), (279, 12832), (282, 12949),

Gene: Chaelin\_11 Start: 9418, Stop: 11163, Start Num: 49

Candidate Starts for Chaelin\_11:

(Start: 49 @9418 has 280 MA's), (121, 9952), (141, 10078), (149, 10129), (164, 10237), (195, 10531), (201, 10588), (206, 10633), (207, 10642), (208, 10651), (226, 10774), (236, 10852), (237, 10861), (244, 10936), (247, 10972), (252, 10999), (254, 11017), (257, 11041), (265, 11095), (266, 11101), (268, 11113),

Gene: Chah\_12 Start: 9755, Stop: 11503, Start Num: 49

Candidate Starts for Chah\_12:

(Start: 49 @9755 has 280 MA's), (121, 10292), (141, 10418), (149, 10469), (164, 10577), (195, 10871), (201, 10928), (206, 10973), (207, 10982), (208, 10991), (226, 11114), (236, 11192), (237, 11201), (244, 11276), (247, 11312), (252, 11339), (254, 11357), (257, 11381), (265, 11435), (266, 11441), (268, 11453),

Gene: Chalmers\_14 Start: 11834, Stop: 13849, Start Num: 46

Candidate Starts for Chalmers\_14:

(Start: 46 @11834 has 65 MA's), (50, 11849), (59, 11927), (61, 11975), (115, 12332), (120, 12356), (149, 12521), (158, 12569), (164, 12641), (175, 12722), (178, 12776), (201, 12995), (202, 12998), (207, 13052), (216, 13100), (224, 13163), (226, 13184), (227, 13187), (247, 13379), (248, 13388), (252, 13406), (254, 13424), (255, 13427), (260, 13469), (265, 13502), (278, 13592), (279, 13625), (282, 13742),

Gene: Chandler\_14 Start: 11788, Stop: 13815, Start Num: 43

Candidate Starts for Chandler\_14:

(40, 11776), (Start: 43 @11788 has 6 MA's), (Start: 46 @11800 has 65 MA's), (50, 11815), (59, 11893), (61, 11941), (115, 12298), (120, 12322), (149, 12487), (158, 12535), (164, 12607), (175, 12688), (178, 12742), (201, 12961), (202, 12964), (207, 13018), (216, 13066), (224, 13129), (226, 13150), (227, 13153), (247, 13345), (248, 13354), (252, 13372), (254, 13390), (255, 13393), (260, 13435), (265, 13468), (278, 13558), (279, 13591), (282, 13708),

Gene: Charles1\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Charles1\_12:

(Start: 49 @9757 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: CharlieGBrown\_11 Start: 9328, Stop: 11073, Start Num: 49

Candidate Starts for CharlieGBrown\_11:

(Start: 49 @9328 has 280 MA's), (121, 9862), (141, 9988), (149, 10039), (164, 10147), (195, 10441), (201, 10498), (206, 10543), (207, 10552), (208, 10561), (226, 10684), (236, 10762), (237, 10771), (244, 10846), (247, 10882), (252, 10909), (254, 10927), (257, 10951), (265, 11005), (266, 11011), (268, 11023),

Gene: CharlottesWeb\_11 Start: 9894, Stop: 11576, Start Num: 46

Candidate Starts for CharlottesWeb\_11:

(37, 9858), (38, 9861), (Start: 46 @9894 has 65 MA's), (61, 10029), (79, 10143), (90, 10227), (103, 10263), (115, 10323), (143, 10485), (156, 10545), (166, 10644), (172, 10689), (188, 10857), (195, 10923), (201, 10980), (208, 11046), (213, 11067), (215, 11073), (219, 11124), (224, 11148), (226, 11169), (229, 11187), (231, 11196), (237, 11253), (244, 11328), (247, 11364), (250, 11382), (252, 11391),

Gene: CheetO\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for CheetO\_12:

(Start: 49 @9757 has 280 MA's), (63, 9904), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Chentzyk\_13 Start: 10896, Stop: 12911, Start Num: 46

Candidate Starts for Chentzyk\_13:

(Start: 43 @10884 has 6 MA's), (Start: 46 @10896 has 65 MA's), (50, 10911), (59, 10989), (61, 11037), (115, 11394), (120, 11418), (149, 11583), (158, 11631), (164, 11703), (175, 11784), (178, 11838), (201, 12057), (202, 12060), (207, 12114), (216, 12162), (224, 12225), (226, 12246), (227, 12249), (247, 12441), (248, 12450), (252, 12468), (254, 12486), (255, 12489), (260, 12531), (265, 12564), (278, 12654), (279, 12687), (282, 12804),

Gene: Cher\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Cher\_11:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Childish\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Childish\_11:

(Start: 49 @9464 has 280 MA's), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Chipette\_13 Start: 9992, Stop: 11737, Start Num: 49

Candidate Starts for Chipette\_13:

(Start: 49 @9992 has 280 MA's), (121, 10526), (141, 10652), (149, 10703), (164, 10811), (195, 11105), (201, 11162), (206, 11207), (207, 11216), (208, 11225), (226, 11348), (236, 11426), (237, 11435), (244, 11510), (247, 11546), (252, 11573), (254, 11591), (257, 11615), (265, 11669), (266, 11675), (268, 11687),

Gene: Chorkpop\_12 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Chorkpop\_12:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: ChrisnMich\_11 Start: 10371, Stop: 12158, Start Num: 30

Candidate Starts for ChrisnMich\_11:

(Start: 30 @10371 has 45 MA's), (50, 10437), (68, 10587), (70, 10620), (73, 10650), (96, 10809), (115, 10905), (122, 10944), (131, 11001), (135, 11028), (141, 11058), (143, 11079), (156, 11139), (164, 11226), (181, 11373), (195, 11520), (202, 11580), (203, 11604), (206, 11625), (208, 11643), (213, 11664), (224, 11745), (231, 11793), (237, 11850), (245, 11928), (247, 11961), (252, 11988), (256, 12012), (257, 12030), (261, 12054), (263, 12078), (265, 12084), (266, 12090), (268, 12102),

Gene: Chuni\_11 Start: 9773, Stop: 11518, Start Num: 49

Candidate Starts for Chuni\_11:

(Start: 49 @9773 has 280 MA's), (121, 10307), (141, 10433), (149, 10484), (164, 10592), (195, 10886), (201, 10943), (206, 10988), (207, 10997), (208, 11006), (226, 11129), (236, 11207), (237, 11216), (244, 11291), (247, 11327), (252, 11354), (254, 11372), (257, 11396), (265, 11450), (266, 11456), (268, 11468),

Gene: Chunky\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Chunky\_12:

(Start: 49 @9757 has 280 MA's), (63, 9904), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Chute\_11 Start: 9772, Stop: 11517, Start Num: 49

Candidate Starts for Chute\_11:

(Start: 49 @9772 has 280 MA's), (121, 10306), (141, 10432), (149, 10483), (164, 10591), (195, 10885), (201, 10942), (206, 10987), (207, 10996), (208, 11005), (226, 11128), (236, 11206), (237, 11215),

(244, 11290), (247, 11326), (252, 11353), (254, 11371), (257, 11395), (265, 11449), (266, 11455), (268, 11467),

Gene: Clawz\_44 Start: 23098, Stop: 24915, Start Num: 30

Candidate Starts for Clawz\_44:

(17, 23038), (28, 23092), (Start: 30 @23098 has 45 MA's), (50, 23191), (112, 23647), (116, 23680), (118, 23692), (122, 23716), (138, 23812), (139, 23815), (146, 23872), (170, 24025), (171, 24031), (174, 24058), (177, 24100), (185, 24154), (205, 24358), (206, 24361), (214, 24403), (215, 24406), (219, 24457), (220, 24460), (228, 24514), (231, 24529), (235, 24562), (237, 24586), (248, 24727), (266, 24847), (268, 24859),

Gene: CloverMinnie\_13 Start: 11332, Stop: 13014, Start Num: 46

Candidate Starts for CloverMinnie\_13:

(Start: 46 @11332 has 65 MA's), (59, 11419), (61, 11467), (85, 11656), (115, 11767), (120, 11791), (127, 11839), (143, 11929), (166, 12088), (168, 12097), (174, 12145), (181, 12223), (184, 12256), (188, 12304), (195, 12370), (200, 12418), (201, 12427), (202, 12430), (209, 12502), (215, 12520), (219, 12571), (226, 12616), (228, 12628), (231, 12643), (243, 12769), (247, 12811), (251, 12835), (252, 12838), (254, 12856),

Gene: Cobra\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for Cobra\_12:

(Start: 49 @9754 has 280 MA's), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: Coffee\_15 Start: 12528, Stop: 14555, Start Num: 44

Candidate Starts for Coffee\_15:

(Start: 44 @12528 has 36 MA's), (61, 12672), (64, 12693), (71, 12747), (76, 12774), (84, 12861), (115, 13026), (127, 13098), (149, 13215), (159, 13275), (162, 13293), (164, 13347), (175, 13428), (201, 13701), (202, 13704), (208, 13770), (241, 14028), (247, 14088), (248, 14097), (252, 14115), (256, 14139), (265, 14211), (272, 14259), (280, 14403), (282, 14442), (286, 14499), (287, 14535), (288, 14541),

Gene: Colbert\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for Colbert\_12:

(Start: 49 @9754 has 280 MA's), (63, 9901), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: ColdSoup\_45 Start: 23180, Stop: 24970, Start Num: 30

Candidate Starts for ColdSoup\_45:

(17, 23120), (28, 23174), (Start: 30 @23180 has 45 MA's), (112, 23717), (116, 23750), (118, 23762), (138, 23882), (139, 23885), (146, 23942), (170, 24095), (171, 24101), (174, 24128), (177, 24170), (205, 24428), (206, 24431), (214, 24473), (215, 24476), (220, 24530), (221, 24536), (235, 24632), (236, 24647), (237, 24656), (261, 24881), (266, 24917), (268, 24929), (270, 24953),

Gene: Coldpizza\_13 Start: 11760, Stop: 13478, Start Num: 46

Candidate Starts for Coldpizza\_13:

(Start: 46 @11760 has 65 MA's), (59, 11841), (61, 11889), (115, 12201), (143, 12363), (164, 12501), (166, 12513), (195, 12795), (201, 12852), (224, 13020), (226, 13041), (229, 13059), (243, 13194), (247, 13236), (252, 13263), (268, 13377), (271, 13407), (276, 13437),

Gene: Coletti\_12 Start: 9772, Stop: 11517, Start Num: 49

Candidate Starts for Coletti\_12:

(Start: 49 @9772 has 280 MA's), (121, 10306), (141, 10432), (149, 10483), (164, 10591), (195, 10885), (201, 10942), (206, 10987), (207, 10996), (208, 11005), (226, 11128), (236, 11206), (237, 11215), (244, 11290), (247, 11326), (252, 11353), (254, 11371), (257, 11395), (265, 11449), (266, 11455), (268, 11467),

Gene: Compostia\_15 Start: 11459, Stop: 13474, Start Num: 46

Candidate Starts for Compostia\_15:

(Start: 43 @11447 has 6 MA's), (Start: 46 @11459 has 65 MA's), (50, 11474), (59, 11552), (61, 11600), (115, 11957), (120, 11981), (149, 12146), (158, 12194), (164, 12266), (175, 12347), (178, 12401), (201, 12620), (202, 12623), (207, 12677), (216, 12725), (224, 12788), (226, 12809), (227, 12812), (247, 13004), (248, 13013), (252, 13031), (254, 13049), (255, 13052), (260, 13094), (265, 13127), (278, 13217), (279, 13250), (282, 13367),

Gene: Cooper\_12 Start: 10447, Stop: 12255, Start Num: 30

Candidate Starts for Cooper\_12:

(Start: 30 @10447 has 45 MA's), (35, 10477), (50, 10513), (68, 10663), (70, 10696), (73, 10726), (86, 10870), (102, 10924), (115, 10999), (121, 11032), (122, 11041), (131, 11098), (135, 11125), (140, 11152), (141, 11155), (143, 11176), (164, 11323), (167, 11341), (181, 11470), (195, 11617), (202, 11677), (203, 11701), (206, 11722), (208, 11740), (213, 11761), (224, 11842), (231, 11890), (242, 12001), (245, 12025), (247, 12058), (252, 12085), (256, 12109), (257, 12127), (265, 12181), (268, 12199),

Gene: Cornbread\_11 Start: 9464, Stop: 11206, Start Num: 49

Candidate Starts for Cornbread\_11:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9995), (141, 10121), (149, 10172), (164, 10280), (195, 10574), (201, 10631), (206, 10676), (207, 10685), (208, 10694), (226, 10817), (236, 10895), (237, 10904), (244, 10979), (247, 11015), (252, 11042), (254, 11060), (257, 11084), (265, 11138), (266, 11144), (268, 11156),

Gene: Cornobble\_11 Start: 9308, Stop: 11050, Start Num: 49

Candidate Starts for Cornobble\_11:

(Start: 49 @9308 has 280 MA's), (63, 9455), (121, 9839), (141, 9965), (149, 10016), (164, 10124), (195, 10418), (201, 10475), (206, 10520), (207, 10529), (208, 10538), (226, 10661), (236, 10739), (237, 10748), (244, 10823), (247, 10859), (252, 10886), (254, 10904), (257, 10928), (265, 10982), (266, 10988), (268, 11000),

Gene: Corofin\_14 Start: 11051, Stop: 13066, Start Num: 46

Candidate Starts for Corofin\_14:

(Start: 46 @11051 has 65 MA's), (50, 11066), (59, 11144), (61, 11192), (115, 11549), (120, 11573), (149, 11738), (158, 11786), (164, 11858), (175, 11939), (178, 11993), (201, 12212), (202, 12215), (207, 12269), (216, 12317), (224, 12380), (226, 12401), (227, 12404), (247, 12596), (248, 12605), (252, 12623), (254, 12641), (255, 12644), (260, 12686), (265, 12719), (278, 12809), (279, 12842), (282, 12959),

Gene: Cosmolli16\_11 Start: 9462, Stop: 11207, Start Num: 49

Candidate Starts for Cosmolli16\_11:

(Start: 49 @9462 has 280 MA's), (63, 9609), (121, 9996), (141, 10122), (149, 10173), (164, 10281), (195, 10575), (201, 10632), (206, 10677), (207, 10686), (208, 10695), (226, 10818), (236, 10896), (237, 10905), (244, 10980), (247, 11016), (252, 11043), (254, 11061), (257, 11085), (265, 11139), (266, 11145), (268, 11157),

Gene: Craff\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Craff\_12:

(Start: 49 @9757 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Crownjwl\_12 Start: 9542, Stop: 11287, Start Num: 49

Candidate Starts for Crownjwl\_12:

(Start: 49 @9542 has 280 MA's), (63, 9689), (121, 10076), (141, 10202), (149, 10253), (164, 10361), (195, 10655), (201, 10712), (206, 10757), (207, 10766), (208, 10775), (226, 10898), (236, 10976), (237, 10985), (244, 11060), (247, 11096), (252, 11123), (254, 11141), (257, 11165), (265, 11219), (266, 11225), (268, 11237),

Gene: D12\_09 Start: 10923, Stop: 12623, Start Num: 82

Candidate Starts for D12\_09:

(Start: 82 @10923 has 1 MA's), (96, 10995), (124, 11130), (132, 11169), (136, 11199), (144, 11244), (147, 11265), (163, 11373), (164, 11391), (173, 11460), (174, 11466), (176, 11490), (183, 11559), (199, 11718), (201, 11742), (204, 11772), (208, 11808), (215, 11835), (224, 11910), (229, 11949), (234, 11985), (237, 12015), (244, 12090), (251, 12150), (265, 12249), (266, 12255), (275, 12318), (281, 12474), (284, 12525), (285, 12531), (289, 12615),

Gene: DaddyDaniels\_12 Start: 9463, Stop: 11205, Start Num: 49

Candidate Starts for DaddyDaniels\_12:

(Start: 49 @9463 has 280 MA's), (63, 9610), (121, 9994), (141, 10120), (149, 10171), (164, 10279), (195, 10573), (201, 10630), (206, 10675), (207, 10684), (208, 10693), (226, 10816), (236, 10894), (237, 10903), (244, 10978), (247, 11014), (252, 11041), (254, 11059), (257, 11083), (265, 11137), (266, 11143), (268, 11155),

Gene: Daffy\_12 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Daffy\_12:

(Start: 49 @9464 has 280 MA's), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Daisy\_14 Start: 11047, Stop: 13062, Start Num: 46

Candidate Starts for Daisy\_14:

(Start: 46 @11047 has 65 MA's), (50, 11062), (59, 11140), (61, 11188), (115, 11545), (120, 11569), (149, 11734), (158, 11782), (164, 11854), (175, 11935), (178, 11989), (201, 12208), (202, 12211), (207, 12265), (216, 12313), (224, 12376), (226, 12397), (227, 12400), (247, 12592), (248, 12601), (252, 12619), (254, 12637), (255, 12640), (260, 12682), (265, 12715), (282, 12955),

Gene: Daka\_12 Start: 9760, Stop: 11505, Start Num: 49

Candidate Starts for Daka\_12:

(Start: 49 @9760 has 280 MA's), (121, 10294), (141, 10420), (149, 10471), (164, 10579), (195, 10873), (201, 10930), (206, 10975), (207, 10984), (208, 10993), (226, 11116), (236, 11194), (237, 11203), (244, 11278), (247, 11314), (252, 11341), (254, 11359), (257, 11383), (265, 11437), (266, 11443), (268, 11455),

Gene: Dati\_12 Start: 9461, Stop: 11203, Start Num: 49

Candidate Starts for Dati\_12:

(Start: 49 @9461 has 280 MA's), (63, 9608), (121, 9992), (141, 10118), (149, 10169), (164, 10277), (195, 10571), (201, 10628), (206, 10673), (207, 10682), (208, 10691), (226, 10814), (236, 10892), (237, 10901), (244, 10976), (247, 11012), (252, 11039), (254, 11057), (257, 11081), (265, 11135), (266, 11141), (268, 11153),

Gene: Deenasa\_14 Start: 11789, Stop: 13804, Start Num: 46

Candidate Starts for Deenasa\_14:

(Start: 46 @11789 has 65 MA's), (50, 11804), (59, 11882), (61, 11930), (115, 12287), (120, 12311), (149, 12476), (158, 12524), (164, 12596), (175, 12677), (178, 12731), (201, 12950), (202, 12953), (207, 13007), (216, 13055), (224, 13118), (226, 13139), (227, 13142), (247, 13334), (248, 13343), (252, 13361), (254, 13379), (255, 13382), (260, 13424), (265, 13457), (278, 13547), (279, 13580), (282, 13697),

Gene: DelRivs\_11 Start: 9463, Stop: 11208, Start Num: 49

Candidate Starts for DelRivs\_11:

(Start: 49 @9463 has 280 MA's), (121, 9997), (141, 10123), (149, 10174), (164, 10282), (195, 10576), (201, 10633), (206, 10678), (207, 10687), (208, 10696), (226, 10819), (236, 10897), (237, 10906), (244, 10981), (247, 11017), (252, 11044), (254, 11062), (257, 11086), (265, 11140), (266, 11146), (268, 11158),

Gene: Derpp\_11 Start: 9316, Stop: 11061, Start Num: 49

Candidate Starts for Derpp\_11:

(Start: 49 @9316 has 280 MA's), (121, 9850), (141, 9976), (149, 10027), (164, 10135), (195, 10429), (201, 10486), (206, 10531), (207, 10540), (208, 10549), (226, 10672), (236, 10750), (237, 10759), (244, 10834), (247, 10870), (252, 10897), (254, 10915), (257, 10939), (265, 10993), (266, 10999), (268, 11011),

Gene: Devonte\_14 Start: 11026, Stop: 13041, Start Num: 46

Candidate Starts for Devonte\_14:

(Start: 46 @11026 has 65 MA's), (50, 11041), (59, 11119), (61, 11167), (115, 11524), (120, 11548), (149, 11713), (158, 11761), (164, 11833), (175, 11914), (178, 11968), (201, 12187), (202, 12190), (207, 12244), (216, 12292), (224, 12355), (226, 12376), (227, 12379), (247, 12571), (248, 12580), (252, 12598), (254, 12616), (255, 12619), (260, 12661), (265, 12694), (278, 12784), (279, 12817), (282, 12934),

Gene: Dice\_11 Start: 9463, Stop: 11208, Start Num: 49

Candidate Starts for Dice\_11:

(Start: 49 @9463 has 280 MA's), (121, 9997), (141, 10123), (149, 10174), (164, 10282), (195, 10576), (201, 10633), (206, 10678), (207, 10687), (208, 10696), (226, 10819), (236, 10897), (237, 10906), (244, 10981), (247, 11017), (252, 11044), (254, 11062), (257, 11086), (265, 11140), (266, 11146), (268, 11158),

Gene: DigitDog\_13 Start: 11366, Stop: 13231, Start Num: 25

Candidate Starts for DigitDog\_13:

(Start: 25 @11366 has 2 MA's), (Start: 30 @11390 has 45 MA's), (36, 11423), (50, 11474), (54, 11498), (62, 11603), (75, 11705), (115, 11966), (121, 11999), (131, 12068), (141, 12125), (144, 12152), (164, 12305), (180, 12449), (185, 12488), (195, 12596), (201, 12653), (202, 12656), (206, 12701), (207, 12710), (208, 12719), (219, 12797), (226, 12842), (229, 12863), (237, 12929), (243, 12998), (247, 13040), (251, 13064), (252, 13067), (256, 13091), (257, 13109), (263, 13157),

Gene: Dingo\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for Dingo\_12:

(Start: 49 @9754 has 280 MA's), (63, 9901), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: Dione\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Dione\_11:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: DirtJuice\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for DirtJuice\_12:

(Start: 49 @9757 has 280 MA's), (63, 9904), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Doddsville\_12 Start: 9461, Stop: 11203, Start Num: 49

Candidate Starts for Doddsville\_12:

(Start: 49 @9461 has 280 MA's), (63, 9608), (121, 9992), (141, 10118), (149, 10169), (164, 10277), (195, 10571), (201, 10628), (206, 10673), (207, 10682), (208, 10691), (226, 10814), (236, 10892), (237, 10901), (244, 10976), (247, 11012), (252, 11039), (254, 11057), (257, 11081), (265, 11135), (266, 11141), (268, 11153),

Gene: DoesntMatter\_12 Start: 9754, Stop: 11502, Start Num: 49

Candidate Starts for DoesntMatter\_12:

(Start: 49 @9754 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: DolOn\_13 Start: 9992, Stop: 11737, Start Num: 49

Candidate Starts for DolOn\_13:

(Start: 49 @9992 has 280 MA's), (121, 10526), (141, 10652), (149, 10703), (164, 10811), (195, 11105), (201, 11162), (206, 11207), (207, 11216), (208, 11225), (226, 11348), (236, 11426), (237, 11435), (244, 11510), (247, 11546), (252, 11573), (254, 11591), (257, 11615), (265, 11669), (266, 11675), (268, 11687),

Gene: DonSanchon\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for DonSanchon\_11:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: DonTron\_44 Start: 23250, Stop: 25040, Start Num: 30

Candidate Starts for DonTron\_44:

(17, 23190), (28, 23244), (Start: 30 @23250 has 45 MA's), (112, 23787), (116, 23820), (118, 23832), (138, 23952), (139, 23955), (146, 24012), (170, 24165), (171, 24171), (174, 24198), (177, 24240), (205, 24498), (206, 24501), (214, 24543), (215, 24546), (220, 24600), (221, 24606), (235, 24702), (236, 24717), (237, 24726), (261, 24951), (266, 24987), (268, 24999), (270, 25023),

Gene: Donny\_13 Start: 11401, Stop: 13248, Start Num: 30

Candidate Starts for Donny\_13:

(Start: 25 @11377 has 2 MA's), (Start: 30 @11401 has 45 MA's), (36, 11434), (50, 11485), (54, 11509), (62, 11614), (68, 11644), (69, 11653), (115, 11983), (121, 12016), (131, 12085), (140, 12139), (143, 12163), (144, 12169), (164, 12322), (185, 12505), (195, 12613), (201, 12670), (202, 12673), (206, 12718), (207, 12727), (208, 12736), (212, 12754), (219, 12814), (226, 12859), (229, 12880), (231, 12889), (234, 12916), (237, 12946), (243, 13015), (247, 13057), (251, 13081), (252, 13084), (257, 13126), (263, 13174),

Gene: Dori\_10 Start: 8393, Stop: 10276, Start Num: 22

Candidate Starts for Dori\_10:

(Start: 22 @8393 has 1 MA's), (27, 8420), (Start: 48 @8510 has 10 MA's), (83, 8867), (96, 8942), (105, 8978), (113, 9017), (114, 9032), (120, 9068), (126, 9110), (127, 9116), (151, 9254), (186, 9563), (197, 9665), (200, 9701), (201, 9710), (211, 9794), (221, 9854), (224, 9869), (251, 10109), (253, 10127), (254, 10130), (267, 10220),

Gene: DuchessDung\_11 Start: 9310, Stop: 11055, Start Num: 49

Candidate Starts for DuchessDung\_11:

(Start: 49 @9310 has 280 MA's), (121, 9844), (141, 9970), (149, 10021), (164, 10129), (195, 10423), (201, 10480), (206, 10525), (207, 10534), (208, 10543), (226, 10666), (236, 10744), (237, 10753), (244, 10828), (247, 10864), (252, 10891), (254, 10909), (257, 10933), (265, 10987), (266, 10993), (268, 11005),

Gene: Duggie\_11 Start: 9463, Stop: 11205, Start Num: 49

Candidate Starts for Duggie\_11:

(Start: 49 @9463 has 280 MA's), (63, 9610), (121, 9994), (141, 10120), (149, 10171), (164, 10279), (195, 10573), (201, 10630), (206, 10675), (207, 10684), (208, 10693), (226, 10816), (236, 10894), (237, 10903), (244, 10978), (247, 11014), (252, 11041), (254, 11059), (257, 11083), (265, 11137), (266, 11143), (268, 11155),

Gene: Durga\_12 Start: 9771, Stop: 11516, Start Num: 49

Candidate Starts for Durga\_12:

(Start: 49 @9771 has 280 MA's), (121, 10305), (141, 10431), (149, 10482), (164, 10590), (195, 10884), (201, 10941), (206, 10986), (207, 10995), (208, 11004), (226, 11127), (236, 11205), (237, 11214), (244, 11289), (247, 11325), (252, 11352), (254, 11370), (257, 11394), (265, 11448), (266, 11454), (268, 11466),

Gene: Eaglehorse\_15 Start: 12429, Stop: 14462, Start Num: 44

Candidate Starts for Eaglehorse\_15:

(Start: 44 @12429 has 36 MA's), (61, 12573), (64, 12594), (71, 12651), (84, 12765), (115, 12933), (127, 13005), (149, 13122), (159, 13182), (162, 13200), (164, 13254), (175, 13335), (201, 13608), (202, 13611), (208, 13677), (241, 13935), (247, 13995), (248, 14004), (252, 14022), (256, 14046), (265, 14118), (272, 14166), (280, 14310), (282, 14349), (286, 14406), (287, 14442), (288, 14448),

Gene: EastView9101\_13 Start: 11404, Stop: 13254, Start Num: 30

Candidate Starts for EastView9101\_13:

(Start: 25 @11380 has 2 MA's), (Start: 30 @11404 has 45 MA's), (36, 11437), (50, 11488), (54, 11512), (62, 11617), (64, 11629), (69, 11656), (115, 11989), (121, 12022), (131, 12091), (140, 12145), (143, 12169), (144, 12175), (164, 12328), (185, 12511), (195, 12619), (201, 12676), (202, 12679), (206, 12724), (207, 12733), (208, 12742), (213, 12763), (219, 12820), (226, 12865), (229, 12886), (231, 12895), (237, 12952), (243, 13021), (247, 13063), (251, 13087), (252, 13090), (257, 13132), (263, 13180),

Gene: ElvisPhasley\_12 Start: 9758, Stop: 11503, Start Num: 49

Candidate Starts for ElvisPhasley\_12:

(Start: 49 @9758 has 280 MA's), (121, 10292), (141, 10418), (149, 10469), (164, 10577), (195, 10871), (201, 10928), (206, 10973), (207, 10982), (208, 10991), (226, 11114), (236, 11192), (237, 11201), (244, 11276), (247, 11312), (252, 11339), (254, 11357), (257, 11381), (265, 11435), (266, 11441), (268, 11453),

Gene: Emiris\_12 Start: 9758, Stop: 11503, Start Num: 49

Candidate Starts for Emiris\_12:

(Start: 49 @9758 has 280 MA's), (63, 9905), (121, 10292), (141, 10418), (149, 10469), (164, 10577), (195, 10871), (201, 10928), (206, 10973), (207, 10982), (208, 10991), (226, 11114), (236, 11192), (237, 11201), (244, 11276), (247, 11312), (252, 11339), (254, 11357), (257, 11381), (265, 11435), (266, 11441), (268, 11453),

Gene: EmpTee\_12 Start: 9758, Stop: 11503, Start Num: 49

Candidate Starts for EmpTee\_12:

(Start: 49 @9758 has 280 MA's), (121, 10292), (141, 10418), (149, 10469), (164, 10577), (195, 10871), (201, 10928), (206, 10973), (207, 10982), (208, 10991), (226, 11114), (236, 11192), (237, 11201), (244, 11276), (247, 11312), (252, 11339), (254, 11357), (257, 11381), (265, 11435), (266, 11441), (268, 11453),

Gene: Epah\_11 Start: 10371, Stop: 12158, Start Num: 30

Candidate Starts for Epah\_11:

(Start: 30 @10371 has 45 MA's), (50, 10437), (68, 10587), (70, 10620), (73, 10650), (96, 10809), (115, 10905), (122, 10944), (131, 11001), (135, 11028), (141, 11058), (143, 11079), (156, 11139), (164, 11226), (181, 11373), (195, 11520), (202, 11580), (203, 11604), (206, 11625), (208, 11643), (213, 11664), (224, 11745), (231, 11793), (237, 11850), (245, 11928), (247, 11961), (252, 11988), (256, 12012), (257, 12030), (261, 12054), (263, 12078), (265, 12084), (266, 12090), (268, 12102),

Gene: Eremos\_12 Start: 9751, Stop: 11496, Start Num: 49

Candidate Starts for Eremos\_12:

(Start: 49 @9751 has 280 MA's), (121, 10285), (141, 10411), (149, 10462), (164, 10570), (195, 10864), (201, 10921), (206, 10966), (207, 10975), (208, 10984), (226, 11107), (236, 11185), (237, 11194), (244, 11269), (247, 11305), (252, 11332), (254, 11350), (257, 11374), (265, 11428), (266, 11434), (268, 11446),

Gene: Etaye\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for Etaye\_12:

(Start: 49 @9754 has 280 MA's), (63, 9901), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: Eugenia\_12 Start: 9758, Stop: 11503, Start Num: 49

Candidate Starts for Eugenia\_12:

(Start: 49 @9758 has 280 MA's), (121, 10292), (141, 10418), (149, 10469), (164, 10577), (195, 10871), (201, 10928), (206, 10973), (207, 10982), (208, 10991), (226, 11114), (236, 11192), (237, 11201), (244, 11276), (247, 11312), (252, 11339), (254, 11357), (257, 11381), (265, 11435), (266, 11441), (268, 11453),

Gene: Evaa\_12 Start: 11135, Stop: 12874, Start Num: 46

Candidate Starts for Evaa\_12:

(Start: 46 @11135 has 65 MA's), (59, 11216), (101, 11540), (115, 11609), (122, 11645), (127, 11681), (195, 12218), (201, 12275), (208, 12341), (224, 12443), (226, 12464), (245, 12626), (247, 12659), (252, 12686), (256, 12710), (259, 12746), (266, 12788),

Gene: Fanaw\_12 Start: 11476, Stop: 13254, Start Num: 30

Candidate Starts for Fanaw\_12:

(Start: 30 @11476 has 45 MA's), (50, 11542), (68, 11692), (70, 11725), (73, 11755), (86, 11884), (96, 11917), (115, 12013), (131, 12109), (135, 12136), (140, 12163), (141, 12166), (143, 12187), (164, 12334), (181, 12481), (195, 12628), (202, 12688), (203, 12712), (205, 12730), (207, 12742), (208, 12751), (213, 12772), (224, 12853), (231, 12901), (237, 12958), (240, 13000), (243, 13027), (246, 13039), (247, 13069), (252, 13096), (256, 13120), (257, 13138), (261, 13162), (265, 13192), (266, 13198),

Gene: Fang\_12 Start: 9758, Stop: 11506, Start Num: 49

Candidate Starts for Fang\_12:

(Start: 49 @9758 has 280 MA's), (121, 10295), (141, 10421), (149, 10472), (164, 10580), (195, 10874), (201, 10931), (206, 10976), (207, 10985), (208, 10994), (226, 11117), (236, 11195), (237, 11204), (244, 11279), (247, 11315), (252, 11342), (254, 11360), (257, 11384), (265, 11438), (266, 11444), (268, 11456),

Gene: Faze9\_15 Start: 12528, Stop: 14555, Start Num: 44

Candidate Starts for Faze9\_15:

(Start: 44 @12528 has 36 MA's), (61, 12672), (64, 12693), (71, 12747), (76, 12774), (84, 12861), (115, 13026), (127, 13098), (149, 13215), (159, 13275), (162, 13293), (164, 13347), (175, 13428), (201, 13701), (202, 13704), (208, 13770), (241, 14028), (247, 14088), (248, 14097), (252, 14115), (256, 14139), (265, 14211), (272, 14259), (280, 14403), (282, 14442), (286, 14499), (287, 14535), (288, 14541),

Gene: FelixTres\_13 Start: 11332, Stop: 13014, Start Num: 46

Candidate Starts for FelixTres\_13:

(Start: 46 @11332 has 65 MA's), (59, 11419), (61, 11467), (85, 11656), (115, 11767), (120, 11791), (127, 11839), (143, 11929), (166, 12088), (168, 12097), (174, 12145), (181, 12223), (184, 12256), (188, 12304), (195, 12370), (200, 12418), (201, 12427), (202, 12430), (209, 12502), (215, 12520), (219, 12571), (226, 12616), (228, 12628), (231, 12643), (243, 12769), (247, 12811), (251, 12835), (252, 12838), (254, 12856),

Gene: Flake\_13 Start: 9774, Stop: 11519, Start Num: 49

Candidate Starts for Flake\_13:

(Start: 49 @9774 has 280 MA's), (121, 10308), (141, 10434), (149, 10485), (164, 10593), (195, 10887), (201, 10944), (206, 10989), (207, 10998), (208, 11007), (226, 11130), (236, 11208), (237, 11217), (244, 11292), (247, 11328), (252, 11355), (254, 11373), (257, 11397), (265, 11451), (266, 11457), (268, 11469),

Gene: FleetyMac\_11 Start: 9755, Stop: 11500, Start Num: 49

Candidate Starts for FleetyMac\_11:

(Start: 49 @9755 has 280 MA's), (121, 10289), (141, 10415), (149, 10466), (164, 10574), (195, 10868), (201, 10925), (206, 10970), (207, 10979), (208, 10988), (226, 11111), (236, 11189), (237, 11198), (244, 11273), (247, 11309), (252, 11336), (254, 11354), (257, 11378), (265, 11432), (266, 11438), (268, 11450),

Gene: FluffyNinja\_12 Start: 9755, Stop: 11500, Start Num: 49

Candidate Starts for FluffyNinja\_12:

(Start: 49 @9755 has 280 MA's), (63, 9902), (121, 10289), (141, 10415), (149, 10466), (164, 10574), (195, 10868), (201, 10925), (206, 10970), (207, 10979), (208, 10988), (226, 11111), (236, 11189), (237, 11198), (244, 11273), (247, 11309), (252, 11336), (254, 11354), (257, 11378), (265, 11432), (266, 11438), (268, 11450),

Gene: ForDig\_10 Start: 9865, Stop: 11721, Start Num: 23

Candidate Starts for ForDig\_10:

(7, 9730), (13, 9832), (Start: 14 @9835 has 1 MA's), (Start: 23 @9865 has 1 MA's), (Start: 30 @9898 has 45 MA's), (35, 9931), (41, 9952), (72, 10183), (89, 10363), (121, 10510), (134, 10603), (140, 10633), (144, 10663), (145, 10666), (164, 10804), (169, 10831), (195, 11098), (202, 11158), (206, 11203), (208, 11221), (213, 11242), (224, 11323), (231, 11371), (240, 11470), (245, 11506), (246, 11509), (247, 11539), (251, 11563), (252, 11566), (257, 11608), (266, 11668),

Gene: Fortunato\_12 Start: 11467, Stop: 13248, Start Num: 30

Candidate Starts for Fortunato\_12:

(Start: 30 @11467 has 45 MA's), (50, 11533), (68, 11683), (70, 11716), (73, 11746), (86, 11878), (96, 11911), (115, 12007), (131, 12103), (135, 12130), (140, 12157), (141, 12160), (143, 12181), (164, 12328), (181, 12475), (195, 12622), (202, 12682), (203, 12706), (205, 12724), (207, 12736), (208, 12745), (213, 12766), (224, 12847), (230, 12889), (231, 12895), (237, 12952), (240, 12994), (243, 13021), (246, 13033), (247, 13063), (252, 13090), (256, 13114), (257, 13132), (261, 13156), (265, 13186), (266, 13192),

Gene: Fozzie\_11 Start: 9755, Stop: 11500, Start Num: 49

Candidate Starts for Fozzie\_11:

(Start: 49 @9755 has 280 MA's), (121, 10289), (141, 10415), (149, 10466), (164, 10574), (195, 10868), (201, 10925), (206, 10970), (207, 10979), (208, 10988), (226, 11111), (236, 11189), (237, 11198), (244, 11273), (247, 11309), (252, 11336), (254, 11354), (257, 11378), (265, 11432), (266, 11438), (268, 11450),

Gene: Frankicide\_12 Start: 9759, Stop: 11504, Start Num: 49

Candidate Starts for Frankicide\_12:

(Start: 49 @9759 has 280 MA's), (63, 9906), (121, 10293), (141, 10419), (149, 10470), (164, 10578), (195, 10872), (201, 10929), (206, 10974), (207, 10983), (208, 10992), (226, 11115), (236, 11193), (237, 11202), (244, 11277), (247, 11313), (252, 11340), (254, 11358), (257, 11382), (265, 11436), (266, 11442), (268, 11454),

Gene: Frederick\_12 Start: 11476, Stop: 13254, Start Num: 30

Candidate Starts for Frederick\_12:

(Start: 30 @11476 has 45 MA's), (50, 11542), (68, 11692), (70, 11725), (73, 11755), (86, 11884), (96, 11917), (115, 12013), (131, 12109), (135, 12136), (140, 12163), (141, 12166), (143, 12187), (164, 12334), (181, 12481), (195, 12628), (202, 12688), (203, 12712), (205, 12730), (207, 12742), (208, 12751), (213, 12772), (224, 12853), (231, 12901), (237, 12958), (240, 13000), (243, 13027), (246, 13039), (247, 13069), (252, 13096), (256, 13120), (257, 13138), (261, 13162), (265, 13192), (266, 13198),

Gene: FremontTroll\_12 Start: 9462, Stop: 11207, Start Num: 49

Candidate Starts for FremontTroll\_12:

(Start: 49 @9462 has 280 MA's), (63, 9609), (121, 9996), (141, 10122), (149, 10173), (164, 10281), (195, 10575), (201, 10632), (206, 10677), (207, 10686), (208, 10695), (226, 10818), (236, 10896), (237, 10905), (244, 10980), (247, 11016), (252, 11043), (254, 11061), (257, 11085), (265, 11139), (266, 11145), (268, 11157),

Gene: FrenchFry\_15 Start: 12528, Stop: 14558, Start Num: 44

Candidate Starts for FrenchFry\_15:

(Start: 44 @12528 has 36 MA's), (61, 12672), (64, 12693), (71, 12750), (84, 12864), (115, 13029), (127, 13101), (149, 13218), (159, 13278), (162, 13296), (164, 13350), (175, 13431), (201, 13704), (202, 13707), (208, 13773), (241, 14031), (247, 14091), (248, 14100), (252, 14118), (256, 14142), (265, 14214), (272, 14262), (280, 14406), (282, 14445), (286, 14502), (287, 14538), (288, 14544),

Gene: Fresco\_11 Start: 9837, Stop: 11540, Start Num: 46

Candidate Starts for Fresco\_11:

(Start: 46 @9837 has 65 MA's), (61, 9972), (90, 10188), (98, 10209), (115, 10284), (125, 10347), (143, 10446), (156, 10506), (166, 10605), (195, 10884), (201, 10941), (208, 11007), (224, 11109), (226, 11130), (229, 11148), (241, 11265), (247, 11325), (252, 11352), (256, 11376), (259, 11412), (265, 11448), (266, 11454), (277, 11529),

Gene: Freya\_11 Start: 9465, Stop: 11210, Start Num: 49

Candidate Starts for Freya\_11:

(Start: 49 @9465 has 280 MA's), (63, 9612), (121, 9999), (141, 10125), (149, 10176), (164, 10284), (195, 10578), (201, 10635), (206, 10680), (207, 10689), (208, 10698), (226, 10821), (236, 10899), (237, 10908), (244, 10983), (247, 11019), (252, 11046), (254, 11064), (257, 11088), (265, 11142), (266, 11148), (268, 11160),

Gene: FriarPreacher\_12 Start: 9760, Stop: 11505, Start Num: 49

Candidate Starts for FriarPreacher\_12:

(Start: 49 @9760 has 280 MA's), (63, 9907), (121, 10294), (141, 10420), (149, 10471), (164, 10579), (195, 10873), (201, 10930), (206, 10975), (207, 10984), (208, 10993), (226, 11116), (236, 11194), (237, 11203), (244, 11278), (247, 11314), (252, 11341), (254, 11359), (257, 11383), (265, 11437), (266, 11443), (268, 11455),

Gene: Fringe\_12 Start: 9755, Stop: 11503, Start Num: 49

Candidate Starts for Fringe\_12:

(Start: 49 @9755 has 280 MA's), (121, 10292), (141, 10418), (149, 10469), (164, 10577), (195, 10871), (201, 10928), (206, 10973), (207, 10982), (208, 10991), (226, 11114), (236, 11192), (237, 11201), (244, 11276), (247, 11312), (252, 11339), (254, 11357), (257, 11381), (265, 11435), (266, 11441), (268, 11453),

Gene: FugateOSU\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for FugateOSU\_11:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Funsized\_17 Start: 13435, Stop: 15306, Start Num: 30

Candidate Starts for Funsized\_17:

(Start: 30 @13435 has 45 MA's), (41, 13486), (50, 13519), (70, 13711), (95, 13945), (117, 14068), (119, 14080), (134, 14182), (135, 14185), (137, 14194), (141, 14215), (143, 14236), (144, 14242), (145, 14245), (156, 14296), (164, 14383), (169, 14410), (184, 14560), (195, 14674), (201, 14731), (205, 14776), (208, 14797), (210, 14809), (213, 14818), (224, 14899), (226, 14920), (231, 14947), (238, 15028), (240, 15046), (242, 15058), (243, 15073), (245, 15082), (246, 15085), (247, 15115), (252, 15142), (254, 15160), (256, 15166), (257, 15184), (266, 15244), (268, 15256),

Gene: Gadget\_15 Start: 11030, Stop: 13045, Start Num: 46

Candidate Starts for Gadget\_15:

(Start: 46 @11030 has 65 MA's), (50, 11045), (59, 11123), (61, 11171), (115, 11528), (120, 11552), (149, 11717), (158, 11765), (164, 11837), (175, 11918), (178, 11972), (201, 12191), (202, 12194), (207, 12248), (216, 12296), (224, 12359), (226, 12380), (227, 12383), (247, 12575), (248, 12584), (252, 12602), (254, 12620), (255, 12623), (260, 12665), (265, 12698), (282, 12938),

Gene: Gareth\_11 Start: 9461, Stop: 11206, Start Num: 49

Candidate Starts for Gareth\_11:

(Start: 49 @9461 has 280 MA's), (63, 9608), (121, 9995), (141, 10121), (149, 10172), (164, 10280), (195, 10574), (201, 10631), (206, 10676), (207, 10685), (208, 10694), (226, 10817), (236, 10895), (237, 10904), (244, 10979), (247, 11015), (252, 11042), (254, 11060), (257, 11084), (265, 11138), (266, 11144), (268, 11156),

Gene: GeneCoco\_12 Start: 9763, Stop: 11508, Start Num: 49

Candidate Starts for GeneCoco\_12:

(Start: 49 @9763 has 280 MA's), (121, 10297), (141, 10423), (149, 10474), (164, 10582), (195, 10876), (201, 10933), (206, 10978), (207, 10987), (208, 10996), (226, 11119), (236, 11197), (237, 11206), (244, 11281), (247, 11317), (252, 11344), (254, 11362), (257, 11386), (265, 11440), (266, 11446), (268, 11458),

Gene: Gervas\_14 Start: 11009, Stop: 13024, Start Num: 46

Candidate Starts for Gervas\_14:

(Start: 43 @10997 has 6 MA's), (Start: 46 @11009 has 65 MA's), (50, 11024), (59, 11102), (61, 11150), (115, 11507), (120, 11531), (149, 11696), (158, 11744), (164, 11816), (175, 11897), (178, 11951), (201, 12170), (202, 12173), (207, 12227), (216, 12275), (224, 12338), (226, 12359), (227, 12362), (247, 12554), (248, 12563), (252, 12581), (254, 12599), (255, 12602), (260, 12644), (265, 12677), (282, 12917),

Gene: GinPorsche\_11 Start: 10371, Stop: 12158, Start Num: 30

Candidate Starts for GinPorsche\_11:

(Start: 30 @10371 has 45 MA's), (50, 10437), (68, 10587), (70, 10620), (73, 10650), (96, 10809), (115, 10905), (122, 10944), (131, 11001), (135, 11028), (141, 11058), (143, 11079), (156, 11139), (164, 11226), (181, 11373), (195, 11520), (202, 11580), (203, 11604), (206, 11625), (208, 11643), (213, 11664), (224, 11745), (231, 11793), (237, 11850), (245, 11928), (247, 11961), (252, 11988), (256, 12012), (257, 12030), (261, 12054), (263, 12078), (265, 12084), (266, 12090), (268, 12102),

Gene: Giraffe\_12 Start: 9465, Stop: 11210, Start Num: 49

Candidate Starts for Giraffe\_12:

(Start: 49 @9465 has 280 MA's), (63, 9612), (121, 9999), (141, 10125), (149, 10176), (164, 10284), (195, 10578), (201, 10635), (206, 10680), (207, 10689), (208, 10698), (226, 10821), (236, 10899), (237, 10908), (244, 10983), (247, 11019), (252, 11046), (254, 11064), (257, 11088), (265, 11142), (266, 11148), (268, 11160),

Gene: Glass\_15 Start: 12528, Stop: 14558, Start Num: 44

Candidate Starts for Glass\_15:

(Start: 44 @12528 has 36 MA's), (61, 12672), (64, 12693), (71, 12750), (84, 12864), (115, 13029), (127, 13101), (149, 13218), (159, 13278), (162, 13296), (164, 13350), (175, 13431), (201, 13704), (202, 13707), (208, 13773), (241, 14031), (247, 14091), (248, 14100), (252, 14118), (256, 14142), (265, 14214), (272, 14262), (280, 14406), (282, 14445), (286, 14502), (287, 14538), (288, 14544),

Gene: GlenHope\_15 Start: 11016, Stop: 13031, Start Num: 46

Candidate Starts for GlenHope\_15:

(Start: 43 @11004 has 6 MA's), (Start: 46 @11016 has 65 MA's), (50, 11031), (59, 11109), (61, 11157), (115, 11514), (120, 11538), (149, 11703), (158, 11751), (164, 11823), (175, 11904), (178, 11958),

(201, 12177), (202, 12180), (207, 12234), (216, 12282), (224, 12345), (226, 12366), (227, 12369), (247, 12561), (248, 12570), (252, 12588), (254, 12606), (255, 12609), (260, 12651), (265, 12684), (278, 12774), (279, 12807), (282, 12924),

Gene: Glubnar\_14 Start: 11030, Stop: 13045, Start Num: 46

Candidate Starts for Glubnar\_14:

(Start: 46 @11030 has 65 MA's), (50, 11045), (59, 11123), (61, 11171), (115, 11528), (120, 11552), (149, 11717), (158, 11765), (164, 11837), (175, 11918), (178, 11972), (201, 12191), (202, 12194), (207, 12248), (216, 12296), (224, 12359), (226, 12380), (227, 12383), (247, 12575), (248, 12584), (252, 12602), (254, 12620), (255, 12623), (260, 12665), (265, 12698), (278, 12788), (279, 12821), (282, 12938),

Gene: GodPhather\_10 Start: 10840, Stop: 12903, Start Num: 48

Candidate Starts for GodPhather\_10:

(Start: 48 @10840 has 10 MA's), (50, 10852), (52, 10879), (59, 10933), (61, 10981), (74, 11086), (Start: 82 @11203 has 1 MA's), (96, 11275), (124, 11410), (127, 11425), (132, 11449), (136, 11479), (144, 11524), (147, 11545), (163, 11653), (164, 11671), (173, 11740), (174, 11746), (183, 11839), (201, 12022), (204, 12052), (208, 12088), (215, 12115), (229, 12229), (237, 12295), (244, 12370), (251, 12430), (265, 12529), (266, 12535), (275, 12598), (281, 12754), (284, 12805), (285, 12811), (289, 12895),

Gene: Godines\_15 Start: 12411, Stop: 14441, Start Num: 44

Candidate Starts for Godines\_15:

(Start: 44 @12411 has 36 MA's), (61, 12555), (64, 12576), (71, 12630), (84, 12744), (115, 12912), (127, 12984), (149, 13101), (159, 13161), (162, 13179), (164, 13233), (175, 13314), (201, 13587), (202, 13590), (208, 13656), (241, 13914), (247, 13974), (248, 13983), (252, 14001), (256, 14025), (265, 14097), (272, 14145), (280, 14289), (282, 14328), (286, 14385), (287, 14421), (288, 14427),

Gene: Gophee\_12 Start: 9757, Stop: 11505, Start Num: 49

Candidate Starts for Gophee\_12:

(Start: 49 @9757 has 280 MA's), (121, 10294), (141, 10420), (149, 10471), (164, 10579), (195, 10873), (201, 10930), (206, 10975), (207, 10984), (208, 10993), (226, 11116), (236, 11194), (237, 11203), (244, 11278), (247, 11314), (252, 11341), (254, 11359), (257, 11383), (265, 11437), (266, 11443), (268, 11455),

Gene: Grand2040\_11 Start: 9462, Stop: 11207, Start Num: 49

Candidate Starts for Grand2040\_11:

(Start: 49 @9462 has 280 MA's), (63, 9609), (121, 9996), (141, 10122), (149, 10173), (164, 10281), (195, 10575), (201, 10632), (206, 10677), (207, 10686), (208, 10695), (226, 10818), (236, 10896), (237, 10905), (244, 10980), (247, 11016), (252, 11043), (254, 11061), (257, 11085), (265, 11139), (266, 11145), (268, 11157),

Gene: GreenChile\_12 Start: 9759, Stop: 11504, Start Num: 49

Candidate Starts for GreenChile\_12:

(Start: 49 @9759 has 280 MA's), (63, 9906), (121, 10293), (141, 10419), (149, 10470), (164, 10578), (195, 10872), (201, 10929), (206, 10974), (207, 10983), (208, 10992), (226, 11115), (236, 11193), (237, 11202), (244, 11277), (247, 11313), (252, 11340), (254, 11358), (257, 11382), (265, 11436), (266, 11442), (268, 11454),

Gene: Grumio\_44 Start: 22682, Stop: 24478, Start Num: 28

Candidate Starts for Grumio\_44:

(17, 22628), (28, 22682), (Start: 30 @22688 has 45 MA's), (112, 23225), (116, 23258), (118, 23270), (138, 23390), (139, 23393), (146, 23450), (170, 23603), (171, 23609), (174, 23636), (177, 23678),

(205, 23936), (206, 23939), (214, 23981), (215, 23984), (220, 24038), (221, 24044), (235, 24140), (236, 24155), (237, 24164), (261, 24389), (266, 24425), (268, 24437), (270, 24461),

Gene: Gwennie1\_12 Start: 9775, Stop: 11520, Start Num: 49

Candidate Starts for Gwennie1\_12:

(Start: 49 @9775 has 280 MA's), (121, 10309), (141, 10435), (149, 10486), (164, 10594), (195, 10888), (201, 10945), (206, 10990), (207, 10999), (208, 11008), (226, 11131), (236, 11209), (237, 11218), (244, 11293), (247, 11329), (252, 11356), (254, 11374), (257, 11398), (265, 11452), (266, 11458), (268, 11470),

Gene: Gwilliam\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for Gwilliam\_12:

(Start: 49 @9754 has 280 MA's), (63, 9901), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: Gyarad\_0012 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Gyarad\_0012:

(Start: 49 @9757 has 280 MA's), (63, 9904), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: HSavage\_12 Start: 9759, Stop: 11504, Start Num: 49

Candidate Starts for HSavage\_12:

(Start: 49 @9759 has 280 MA's), (63, 9906), (121, 10293), (141, 10419), (149, 10470), (164, 10578), (195, 10872), (201, 10929), (206, 10974), (207, 10983), (208, 10992), (226, 11115), (236, 11193), (237, 11202), (244, 11277), (247, 11313), (252, 11340), (254, 11358), (257, 11382), (265, 11436), (266, 11442), (268, 11454),

Gene: Haimas\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Haimas\_12:

(Start: 49 @9757 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Haleema\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Haleema\_11:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Halfpint\_13 Start: 10851, Stop: 12866, Start Num: 46

Candidate Starts for Halfpint\_13:

(Start: 43 @10839 has 6 MA's), (Start: 46 @10851 has 65 MA's), (50, 10866), (59, 10944), (61, 10992), (115, 11349), (120, 11373), (149, 11538), (158, 11586), (164, 11658), (175, 11739), (178, 11793), (201, 12012), (202, 12015), (207, 12069), (216, 12117), (224, 12180), (226, 12201), (227, 12204), (247, 12396), (248, 12405), (252, 12423), (254, 12441), (255, 12444), (260, 12486), (265, 12519), (278, 12609), (279, 12642), (282, 12759),

Gene: Hally898\_11 Start: 10371, Stop: 12158, Start Num: 30

Candidate Starts for Hally898\_11:

(Start: 30 @10371 has 45 MA's), (50, 10437), (68, 10587), (70, 10620), (73, 10650), (96, 10809), (115, 10905), (122, 10944), (131, 11001), (135, 11028), (141, 11058), (143, 11079), (156, 11139), (164, 11226), (181, 11373), (195, 11520), (202, 11580), (203, 11604), (206, 11625), (208, 11643), (213, 11664), (224, 11745), (231, 11793), (237, 11850), (245, 11928), (247, 11961), (252, 11988), (256, 12012), (257, 12030), (261, 12054), (263, 12078), (265, 12084), (266, 12090), (268, 12102),

Gene: Hamish\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Hamish\_12:

(Start: 49 @9757 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Hangman\_12 Start: 11476, Stop: 13254, Start Num: 30

Candidate Starts for Hangman\_12:

(Start: 30 @11476 has 45 MA's), (50, 11542), (68, 11692), (70, 11725), (73, 11755), (86, 11884), (96, 11917), (115, 12013), (131, 12109), (135, 12136), (140, 12163), (141, 12166), (143, 12187), (164, 12334), (181, 12481), (195, 12628), (202, 12688), (203, 12712), (205, 12730), (208, 12751), (213, 12772), (224, 12853), (231, 12901), (237, 12958), (240, 13000), (243, 13027), (246, 13039), (247, 13069), (252, 13096), (256, 13120), (257, 13138), (261, 13162), (265, 13192), (266, 13198),

Gene: Happabalu\_12 Start: 9460, Stop: 11202, Start Num: 49

Candidate Starts for Happabalu\_12:

(Start: 49 @9460 has 280 MA's), (63, 9607), (121, 9991), (141, 10117), (149, 10168), (164, 10276), (195, 10570), (201, 10627), (206, 10672), (207, 10681), (208, 10690), (226, 10813), (236, 10891), (237, 10900), (244, 10975), (247, 11011), (252, 11038), (254, 11056), (257, 11080), (265, 11134), (266, 11140), (268, 11152),

Gene: Hartsy\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for Hartsy\_12:

(Start: 49 @9754 has 280 MA's), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: Harvey\_12 Start: 9758, Stop: 11506, Start Num: 49

Candidate Starts for Harvey\_12:

(Start: 49 @9758 has 280 MA's), (121, 10295), (141, 10421), (149, 10472), (164, 10580), (195, 10874), (201, 10931), (206, 10976), (207, 10985), (208, 10994), (226, 11117), (236, 11195), (237, 11204), (244, 11279), (247, 11315), (252, 11342), (254, 11360), (257, 11384), (265, 11438), (266, 11444), (268, 11456),

Gene: HarveySr\_14 Start: 11003, Stop: 13018, Start Num: 46

Candidate Starts for HarveySr\_14:

(Start: 43 @10991 has 6 MA's), (Start: 46 @11003 has 65 MA's), (50, 11018), (59, 11096), (61, 11144), (115, 11501), (120, 11525), (149, 11690), (158, 11738), (164, 11810), (175, 11891), (178, 11945), (201, 12164), (202, 12167), (207, 12221), (216, 12269), (224, 12332), (226, 12353), (227, 12356), (247, 12548), (248, 12557), (252, 12575), (254, 12593), (255, 12596), (260, 12638), (265, 12671), (278, 12761), (279, 12794), (282, 12911),

Gene: Hashim76\_17 Start: 10808, Stop: 12628, Start Num: 32

Candidate Starts for Hashim76\_17:

(26, 10784), (Start: 32 @10808 has 2 MA's), (38, 10838), (50, 10880), (59, 10952), (89, 11261), (101, 11294), (112, 11339), (121, 11399), (135, 11495), (140, 11522), (164, 11702), (185, 11885), (188, 11927), (195, 11993), (201, 12050), (202, 12053), (213, 12137), (226, 12239), (228, 12254), (229, 12260), (242, 12380), (243, 12395), (247, 12437), (252, 12464), (256, 12488), (257, 12506), (264, 12557), (265, 12560), (268, 12578),

Gene: Heath\_12 Start: 11476, Stop: 13254, Start Num: 30

Candidate Starts for Heath\_12:

(Start: 30 @11476 has 45 MA's), (50, 11542), (68, 11692), (70, 11725), (73, 11755), (86, 11884), (96, 11917), (115, 12013), (131, 12109), (135, 12136), (140, 12163), (141, 12166), (143, 12187), (164, 12334), (181, 12481), (195, 12628), (202, 12688), (203, 12712), (205, 12730), (208, 12751), (213, 12772), (224, 12853), (231, 12901), (237, 12958), (240, 13000), (243, 13027), (246, 13039), (247, 13069), (252, 13096), (256, 13120), (257, 13138), (261, 13162), (265, 13192), (266, 13198),

Gene: Heathcliff\_14 Start: 10976, Stop: 13003, Start Num: 43

Candidate Starts for Heathcliff\_14:

(Start: 43 @10976 has 6 MA's), (Start: 46 @10988 has 65 MA's), (50, 11003), (59, 11081), (61, 11129), (115, 11486), (120, 11510), (149, 11675), (158, 11723), (164, 11795), (175, 11876), (178, 11930), (201, 12149), (202, 12152), (207, 12206), (216, 12254), (224, 12317), (226, 12338), (227, 12341), (247, 12533), (248, 12542), (252, 12560), (254, 12578), (255, 12581), (260, 12623), (265, 12656), (278, 12746), (279, 12779), (282, 12896),

Gene: Hedgerow\_15 Start: 12510, Stop: 14540, Start Num: 44

Candidate Starts for Hedgerow\_15:

(Start: 44 @12510 has 36 MA's), (61, 12654), (64, 12675), (71, 12732), (84, 12846), (115, 13011), (127, 13083), (149, 13200), (159, 13260), (162, 13278), (164, 13332), (175, 13413), (201, 13686), (202, 13689), (208, 13755), (241, 14013), (247, 14073), (248, 14082), (252, 14100), (256, 14124), (265, 14196), (272, 14244), (280, 14388), (282, 14427), (286, 14484), (287, 14520), (288, 14526),

Gene: Held\_12 Start: 9465, Stop: 11210, Start Num: 49

Candidate Starts for Held\_12:

(Start: 49 @9465 has 280 MA's), (63, 9612), (121, 9999), (141, 10125), (149, 10176), (164, 10284), (195, 10578), (201, 10635), (206, 10680), (207, 10689), (208, 10698), (226, 10821), (236, 10899), (237, 10908), (244, 10983), (247, 11019), (252, 11046), (254, 11064), (257, 11088), (265, 11142), (266, 11148), (268, 11160),

Gene: HenryJackson\_11 Start: 9464, Stop: 11212, Start Num: 49

Candidate Starts for HenryJackson\_11:

(Start: 49 @9464 has 280 MA's), (121, 10001), (141, 10127), (149, 10178), (164, 10286), (195, 10580), (201, 10637), (206, 10682), (207, 10691), (208, 10700), (226, 10823), (236, 10901), (237, 10910), (244, 10985), (247, 11021), (252, 11048), (254, 11066), (257, 11090), (265, 11144), (266, 11150), (268, 11162),

Gene: Hertubise\_12 Start: 9757, Stop: 11505, Start Num: 49

Candidate Starts for Hertubise\_12:

(Start: 49 @9757 has 280 MA's), (121, 10294), (141, 10420), (149, 10471), (164, 10579), (195, 10873), (201, 10930), (206, 10975), (207, 10984), (208, 10993), (226, 11116), (236, 11194), (237, 11203), (244, 11278), (247, 11314), (252, 11341), (254, 11359), (257, 11383), (265, 11437), (266, 11443), (268, 11455),

Gene: Hetaeria\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Hetaeria\_12:

(Start: 49 @9757 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: HighStump\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for HighStump\_11:

(Start: 49 @9464 has 280 MA's), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Hocus\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Hocus\_11:

(Start: 49 @9464 has 280 MA's), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: HogWash\_11 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for HogWash\_11:

(Start: 49 @9754 has 280 MA's), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: Holeinone\_15 Start: 12410, Stop: 14440, Start Num: 44

Candidate Starts for Holeinone\_15:

(Start: 44 @12410 has 36 MA's), (61, 12554), (64, 12575), (71, 12632), (84, 12746), (115, 12911), (127, 12983), (149, 13100), (159, 13160), (162, 13178), (164, 13232), (175, 13313), (201, 13586), (202, 13589), (208, 13655), (241, 13913), (247, 13973), (248, 13982), (252, 14000), (256, 14024), (265, 14096), (272, 14144), (280, 14288), (282, 14327), (286, 14384), (287, 14420), (288, 14426),

Gene: Horchata\_12 Start: 9756, Stop: 11501, Start Num: 49

Candidate Starts for Horchata\_12:

(Start: 49 @9756 has 280 MA's), (63, 9903), (121, 10290), (141, 10416), (149, 10467), (164, 10575), (195, 10869), (201, 10926), (206, 10971), (207, 10980), (208, 10989), (226, 11112), (236, 11190), (237, 11199), (244, 11274), (247, 11310), (252, 11337), (254, 11355), (257, 11379), (265, 11433), (266, 11439), (268, 11451),

Gene: Hosp\_08 Start: 8037, Stop: 9935, Start Num: 14

Candidate Starts for Hosp\_08:

(7, 7932), (13, 8034), (Start: 14 @8037 has 1 MA's), (Start: 23 @8067 has 1 MA's), (Start: 30 @8100 has 45 MA's), (35, 8133), (41, 8154), (72, 8385), (89, 8568), (121, 8715), (134, 8808), (140, 8838), (144, 8868), (164, 9009), (169, 9036), (195, 9303), (202, 9363), (203, 9387), (206, 9408), (213, 9447), (224, 9528), (231, 9576), (238, 9657), (240, 9675), (245, 9711), (246, 9714), (247, 9744), (251, 9768), (252, 9771), (256, 9795), (257, 9813), (266, 9873), (268, 9885), (270, 9909),

Gene: Hydro\_12 Start: 11473, Stop: 13251, Start Num: 30

Candidate Starts for Hydro\_12:

(Start: 30 @11473 has 45 MA's), (50, 11539), (68, 11689), (70, 11722), (73, 11752), (86, 11881), (96, 11914), (115, 12010), (131, 12106), (135, 12133), (140, 12160), (141, 12163), (143, 12184), (164, 12331), (181, 12478), (195, 12625), (202, 12685), (203, 12709), (205, 12727), (208, 12748), (213,

12769), (224, 12850), (231, 12898), (237, 12955), (240, 12997), (243, 13024), (246, 13036), (247, 13066), (252, 13093), (256, 13117), (257, 13135), (261, 13159), (265, 13189), (266, 13195),

Gene: ImtiyazSitla\_11 Start: 9304, Stop: 11049, Start Num: 49

Candidate Starts for ImtiyazSitla\_11:

(Start: 49 @9304 has 280 MA's), (121, 9838), (141, 9964), (149, 10015), (164, 10123), (195, 10417), (201, 10474), (206, 10519), (207, 10528), (208, 10537), (226, 10660), (236, 10738), (237, 10747), (244, 10822), (247, 10858), (252, 10885), (254, 10903), (257, 10927), (265, 10981), (266, 10987), (268, 10999),

Gene: Imvubu\_9 Start: 8752, Stop: 10623, Start Num: 30

Candidate Starts for Imvubu\_9:

(3, 8533), (4, 8539), (5, 8542), (6, 8548), (15, 8692), (Start: 30 @8752 has 45 MA's), (41, 8806), (50, 8839), (52, 8866), (54, 8872), (59, 8920), (95, 9274), (135, 9508), (140, 9535), (143, 9559), (144, 9565), (145, 9568), (156, 9619), (164, 9706), (184, 9883), (189, 9943), (195, 9997), (205, 10099), (208, 10120), (237, 10327), (240, 10369), (243, 10396), (245, 10405), (246, 10408), (247, 10438), (252, 10465), (257, 10507), (261, 10531), (265, 10561), (268, 10579),

Gene: Inchworm\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for Inchworm\_12:

(Start: 49 @9754 has 280 MA's), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: Indlovu\_12 Start: 11120, Stop: 12970, Start Num: 30

Candidate Starts for Indlovu\_12:

(Start: 18 @11063 has 1 MA's), (Start: 30 @11120 has 45 MA's), (41, 11174), (54, 11234), (75, 11441), (104, 11651), (115, 11723), (121, 11756), (134, 11849), (140, 11879), (149, 11933), (164, 12050), (168, 12071), (181, 12197), (184, 12230), (195, 12344), (201, 12401), (202, 12404), (205, 12446), (208, 12467), (213, 12488), (224, 12569), (243, 12743), (247, 12785), (248, 12794), (251, 12809), (252, 12812), (254, 12830), (257, 12854), (261, 12878),

Gene: Inverness\_12 Start: 9759, Stop: 11504, Start Num: 49

Candidate Starts for Inverness\_12:

(Start: 49 @9759 has 280 MA's), (63, 9906), (121, 10293), (141, 10419), (149, 10470), (164, 10578), (195, 10872), (201, 10929), (206, 10974), (207, 10983), (208, 10992), (226, 11115), (236, 11193), (237, 11202), (244, 11277), (247, 11313), (252, 11340), (254, 11358), (257, 11382), (265, 11436), (266, 11442), (268, 11454),

Gene: Iridessa\_12 Start: 9463, Stop: 11205, Start Num: 49

Candidate Starts for Iridessa\_12:

(Start: 49 @9463 has 280 MA's), (63, 9610), (121, 9994), (141, 10120), (149, 10171), (164, 10279), (195, 10573), (201, 10630), (206, 10675), (207, 10684), (208, 10693), (226, 10816), (236, 10894), (237, 10903), (244, 10978), (247, 11014), (252, 11041), (254, 11059), (257, 11083), (265, 11137), (266, 11143), (268, 11155),

Gene: Iridoclysis\_12 Start: 9761, Stop: 11506, Start Num: 49

Candidate Starts for Iridoclysis\_12:

(Start: 49 @9761 has 280 MA's), (63, 9908), (121, 10295), (141, 10421), (149, 10472), (164, 10580), (195, 10874), (201, 10931), (206, 10976), (207, 10985), (208, 10994), (226, 11117), (236, 11195), (237, 11204), (244, 11279), (247, 11315), (252, 11342), (254, 11360), (257, 11384), (265, 11438), (266, 11444), (268, 11456),

Gene: IsaacEli\_12 Start: 9754, Stop: 11502, Start Num: 49

Candidate Starts for IsaacEli\_12:

(Start: 49 @9754 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: ItsyBitsy1\_15 Start: 12402, Stop: 14432, Start Num: 44

Candidate Starts for ItsyBitsy1\_15:

(Start: 44 @12402 has 36 MA's), (61, 12546), (64, 12567), (71, 12624), (84, 12738), (115, 12903), (127, 12975), (149, 13092), (159, 13152), (162, 13170), (164, 13224), (175, 13305), (201, 13578), (202, 13581), (208, 13647), (241, 13905), (247, 13965), (248, 13974), (252, 13992), (256, 14016), (265, 14088), (272, 14136), (280, 14280), (282, 14319), (286, 14376), (287, 14412), (288, 14418),

Gene: JAMaL\_12 Start: 11630, Stop: 13423, Start Num: 30

Candidate Starts for JAMaL\_12:

(Start: 30 @11630 has 45 MA's), (35, 11660), (50, 11696), (62, 11825), (68, 11846), (73, 11909), (115, 12170), (122, 12209), (131, 12266), (140, 12320), (141, 12323), (143, 12344), (144, 12350), (145, 12353), (156, 12404), (164, 12491), (188, 12719), (189, 12731), (195, 12785), (202, 12845), (203, 12869), (206, 12890), (208, 12908), (213, 12929), (224, 13010), (231, 13058), (242, 13169), (245, 13193), (247, 13226), (252, 13253), (254, 13271), (256, 13277), (257, 13295), (263, 13343), (265, 13349), (266, 13355), (268, 13367),

Gene: JDog\_11 Start: 9463, Stop: 11205, Start Num: 49

Candidate Starts for JDog\_11:

(Start: 49 @9463 has 280 MA's), (63, 9610), (121, 9994), (141, 10120), (149, 10171), (164, 10279), (195, 10573), (201, 10630), (206, 10675), (207, 10684), (208, 10693), (226, 10816), (236, 10894), (237, 10903), (244, 10978), (247, 11014), (252, 11041), (254, 11059), (257, 11083), (265, 11137), (266, 11143), (268, 11155),

Gene: JacAttac\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for JacAttac\_12:

(Start: 49 @9754 has 280 MA's), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: Jackstina\_13 Start: 10943, Stop: 12967, Start Num: 46

Candidate Starts for Jackstina\_13:

(Start: 46 @10943 has 65 MA's), (50, 10958), (59, 11036), (61, 11084), (94, 11345), (115, 11450), (120, 11474), (149, 11639), (158, 11687), (164, 11759), (175, 11840), (178, 11894), (201, 12113), (202, 12116), (207, 12170), (216, 12218), (224, 12281), (226, 12302), (227, 12305), (247, 12497), (248, 12506), (252, 12524), (254, 12542), (255, 12545), (260, 12587), (265, 12620), (278, 12710), (279, 12743), (282, 12860),

Gene: JaguarMi\_13 Start: 11300, Stop: 13078, Start Num: 30

Candidate Starts for JaguarMi\_13:

(Start: 30 @11300 has 45 MA's), (50, 11366), (70, 11549), (73, 11579), (86, 11708), (110, 11798), (115, 11837), (122, 11876), (135, 11960), (140, 11987), (141, 11990), (143, 12011), (164, 12158), (181, 12305), (192, 12437), (195, 12452), (202, 12512), (203, 12536), (205, 12554), (208, 12575), (213, 12596), (224, 12677), (231, 12725), (237, 12782), (240, 12824), (243, 12851), (246, 12863), (247, 12893), (248, 12902), (252, 12920), (256, 12944), (257, 12962), (261, 12986), (265, 13016),

(266, 13022),

Gene: JakeO\_11 Start: 9463, Stop: 11205, Start Num: 49

Candidate Starts for JakeO\_11:

(Start: 49 @9463 has 280 MA's), (63, 9610), (121, 9994), (141, 10120), (149, 10171), (164, 10279), (195, 10573), (201, 10630), (206, 10675), (207, 10684), (208, 10693), (226, 10816), (236, 10894), (237, 10903), (244, 10978), (247, 11014), (252, 11041), (254, 11059), (257, 11083), (265, 11137), (266, 11143), (268, 11155),

Gene: JangoPhett\_12 Start: 9755, Stop: 11500, Start Num: 49

Candidate Starts for JangoPhett\_12:

(Start: 49 @9755 has 280 MA's), (121, 10289), (141, 10415), (149, 10466), (164, 10574), (195, 10868), (201, 10925), (206, 10970), (207, 10979), (208, 10988), (226, 11111), (236, 11189), (237, 11198), (244, 11273), (247, 11309), (252, 11336), (254, 11354), (257, 11378), (265, 11432), (266, 11438), (268, 11450),

Gene: Jeon\_9 Start: 10570, Stop: 12633, Start Num: 48

Candidate Starts for Jeon\_9:

(Start: 48 @10570 has 10 MA's), (50, 10582), (52, 10609), (59, 10663), (61, 10711), (74, 10816), (Start: 82 @10933 has 1 MA's), (96, 11005), (124, 11140), (127, 11155), (132, 11179), (136, 11209), (144, 11254), (147, 11275), (163, 11383), (164, 11401), (173, 11470), (174, 11476), (183, 11569), (201, 11752), (204, 11782), (208, 11818), (215, 11845), (229, 11959), (237, 12025), (244, 12100), (251, 12160), (265, 12259), (266, 12265), (275, 12328), (281, 12484), (284, 12535), (285, 12541), (289, 12625),

Gene: Jesabah\_12 Start: 9465, Stop: 11210, Start Num: 49

Candidate Starts for Jesabah\_12:

(Start: 49 @9465 has 280 MA's), (63, 9612), (121, 9999), (141, 10125), (149, 10176), (164, 10284), (195, 10578), (201, 10635), (206, 10680), (207, 10689), (208, 10698), (226, 10821), (236, 10899), (237, 10908), (244, 10983), (247, 11019), (252, 11046), (254, 11064), (257, 11088), (265, 11142), (266, 11148), (268, 11160),

Gene: Jillium\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Jillium\_11:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Jiminy\_11 Start: 9312, Stop: 11057, Start Num: 49

Candidate Starts for Jiminy\_11:

(Start: 49 @9312 has 280 MA's), (121, 9846), (141, 9972), (149, 10023), (164, 10131), (195, 10425), (201, 10482), (206, 10527), (207, 10536), (208, 10545), (226, 10668), (236, 10746), (237, 10755), (244, 10830), (247, 10866), (252, 10893), (254, 10911), (257, 10935), (265, 10989), (266, 10995), (268, 11007),

Gene: Jiraiya\_11 Start: 9463, Stop: 11205, Start Num: 49

Candidate Starts for Jiraiya\_11:

(Start: 49 @9463 has 280 MA's), (63, 9610), (121, 9994), (141, 10120), (149, 10171), (164, 10279), (195, 10573), (201, 10630), (206, 10675), (207, 10684), (208, 10693), (226, 10816), (236, 10894), (237, 10903), (244, 10978), (247, 11014), (252, 11041), (254, 11059), (257, 11083), (265, 11137), (266, 11143), (268, 11155),

Gene: Jolie1\_010 Start: 9835, Stop: 11718, Start Num: 14

Candidate Starts for Jolie1\_010:

(7, 9730), (13, 9832), (Start: 14 @9835 has 1 MA's), (Start: 23 @9865 has 1 MA's), (Start: 30 @9898 has 45 MA's), (35, 9931), (41, 9952), (72, 10183), (80, 10270), (89, 10360), (121, 10507), (134, 10600), (140, 10630), (144, 10660), (145, 10663), (164, 10801), (169, 10828), (195, 11095), (202, 11155), (206, 11200), (208, 11218), (213, 11239), (224, 11320), (231, 11368), (240, 11467), (245, 11503), (246, 11506), (247, 11536), (251, 11560), (252, 11563), (257, 11605), (266, 11665),

Gene: Jollymon\_44 Start: 23180, Stop: 24970, Start Num: 30

Candidate Starts for Jollymon\_44:

(17, 23120), (28, 23174), (Start: 30 @23180 has 45 MA's), (112, 23717), (116, 23750), (118, 23762), (138, 23882), (139, 23885), (146, 23942), (170, 24095), (171, 24101), (174, 24128), (177, 24170), (205, 24428), (206, 24431), (214, 24473), (215, 24476), (220, 24530), (221, 24536), (235, 24632), (236, 24647), (237, 24656), (261, 24881), (266, 24917), (268, 24929), (270, 24953),

Gene: JoyceMaria\_12 Start: 11476, Stop: 13254, Start Num: 30

Candidate Starts for JoyceMaria\_12:

(Start: 30 @11476 has 45 MA's), (50, 11542), (68, 11692), (70, 11725), (73, 11755), (86, 11884), (96, 11917), (115, 12013), (131, 12109), (135, 12136), (140, 12163), (141, 12166), (143, 12187), (164, 12334), (181, 12481), (195, 12628), (202, 12688), (203, 12712), (205, 12730), (208, 12751), (213, 12772), (224, 12853), (231, 12901), (237, 12958), (240, 13000), (243, 13027), (246, 13039), (247, 13069), (252, 13096), (256, 13120), (257, 13138), (261, 13162), (265, 13192), (266, 13198),

Gene: KLucky39\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for KLucky39\_12:

(Start: 49 @9757 has 280 MA's), (63, 9904), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Kahve\_11 Start: 9464, Stop: 11212, Start Num: 49

Candidate Starts for Kahve\_11:

(Start: 49 @9464 has 280 MA's), (121, 10001), (141, 10127), (149, 10178), (164, 10286), (195, 10580), (201, 10637), (206, 10682), (207, 10691), (208, 10700), (226, 10823), (236, 10901), (237, 10910), (244, 10985), (247, 11021), (252, 11048), (254, 11066), (257, 11090), (265, 11144), (266, 11150), (268, 11162),

Gene: Kailash\_12 Start: 9766, Stop: 11511, Start Num: 49

Candidate Starts for Kailash\_12:

(Start: 49 @9766 has 280 MA's), (121, 10300), (141, 10426), (149, 10477), (164, 10585), (195, 10879), (201, 10936), (206, 10981), (207, 10990), (208, 10999), (226, 11122), (236, 11200), (237, 11209), (244, 11284), (247, 11320), (252, 11347), (254, 11365), (257, 11389), (265, 11443), (266, 11449), (268, 11461),

Gene: Kaleb\_15 Start: 12528, Stop: 14558, Start Num: 44

Candidate Starts for Kaleb\_15:

(Start: 44 @12528 has 36 MA's), (61, 12672), (64, 12693), (71, 12750), (76, 12777), (84, 12864), (115, 13029), (127, 13101), (149, 13218), (159, 13278), (162, 13296), (164, 13350), (175, 13431), (201, 13704), (202, 13707), (208, 13773), (241, 14031), (247, 14091), (248, 14100), (252, 14118), (256, 14142), (265, 14214), (272, 14262), (280, 14406), (282, 14445), (286, 14502), (287, 14538), (288, 14544),

Gene: Kamiyu\_14 Start: 10985, Stop: 13012, Start Num: 43

Candidate Starts for Kamiyu\_14:

(Start: 43 @10985 has 6 MA's), (Start: 46 @10997 has 65 MA's), (50, 11012), (59, 11090), (61, 11138), (115, 11495), (120, 11519), (149, 11684), (158, 11732), (164, 11804), (175, 11885), (178, 11939), (201, 12158), (202, 12161), (207, 12215), (216, 12263), (224, 12326), (226, 12347), (227, 12350), (247, 12542), (248, 12551), (252, 12569), (254, 12587), (255, 12590), (260, 12632), (265, 12665), (278, 12755), (279, 12788), (282, 12905),

Gene: KarasumaRum\_14 Start: 11554, Stop: 13395, Start Num: 30

Candidate Starts for KarasumaRum\_14:

(Start: 25 @11530 has 2 MA's), (Start: 30 @11554 has 45 MA's), (36, 11587), (54, 11662), (62, 11767), (75, 11869), (115, 12130), (121, 12163), (131, 12232), (141, 12289), (144, 12316), (164, 12469), (167, 12487), (180, 12613), (185, 12652), (195, 12760), (201, 12817), (202, 12820), (206, 12865), (207, 12874), (208, 12883), (219, 12961), (226, 13006), (229, 13027), (237, 13093), (239, 13123), (243, 13162), (247, 13204), (248, 13213), (251, 13228), (252, 13231), (256, 13255), (257, 13273), (263, 13321),

Gene: Karn\_11 Start: 9463, Stop: 11205, Start Num: 49

Candidate Starts for Karn\_11:

(Start: 49 @9463 has 280 MA's), (63, 9610), (121, 9994), (141, 10120), (149, 10171), (164, 10279), (195, 10573), (201, 10630), (206, 10675), (207, 10684), (208, 10693), (226, 10816), (236, 10894), (237, 10903), (244, 10978), (247, 11014), (252, 11041), (254, 11059), (257, 11083), (265, 11137), (266, 11143), (268, 11155),

Gene: Katniss\_12 Start: 9758, Stop: 11503, Start Num: 49

Candidate Starts for Katniss\_12:

(Start: 49 @9758 has 280 MA's), (121, 10292), (141, 10418), (149, 10469), (164, 10577), (195, 10871), (201, 10928), (206, 10973), (207, 10982), (208, 10991), (226, 11114), (236, 11192), (237, 11201), (244, 11276), (247, 11312), (252, 11339), (254, 11357), (257, 11381), (265, 11435), (266, 11441), (268, 11453),

Gene: KayaCho\_10 Start: 9838, Stop: 11730, Start Num: 14

Candidate Starts for KayaCho\_10:

(7, 9733), (13, 9835), (Start: 14 @9838 has 1 MA's), (Start: 23 @9868 has 1 MA's), (Start: 30 @9901 has 45 MA's), (35, 9934), (41, 9955), (72, 10186), (89, 10369), (121, 10516), (134, 10609), (140, 10639), (144, 10669), (145, 10672), (164, 10810), (169, 10837), (195, 11104), (202, 11164), (206, 11209), (213, 11248), (224, 11329), (231, 11377), (240, 11476), (245, 11512), (246, 11515), (247, 11545), (251, 11569), (252, 11572), (257, 11614), (266, 11674),

Gene: Keitherie\_12 Start: 9771, Stop: 11516, Start Num: 49

Candidate Starts for Keitherie\_12:

(Start: 49 @9771 has 280 MA's), (121, 10305), (141, 10431), (149, 10482), (164, 10590), (195, 10884), (201, 10941), (206, 10986), (207, 10995), (208, 11004), (226, 11127), (236, 11205), (237, 11214), (244, 11289), (247, 11325), (252, 11352), (254, 11370), (257, 11394), (265, 11448), (266, 11454), (268, 11466),

Gene: Khan1\_12 Start: 9463, Stop: 11205, Start Num: 49

Candidate Starts for Khan1\_12:

(Start: 49 @9463 has 280 MA's), (63, 9610), (121, 9994), (141, 10120), (149, 10171), (164, 10279), (195, 10573), (201, 10630), (206, 10675), (207, 10684), (208, 10693), (226, 10816), (236, 10894), (237, 10903), (244, 10978), (247, 11014), (252, 11041), (254, 11059), (257, 11083), (265, 11137), (266, 11143), (268, 11155),

Gene: Kheth\_15 Start: 12411, Stop: 14441, Start Num: 44

Candidate Starts for Kheth\_15:

(Start: 44 @12411 has 36 MA's), (61, 12555), (64, 12576), (71, 12633), (84, 12747), (115, 12912), (127, 12984), (149, 13101), (159, 13161), (162, 13179), (164, 13233), (175, 13314), (201, 13587), (202, 13590), (208, 13656), (241, 13914), (247, 13974), (248, 13983), (252, 14001), (256, 14025), (265, 14097), (272, 14145), (280, 14289), (282, 14328), (286, 14385), (287, 14421), (288, 14427),

Gene: Kikipoo\_12 Start: 9754, Stop: 11502, Start Num: 49

Candidate Starts for Kikipoo\_12:

(Start: 49 @9754 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Kimbrough\_12 Start: 9464, Stop: 11212, Start Num: 49

Candidate Starts for Kimbrough\_12:

(Start: 49 @9464 has 280 MA's), (121, 10001), (141, 10127), (149, 10178), (164, 10286), (195, 10580), (201, 10637), (206, 10682), (207, 10691), (208, 10700), (226, 10823), (236, 10901), (237, 10910), (244, 10985), (247, 11021), (252, 11048), (254, 11066), (257, 11090), (265, 11144), (266, 11150), (268, 11162),

Gene: KingTut\_11 Start: 9465, Stop: 11210, Start Num: 49

Candidate Starts for KingTut\_11:

(Start: 49 @9465 has 280 MA's), (121, 9999), (141, 10125), (149, 10176), (164, 10284), (195, 10578), (201, 10635), (206, 10680), (207, 10689), (208, 10698), (226, 10821), (236, 10899), (237, 10908), (244, 10983), (247, 11019), (252, 11046), (254, 11064), (257, 11088), (265, 11142), (266, 11148), (268, 11160),

Gene: KingVeVeVe\_12 Start: 9758, Stop: 11503, Start Num: 49

Candidate Starts for KingVeVeVe\_12:

(Start: 49 @9758 has 280 MA's), (63, 9905), (121, 10292), (141, 10418), (149, 10469), (164, 10577), (195, 10871), (201, 10928), (206, 10973), (207, 10982), (208, 10991), (226, 11114), (236, 11192), (237, 11201), (244, 11276), (247, 11312), (252, 11339), (254, 11357), (257, 11381), (265, 11435), (266, 11441), (268, 11453),

Gene: KingstonB\_44 Start: 22688, Stop: 24478, Start Num: 30

Candidate Starts for KingstonB\_44:

(17, 22628), (28, 22682), (Start: 30 @22688 has 45 MA's), (112, 23225), (116, 23258), (118, 23270), (138, 23390), (139, 23393), (146, 23450), (170, 23603), (171, 23609), (174, 23636), (177, 23678), (205, 23936), (206, 23939), (214, 23981), (215, 23984), (220, 24038), (221, 24044), (235, 24140), (236, 24155), (237, 24164), (261, 24389), (266, 24425), (268, 24437), (270, 24461),

Gene: Kithara\_25 Start: 14593, Stop: 16431, Start Num: 34

Candidate Starts for Kithara\_25:

(Start: 34 @14593 has 1 MA's), (41, 14623), (69, 14836), (101, 15118), (152, 15439), (165, 15559), (177, 15661), (199, 15850), (210, 15946), (214, 15958), (232, 16096), (237, 16141), (249, 16249), (257, 16306), (258, 16312), (262, 16333),

Gene: KlimbOn\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for KlimbOn\_12:

(Start: 49 @9757 has 280 MA's), (63, 9904), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Kloppinator\_12 Start: 9755, Stop: 11500, Start Num: 49

Candidate Starts for Kloppinator\_12:

(Start: 49 @9755 has 280 MA's), (121, 10289), (141, 10415), (149, 10466), (164, 10574), (195, 10868), (201, 10925), (206, 10970), (207, 10979), (208, 10988), (226, 11111), (236, 11189), (237, 11198), (244, 11273), (247, 11309), (252, 11336), (254, 11354), (257, 11378), (265, 11432), (266, 11438), (268, 11450),

Gene: Knocker\_17 Start: 13813, Stop: 15774, Start Num: 10

Candidate Starts for Knocker\_17:

(8, 13765), (Start: 10 @13813 has 1 MA's), (15, 13861), (29, 13918), (41, 13966), (52, 14026), (56, 14041), (60, 14113), (73, 14230), (135, 14641), (137, 14650), (141, 14671), (143, 14692), (144, 14698), (164, 14848), (169, 14875), (178, 14977), (181, 14995), (185, 15034), (190, 15103), (192, 15127), (195, 15142), (205, 15244), (213, 15286), (224, 15367), (226, 15388), (231, 15415), (236, 15463), (237, 15472), (238, 15496), (240, 15514), (242, 15526), (243, 15541), (245, 15550), (246, 15553), (247, 15583), (250, 15601), (252, 15610), (254, 15628), (257, 15652), (266, 15712), (268, 15724),

Gene: Kolhan\_15 Start: 12411, Stop: 14438, Start Num: 44

Candidate Starts for Kolhan\_15:

(Start: 44 @12411 has 36 MA's), (61, 12555), (64, 12576), (71, 12630), (76, 12657), (84, 12744), (115, 12909), (127, 12981), (149, 13098), (159, 13158), (162, 13176), (164, 13230), (175, 13311), (201, 13584), (202, 13587), (208, 13653), (241, 13911), (247, 13971), (248, 13980), (252, 13998), (256, 14022), (265, 14094), (272, 14142), (280, 14286), (282, 14325), (286, 14382), (287, 14418), (288, 14424),

Gene: Kronus\_13 Start: 11609, Stop: 13624, Start Num: 46

Candidate Starts for Kronus\_13:

(Start: 43 @11597 has 6 MA's), (Start: 46 @11609 has 65 MA's), (50, 11624), (59, 11702), (61, 11750), (115, 12107), (120, 12131), (149, 12296), (158, 12344), (164, 12416), (175, 12497), (178, 12551), (201, 12770), (202, 12773), (207, 12827), (216, 12875), (224, 12938), (226, 12959), (227, 12962), (247, 13154), (248, 13163), (252, 13181), (254, 13199), (255, 13202), (260, 13244), (265, 13277), (278, 13367), (279, 13400), (282, 13517),

Gene: Kwadwo\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Kwadwo\_11:

(Start: 49 @9464 has 280 MA's), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Kwksand96\_11 Start: 9310, Stop: 11055, Start Num: 49

Candidate Starts for Kwksand96\_11:

(Start: 49 @9310 has 280 MA's), (121, 9844), (141, 9970), (149, 10021), (164, 10129), (195, 10423), (201, 10480), (206, 10525), (207, 10534), (208, 10543), (226, 10666), (236, 10744), (237, 10753), (244, 10828), (247, 10864), (252, 10891), (254, 10909), (257, 10933), (265, 10987), (266, 10993), (268, 11005),

Gene: Labeouficaum\_11 Start: 9316, Stop: 11061, Start Num: 49

Candidate Starts for Labeouficaum\_11:

(Start: 49 @9316 has 280 MA's), (121, 9850), (141, 9976), (149, 10027), (164, 10135), (195, 10429), (201, 10486), (206, 10531), (207, 10540), (208, 10549), (226, 10672), (236, 10750), (237, 10759), (244, 10834), (247, 10870), (252, 10897), (254, 10915), (257, 10939), (265, 10993), (266, 10999),

(268, 11011),

Gene: Lambano\_11 Start: 10371, Stop: 12158, Start Num: 30

Candidate Starts for Lambano\_11:

(Start: 30 @10371 has 45 MA's), (50, 10437), (68, 10587), (70, 10620), (73, 10650), (96, 10809), (115, 10905), (122, 10944), (131, 11001), (135, 11028), (141, 11058), (143, 11079), (156, 11139), (164, 11226), (181, 11373), (195, 11520), (202, 11580), (203, 11604), (206, 11625), (208, 11643), (213, 11664), (224, 11745), (231, 11793), (237, 11850), (245, 11928), (247, 11961), (252, 11988), (256, 12012), (257, 12030), (261, 12054), (263, 12078), (265, 12084), (266, 12090), (268, 12102),

Gene: Lars\_15 Start: 12528, Stop: 14558, Start Num: 44

Candidate Starts for Lars\_15:

(Start: 44 @12528 has 36 MA's), (61, 12672), (64, 12693), (71, 12750), (84, 12864), (115, 13029), (127, 13101), (149, 13218), (159, 13278), (162, 13296), (164, 13350), (175, 13431), (201, 13704), (202, 13707), (208, 13773), (241, 14031), (247, 14091), (248, 14100), (252, 14118), (256, 14142), (265, 14214), (272, 14262), (280, 14406), (282, 14445), (286, 14502), (287, 14538), (288, 14544),

Gene: Larson\_13 Start: 9774, Stop: 11519, Start Num: 49

Candidate Starts for Larson\_13:

(Start: 49 @9774 has 280 MA's), (121, 10308), (141, 10434), (149, 10485), (164, 10593), (195, 10887), (201, 10944), (206, 10989), (207, 10998), (208, 11007), (226, 11130), (236, 11208), (237, 11217), (244, 11292), (247, 11328), (252, 11355), (254, 11373), (257, 11397), (265, 11451), (266, 11457), (268, 11469),

Gene: LasagnaCat\_12 Start: 9766, Stop: 11511, Start Num: 49

Candidate Starts for LasagnaCat\_12:

(Start: 49 @9766 has 280 MA's), (121, 10300), (141, 10426), (149, 10477), (164, 10585), (195, 10879), (201, 10936), (206, 10981), (207, 10990), (208, 10999), (226, 11122), (236, 11200), (237, 11209), (244, 11284), (247, 11320), (252, 11347), (254, 11365), (257, 11389), (265, 11443), (266, 11449), (268, 11461),

Gene: Lasso\_12 Start: 9757, Stop: 11493, Start Num: 49

Candidate Starts for Lasso\_12:

(Start: 49 @9757 has 280 MA's), (63, 9904), (121, 10282), (141, 10408), (149, 10459), (164, 10567), (195, 10861), (201, 10918), (206, 10963), (207, 10972), (208, 10981), (226, 11104), (236, 11182), (237, 11191), (244, 11266), (247, 11302), (252, 11329), (254, 11347), (257, 11371), (265, 11425), (266, 11431), (268, 11443),

Gene: Laurie\_15 Start: 12409, Stop: 14436, Start Num: 44

Candidate Starts for Laurie\_15:

(Start: 44 @12409 has 36 MA's), (61, 12553), (64, 12574), (71, 12628), (84, 12742), (115, 12907), (127, 12979), (149, 13096), (159, 13156), (162, 13174), (164, 13228), (175, 13309), (201, 13582), (202, 13585), (208, 13651), (241, 13909), (247, 13969), (248, 13978), (252, 13996), (256, 14020), (265, 14092), (272, 14140), (280, 14284), (282, 14323), (286, 14380), (287, 14416), (288, 14422),

Gene: LeeLot\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for LeeLot\_12:

(Start: 49 @9757 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Lego3393\_12 Start: 9755, Stop: 11500, Start Num: 49

Candidate Starts for Lego3393\_12:

(Start: 49 @9755 has 280 MA's), (121, 10289), (141, 10415), (149, 10466), (164, 10574), (195, 10868), (201, 10925), (206, 10970), (207, 10979), (208, 10988), (226, 11111), (236, 11189), (237, 11198), (244, 11273), (247, 11309), (252, 11336), (254, 11354), (257, 11378), (265, 11432), (266, 11438), (268, 11450),

Gene: Legolas\_11 Start: 9465, Stop: 11207, Start Num: 49

Candidate Starts for Legolas\_11:

(Start: 49 @9465 has 280 MA's), (63, 9612), (121, 9996), (141, 10122), (149, 10173), (164, 10281), (195, 10575), (201, 10632), (206, 10677), (207, 10686), (208, 10695), (226, 10818), (236, 10896), (237, 10905), (244, 10980), (247, 11016), (252, 11043), (254, 11061), (257, 11085), (265, 11139), (266, 11145), (268, 11157),

Gene: Lehmann\_12 Start: 9307, Stop: 11052, Start Num: 49

Candidate Starts for Lehmann\_12:

(Start: 49 @9307 has 280 MA's), (63, 9454), (121, 9841), (141, 9967), (149, 10018), (164, 10126), (195, 10420), (201, 10477), (206, 10522), (207, 10531), (208, 10540), (226, 10663), (236, 10741), (237, 10750), (244, 10825), (247, 10861), (252, 10888), (254, 10906), (257, 10930), (265, 10984), (266, 10990), (268, 11002),

Gene: LeiMonet\_12 Start: 9460, Stop: 11205, Start Num: 49

Candidate Starts for LeiMonet\_12:

(Start: 49 @9460 has 280 MA's), (63, 9607), (121, 9994), (141, 10120), (149, 10171), (164, 10279), (195, 10573), (201, 10630), (206, 10675), (207, 10684), (208, 10693), (226, 10816), (236, 10894), (237, 10903), (244, 10978), (247, 11014), (252, 11041), (254, 11059), (257, 11083), (265, 11137), (266, 11143), (268, 11155),

Gene: LemonSlice\_12 Start: 9465, Stop: 11213, Start Num: 49

Candidate Starts for LemonSlice\_12:

(Start: 49 @9465 has 280 MA's), (121, 10002), (141, 10128), (149, 10179), (164, 10287), (195, 10581), (201, 10638), (206, 10683), (207, 10692), (208, 10701), (226, 10824), (236, 10902), (237, 10911), (244, 10986), (247, 11022), (252, 11049), (254, 11067), (257, 11091), (265, 11145), (266, 11151), (268, 11163),

Gene: Lephleur\_15 Start: 12411, Stop: 14438, Start Num: 44

Candidate Starts for Lephleur\_15:

(Start: 44 @12411 has 36 MA's), (61, 12555), (64, 12576), (71, 12630), (76, 12657), (84, 12744), (115, 12909), (127, 12981), (149, 13098), (159, 13158), (162, 13176), (164, 13230), (175, 13311), (201, 13584), (202, 13587), (208, 13653), (241, 13911), (247, 13971), (248, 13980), (252, 13998), (256, 14022), (265, 14094), (272, 14142), (280, 14286), (282, 14325), (286, 14382), (287, 14418), (288, 14424),

Gene: LestyG\_14 Start: 11030, Stop: 13045, Start Num: 46

Candidate Starts for LestyG\_14:

(Start: 46 @11030 has 65 MA's), (50, 11045), (59, 11123), (61, 11171), (115, 11528), (120, 11552), (149, 11717), (158, 11765), (164, 11837), (175, 11918), (178, 11972), (201, 12191), (202, 12194), (207, 12248), (216, 12296), (224, 12359), (226, 12380), (227, 12383), (247, 12575), (248, 12584), (252, 12602), (254, 12620), (255, 12623), (260, 12665), (265, 12698), (278, 12788), (279, 12821), (282, 12938),

Gene: Ligma\_11 Start: 9837, Stop: 11540, Start Num: 46

Candidate Starts for Ligma\_11:

(Start: 46 @9837 has 65 MA's), (61, 9972), (90, 10188), (98, 10209), (115, 10284), (125, 10347), (143, 10446), (156, 10506), (166, 10605), (195, 10884), (201, 10941), (208, 11007), (224, 11109), (226, 11130), (229, 11148), (241, 11265), (247, 11325), (252, 11352), (256, 11376), (259, 11412), (265, 11448), (266, 11454), (277, 11529),

Gene: LilMcDreamy\_13 Start: 12145, Stop: 13986, Start Num: 30

Candidate Starts for LilMcDreamy\_13:

(Start: 30 @12145 has 45 MA's), (36, 12181), (41, 12199), (50, 12232), (57, 12271), (58, 12298), (88, 12613), (101, 12649), (115, 12724), (121, 12757), (131, 12826), (134, 12850), (135, 12853), (137, 12862), (140, 12880), (143, 12904), (164, 13063), (168, 13084), (185, 13246), (191, 13321), (195, 13354), (201, 13411), (202, 13414), (207, 13465), (208, 13474), (218, 13540), (226, 13597), (237, 13684), (244, 13759), (246, 13765), (247, 13795), (252, 13822), (257, 13864), (261, 13888), (268, 13936),

Gene: LilSmirk\_15 Start: 12411, Stop: 14438, Start Num: 44

Candidate Starts for LilSmirk\_15:

(Start: 44 @12411 has 36 MA's), (61, 12555), (64, 12576), (71, 12630), (76, 12657), (84, 12744), (115, 12909), (127, 12981), (149, 13098), (159, 13158), (162, 13176), (164, 13230), (175, 13311), (201, 13584), (202, 13587), (208, 13653), (241, 13911), (247, 13971), (248, 13980), (252, 13998), (256, 14022), (265, 14094), (272, 14142), (280, 14286), (282, 14325), (286, 14382), (287, 14418), (288, 14424),

Gene: LittleDigger\_11 Start: 10372, Stop: 12165, Start Num: 30

Candidate Starts for LittleDigger\_11:

(Start: 30 @10372 has 45 MA's), (50, 10438), (68, 10588), (70, 10621), (73, 10651), (86, 10783), (96, 10816), (115, 10912), (122, 10951), (131, 11008), (135, 11035), (141, 11065), (143, 11086), (156, 11146), (164, 11233), (181, 11380), (195, 11527), (202, 11587), (203, 11611), (206, 11632), (208, 11650), (213, 11671), (224, 11752), (231, 11800), (237, 11857), (245, 11935), (247, 11968), (252, 11995), (256, 12019), (257, 12037), (261, 12061), (263, 12085), (265, 12091), (266, 12097), (268, 12109),

Gene: LittleMinkey\_18 Start: 10995, Stop: 12821, Start Num: 32

Candidate Starts for LittleMinkey\_18:

(16, 10929), (Start: 18 @10932 has 1 MA's), (20, 10944), (26, 10971), (Start: 32 @10995 has 2 MA's), (38, 11028), (50, 11070), (51, 11082), (89, 11454), (101, 11487), (121, 11592), (135, 11688), (140, 11715), (164, 11895), (185, 12078), (188, 12120), (195, 12186), (201, 12243), (202, 12246), (213, 12330), (226, 12432), (229, 12453), (237, 12519), (242, 12573), (243, 12588), (247, 12630), (252, 12657), (256, 12681), (257, 12699), (265, 12753), (268, 12771),

Gene: LittleMunchkin\_12 Start: 11125, Stop: 12825, Start Num: 46

Candidate Starts for LittleMunchkin\_12:

(Start: 46 @11125 has 65 MA's), (61, 11260), (98, 11494), (115, 11569), (122, 11605), (127, 11641), (143, 11731), (156, 11791), (166, 11890), (195, 12169), (201, 12226), (202, 12229), (203, 12253), (208, 12292), (224, 12394), (226, 12415), (229, 12433), (241, 12550), (247, 12610), (252, 12637), (256, 12661), (260, 12700),

Gene: LizLemon\_15 Start: 12528, Stop: 14558, Start Num: 44

Candidate Starts for LizLemon\_15:

(Start: 44 @12528 has 36 MA's), (61, 12672), (64, 12693), (71, 12750), (84, 12864), (115, 13029), (127, 13101), (149, 13218), (159, 13278), (162, 13296), (164, 13350), (175, 13431), (201, 13704), (202, 13707), (208, 13773), (241, 14031), (247, 14091), (248, 14100), (252, 14118), (256, 14142), (265, 14214), (272, 14262), (280, 14406), (282, 14445), (286, 14502), (287, 14538), (288, 14544),

Gene: Lolalove\_12 Start: 11473, Stop: 13251, Start Num: 30

Candidate Starts for Lolalove\_12:

(Start: 30 @11473 has 45 MA's), (50, 11539), (68, 11689), (70, 11722), (73, 11752), (86, 11881), (96, 11914), (115, 12010), (131, 12106), (135, 12133), (140, 12160), (141, 12163), (143, 12184), (164, 12331), (181, 12478), (195, 12625), (202, 12685), (203, 12709), (205, 12727), (208, 12748), (213, 12769), (224, 12850), (231, 12898), (237, 12955), (240, 12997), (243, 13024), (246, 13036), (247, 13066), (252, 13093), (256, 13117), (257, 13135), (261, 13159), (265, 13189), (266, 13195),

Gene: Longacauda\_11 Start: 9463, Stop: 11205, Start Num: 49

Candidate Starts for Longacauda\_11:

(Start: 49 @9463 has 280 MA's), (63, 9610), (121, 9994), (141, 10120), (149, 10171), (164, 10279), (195, 10573), (201, 10630), (206, 10675), (207, 10684), (208, 10693), (226, 10816), (236, 10894), (237, 10903), (244, 10978), (247, 11014), (252, 11041), (254, 11059), (257, 11083), (265, 11137), (266, 11143), (268, 11155),

Gene: Lopsy\_11 Start: 9307, Stop: 11049, Start Num: 49

Candidate Starts for Lopsy\_11:

(Start: 49 @9307 has 280 MA's), (63, 9454), (121, 9838), (141, 9964), (149, 10015), (164, 10123), (195, 10417), (201, 10474), (206, 10519), (207, 10528), (208, 10537), (226, 10660), (236, 10738), (237, 10747), (244, 10822), (247, 10858), (252, 10885), (254, 10903), (257, 10927), (265, 10981), (266, 10987), (268, 10999),

Gene: LostAndPhound\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for LostAndPhound\_11:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: LuckyMarjie\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for LuckyMarjie\_11:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Lulumae\_11 Start: 9465, Stop: 11210, Start Num: 49

Candidate Starts for Lulumae\_11:

(Start: 49 @9465 has 280 MA's), (63, 9612), (121, 9999), (141, 10125), (149, 10176), (164, 10284), (195, 10578), (201, 10635), (206, 10680), (207, 10689), (208, 10698), (226, 10821), (236, 10899), (237, 10908), (244, 10983), (247, 11019), (252, 11046), (254, 11064), (257, 11088), (265, 11142), (266, 11148), (268, 11160),

Gene: Lulwa\_12 Start: 9757, Stop: 11505, Start Num: 49

Candidate Starts for Lulwa\_12:

(Start: 49 @9757 has 280 MA's), (121, 10294), (141, 10420), (149, 10471), (164, 10579), (195, 10873), (201, 10930), (206, 10975), (207, 10984), (208, 10993), (226, 11116), (236, 11194), (237, 11203), (244, 11278), (247, 11314), (252, 11341), (254, 11359), (257, 11383), (265, 11437), (266, 11443), (268, 11455),

Gene: Lumine\_11 Start: 9452, Stop: 11197, Start Num: 49

Candidate Starts for Lumine\_11:

(Start: 49 @9452 has 280 MA's), (63, 9599), (121, 9986), (141, 10112), (149, 10163), (164, 10271), (195, 10565), (201, 10622), (206, 10667), (207, 10676), (208, 10685), (226, 10808), (236, 10886), (237, 10895), (244, 10970), (247, 11006), (252, 11033), (254, 11051), (257, 11075), (265, 11129), (266, 11135), (268, 11147),

Gene: MRabcd\_11 Start: 9461, Stop: 11206, Start Num: 49

Candidate Starts for MRabcd\_11:

(Start: 49 @9461 has 280 MA's), (63, 9608), (121, 9995), (141, 10121), (149, 10172), (164, 10280), (195, 10574), (201, 10631), (206, 10676), (207, 10685), (208, 10694), (226, 10817), (236, 10895), (237, 10904), (244, 10979), (247, 11015), (252, 11042), (254, 11060), (257, 11084), (265, 11138), (266, 11144), (268, 11156),

Gene: Mag7\_11 Start: 9316, Stop: 11061, Start Num: 49

Candidate Starts for Mag7\_11:

(Start: 49 @9316 has 280 MA's), (121, 9850), (141, 9976), (149, 10027), (164, 10135), (195, 10429), (201, 10486), (206, 10531), (207, 10540), (208, 10549), (226, 10672), (236, 10750), (237, 10759), (244, 10834), (247, 10870), (252, 10897), (254, 10915), (257, 10939), (265, 10993), (266, 10999), (268, 11011),

Gene: Magic8\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for Magic8\_12:

(Start: 49 @9754 has 280 MA's), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: Magpie\_12 Start: 11631, Stop: 13409, Start Num: 30

Candidate Starts for Magpie\_12:

(Start: 30 @11631 has 45 MA's), (50, 11697), (68, 11847), (70, 11880), (73, 11910), (86, 12039), (115, 12168), (122, 12207), (131, 12264), (135, 12291), (140, 12318), (141, 12321), (143, 12342), (164, 12489), (181, 12636), (195, 12783), (202, 12843), (203, 12867), (205, 12885), (208, 12906), (213, 12927), (224, 13008), (231, 13056), (233, 13074), (237, 13113), (240, 13155), (243, 13182), (246, 13194), (247, 13224), (252, 13251), (256, 13275), (257, 13293), (261, 13317), (265, 13347), (266, 13353),

Gene: Makar\_45 Start: 23158, Stop: 24975, Start Num: 30

Candidate Starts for Makar\_45:

(17, 23098), (28, 23152), (Start: 30 @23158 has 45 MA's), (50, 23251), (112, 23707), (116, 23740), (118, 23752), (122, 23776), (138, 23872), (139, 23875), (146, 23932), (170, 24085), (171, 24091), (174, 24118), (177, 24160), (205, 24418), (206, 24421), (214, 24463), (215, 24466), (219, 24517), (220, 24520), (228, 24574), (231, 24589), (235, 24622), (237, 24646), (248, 24787), (266, 24907), (268, 24919),

Gene: MakoManhole\_13 Start: 11332, Stop: 13014, Start Num: 46

Candidate Starts for MakoManhole\_13:

(Start: 46 @11332 has 65 MA's), (59, 11419), (61, 11467), (85, 11656), (115, 11767), (120, 11791), (127, 11839), (143, 11929), (166, 12088), (168, 12097), (174, 12145), (181, 12223), (184, 12256), (188, 12304), (195, 12370), (200, 12418), (201, 12427), (202, 12430), (209, 12502), (215, 12520), (219, 12571), (226, 12616), (228, 12628), (231, 12643), (243, 12769), (247, 12811), (251, 12835), (252, 12838), (254, 12856),

Gene: Mana\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Mana\_11:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Manad\_11 Start: 9308, Stop: 11053, Start Num: 49

Candidate Starts for Manad\_11:

(Start: 49 @9308 has 280 MA's), (63, 9455), (121, 9842), (141, 9968), (149, 10019), (164, 10127), (195, 10421), (201, 10478), (206, 10523), (207, 10532), (208, 10541), (226, 10664), (236, 10742), (237, 10751), (244, 10826), (247, 10862), (252, 10889), (254, 10907), (257, 10931), (265, 10985), (266, 10991), (268, 11003),

Gene: Mao1\_9 Start: 8906, Stop: 10672, Start Num: 48

Candidate Starts for Mao1\_9:

(Start: 22 @8789 has 1 MA's), (27, 8816), (Start: 48 @8906 has 10 MA's), (83, 9263), (96, 9338), (105, 9374), (113, 9413), (114, 9428), (120, 9464), (126, 9506), (127, 9512), (151, 9650), (186, 9959), (197, 10061), (200, 10097), (201, 10106), (211, 10190), (221, 10250), (224, 10265), (251, 10505), (253, 10523), (254, 10526), (267, 10616),

Gene: Mariokart\_11 Start: 9894, Stop: 11576, Start Num: 46

Candidate Starts for Mariokart\_11:

(37, 9858), (38, 9861), (39, 9870), (Start: 46 @9894 has 65 MA's), (61, 10029), (79, 10143), (90, 10227), (103, 10263), (115, 10323), (143, 10485), (156, 10545), (166, 10644), (172, 10689), (188, 10857), (195, 10923), (201, 10980), (208, 11046), (213, 11067), (215, 11073), (219, 11124), (224, 11148), (226, 11169), (229, 11187), (231, 11196), (237, 11253), (244, 11328), (247, 11364), (250, 11382), (252, 11391),

Gene: Marley1013\_14 Start: 11810, Stop: 13825, Start Num: 46

Candidate Starts for Marley1013\_14:

(Start: 46 @11810 has 65 MA's), (50, 11825), (59, 11903), (61, 11951), (115, 12308), (120, 12332), (149, 12497), (158, 12545), (164, 12617), (175, 12698), (178, 12752), (201, 12971), (202, 12974), (207, 13028), (216, 13076), (224, 13139), (226, 13160), (227, 13163), (247, 13355), (248, 13364), (252, 13382), (254, 13400), (255, 13403), (260, 13445), (265, 13478), (282, 13718),

Gene: Marlia\_14 Start: 11012, Stop: 13027, Start Num: 46

Candidate Starts for Marlia\_14:

(Start: 43 @11000 has 6 MA's), (Start: 46 @11012 has 65 MA's), (50, 11027), (59, 11105), (61, 11153), (115, 11510), (120, 11534), (149, 11699), (158, 11747), (164, 11819), (175, 11900), (178, 11954), (201, 12173), (202, 12176), (207, 12230), (216, 12278), (224, 12341), (226, 12362), (227, 12365), (247, 12557), (248, 12566), (252, 12584), (254, 12602), (255, 12605), (260, 12647), (265, 12680), (278, 12770), (279, 12803), (282, 12920),

Gene: Maru\_11 Start: 9462, Stop: 11207, Start Num: 49

Candidate Starts for Maru\_11:

(Start: 49 @9462 has 280 MA's), (63, 9609), (121, 9996), (141, 10122), (149, 10173), (164, 10281), (195, 10575), (201, 10632), (206, 10677), (207, 10686), (208, 10695), (226, 10818), (236, 10896), (237, 10905), (244, 10980), (247, 11016), (252, 11043), (254, 11061), (257, 11085), (265, 11139), (266, 11145), (268, 11157),

Gene: Mask\_10 Start: 8907, Stop: 10673, Start Num: 48

Candidate Starts for Mask\_10:

(Start: 22 @8790 has 1 MA's), (27, 8817), (Start: 48 @8907 has 10 MA's), (83, 9264), (96, 9339), (105, 9375), (113, 9414), (114, 9429), (120, 9465), (126, 9507), (127, 9513), (151, 9651), (186, 9960), (197,

10062), (200, 10098), (201, 10107), (211, 10191), (221, 10251), (224, 10266), (251, 10506), (253, 10524), (254, 10527), (267, 10617),

Gene: Maskar\_11 Start: 9304, Stop: 11049, Start Num: 49

Candidate Starts for Maskar\_11:

(Start: 49 @9304 has 280 MA's), (121, 9838), (141, 9964), (149, 10015), (164, 10123), (195, 10417), (201, 10474), (206, 10519), (207, 10528), (208, 10537), (226, 10660), (236, 10738), (237, 10747), (244, 10822), (247, 10858), (252, 10885), (254, 10903), (257, 10927), (265, 10981), (266, 10987), (268, 10999),

Gene: MasterPo\_15 Start: 12411, Stop: 14438, Start Num: 44

Candidate Starts for MasterPo\_15:

(Start: 44 @12411 has 36 MA's), (61, 12555), (64, 12576), (71, 12630), (76, 12657), (84, 12744), (115, 12909), (127, 12981), (149, 13098), (159, 13158), (162, 13176), (164, 13230), (175, 13311), (201, 13584), (202, 13587), (208, 13653), (241, 13911), (247, 13971), (248, 13980), (252, 13998), (256, 14022), (265, 14094), (272, 14142), (280, 14286), (282, 14325), (286, 14382), (287, 14418), (288, 14424),

Gene: Matalotodo\_12 Start: 9758, Stop: 11503, Start Num: 49

Candidate Starts for Matalotodo\_12:

(Start: 49 @9758 has 280 MA's), (121, 10292), (141, 10418), (149, 10469), (164, 10577), (195, 10871), (201, 10928), (206, 10973), (207, 10982), (208, 10991), (226, 11114), (236, 11192), (237, 11201), (244, 11276), (247, 11312), (252, 11339), (254, 11357), (257, 11381), (265, 11435), (266, 11441), (268, 11453),

Gene: Mcshane\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Mcshane\_11:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Mecca\_11 Start: 9461, Stop: 11206, Start Num: 49

Candidate Starts for Mecca\_11:

(Start: 49 @9461 has 280 MA's), (63, 9608), (121, 9995), (141, 10121), (149, 10172), (164, 10280), (195, 10574), (201, 10631), (206, 10676), (207, 10685), (208, 10694), (226, 10817), (236, 10895), (237, 10904), (244, 10979), (247, 11015), (252, 11042), (254, 11060), (257, 11084), (265, 11138), (266, 11144), (268, 11156),

Gene: Megabear\_9 Start: 10537, Stop: 12588, Start Num: 48

Candidate Starts for Megabear\_9:

(Start: 48 @10537 has 10 MA's), (50, 10549), (52, 10576), (59, 10630), (61, 10678), (74, 10783), (Start: 82 @10888 has 1 MA's), (96, 10960), (124, 11095), (127, 11110), (132, 11134), (136, 11164), (144, 11209), (147, 11230), (163, 11338), (164, 11356), (173, 11425), (174, 11431), (176, 11455), (183, 11524), (195, 11650), (199, 11683), (201, 11707), (204, 11737), (208, 11773), (215, 11800), (224, 11875), (229, 11914), (237, 11980), (244, 12055), (251, 12115), (265, 12214), (266, 12220), (275, 12283), (281, 12439), (284, 12490), (285, 12496), (289, 12580),

Gene: Megamind20\_12 Start: 9465, Stop: 11210, Start Num: 49

Candidate Starts for Megamind20\_12:

(Start: 49 @9465 has 280 MA's), (63, 9612), (121, 9999), (141, 10125), (149, 10176), (164, 10284), (195, 10578), (201, 10635), (206, 10680), (207, 10689), (208, 10698), (226, 10821), (236, 10899), (237, 10908), (244, 10983), (247, 11019), (252, 11046), (254, 11064), (257, 11088), (265, 11142),

(266, 11148), (268, 11160),

Gene: Megatron\_12 Start: 9754, Stop: 11502, Start Num: 49

Candidate Starts for Megatron\_12:

(Start: 49 @9754 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Melc17\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for Melc17\_12:

(Start: 49 @9754 has 280 MA's), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (169, 10600), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: MelsMeow\_11 Start: 9310, Stop: 11055, Start Num: 49

Candidate Starts for MelsMeow\_11:

(Start: 49 @9310 has 280 MA's), (121, 9844), (141, 9970), (149, 10021), (164, 10129), (195, 10423), (201, 10480), (206, 10525), (207, 10534), (208, 10543), (226, 10666), (236, 10744), (237, 10753), (244, 10828), (247, 10864), (252, 10891), (254, 10909), (257, 10933), (265, 10987), (266, 10993), (268, 11005),

Gene: Mesh1\_12 Start: 9757, Stop: 11505, Start Num: 49

Candidate Starts for Mesh1\_12:

(Start: 49 @9757 has 280 MA's), (121, 10294), (141, 10420), (149, 10471), (164, 10579), (195, 10873), (201, 10930), (206, 10975), (207, 10984), (208, 10993), (226, 11116), (236, 11194), (237, 11203), (244, 11278), (247, 11314), (252, 11341), (254, 11359), (257, 11383), (265, 11437), (266, 11443), (268, 11455),

Gene: Mesmerelda\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Mesmerelda\_11:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: MichaelPhcott\_11 Start: 9316, Stop: 11061, Start Num: 49

Candidate Starts for MichaelPhcott\_11:

(Start: 49 @9316 has 280 MA's), (121, 9850), (141, 9976), (149, 10027), (164, 10135), (195, 10429), (201, 10486), (206, 10531), (207, 10540), (208, 10549), (226, 10672), (236, 10750), (237, 10759), (244, 10834), (247, 10870), (252, 10897), (254, 10915), (257, 10939), (265, 10993), (266, 10999), (268, 11011),

Gene: Mikota\_12 Start: 9755, Stop: 11500, Start Num: 49

Candidate Starts for Mikota\_12:

(Start: 49 @9755 has 280 MA's), (63, 9902), (121, 10289), (141, 10415), (149, 10466), (164, 10574), (195, 10868), (201, 10925), (206, 10970), (207, 10979), (208, 10988), (226, 11111), (236, 11189), (237, 11198), (244, 11273), (247, 11309), (252, 11336), (254, 11354), (257, 11378), (265, 11432), (266, 11438), (268, 11450),

Gene: MiniBoss\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for MiniBoss\_12:

(Start: 49 @9757 has 280 MA's), (63, 9904), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: MitKao\_12 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for MitKao\_12:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Mithril\_12 Start: 11476, Stop: 13254, Start Num: 30

Candidate Starts for Mithril\_12:

(Start: 30 @11476 has 45 MA's), (50, 11542), (68, 11692), (70, 11725), (73, 11755), (86, 11884), (96, 11917), (115, 12013), (131, 12109), (135, 12136), (140, 12163), (141, 12166), (143, 12187), (164, 12334), (181, 12481), (195, 12628), (202, 12688), (203, 12712), (205, 12730), (208, 12751), (213, 12772), (224, 12853), (231, 12901), (237, 12958), (240, 13000), (243, 13027), (246, 13039), (247, 13069), (252, 13096), (256, 13120), (257, 13138), (261, 13162), (265, 13192), (266, 13198),

Gene: MmasiCarm\_14 Start: 11026, Stop: 13038, Start Num: 46

Candidate Starts for MmasiCarm\_14:

(Start: 43 @11014 has 6 MA's), (Start: 46 @11026 has 65 MA's), (50, 11041), (59, 11119), (61, 11167), (115, 11521), (120, 11545), (149, 11710), (158, 11758), (164, 11830), (175, 11911), (178, 11965), (201, 12184), (202, 12187), (207, 12241), (216, 12289), (224, 12352), (226, 12373), (227, 12376), (247, 12568), (248, 12577), (252, 12595), (254, 12613), (255, 12616), (260, 12658), (265, 12691), (278, 12781), (279, 12814), (282, 12931),

Gene: Morgushi\_12 Start: 9462, Stop: 11207, Start Num: 49

Candidate Starts for Morgushi\_12:

(Start: 49 @9462 has 280 MA's), (63, 9609), (121, 9996), (141, 10122), (149, 10173), (164, 10281), (195, 10575), (201, 10632), (206, 10677), (207, 10686), (208, 10695), (226, 10818), (236, 10896), (237, 10905), (244, 10980), (247, 11016), (252, 11043), (254, 11061), (257, 11085), (265, 11139), (266, 11145), (268, 11157),

Gene: Mortcellus\_13 Start: 11664, Stop: 13679, Start Num: 46

Candidate Starts for Mortcellus\_13:

(Start: 43 @11652 has 6 MA's), (Start: 46 @11664 has 65 MA's), (50, 11679), (59, 11757), (61, 11805), (115, 12162), (120, 12186), (149, 12351), (158, 12399), (164, 12471), (175, 12552), (178, 12606), (201, 12825), (202, 12828), (207, 12882), (216, 12930), (224, 12993), (226, 13014), (227, 13017), (247, 13209), (248, 13218), (252, 13236), (254, 13254), (255, 13257), (260, 13299), (265, 13332), (278, 13422), (279, 13455), (282, 13572),

Gene: Morty\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for Morty\_12:

(Start: 49 @9754 has 280 MA's), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: Morty007\_14 Start: 11810, Stop: 13825, Start Num: 46

Candidate Starts for Morty007\_14:

(Start: 46 @11810 has 65 MA's), (50, 11825), (59, 11903), (61, 11951), (115, 12308), (120, 12332), (149, 12497), (158, 12545), (164, 12617), (175, 12698), (178, 12752), (201, 12971), (202, 12974), (207, 13028), (216, 13076), (224, 13139), (226, 13160), (227, 13163), (247, 13355), (248, 13364), (252, 13382), (254, 13400), (255, 13403), (260, 13445), (265, 13478), (282, 13718),

Gene: Mosaic\_11 Start: 9465, Stop: 11210, Start Num: 49

Candidate Starts for Mosaic\_11:

(Start: 49 @9465 has 280 MA's), (63, 9612), (121, 9999), (141, 10125), (149, 10176), (164, 10284), (195, 10578), (201, 10635), (206, 10680), (207, 10689), (208, 10698), (226, 10821), (236, 10899), (237, 10908), (244, 10983), (247, 11019), (252, 11046), (254, 11064), (257, 11088), (265, 11142), (266, 11148), (268, 11160),

Gene: MossRose\_13 Start: 11332, Stop: 13014, Start Num: 46

Candidate Starts for MossRose\_13:

(Start: 46 @11332 has 65 MA's), (59, 11419), (61, 11467), (85, 11656), (115, 11767), (120, 11791), (127, 11839), (143, 11929), (166, 12088), (168, 12097), (174, 12145), (181, 12223), (184, 12256), (188, 12304), (195, 12370), (200, 12418), (201, 12427), (202, 12430), (209, 12502), (215, 12520), (219, 12571), (226, 12616), (228, 12628), (231, 12643), (243, 12769), (247, 12811), (251, 12835), (252, 12838), (254, 12856),

Gene: MrPhizzler\_12 Start: 9460, Stop: 11202, Start Num: 49

Candidate Starts for MrPhizzler\_12:

(Start: 49 @9460 has 280 MA's), (63, 9607), (121, 9991), (141, 10117), (149, 10168), (164, 10276), (195, 10570), (201, 10627), (206, 10672), (207, 10681), (208, 10690), (226, 10813), (236, 10891), (237, 10900), (244, 10975), (247, 11011), (252, 11038), (254, 11056), (257, 11080), (265, 11134), (266, 11140), (268, 11152),

Gene: Mudslide\_12 Start: 11724, Stop: 13502, Start Num: 30

Candidate Starts for Mudslide\_12:

(Start: 30 @11724 has 45 MA's), (50, 11790), (68, 11940), (70, 11973), (73, 12003), (86, 12132), (96, 12165), (115, 12261), (131, 12357), (135, 12384), (140, 12411), (141, 12414), (143, 12435), (164, 12582), (181, 12729), (195, 12876), (202, 12936), (203, 12960), (205, 12978), (208, 12999), (213, 13020), (224, 13101), (231, 13149), (237, 13206), (240, 13248), (243, 13275), (246, 13287), (247, 13317), (252, 13344), (256, 13368), (257, 13386), (261, 13410), (265, 13440), (266, 13446),

Gene: Mulan\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Mulan\_11:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Mulaychimus\_14 Start: 11003, Stop: 13018, Start Num: 46

Candidate Starts for Mulaychimus\_14:

(Start: 46 @11003 has 65 MA's), (50, 11018), (59, 11096), (61, 11144), (115, 11501), (120, 11525), (149, 11690), (158, 11738), (164, 11810), (175, 11891), (178, 11945), (201, 12164), (202, 12167), (207, 12221), (216, 12269), (224, 12332), (226, 12353), (227, 12356), (247, 12548), (248, 12557), (252, 12575), (254, 12593), (255, 12596), (260, 12638), (265, 12671), (278, 12761), (279, 12794), (282, 12911),

Gene: Murdoc\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Murdoc\_12:

(Start: 49 @9757 has 280 MA's), (63, 9904), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Mutante\_11 Start: 9461, Stop: 11206, Start Num: 49

Candidate Starts for Mutante\_11:

(Start: 49 @9461 has 280 MA's), (121, 9995), (141, 10121), (149, 10172), (164, 10280), (195, 10574), (201, 10631), (206, 10676), (207, 10685), (208, 10694), (226, 10817), (236, 10895), (237, 10904), (244, 10979), (247, 11015), (252, 11042), (254, 11060), (257, 11084), (265, 11138), (266, 11144), (268, 11156),

Gene: Mysterious\_13 Start: 11644, Stop: 13491, Start Num: 30

Candidate Starts for Mysterious\_13:

(Start: 30 @11644 has 45 MA's), (36, 11677), (50, 11728), (62, 11857), (69, 11896), (115, 12226), (121, 12259), (131, 12328), (135, 12355), (137, 12364), (140, 12382), (143, 12406), (144, 12412), (164, 12565), (178, 12694), (185, 12748), (191, 12823), (195, 12856), (201, 12913), (202, 12916), (206, 12961), (207, 12970), (208, 12979), (213, 13000), (219, 13057), (226, 13102), (229, 13123), (243, 13258), (244, 13264), (247, 13300), (251, 13324), (252, 13327), (256, 13351), (257, 13369),

Gene: NHagos\_11 Start: 9813, Stop: 11498, Start Num: 46

Candidate Starts for NHagos\_11:

(Start: 46 @9813 has 65 MA's), (59, 9900), (61, 9948), (100, 10185), (115, 10254), (127, 10326), (143, 10416), (158, 10491), (166, 10575), (168, 10584), (180, 10707), (188, 10788), (195, 10854), (201, 10911), (202, 10914), (209, 10986), (215, 11004), (216, 11016), (226, 11100), (228, 11112), (231, 11127), (243, 11253), (247, 11295), (248, 11304), (252, 11322), (256, 11346), (274, 11484),

Gene: Nacho\_0012 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Nacho\_0012:

(Start: 49 @9757 has 280 MA's), (63, 9904), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Nanao\_11 Start: 10371, Stop: 12158, Start Num: 30

Candidate Starts for Nanao\_11:

(Start: 30 @10371 has 45 MA's), (50, 10437), (68, 10587), (70, 10620), (73, 10650), (96, 10809), (115, 10905), (122, 10944), (131, 11001), (135, 11028), (141, 11058), (143, 11079), (156, 11139), (164, 11226), (181, 11373), (195, 11520), (202, 11580), (203, 11604), (206, 11625), (208, 11643), (213, 11664), (224, 11745), (231, 11793), (237, 11850), (245, 11928), (247, 11961), (252, 11988), (256, 12012), (257, 12030), (261, 12054), (263, 12078), (265, 12084), (266, 12090), (268, 12102),

Gene: Nangang\_13 Start: 11390, Stop: 13231, Start Num: 30

Candidate Starts for Nangang\_13:

(Start: 25 @11366 has 2 MA's), (Start: 30 @11390 has 45 MA's), (36, 11423), (50, 11474), (54, 11498), (62, 11603), (76, 11708), (115, 11966), (121, 11999), (131, 12068), (141, 12125), (144, 12152), (164, 12305), (180, 12449), (185, 12488), (195, 12596), (201, 12653), (202, 12656), (206, 12701), (207, 12710), (208, 12719), (219, 12797), (226, 12842), (229, 12863), (237, 12929), (243, 12998), (247, 13040), (251, 13064), (252, 13067), (256, 13091), (257, 13109), (263, 13157),

Gene: Nathan\_12 Start: 9755, Stop: 11500, Start Num: 49

Candidate Starts for Nathan\_12:

(Start: 49 @9755 has 280 MA's), (121, 10289), (141, 10415), (149, 10466), (164, 10574), (195, 10868), (201, 10925), (206, 10970), (207, 10979), (208, 10988), (226, 11111), (236, 11189), (237, 11198), (244, 11273), (247, 11309), (252, 11336), (254, 11354), (257, 11378), (265, 11432), (266, 11438), (268, 11450),

Gene: Nehemiah\_12 Start: 11644, Stop: 13491, Start Num: 30

Candidate Starts for Nehemiah\_12:

(Start: 30 @11644 has 45 MA's), (36, 11677), (50, 11728), (62, 11857), (69, 11896), (115, 12226), (121, 12259), (131, 12328), (135, 12355), (137, 12364), (140, 12382), (143, 12406), (144, 12412), (164, 12565), (178, 12694), (185, 12748), (191, 12823), (195, 12856), (201, 12913), (202, 12916), (206, 12961), (207, 12970), (208, 12979), (213, 13000), (219, 13057), (226, 13102), (229, 13123), (243, 13258), (244, 13264), (247, 13300), (251, 13324), (252, 13327), (256, 13351), (257, 13369),

Gene: Neos5\_14 Start: 11816, Stop: 13831, Start Num: 46

Candidate Starts for Neos5\_14:

(Start: 46 @11816 has 65 MA's), (50, 11831), (59, 11909), (61, 11957), (115, 12314), (120, 12338), (149, 12503), (158, 12551), (164, 12623), (175, 12704), (178, 12758), (201, 12977), (202, 12980), (207, 13034), (216, 13082), (224, 13145), (226, 13166), (227, 13169), (247, 13361), (248, 13370), (252, 13388), (254, 13406), (255, 13409), (260, 13451), (265, 13484), (278, 13574), (279, 13607), (282, 13724),

Gene: Newman\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Newman\_12:

(Start: 49 @9757 has 280 MA's), (63, 9904), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Nicole21\_12 Start: 9755, Stop: 11500, Start Num: 49

Candidate Starts for Nicole21\_12:

(Start: 49 @9755 has 280 MA's), (121, 10289), (141, 10415), (149, 10466), (164, 10574), (195, 10868), (201, 10925), (206, 10970), (207, 10979), (208, 10988), (226, 11111), (236, 11189), (237, 11198), (244, 11273), (247, 11309), (252, 11336), (254, 11354), (257, 11378), (265, 11432), (266, 11438), (268, 11450),

Gene: Nigel\_10 Start: 10274, Stop: 12070, Start Num: 30

Candidate Starts for Nigel\_10:

(Start: 30 @10274 has 45 MA's), (35, 10304), (50, 10340), (62, 10469), (68, 10490), (73, 10553), (106, 10760), (115, 10817), (122, 10856), (131, 10913), (140, 10967), (141, 10970), (143, 10991), (144, 10997), (145, 11000), (156, 11051), (164, 11138), (188, 11366), (189, 11378), (195, 11432), (202, 11492), (203, 11516), (206, 11537), (208, 11555), (213, 11576), (224, 11657), (231, 11705), (245, 11840), (247, 11873), (252, 11900), (254, 11918), (256, 11924), (257, 11942), (263, 11990), (265, 11996), (266, 12002), (268, 12014),

Gene: Nozo\_14 Start: 11791, Stop: 13806, Start Num: 46

Candidate Starts for Nozo\_14:

(Start: 46 @11791 has 65 MA's), (50, 11806), (59, 11884), (61, 11932), (115, 12289), (120, 12313), (149, 12478), (158, 12526), (164, 12598), (175, 12679), (178, 12733), (201, 12952), (202, 12955), (207, 13009), (216, 13057), (224, 13120), (226, 13141), (227, 13144), (247, 13336), (248, 13345), (252, 13363), (254, 13381), (255, 13384), (260, 13426), (265, 13459), (278, 13549), (279, 13582), (282, 13699),

Gene: Numberten\_12 Start: 9757, Stop: 11505, Start Num: 49

Candidate Starts for Numberten\_12:

(Start: 49 @9757 has 280 MA's), (121, 10294), (141, 10420), (149, 10471), (164, 10579), (195, 10873), (201, 10930), (206, 10975), (207, 10984), (208, 10993), (226, 11116), (236, 11194), (237, 11203), (244, 11278), (247, 11314), (252, 11341), (254, 11359), (257, 11383), (265, 11437), (266, 11443), (268, 11455),

Gene: Nyala\_11 Start: 9465, Stop: 11210, Start Num: 49

Candidate Starts for Nyala\_11:

(Start: 49 @9465 has 280 MA's), (121, 9999), (141, 10125), (149, 10176), (164, 10284), (195, 10578), (201, 10635), (206, 10680), (207, 10689), (208, 10698), (226, 10821), (236, 10899), (237, 10908), (244, 10983), (247, 11019), (252, 11046), (254, 11064), (257, 11088), (265, 11142), (266, 11148), (268, 11160),

Gene: OSmaximus\_12 Start: 9755, Stop: 11500, Start Num: 49

Candidate Starts for OSmaximus\_12:

(Start: 49 @9755 has 280 MA's), (121, 10289), (141, 10415), (149, 10466), (164, 10574), (195, 10868), (201, 10925), (206, 10970), (207, 10979), (208, 10988), (226, 11111), (236, 11189), (237, 11198), (244, 11273), (247, 11309), (252, 11336), (254, 11354), (257, 11378), (265, 11432), (266, 11438), (268, 11450),

Gene: Obutu\_14 Start: 11021, Stop: 13036, Start Num: 46

Candidate Starts for Obutu\_14:

(Start: 43 @11009 has 6 MA's), (Start: 46 @11021 has 65 MA's), (50, 11036), (59, 11114), (61, 11162), (115, 11519), (120, 11543), (149, 11708), (158, 11756), (164, 11828), (175, 11909), (178, 11963), (201, 12182), (202, 12185), (207, 12239), (216, 12287), (224, 12350), (226, 12371), (227, 12374), (247, 12566), (248, 12575), (252, 12593), (254, 12611), (255, 12614), (260, 12656), (265, 12689), (278, 12779), (279, 12812), (282, 12929),

Gene: Olak\_11 Start: 9462, Stop: 11207, Start Num: 49

Candidate Starts for Olak\_11:

(Start: 49 @9462 has 280 MA's), (63, 9609), (121, 9996), (141, 10122), (149, 10173), (164, 10281), (195, 10575), (201, 10632), (206, 10677), (207, 10686), (208, 10695), (226, 10818), (236, 10896), (237, 10905), (244, 10980), (247, 11016), (252, 11043), (254, 11061), (257, 11085), (265, 11139), (266, 11145), (268, 11157),

Gene: Oline\_11 Start: 9316, Stop: 11061, Start Num: 49

Candidate Starts for Oline\_11:

(Start: 49 @9316 has 280 MA's), (121, 9850), (141, 9976), (149, 10027), (164, 10135), (195, 10429), (201, 10486), (206, 10531), (207, 10540), (208, 10549), (226, 10672), (236, 10750), (237, 10759), (244, 10834), (247, 10870), (252, 10897), (254, 10915), (257, 10939), (265, 10993), (266, 10999), (268, 11011),

Gene: Olive\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for Olive\_12:

(Start: 49 @9754 has 280 MA's), (63, 9901), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: OliverWalter\_12 Start: 9753, Stop: 11498, Start Num: 49

Candidate Starts for OliverWalter\_12:

(Start: 49 @9753 has 280 MA's), (63, 9900), (121, 10287), (141, 10413), (149, 10464), (164, 10572), (195, 10866), (201, 10923), (206, 10968), (207, 10977), (208, 10986), (226, 11109), (236, 11187),

(237, 11196), (244, 11271), (247, 11307), (252, 11334), (254, 11352), (257, 11376), (265, 11430), (266, 11436), (268, 11448),

Gene: Olivio\_13 Start: 10875, Stop: 12890, Start Num: 46

Candidate Starts for Olivio\_13:

(Start: 46 @10875 has 65 MA's), (50, 10890), (59, 10968), (61, 11016), (115, 11373), (120, 11397), (149, 11562), (158, 11610), (164, 11682), (175, 11763), (178, 11817), (201, 12036), (202, 12039), (207, 12093), (216, 12141), (224, 12204), (226, 12225), (227, 12228), (247, 12420), (248, 12429), (252, 12447), (254, 12465), (255, 12468), (260, 12510), (265, 12543), (282, 12783),

Gene: Omniscient\_12 Start: 9757, Stop: 11505, Start Num: 49

Candidate Starts for Omniscient\_12:

(Start: 49 @9757 has 280 MA's), (121, 10294), (141, 10420), (149, 10471), (164, 10579), (195, 10873), (201, 10930), (206, 10975), (207, 10984), (208, 10993), (226, 11116), (236, 11194), (237, 11203), (244, 11278), (247, 11314), (252, 11341), (254, 11359), (257, 11383), (265, 11437), (266, 11443), (268, 11455),

Gene: Oosterbaan\_12 Start: 9758, Stop: 11503, Start Num: 49

Candidate Starts for Oosterbaan\_12:

(Start: 49 @9758 has 280 MA's), (63, 9905), (121, 10292), (141, 10418), (149, 10469), (164, 10577), (195, 10871), (201, 10928), (206, 10973), (207, 10982), (208, 10991), (226, 11114), (236, 11192), (237, 11201), (244, 11276), (247, 11312), (252, 11339), (254, 11357), (257, 11381), (265, 11435), (266, 11441), (268, 11453),

Gene: Opia\_15 Start: 12411, Stop: 14438, Start Num: 44

Candidate Starts for Opia\_15:

(Start: 44 @12411 has 36 MA's), (61, 12555), (64, 12576), (71, 12630), (76, 12657), (84, 12744), (115, 12909), (127, 12981), (149, 13098), (159, 13158), (162, 13176), (164, 13230), (175, 13311), (201, 13584), (202, 13587), (208, 13653), (241, 13911), (247, 13971), (248, 13980), (252, 13998), (256, 14022), (265, 14094), (272, 14142), (280, 14286), (282, 14325), (286, 14382), (287, 14418), (288, 14424),

Gene: OrangeOswald\_14 Start: 11026, Stop: 13041, Start Num: 46

Candidate Starts for OrangeOswald\_14:

(Start: 46 @11026 has 65 MA's), (50, 11041), (59, 11119), (61, 11167), (115, 11524), (120, 11548), (149, 11713), (158, 11761), (164, 11833), (175, 11914), (178, 11968), (201, 12187), (202, 12190), (207, 12244), (216, 12292), (224, 12355), (226, 12376), (227, 12379), (247, 12571), (248, 12580), (252, 12598), (254, 12616), (255, 12619), (260, 12661), (265, 12694), (278, 12784), (279, 12817), (282, 12934),

Gene: Orfeu\_11 Start: 9463, Stop: 11208, Start Num: 49

Candidate Starts for Orfeu\_11:

(Start: 49 @9463 has 280 MA's), (121, 9997), (141, 10123), (149, 10174), (164, 10282), (195, 10576), (201, 10633), (206, 10678), (207, 10687), (208, 10696), (226, 10819), (236, 10897), (237, 10906), (244, 10981), (247, 11017), (252, 11044), (254, 11062), (257, 11086), (265, 11140), (266, 11146), (268, 11158),

Gene: Orion\_12 Start: 9755, Stop: 11503, Start Num: 49

Candidate Starts for Orion\_12:

(Start: 49 @9755 has 280 MA's), (121, 10292), (141, 10418), (149, 10469), (164, 10577), (195, 10871), (201, 10928), (206, 10973), (207, 10982), (208, 10991), (226, 11114), (236, 11192), (237, 11201), (244, 11276), (247, 11312), (252, 11339), (254, 11357), (257, 11381), (265, 11435), (266, 11441), (268, 11453),

Gene: Orwigg\_11 Start: 9465, Stop: 11213, Start Num: 49

Candidate Starts for Orwigg\_11:

(Start: 49 @9465 has 280 MA's), (63, 9612), (121, 10002), (141, 10128), (149, 10179), (164, 10287), (195, 10581), (201, 10638), (206, 10683), (207, 10692), (208, 10701), (226, 10824), (236, 10902), (237, 10911), (244, 10986), (247, 11022), (252, 11049), (254, 11067), (257, 11091), (265, 11145), (266, 11151), (268, 11163),

Gene: PG1\_12 Start: 9755, Stop: 11503, Start Num: 49

Candidate Starts for PG1\_12:

(Start: 49 @9755 has 280 MA's), (121, 10292), (141, 10418), (149, 10469), (164, 10577), (195, 10871), (201, 10928), (206, 10973), (207, 10982), (208, 10991), (226, 11114), (236, 11192), (237, 11201), (244, 11276), (247, 11312), (252, 11339), (254, 11357), (257, 11381), (265, 11435), (266, 11441), (268, 11453),

Gene: PR\_09 Start: 10537, Stop: 12600, Start Num: 48

Candidate Starts for PR\_09:

(Start: 48 @10537 has 10 MA's), (50, 10549), (52, 10576), (59, 10630), (61, 10678), (74, 10783), (Start: 82 @10900 has 1 MA's), (96, 10972), (124, 11107), (132, 11146), (136, 11176), (144, 11221), (147, 11242), (163, 11350), (164, 11368), (173, 11437), (174, 11443), (176, 11467), (183, 11536), (199, 11695), (201, 11719), (204, 11749), (208, 11785), (215, 11812), (224, 11887), (229, 11926), (234, 11962), (237, 11992), (244, 12067), (251, 12127), (265, 12226), (266, 12232), (275, 12295), (281, 12451), (284, 12502), (285, 12508), (289, 12592),

Gene: Pacifista\_11 Start: 9461, Stop: 11206, Start Num: 49

Candidate Starts for Pacifista\_11:

(Start: 49 @9461 has 280 MA's), (63, 9608), (121, 9995), (141, 10121), (149, 10172), (164, 10280), (195, 10574), (201, 10631), (206, 10676), (207, 10685), (208, 10694), (226, 10817), (236, 10895), (237, 10904), (244, 10979), (247, 11015), (252, 11042), (254, 11060), (257, 11084), (265, 11138), (266, 11144), (268, 11156),

Gene: PallasAthena\_12 Start: 9465, Stop: 11210, Start Num: 49

Candidate Starts for PallasAthena\_12:

(Start: 49 @9465 has 280 MA's), (121, 9999), (141, 10125), (149, 10176), (164, 10284), (195, 10578), (201, 10635), (206, 10680), (207, 10689), (208, 10698), (226, 10821), (236, 10899), (237, 10908), (244, 10983), (247, 11019), (252, 11046), (254, 11064), (257, 11088), (265, 11142), (266, 11148), (268, 11160),

Gene: PenguinLover67\_15 Start: 12281, Stop: 14140, Start Num: 30

Candidate Starts for PenguinLover67\_15:

(17, 12224), (Start: 30 @12281 has 45 MA's), (51, 12374), (54, 12386), (67, 12518), (93, 12770), (104, 12806), (115, 12875), (135, 13004), (137, 13013), (141, 13034), (145, 13064), (161, 13154), (164, 13211), (169, 13238), (188, 13436), (189, 13448), (195, 13502), (201, 13559), (207, 13616), (208, 13625), (213, 13646), (224, 13727), (226, 13748), (229, 13766), (243, 13901), (247, 13943), (248, 13952), (252, 13970), (257, 14012), (265, 14066), (270, 14108), (273, 14123),

Gene: Phaedrus\_13 Start: 10943, Stop: 12958, Start Num: 46

Candidate Starts for Phaedrus\_13:

(Start: 46 @10943 has 65 MA's), (50, 10958), (59, 11036), (61, 11084), (115, 11441), (120, 11465), (149, 11630), (158, 11678), (164, 11750), (175, 11831), (178, 11885), (201, 12104), (202, 12107), (207, 12161), (216, 12209), (224, 12272), (226, 12293), (227, 12296), (247, 12488), (248, 12497), (252, 12515), (254, 12533), (255, 12536), (260, 12578), (265, 12611), (278, 12701), (279, 12734), (282, 12851),

Gene: Phamished\_12 Start: 9754, Stop: 11502, Start Num: 49

Candidate Starts for Phamished\_12:

(Start: 49 @9754 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Phantasmagoria\_15 Start: 12411, Stop: 14438, Start Num: 44

Candidate Starts for Phantasmagoria\_15:

(Start: 44 @12411 has 36 MA's), (61, 12555), (64, 12576), (71, 12630), (76, 12657), (84, 12744), (115, 12909), (127, 12981), (149, 13098), (159, 13158), (162, 13176), (164, 13230), (175, 13311), (201, 13584), (202, 13587), (208, 13653), (241, 13911), (247, 13971), (248, 13980), (252, 13998), (256, 14022), (265, 14094), (272, 14142), (280, 14286), (282, 14325), (286, 14382), (287, 14418), (288, 14424),

Gene: Phareon\_12 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Phareon\_12:

(Start: 49 @9464 has 280 MA's), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: PhatCats2014\_12 Start: 9758, Stop: 11506, Start Num: 49

Candidate Starts for PhatCats2014\_12:

(Start: 49 @9758 has 280 MA's), (121, 10295), (141, 10421), (149, 10472), (164, 10580), (195, 10874), (201, 10931), (206, 10976), (207, 10985), (208, 10994), (226, 11117), (236, 11195), (237, 11204), (244, 11279), (247, 11315), (252, 11342), (254, 11360), (257, 11384), (265, 11438), (266, 11444), (268, 11456),

Gene: PhatLouie\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for PhatLouie\_12:

(Start: 49 @9757 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Phayeta\_14 Start: 10902, Stop: 12917, Start Num: 46

Candidate Starts for Phayeta\_14:

(Start: 43 @10890 has 6 MA's), (Start: 46 @10902 has 65 MA's), (50, 10917), (59, 10995), (61, 11043), (115, 11400), (120, 11424), (149, 11589), (158, 11637), (164, 11709), (175, 11790), (178, 11844), (201, 12063), (202, 12066), (207, 12120), (216, 12168), (224, 12231), (226, 12252), (227, 12255), (247, 12447), (248, 12456), (252, 12474), (254, 12492), (255, 12495), (260, 12537), (265, 12570), (278, 12660), (279, 12693), (282, 12810),

Gene: Phelemich\_13 Start: 11647, Stop: 13494, Start Num: 30

Candidate Starts for Phelemich\_13:

(Start: 30 @11647 has 45 MA's), (36, 11680), (50, 11731), (62, 11860), (69, 11899), (115, 12229), (121, 12262), (131, 12331), (135, 12358), (137, 12367), (140, 12385), (143, 12409), (144, 12415), (148, 12436), (164, 12568), (168, 12589), (178, 12697), (185, 12751), (191, 12826), (195, 12859), (201, 12916), (202, 12919), (206, 12964), (207, 12973), (208, 12982), (213, 13003), (219, 13060), (226, 13105), (229, 13126), (243, 13261), (244, 13267), (247, 13303), (251, 13327), (252, 13330), (256, 13354), (257, 13372), (268, 13444),

Gene: PhenghisKhan\_11 Start: 9316, Stop: 11061, Start Num: 49

Candidate Starts for PhenghisKhan\_11:

(Start: 49 @9316 has 280 MA's), (121, 9850), (141, 9976), (149, 10027), (164, 10135), (195, 10429), (201, 10486), (206, 10531), (207, 10540), (208, 10549), (226, 10672), (236, 10750), (237, 10759), (244, 10834), (247, 10870), (252, 10897), (254, 10915), (257, 10939), (265, 10993), (266, 10999), (268, 11011),

Gene: Pherdinand\_12 Start: 9755, Stop: 11500, Start Num: 49

Candidate Starts for Pherdinand\_12:

(Start: 49 @9755 has 280 MA's), (63, 9902), (121, 10289), (141, 10415), (149, 10466), (164, 10574), (195, 10868), (201, 10925), (206, 10970), (207, 10979), (208, 10988), (226, 11111), (236, 11189), (237, 11198), (244, 11273), (247, 11309), (252, 11336), (254, 11354), (257, 11378), (265, 11432), (266, 11438), (268, 11450),

Gene: Phergie\_11 Start: 9310, Stop: 11055, Start Num: 49

Candidate Starts for Phergie\_11:

(Start: 49 @9310 has 280 MA's), (121, 9844), (141, 9970), (149, 10021), (164, 10129), (195, 10423), (201, 10480), (206, 10525), (207, 10534), (208, 10543), (226, 10666), (236, 10744), (237, 10753), (244, 10828), (247, 10864), (252, 10891), (254, 10909), (257, 10933), (265, 10987), (266, 10993), (268, 11005),

Gene: Philly\_13 Start: 10892, Stop: 12907, Start Num: 46

Candidate Starts for Philly\_13:

(Start: 43 @10880 has 6 MA's), (Start: 46 @10892 has 65 MA's), (50, 10907), (59, 10985), (61, 11033), (115, 11390), (120, 11414), (149, 11579), (158, 11627), (164, 11699), (175, 11780), (178, 11834), (201, 12053), (202, 12056), (207, 12110), (216, 12158), (224, 12221), (226, 12242), (227, 12245), (247, 12437), (248, 12446), (252, 12464), (254, 12482), (255, 12485), (260, 12527), (265, 12560), (278, 12650), (279, 12683), (282, 12800),

Gene: Phipps\_12 Start: 9757, Stop: 11493, Start Num: 49

Candidate Starts for Phipps\_12:

(Start: 49 @9757 has 280 MA's), (63, 9904), (121, 10282), (141, 10408), (149, 10459), (164, 10567), (195, 10861), (201, 10918), (206, 10963), (207, 10972), (208, 10981), (226, 11104), (236, 11182), (237, 11191), (244, 11266), (247, 11302), (252, 11329), (254, 11347), (257, 11371), (265, 11425), (266, 11431), (268, 11443),

Gene: Phleuron\_11 Start: 9316, Stop: 11061, Start Num: 49

Candidate Starts for Phleuron\_11:

(Start: 49 @9316 has 280 MA's), (121, 9850), (141, 9976), (149, 10027), (164, 10135), (195, 10429), (201, 10486), (206, 10531), (207, 10540), (208, 10549), (226, 10672), (236, 10750), (237, 10759), (244, 10834), (247, 10870), (252, 10897), (254, 10915), (257, 10939), (265, 10993), (266, 10999), (268, 11011),

Gene: Phlyer\_14 Start: 11748, Stop: 13775, Start Num: 43

Candidate Starts for Phlyer\_14:

(Start: 43 @11748 has 6 MA's), (Start: 46 @11760 has 65 MA's), (50, 11775), (59, 11853), (61, 11901), (115, 12258), (120, 12282), (149, 12447), (158, 12495), (164, 12567), (175, 12648), (178, 12702), (201, 12921), (202, 12924), (207, 12978), (216, 13026), (224, 13089), (226, 13110), (227, 13113), (247, 13305), (248, 13314), (252, 13332), (254, 13350), (255, 13353), (260, 13395), (265, 13428), (278, 13518), (279, 13551), (282, 13668),

Gene: PhrankReynolds\_11 Start: 9316, Stop: 11061, Start Num: 49

Candidate Starts for PhrankReynolds\_11:

(Start: 49 @9316 has 280 MA's), (121, 9850), (141, 9976), (149, 10027), (164, 10135), (195, 10429), (201, 10486), (206, 10531), (207, 10540), (208, 10549), (226, 10672), (236, 10750), (237, 10759), (244, 10834), (247, 10870), (252, 10897), (254, 10915), (257, 10939), (265, 10993), (266, 10999), (268, 11011),

Gene: PhrodoBaggins\_11 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for PhrodoBaggins\_11:

(Start: 49 @9757 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Phunky\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Phunky\_12:

(Start: 49 @9757 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Piglet\_0011 Start: 9757, Stop: 11505, Start Num: 49

Candidate Starts for Piglet\_0011:

(Start: 49 @9757 has 280 MA's), (121, 10294), (141, 10420), (149, 10471), (164, 10579), (195, 10873), (201, 10930), (206, 10975), (207, 10984), (208, 10993), (226, 11116), (236, 11194), (237, 11203), (244, 11278), (247, 11314), (252, 11341), (254, 11359), (257, 11383), (265, 11437), (266, 11443), (268, 11455),

Gene: Pine5\_14 Start: 11242, Stop: 12954, Start Num: 49

Candidate Starts for Pine5\_14:

(9, 11029), (21, 11119), (Start: 49 @11242 has 280 MA's), (51, 11263), (91, 11623), (115, 11710), (127, 11782), (128, 11797), (174, 12106), (183, 12205), (195, 12331), (200, 12379), (201, 12388), (213, 12475), (219, 12532), (225, 12571), (232, 12616), (237, 12661), (251, 12796), (252, 12799), (261, 12865),

Gene: PinheadLarry\_12 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for PinheadLarry\_12:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Pinkman\_11 Start: 9316, Stop: 11061, Start Num: 49

Candidate Starts for Pinkman\_11:

(Start: 49 @9316 has 280 MA's), (121, 9850), (141, 9976), (149, 10027), (164, 10135), (195, 10429), (201, 10486), (206, 10531), (207, 10540), (208, 10549), (226, 10672), (236, 10750), (237, 10759), (244, 10834), (247, 10870), (252, 10897), (254, 10915), (257, 10939), (265, 10993), (266, 10999), (268, 11011),

Gene: Pipefish\_14 Start: 11892, Stop: 13925, Start Num: 43

Candidate Starts for Pipefish\_14:

(Start: 43 @11892 has 6 MA's), (Start: 46 @11904 has 65 MA's), (50, 11919), (59, 11997), (61, 12045), (115, 12408), (120, 12432), (149, 12597), (158, 12645), (164, 12717), (175, 12798), (178, 12852), (201, 13071), (202, 13074), (207, 13128), (216, 13176), (224, 13239), (226, 13260), (227, 13263),

(247, 13455), (248, 13464), (252, 13482), (254, 13500), (255, 13503), (260, 13545), (265, 13578), (278, 13668), (279, 13701), (282, 13818),

Gene: Pipsqueak\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Pipsqueak\_12:

(Start: 49 @9757 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Placalicious\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Placalicious\_11:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Plata\_12 Start: 9463, Stop: 11205, Start Num: 49

Candidate Starts for Plata\_12:

(Start: 49 @9463 has 280 MA's), (63, 9610), (121, 9994), (141, 10120), (149, 10171), (164, 10279), (195, 10573), (201, 10630), (206, 10675), (207, 10684), (208, 10693), (226, 10816), (236, 10894), (237, 10903), (244, 10978), (247, 11014), (252, 11041), (254, 11059), (257, 11083), (265, 11137), (266, 11143), (268, 11155),

Gene: Plmatters\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Plmatters\_12:

(Start: 49 @9757 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Podrick\_12 Start: 9757, Stop: 11505, Start Num: 49

Candidate Starts for Podrick\_12:

(Start: 49 @9757 has 280 MA's), (121, 10294), (141, 10420), (149, 10471), (164, 10579), (195, 10873), (201, 10930), (206, 10975), (207, 10984), (208, 10993), (226, 11116), (236, 11194), (237, 11203), (244, 11278), (247, 11314), (252, 11341), (254, 11359), (257, 11383), (265, 11437), (266, 11443), (268, 11455),

Gene: Pops\_12 Start: 9757, Stop: 11499, Start Num: 49

Candidate Starts for Pops\_12:

(Start: 49 @9757 has 280 MA's), (63, 9904), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: Poster\_11 Start: 10371, Stop: 12158, Start Num: 30

Candidate Starts for Poster\_11:

(Start: 30 @10371 has 45 MA's), (50, 10437), (68, 10587), (70, 10620), (73, 10650), (96, 10809), (115, 10905), (122, 10944), (131, 11001), (135, 11028), (141, 11058), (143, 11079), (156, 11139), (164, 11226), (181, 11373), (195, 11520), (202, 11580), (203, 11604), (206, 11625), (208, 11643), (213, 11664), (224, 11745), (231, 11793), (237, 11850), (245, 11928), (247, 11961), (252, 11988), (256, 12012), (257, 12030), (261, 12054), (263, 12078), (265, 12084), (266, 12090), (268, 12102),

Gene: Potter\_11 Start: 9465, Stop: 11210, Start Num: 49

Candidate Starts for Potter\_11:

(Start: 49 @9465 has 280 MA's), (63, 9612), (121, 9999), (141, 10125), (149, 10176), (164, 10284), (195, 10578), (201, 10635), (206, 10680), (207, 10689), (208, 10698), (226, 10821), (236, 10899), (237, 10908), (244, 10983), (247, 11019), (252, 11046), (254, 11064), (257, 11088), (265, 11142), (266, 11148), (268, 11160),

Gene: Prickles\_12 Start: 9763, Stop: 11508, Start Num: 49

Candidate Starts for Prickles\_12:

(Start: 49 @9763 has 280 MA's), (121, 10297), (141, 10423), (149, 10474), (164, 10582), (195, 10876), (201, 10933), (206, 10978), (207, 10987), (208, 10996), (226, 11119), (236, 11197), (237, 11206), (244, 11281), (247, 11317), (252, 11344), (254, 11362), (257, 11386), (265, 11440), (266, 11446), (268, 11458),

Gene: Prince\_12 Start: 11636, Stop: 13414, Start Num: 30

Candidate Starts for Prince\_12:

(Start: 30 @11636 has 45 MA's), (50, 11702), (68, 11852), (70, 11885), (73, 11915), (86, 12044), (96, 12077), (115, 12173), (131, 12269), (135, 12296), (140, 12323), (141, 12326), (143, 12347), (164, 12494), (181, 12641), (195, 12788), (202, 12848), (203, 12872), (205, 12890), (208, 12911), (213, 12932), (224, 13013), (231, 13061), (237, 13118), (240, 13160), (243, 13187), (246, 13199), (247, 13229), (252, 13256), (256, 13280), (257, 13298), (261, 13322), (265, 13352), (266, 13358),

Gene: PrinceCharming\_15 Start: 12528, Stop: 14558, Start Num: 44

Candidate Starts for PrinceCharming\_15:

(Start: 44 @12528 has 36 MA's), (61, 12672), (64, 12693), (71, 12750), (84, 12864), (115, 13029), (127, 13101), (149, 13218), (159, 13278), (162, 13296), (164, 13350), (175, 13431), (201, 13704), (202, 13707), (208, 13773), (241, 14031), (247, 14091), (248, 14100), (252, 14118), (256, 14142), (265, 14214), (272, 14262), (280, 14406), (282, 14445), (286, 14502), (287, 14538), (288, 14544),

Gene: ProfessorX\_12 Start: 9755, Stop: 11500, Start Num: 49

Candidate Starts for ProfessorX\_12:

(Start: 49 @9755 has 280 MA's), (121, 10289), (141, 10415), (149, 10466), (164, 10574), (195, 10868), (201, 10925), (206, 10970), (207, 10979), (208, 10988), (226, 11111), (236, 11189), (237, 11198), (244, 11273), (247, 11309), (252, 11336), (254, 11354), (257, 11378), (265, 11432), (266, 11438), (268, 11450),

Gene: Puhltonio\_12 Start: 9757, Stop: 11493, Start Num: 49

Candidate Starts for Puhltonio\_12:

(Start: 49 @9757 has 280 MA's), (63, 9904), (121, 10282), (141, 10408), (149, 10459), (164, 10567), (195, 10861), (201, 10918), (206, 10963), (207, 10972), (208, 10981), (226, 11104), (236, 11182), (237, 11191), (244, 11266), (247, 11302), (252, 11329), (254, 11347), (257, 11371), (265, 11425), (266, 11431), (268, 11443),

Gene: Purplicious\_42 Start: 22426, Stop: 24216, Start Num: 30

Candidate Starts for Purplicious\_42:

(17, 22366), (28, 22420), (Start: 30 @22426 has 45 MA's), (112, 22963), (116, 22996), (118, 23008), (138, 23128), (139, 23131), (146, 23188), (170, 23341), (171, 23347), (174, 23374), (177, 23416), (205, 23674), (206, 23677), (214, 23719), (215, 23722), (220, 23776), (221, 23782), (235, 23878), (236, 23893), (237, 23902), (261, 24127), (266, 24163), (268, 24175), (270, 24199),

Gene: QueenBeane\_12 Start: 9754, Stop: 11502, Start Num: 49

Candidate Starts for QueenBeane\_12:

(Start: 49 @9754 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: QueenPie\_12 Start: 11965, Stop: 13758, Start Num: 30

Candidate Starts for QueenPie\_12:

(Start: 30 @11965 has 45 MA's), (50, 12031), (68, 12181), (70, 12214), (73, 12244), (96, 12409), (115, 12505), (122, 12544), (131, 12601), (135, 12628), (141, 12658), (143, 12679), (156, 12739), (164, 12826), (181, 12973), (195, 13120), (202, 13180), (203, 13204), (206, 13225), (208, 13243), (213, 13264), (224, 13345), (231, 13393), (242, 13504), (245, 13528), (247, 13561), (252, 13588), (254, 13606), (256, 13612), (257, 13630), (261, 13654), (263, 13678), (265, 13684), (266, 13690), (268, 13702),

Gene: Quesadilla\_14 Start: 12044, Stop: 13945, Start Num: 18

Candidate Starts for Quesadilla\_14:

(Start: 18 @12044 has 1 MA's), (24, 12071), (Start: 30 @12098 has 45 MA's), (54, 12203), (104, 12614), (115, 12683), (135, 12812), (137, 12821), (143, 12863), (145, 12872), (164, 13019), (169, 13046), (175, 13100), (188, 13247), (195, 13313), (201, 13370), (203, 13397), (207, 13427), (208, 13436), (213, 13457), (224, 13538), (226, 13559), (229, 13577), (242, 13697), (243, 13712), (247, 13754), (248, 13763), (252, 13781), (256, 13805), (257, 13823), (261, 13847), (266, 13883),

Gene: Quisquilliae\_12 Start: 9757, Stop: 11505, Start Num: 49

Candidate Starts for Quisquilliae\_12:

(Start: 49 @9757 has 280 MA's), (121, 10294), (141, 10420), (149, 10471), (164, 10579), (195, 10873), (201, 10930), (206, 10975), (207, 10984), (208, 10993), (226, 11116), (236, 11194), (237, 11203), (244, 11278), (247, 11314), (252, 11341), (254, 11359), (257, 11383), (265, 11437), (266, 11443), (268, 11455),

Gene: Qyrzula\_14 Start: 12501, Stop: 14528, Start Num: 44

Candidate Starts for Qyrzula\_14:

(Start: 44 @12501 has 36 MA's), (61, 12645), (64, 12666), (71, 12720), (76, 12747), (84, 12834), (115, 12999), (127, 13071), (149, 13188), (159, 13248), (162, 13266), (164, 13320), (175, 13401), (201, 13674), (202, 13677), (208, 13743), (241, 14001), (247, 14061), (248, 14070), (252, 14088), (256, 14112), (265, 14184), (272, 14232), (280, 14376), (282, 14415), (286, 14472), (287, 14508), (288, 14514),

Gene: RagingRooster\_14 Start: 11027, Stop: 13042, Start Num: 46

Candidate Starts for RagingRooster\_14:

(Start: 46 @11027 has 65 MA's), (50, 11042), (59, 11120), (61, 11168), (115, 11525), (120, 11549), (149, 11714), (158, 11762), (164, 11834), (175, 11915), (178, 11969), (201, 12188), (202, 12191), (207, 12245), (216, 12293), (224, 12356), (226, 12377), (227, 12380), (247, 12572), (248, 12581), (252, 12599), (254, 12617), (255, 12620), (260, 12662), (265, 12695), (278, 12785), (279, 12818), (282, 12935),

Gene: RawrgerThat\_12 Start: 11467, Stop: 13248, Start Num: 30

Candidate Starts for RawrgerThat\_12:

(Start: 30 @11467 has 45 MA's), (50, 11533), (68, 11683), (70, 11716), (73, 11746), (86, 11878), (96, 11911), (115, 12007), (131, 12103), (135, 12130), (140, 12157), (141, 12160), (143, 12181), (164, 12328), (181, 12475), (195, 12622), (202, 12682), (203, 12706), (205, 12724), (208, 12745), (213, 12766), (224, 12847), (231, 12895), (237, 12952), (240, 12994), (243, 13021), (246, 13033), (247, 13063), (252, 13090), (256, 13114), (257, 13132), (261, 13156), (265, 13186), (266, 13192),

Gene: Reccee\_14 Start: 11580, Stop: 13427, Start Num: 30

Candidate Starts for Reccee\_14:

(Start: 25 @11556 has 2 MA's), (Start: 30 @11580 has 45 MA's), (36, 11613), (50, 11664), (54, 11688), (62, 11793), (68, 11823), (69, 11832), (115, 12162), (121, 12195), (131, 12264), (140, 12318), (143, 12342), (144, 12348), (164, 12501), (185, 12684), (195, 12792), (201, 12849), (202, 12852), (206, 12897), (207, 12906), (208, 12915), (212, 12933), (219, 12993), (226, 13038), (229, 13059), (231, 13068), (234, 13095), (237, 13125), (243, 13194), (247, 13236), (251, 13260), (252, 13263), (257, 13305), (263, 13353),

Gene: RedMaple\_11 Start: 9754, Stop: 11496, Start Num: 49

Candidate Starts for RedMaple\_11:

(Start: 49 @9754 has 280 MA's), (63, 9901), (121, 10285), (141, 10411), (149, 10462), (164, 10570), (195, 10864), (201, 10921), (206, 10966), (207, 10975), (208, 10984), (226, 11107), (236, 11185), (237, 11194), (244, 11269), (247, 11305), (252, 11332), (254, 11350), (257, 11374), (265, 11428), (266, 11434), (268, 11446),

Gene: RedRaider89\_12 Start: 9989, Stop: 11734, Start Num: 49

Candidate Starts for RedRaider89\_12:

(Start: 49 @9989 has 280 MA's), (63, 10136), (121, 10523), (141, 10649), (149, 10700), (164, 10808), (195, 11102), (201, 11159), (206, 11204), (207, 11213), (208, 11222), (226, 11345), (236, 11423), (237, 11432), (244, 11507), (247, 11543), (252, 11570), (254, 11588), (257, 11612), (265, 11666), (266, 11672), (268, 11684),

Gene: Renkei\_11 Start: 10372, Stop: 12165, Start Num: 30

Candidate Starts for Renkei\_11:

(Start: 30 @10372 has 45 MA's), (50, 10438), (68, 10588), (70, 10621), (73, 10651), (86, 10783), (96, 10816), (115, 10912), (122, 10951), (131, 11008), (135, 11035), (141, 11065), (143, 11086), (156, 11146), (164, 11233), (181, 11380), (195, 11527), (202, 11587), (203, 11611), (206, 11632), (208, 11650), (213, 11671), (224, 11752), (231, 11800), (237, 11857), (245, 11935), (247, 11968), (252, 11995), (256, 12019), (257, 12037), (261, 12061), (263, 12085), (265, 12091), (266, 12097), (268, 12109),

Gene: Reprobate\_13 Start: 11644, Stop: 13491, Start Num: 30

Candidate Starts for Reprobate\_13:

(Start: 30 @11644 has 45 MA's), (36, 11677), (50, 11728), (62, 11857), (69, 11896), (115, 12226), (121, 12259), (131, 12328), (135, 12355), (137, 12364), (140, 12382), (143, 12406), (144, 12412), (148, 12433), (164, 12565), (168, 12586), (178, 12694), (185, 12748), (191, 12823), (195, 12856), (201, 12913), (202, 12916), (206, 12961), (207, 12970), (208, 12979), (213, 13000), (219, 13057), (226, 13102), (229, 13123), (243, 13258), (244, 13264), (247, 13300), (251, 13324), (252, 13327), (256, 13351), (257, 13369), (268, 13441),

Gene: Rhinoforte\_15 Start: 12528, Stop: 14555, Start Num: 44

Candidate Starts for Rhinoforte\_15:

(Start: 44 @12528 has 36 MA's), (61, 12672), (64, 12693), (71, 12747), (76, 12774), (84, 12861), (115, 13026), (127, 13098), (149, 13215), (159, 13275), (162, 13293), (164, 13347), (175, 13428), (201, 13701), (202, 13704), (208, 13770), (241, 14028), (247, 14088), (248, 14097), (252, 14115), (256, 14139), (265, 14211), (272, 14259), (280, 14403), (282, 14442), (286, 14499), (287, 14535), (288, 14541),

Gene: Rich\_13 Start: 11404, Stop: 13245, Start Num: 30

Candidate Starts for Rich\_13:

(Start: 19 @11350 has 1 MA's), (Start: 30 @11404 has 45 MA's), (36, 11437), (50, 11488), (54, 11512), (58, 11554), (62, 11617), (63, 11626), (69, 11656), (115, 11980), (121, 12013), (131, 12082), (140,

12136), (144, 12166), (164, 12319), (168, 12340), (185, 12502), (192, 12595), (195, 12610), (201, 12667), (202, 12670), (206, 12715), (207, 12724), (208, 12733), (213, 12754), (218, 12799), (219, 12811), (226, 12856), (229, 12877), (231, 12886), (237, 12943), (243, 13012), (247, 13054), (248, 13063), (251, 13078), (252, 13081), (256, 13105), (257, 13123), (263, 13171),

Gene: Ricotta\_11 Start: 9463, Stop: 11208, Start Num: 49

Candidate Starts for Ricotta\_11:

(Start: 49 @9463 has 280 MA's), (63, 9610), (121, 9997), (141, 10123), (149, 10174), (164, 10282), (195, 10576), (201, 10633), (206, 10678), (207, 10687), (208, 10696), (226, 10819), (236, 10897), (237, 10906), (244, 10981), (247, 11017), (252, 11044), (254, 11062), (257, 11086), (265, 11140), (266, 11146), (268, 11158),

Gene: Riggan\_12 Start: 9761, Stop: 11506, Start Num: 49

Candidate Starts for Riggan\_12:

(Start: 49 @9761 has 280 MA's), (63, 9908), (121, 10295), (141, 10421), (149, 10472), (164, 10580), (195, 10874), (201, 10931), (206, 10976), (207, 10985), (208, 10994), (226, 11117), (236, 11195), (237, 11204), (244, 11279), (247, 11315), (252, 11342), (254, 11360), (257, 11384), (265, 11438), (266, 11444), (268, 11456),

Gene: Rimu\_12 Start: 9460, Stop: 11202, Start Num: 49

Candidate Starts for Rimu\_12:

(Start: 49 @9460 has 280 MA's), (63, 9607), (121, 9991), (141, 10117), (149, 10168), (164, 10276), (195, 10570), (201, 10627), (206, 10672), (207, 10681), (208, 10690), (226, 10813), (236, 10891), (237, 10900), (244, 10975), (247, 11011), (252, 11038), (254, 11056), (257, 11080), (265, 11134), (266, 11140), (268, 11152),

Gene: Rinkes\_17 Start: 13400, Stop: 15253, Start Num: 30

Candidate Starts for Rinkes\_17:

(Start: 30 @13400 has 45 MA's), (41, 13451), (50, 13484), (62, 13613), (70, 13676), (77, 13727), (95, 13898), (117, 14021), (122, 14051), (135, 14132), (143, 14183), (144, 14189), (145, 14192), (156, 14243), (160, 14270), (161, 14273), (164, 14330), (169, 14357), (183, 14495), (184, 14507), (195, 14621), (201, 14678), (205, 14723), (208, 14744), (213, 14765), (224, 14846), (226, 14867), (231, 14894), (237, 14951), (240, 14993), (242, 15005), (243, 15020), (245, 15029), (246, 15032), (247, 15062), (251, 15086), (252, 15089), (254, 15107), (257, 15131), (266, 15191), (268, 15203),

Gene: Rita130\_13 Start: 11400, Stop: 13247, Start Num: 30

Candidate Starts for Rita130\_13:

(Start: 25 @11376 has 2 MA's), (Start: 30 @11400 has 45 MA's), (36, 11433), (50, 11484), (54, 11508), (62, 11613), (68, 11643), (69, 11652), (115, 11982), (121, 12015), (131, 12084), (140, 12138), (143, 12162), (144, 12168), (164, 12321), (185, 12504), (195, 12612), (201, 12669), (202, 12672), (206, 12717), (207, 12726), (208, 12735), (212, 12753), (219, 12813), (226, 12858), (229, 12879), (231, 12888), (234, 12915), (237, 12945), (243, 13014), (247, 13056), (251, 13080), (252, 13083), (257, 13125), (263, 13173),

Gene: Rita1961\_14 Start: 11021, Stop: 13036, Start Num: 46

Candidate Starts for Rita1961\_14:

(Start: 43 @11009 has 6 MA's), (Start: 46 @11021 has 65 MA's), (50, 11036), (59, 11114), (61, 11162), (115, 11519), (120, 11543), (149, 11708), (158, 11756), (164, 11828), (175, 11909), (178, 11963), (201, 12182), (202, 12185), (207, 12239), (216, 12287), (224, 12350), (226, 12371), (227, 12374), (247, 12566), (248, 12575), (252, 12593), (254, 12611), (255, 12614), (260, 12656), (265, 12689), (278, 12779), (279, 12812), (282, 12929),

Gene: Riverton\_11 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Riverton\_11:

(Start: 49 @9757 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Robyn\_11 Start: 9309, Stop: 11057, Start Num: 49

Candidate Starts for Robyn\_11:

(Start: 49 @9309 has 280 MA's), (63, 9456), (121, 9846), (141, 9972), (149, 10023), (164, 10131), (195, 10425), (201, 10482), (206, 10527), (207, 10536), (208, 10545), (226, 10668), (236, 10746), (237, 10755), (244, 10830), (247, 10866), (252, 10893), (254, 10911), (257, 10935), (265, 10989), (266, 10995), (268, 11007),

Gene: Roliet\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Roliet\_12:

(Start: 49 @9757 has 280 MA's), (63, 9904), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: RomaT\_14 Start: 11807, Stop: 13822, Start Num: 46

Candidate Starts for RomaT\_14:

(Start: 46 @11807 has 65 MA's), (50, 11822), (59, 11900), (61, 11948), (115, 12305), (120, 12329), (149, 12494), (158, 12542), (164, 12614), (175, 12695), (178, 12749), (201, 12968), (202, 12971), (207, 13025), (216, 13073), (224, 13136), (226, 13157), (227, 13160), (247, 13352), (248, 13361), (252, 13379), (254, 13397), (255, 13400), (260, 13442), (265, 13475), (278, 13565), (279, 13598), (282, 13715),

Gene: Roscoe\_13 Start: 9992, Stop: 11737, Start Num: 49

Candidate Starts for Roscoe\_13:

(Start: 49 @9992 has 280 MA's), (121, 10526), (141, 10652), (149, 10703), (164, 10811), (195, 11105), (201, 11162), (206, 11207), (207, 11216), (208, 11225), (226, 11348), (236, 11426), (237, 11435), (244, 11510), (247, 11546), (252, 11573), (254, 11591), (257, 11615), (265, 11669), (266, 11675), (268, 11687),

Gene: Rosebush\_15 Start: 12528, Stop: 14555, Start Num: 44

Candidate Starts for Rosebush\_15:

(Start: 44 @12528 has 36 MA's), (61, 12672), (64, 12693), (71, 12747), (76, 12774), (84, 12861), (115, 13026), (127, 13098), (149, 13215), (159, 13275), (162, 13293), (164, 13347), (175, 13428), (201, 13701), (202, 13704), (208, 13770), (241, 14028), (247, 14088), (248, 14097), (252, 14115), (256, 14139), (265, 14211), (272, 14259), (280, 14403), (282, 14442), (286, 14499), (287, 14535), (288, 14541),

Gene: Roy17\_12 Start: 9465, Stop: 11210, Start Num: 49

Candidate Starts for Roy17\_12:

(Start: 49 @9465 has 280 MA's), (63, 9612), (121, 9999), (141, 10125), (149, 10176), (164, 10284), (195, 10578), (201, 10635), (206, 10680), (207, 10689), (208, 10698), (226, 10821), (236, 10899), (237, 10908), (244, 10983), (247, 11019), (252, 11046), (254, 11064), (257, 11088), (265, 11142), (266, 11148), (268, 11160),

Gene: SDcharge11\_12 Start: 9750, Stop: 11495, Start Num: 49

Candidate Starts for SDcharge11\_12:

(Start: 49 @9750 has 280 MA's), (63, 9897), (121, 10284), (141, 10410), (149, 10461), (164, 10569), (195, 10863), (201, 10920), (206, 10965), (207, 10974), (208, 10983), (226, 11106), (236, 11184), (237, 11193), (244, 11268), (247, 11304), (252, 11331), (254, 11349), (257, 11373), (265, 11427), (266, 11433), (268, 11445),

Gene: Sabella\_15 Start: 12411, Stop: 14441, Start Num: 44

Candidate Starts for Sabella\_15:

(Start: 44 @12411 has 36 MA's), (61, 12555), (64, 12576), (71, 12633), (84, 12747), (115, 12912), (127, 12984), (149, 13101), (159, 13161), (162, 13179), (164, 13233), (175, 13314), (201, 13587), (202, 13590), (208, 13656), (241, 13914), (247, 13974), (248, 13983), (252, 14001), (256, 14025), (265, 14097), (272, 14145), (280, 14289), (282, 14328), (286, 14385), (287, 14421), (288, 14427),

Gene: Saguaro\_14 Start: 12330, Stop: 14147, Start Num: 30

Candidate Starts for Saguaro\_14:

(Start: 30 @12330 has 45 MA's), (33, 12342), (41, 12375), (50, 12402), (54, 12426), (59, 12474), (63, 12540), (107, 12831), (115, 12885), (121, 12918), (131, 12987), (135, 13014), (141, 13044), (142, 13053), (164, 13221), (168, 13242), (184, 13398), (189, 13458), (195, 13512), (200, 13560), (201, 13569), (203, 13596), (205, 13614), (207, 13626), (208, 13635), (213, 13656), (219, 13713), (224, 13737), (229, 13776), (231, 13785), (242, 13896), (244, 13917), (247, 13953), (252, 13980), (256, 14004), (257, 14022), (261, 14046), (265, 14076), (268, 14094),

Gene: SallyH\_12 Start: 9755, Stop: 11500, Start Num: 49

Candidate Starts for SallyH\_12:

(Start: 49 @9755 has 280 MA's), (63, 9902), (121, 10289), (141, 10415), (149, 10466), (164, 10574), (195, 10868), (201, 10925), (206, 10970), (207, 10979), (208, 10988), (226, 11111), (236, 11189), (237, 11198), (244, 11273), (247, 11309), (252, 11336), (254, 11354), (257, 11378), (265, 11432), (266, 11438), (268, 11450),

Gene: Samaymay\_12 Start: 9754, Stop: 11502, Start Num: 49

Candidate Starts for Samaymay\_12:

(Start: 49 @9754 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (217, 11041), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: SassyCat97\_11 Start: 9461, Stop: 11209, Start Num: 49

Candidate Starts for SassyCat97\_11:

(Start: 49 @9461 has 280 MA's), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Schadenfreude\_11 Start: 9305, Stop: 11047, Start Num: 49

Candidate Starts for Schadenfreude\_11:

(Start: 49 @9305 has 280 MA's), (63, 9452), (121, 9836), (141, 9962), (149, 10013), (164, 10121), (195, 10415), (201, 10472), (206, 10517), (207, 10526), (208, 10535), (226, 10658), (236, 10736), (237, 10745), (244, 10820), (247, 10856), (252, 10883), (254, 10901), (257, 10925), (265, 10979), (266, 10985), (268, 10997),

Gene: Schueller\_11 Start: 9461, Stop: 11206, Start Num: 49

Candidate Starts for Schueller\_11:

(Start: 49 @9461 has 280 MA's), (121, 9995), (141, 10121), (149, 10172), (164, 10280), (169, 10307), (195, 10574), (201, 10631), (206, 10676), (207, 10685), (208, 10694), (226, 10817), (236, 10895),

(237, 10904), (244, 10979), (247, 11015), (252, 11042), (254, 11060), (257, 11084), (265, 11138), (266, 11144), (268, 11156),

Gene: Scoot17C\_12 Start: 9758, Stop: 11503, Start Num: 49

Candidate Starts for Scoot17C\_12:

(Start: 49 @9758 has 280 MA's), (63, 9905), (121, 10292), (141, 10418), (149, 10469), (164, 10577), (195, 10871), (201, 10928), (206, 10973), (207, 10982), (208, 10991), (226, 11114), (236, 11192), (237, 11201), (244, 11276), (247, 11312), (252, 11339), (254, 11357), (257, 11381), (265, 11435), (266, 11441), (268, 11453),

Gene: Scrick\_11 Start: 9465, Stop: 11210, Start Num: 49

Candidate Starts for Scrick\_11:

(Start: 49 @9465 has 280 MA's), (63, 9612), (121, 9999), (141, 10125), (149, 10176), (164, 10284), (195, 10578), (201, 10635), (206, 10680), (207, 10689), (208, 10698), (226, 10821), (236, 10899), (237, 10908), (244, 10983), (247, 11019), (252, 11046), (254, 11064), (257, 11088), (265, 11142), (266, 11148), (268, 11160),

Gene: Sejanus\_10 Start: 9723, Stop: 11489, Start Num: 48

Candidate Starts for Sejanus\_10:

(Start: 22 @9606 has 1 MA's), (Start: 48 @9723 has 10 MA's), (83, 10080), (96, 10155), (105, 10191), (113, 10230), (114, 10245), (120, 10281), (126, 10323), (127, 10329), (144, 10437), (151, 10467), (186, 10776), (197, 10878), (200, 10914), (201, 10923), (211, 11007), (221, 11067), (224, 11082), (251, 11322), (253, 11340), (254, 11343), (267, 11433),

Gene: Selr12\_12 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Selr12\_12:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Serendipitous\_13 Start: 11421, Stop: 13295, Start Num: 25

Candidate Starts for Serendipitous\_13:

(Start: 19 @11391 has 1 MA's), (Start: 25 @11421 has 2 MA's), (Start: 30 @11445 has 45 MA's), (36, 11478), (50, 11529), (51, 11541), (54, 11553), (62, 11658), (115, 12030), (121, 12063), (131, 12132), (141, 12189), (144, 12216), (163, 12351), (164, 12369), (185, 12552), (195, 12660), (201, 12717), (202, 12720), (206, 12765), (207, 12774), (208, 12783), (213, 12804), (219, 12861), (226, 12906), (243, 13062), (247, 13104), (248, 13113), (251, 13128), (252, 13131), (256, 13155), (257, 13173), (263, 13221),

Gene: Serendipity\_12 Start: 9757, Stop: 11505, Start Num: 49

Candidate Starts for Serendipity\_12:

(Start: 49 @9757 has 280 MA's), (121, 10294), (141, 10420), (149, 10471), (164, 10579), (195, 10873), (201, 10930), (206, 10975), (207, 10984), (208, 10993), (226, 11116), (236, 11194), (237, 11203), (244, 11278), (247, 11314), (252, 11341), (254, 11359), (257, 11383), (265, 11437), (266, 11443), (268, 11455),

Gene: Serpentine\_0012 Start: 9757, Stop: 11505, Start Num: 49

Candidate Starts for Serpentine\_0012:

(Start: 49 @9757 has 280 MA's), (121, 10294), (141, 10420), (149, 10471), (164, 10579), (195, 10873), (201, 10930), (206, 10975), (207, 10984), (208, 10993), (226, 11116), (236, 11194), (237, 11203), (244, 11278), (247, 11314), (252, 11341), (254, 11359), (257, 11383), (265, 11437), (266, 11443), (268, 11455),

Gene: ShadowBud\_12 Start: 9757, Stop: 11505, Start Num: 49

Candidate Starts for ShadowBud\_12:

(Start: 49 @9757 has 280 MA's), (121, 10294), (141, 10420), (149, 10471), (164, 10579), (195, 10873), (201, 10930), (206, 10975), (207, 10984), (208, 10993), (226, 11116), (236, 11194), (237, 11203), (244, 11278), (247, 11314), (252, 11341), (254, 11359), (257, 11383), (265, 11437), (266, 11443), (268, 11455),

Gene: Shatter\_11 Start: 9837, Stop: 11540, Start Num: 46

Candidate Starts for Shatter\_11:

(Start: 46 @9837 has 65 MA's), (61, 9972), (90, 10188), (98, 10209), (115, 10284), (125, 10347), (143, 10446), (156, 10506), (166, 10605), (195, 10884), (201, 10941), (208, 11007), (224, 11109), (226, 11130), (229, 11148), (241, 11265), (247, 11325), (252, 11352), (256, 11376), (259, 11412), (265, 11448), (266, 11454), (277, 11529),

Gene: Sheila\_12 Start: 9755, Stop: 11500, Start Num: 49

Candidate Starts for Sheila\_12:

(Start: 49 @9755 has 280 MA's), (63, 9902), (121, 10289), (141, 10415), (149, 10466), (164, 10574), (195, 10868), (201, 10925), (206, 10970), (207, 10979), (208, 10988), (226, 11111), (236, 11189), (237, 11198), (244, 11273), (247, 11309), (252, 11336), (254, 11354), (257, 11378), (265, 11432), (266, 11438), (268, 11450),

Gene: Shenandoah\_14 Start: 11005, Stop: 13020, Start Num: 46

Candidate Starts for Shenandoah\_14:

(Start: 43 @10993 has 6 MA's), (Start: 46 @11005 has 65 MA's), (50, 11020), (59, 11098), (61, 11146), (115, 11503), (120, 11527), (149, 11692), (158, 11740), (164, 11812), (175, 11893), (178, 11947), (201, 12166), (202, 12169), (207, 12223), (216, 12271), (224, 12334), (226, 12355), (227, 12358), (247, 12550), (248, 12559), (252, 12577), (254, 12595), (255, 12598), (260, 12640), (265, 12673), (278, 12763), (279, 12796), (282, 12913),

Gene: Shenyu\_13 Start: 11390, Stop: 13231, Start Num: 30

Candidate Starts for Shenyu\_13:

(Start: 25 @11366 has 2 MA's), (Start: 30 @11390 has 45 MA's), (36, 11423), (50, 11474), (54, 11498), (62, 11603), (76, 11708), (115, 11966), (121, 11999), (131, 12068), (141, 12125), (144, 12152), (164, 12305), (180, 12449), (185, 12488), (195, 12596), (201, 12653), (202, 12656), (206, 12701), (207, 12710), (208, 12719), (219, 12797), (226, 12842), (229, 12863), (237, 12929), (243, 12998), (247, 13040), (251, 13064), (252, 13067), (256, 13091), (257, 13109), (263, 13157),

Gene: ShiVal\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for ShiVal\_12:

(Start: 49 @9757 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Sigman\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for Sigman\_12:

(Start: 49 @9754 has 280 MA's), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: SilverBell\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for SilverBell\_12:

(Start: 49 @9757 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Simielle\_11 Start: 9464, Stop: 11200, Start Num: 49

Candidate Starts for Simielle\_11:

(Start: 49 @9464 has 280 MA's), (121, 9989), (141, 10115), (149, 10166), (164, 10274), (195, 10568), (201, 10625), (206, 10670), (207, 10679), (208, 10688), (226, 10811), (236, 10889), (237, 10898), (244, 10973), (247, 11009), (252, 11036), (254, 11054), (257, 11078), (265, 11132), (266, 11138), (268, 11150),

Gene: SirBeauregard\_11 Start: 9418, Stop: 11163, Start Num: 49

Candidate Starts for SirBeauregard\_11:

(Start: 49 @9418 has 280 MA's), (121, 9952), (141, 10078), (149, 10129), (164, 10237), (195, 10531), (201, 10588), (206, 10633), (207, 10642), (208, 10651), (226, 10774), (236, 10852), (237, 10861), (244, 10936), (247, 10972), (252, 10999), (254, 11017), (257, 11041), (265, 11095), (266, 11101), (268, 11113),

Gene: SirJeffery\_13 Start: 11377, Stop: 13248, Start Num: 25

Candidate Starts for SirJeffery\_13:

(Start: 25 @11377 has 2 MA's), (Start: 30 @11401 has 45 MA's), (36, 11434), (50, 11485), (54, 11509), (62, 11614), (68, 11644), (69, 11653), (115, 11983), (121, 12016), (131, 12085), (140, 12139), (143, 12163), (144, 12169), (164, 12322), (185, 12505), (195, 12613), (201, 12670), (202, 12673), (206, 12718), (207, 12727), (208, 12736), (212, 12754), (219, 12814), (226, 12859), (229, 12880), (231, 12889), (234, 12916), (237, 12946), (243, 13015), (247, 13057), (251, 13081), (252, 13084), (257, 13126), (263, 13174),

Gene: Sisko\_11 Start: 10177, Stop: 11874, Start Num: 46

Candidate Starts for Sisko\_11:

(Start: 46 @10177 has 65 MA's), (103, 10558), (115, 10618), (127, 10690), (143, 10780), (161, 10870), (168, 10948), (195, 11218), (201, 11275), (207, 11332), (208, 11341), (224, 11443), (226, 11464), (229, 11482), (247, 11659), (250, 11677), (251, 11683), (252, 11686), (256, 11710), (260, 11749), (265, 11782), (266, 11788),

Gene: Skippy\_12 Start: 9757, Stop: 11505, Start Num: 49

Candidate Starts for Skippy\_12:

(Start: 49 @9757 has 280 MA's), (121, 10294), (141, 10420), (149, 10471), (164, 10579), (195, 10873), (201, 10930), (206, 10975), (207, 10984), (208, 10993), (226, 11116), (236, 11194), (237, 11203), (244, 11278), (247, 11314), (252, 11341), (254, 11359), (257, 11383), (265, 11437), (266, 11443), (268, 11455),

Gene: Slatt\_12 Start: 9759, Stop: 11507, Start Num: 49

Candidate Starts for Slatt\_12:

(Start: 49 @9759 has 280 MA's), (121, 10296), (141, 10422), (149, 10473), (164, 10581), (195, 10875), (201, 10932), (206, 10977), (207, 10986), (208, 10995), (226, 11118), (236, 11196), (237, 11205), (244, 11280), (247, 11316), (252, 11343), (254, 11361), (257, 11385), (265, 11439), (266, 11445), (268, 11457),

Gene: SlippinJimmy\_14 Start: 11788, Stop: 13806, Start Num: 46

Candidate Starts for SlippinJimmy\_14:

(Start: 46 @11788 has 65 MA's), (50, 11803), (59, 11881), (61, 11929), (115, 12289), (120, 12313), (149, 12478), (158, 12526), (164, 12598), (175, 12679), (178, 12733), (201, 12952), (202, 12955), (207, 13009), (216, 13057), (224, 13120), (226, 13141), (227, 13144), (247, 13336), (248, 13345), (252, 13363), (254, 13381), (255, 13384), (260, 13426), (265, 13459), (278, 13549), (279, 13582), (282, 13699),

Gene: Soile\_12 Start: 9463, Stop: 11208, Start Num: 49

Candidate Starts for Soile\_12:

(Start: 49 @9463 has 280 MA's), (121, 9997), (141, 10123), (149, 10174), (164, 10282), (195, 10576), (201, 10633), (206, 10678), (207, 10687), (208, 10696), (226, 10819), (236, 10897), (237, 10906), (244, 10981), (247, 11017), (252, 11044), (254, 11062), (257, 11086), (265, 11140), (266, 11146), (268, 11158),

Gene: Solosis\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Solosis\_11:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Soos\_40 Start: 22417, Stop: 24207, Start Num: 30

Candidate Starts for Soos\_40:

(17, 22357), (28, 22411), (Start: 30 @22417 has 45 MA's), (116, 22987), (118, 22999), (138, 23119), (139, 23122), (146, 23179), (170, 23332), (171, 23338), (174, 23365), (177, 23407), (185, 23461), (188, 23500), (194, 23560), (205, 23665), (206, 23668), (214, 23710), (215, 23713), (220, 23767), (221, 23773), (235, 23869), (236, 23884), (237, 23893), (261, 24118), (266, 24154), (268, 24166), (270, 24190),

Gene: Sophia\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Sophia\_11:

(Start: 49 @9464 has 280 MA's), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Soto\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for Soto\_12:

(Start: 49 @9754 has 280 MA's), (63, 9901), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: Sour\_14 Start: 11491, Stop: 13185, Start Num: 46

Candidate Starts for Sour\_14:

(Start: 46 @11491 has 65 MA's), (61, 11626), (87, 11827), (115, 11929), (143, 12091), (164, 12238), (166, 12250), (188, 12463), (195, 12529), (201, 12586), (202, 12589), (203, 12613), (208, 12652), (215, 12679), (219, 12730), (224, 12754), (226, 12775), (229, 12793), (241, 12910), (243, 12928), (244, 12934), (246, 12940), (247, 12970), (248, 12979), (250, 12988), (252, 12997), (256, 13021), (265, 13093), (266, 13099), (277, 13174),

Gene: Spartan300\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for Spartan300\_12:

(Start: 49 @9754 has 280 MA's), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: Squid\_12 Start: 9461, Stop: 11209, Start Num: 49

Candidate Starts for Squid\_12:

(Start: 49 @9461 has 280 MA's), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Squiggle\_12 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Squiggle\_12:

(Start: 49 @9464 has 280 MA's), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: StAugustine\_17 Start: 13254, Stop: 15374, Start Num: 42

Candidate Starts for StAugustine\_17:

(Start: 42 @13254 has 2 MA's), (47, 13269), (102, 13719), (115, 13782), (122, 13818), (140, 13920), (164, 14112), (175, 14193), (187, 14307), (195, 14388), (201, 14445), (208, 14508), (213, 14529), (232, 14673), (243, 14787), (247, 14829), (252, 14856), (257, 14898), (265, 14952), (283, 15204),

Gene: Stillion\_44 Start: 23002, Stop: 24792, Start Num: 30

Candidate Starts for Stillion\_44:

(17, 22942), (28, 22996), (Start: 30 @23002 has 45 MA's), (112, 23539), (116, 23572), (118, 23584), (138, 23704), (139, 23707), (146, 23764), (170, 23917), (171, 23923), (177, 23992), (193, 24139), (205, 24250), (206, 24253), (214, 24295), (215, 24298), (219, 24349), (220, 24352), (221, 24358), (235, 24454), (236, 24469), (237, 24478), (261, 24703), (266, 24739), (268, 24751), (270, 24775),

Gene: Sting\_43 Start: 22856, Stop: 24646, Start Num: 30

Candidate Starts for Sting\_43:

(17, 22796), (28, 22850), (Start: 30 @22856 has 45 MA's), (112, 23393), (116, 23426), (118, 23438), (138, 23558), (139, 23561), (146, 23618), (170, 23771), (171, 23777), (174, 23804), (177, 23846), (205, 24104), (206, 24107), (214, 24149), (215, 24152), (220, 24206), (221, 24212), (235, 24308), (236, 24323), (237, 24332), (261, 24557), (266, 24593), (268, 24605), (270, 24629),

Gene: Stinger\_10 Start: 9910, Stop: 11709, Start Num: 30

Candidate Starts for Stinger\_10:

(Start: 30 @9910 has 45 MA's), (35, 9940), (50, 9976), (68, 10126), (73, 10189), (106, 10399), (115, 10456), (122, 10495), (131, 10552), (140, 10606), (141, 10609), (143, 10630), (145, 10639), (156, 10690), (164, 10777), (188, 11005), (189, 11017), (195, 11071), (202, 11131), (203, 11155), (206, 11176), (207, 11185), (208, 11194), (213, 11215), (224, 11296), (231, 11344), (237, 11401), (242, 11455), (245, 11479), (247, 11512), (252, 11539), (254, 11557), (256, 11563), (257, 11581), (265, 11635), (266, 11641), (268, 11653),

Gene: StinkyVeggy\_14 Start: 11554, Stop: 13395, Start Num: 30

Candidate Starts for StinkyVeggy\_14:

(Start: 25 @11530 has 2 MA's), (Start: 30 @11554 has 45 MA's), (36, 11587), (54, 11662), (62, 11767), (75, 11869), (115, 12130), (121, 12163), (131, 12232), (141, 12289), (144, 12316), (164, 12469), (167, 12487), (180, 12613), (185, 12652), (195, 12760), (201, 12817), (202, 12820), (206, 12865), (207,

12874), (208, 12883), (219, 12961), (226, 13006), (229, 13027), (237, 13093), (239, 13123), (243, 13162), (247, 13204), (248, 13213), (251, 13228), (252, 13231), (256, 13255), (257, 13273), (263, 13321),

Gene: Struggle\_11 Start: 9310, Stop: 11055, Start Num: 49

Candidate Starts for Struggle\_11:

(Start: 49 @9310 has 280 MA's), (121, 9844), (141, 9970), (149, 10021), (164, 10129), (195, 10423), (201, 10480), (206, 10525), (207, 10534), (208, 10543), (226, 10666), (236, 10744), (237, 10753), (244, 10828), (247, 10864), (252, 10891), (254, 10909), (257, 10933), (265, 10987), (266, 10993), (268, 11005),

Gene: Suffolk\_12 Start: 9756, Stop: 11501, Start Num: 49

Candidate Starts for Suffolk\_12:

(Start: 49 @9756 has 280 MA's), (63, 9903), (121, 10290), (141, 10416), (149, 10467), (164, 10575), (195, 10869), (201, 10926), (206, 10971), (207, 10980), (208, 10989), (226, 11112), (236, 11190), (237, 11199), (244, 11274), (247, 11310), (252, 11337), (254, 11355), (257, 11379), (265, 11433), (266, 11439), (268, 11451),

Gene: Suigeneris\_13 Start: 11401, Stop: 13248, Start Num: 30

Candidate Starts for Suigeneris\_13:

(Start: 25 @11377 has 2 MA's), (Start: 30 @11401 has 45 MA's), (36, 11434), (50, 11485), (54, 11509), (62, 11614), (68, 11644), (69, 11653), (115, 11983), (121, 12016), (131, 12085), (140, 12139), (143, 12163), (164, 12322), (168, 12343), (185, 12505), (195, 12613), (201, 12670), (202, 12673), (206, 12718), (207, 12727), (208, 12736), (212, 12754), (219, 12814), (226, 12859), (229, 12880), (231, 12889), (234, 12916), (237, 12946), (243, 13015), (247, 13057), (251, 13081), (252, 13084), (257, 13126), (263, 13174),

Gene: Sunfish\_32 Start: 15117, Stop: 16874, Start Num: 53

Candidate Starts for Sunfish\_32:

(Start: 53 @15117 has 1 MA's), (88, 15489), (99, 15534), (123, 15681), (145, 15807), (219, 16431), (222, 16446), (223, 16449), (224, 16455), (252, 16695), (261, 16761), (264, 16788),

Gene: Surely\_12 Start: 9757, Stop: 11505, Start Num: 49

Candidate Starts for Surely\_12:

(Start: 49 @9757 has 280 MA's), (121, 10294), (141, 10420), (149, 10471), (164, 10579), (195, 10873), (201, 10930), (206, 10975), (207, 10984), (208, 10993), (226, 11116), (236, 11194), (237, 11203), (244, 11278), (247, 11314), (252, 11341), (254, 11359), (257, 11383), (265, 11437), (266, 11443), (268, 11455),

Gene: SwainyDoc\_14 Start: 11024, Stop: 13039, Start Num: 46

Candidate Starts for SwainyDoc\_14:

(Start: 46 @11024 has 65 MA's), (50, 11039), (59, 11117), (61, 11165), (115, 11522), (120, 11546), (149, 11711), (158, 11759), (164, 11831), (175, 11912), (178, 11966), (201, 12185), (202, 12188), (207, 12242), (216, 12290), (224, 12353), (226, 12374), (227, 12377), (247, 12569), (248, 12578), (252, 12596), (254, 12614), (255, 12617), (260, 12659), (265, 12692), (278, 12782), (279, 12815), (282, 12932),

Gene: Swiphy\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Swiphy\_12:

(Start: 49 @9757 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Swish\_12 Start: 9758, Stop: 11503, Start Num: 49

Candidate Starts for Swish\_12:

(Start: 49 @9758 has 280 MA's), (63, 9905), (121, 10292), (141, 10418), (149, 10469), (164, 10577), (195, 10871), (201, 10928), (206, 10973), (207, 10982), (208, 10991), (226, 11114), (236, 11192), (237, 11201), (244, 11276), (247, 11312), (252, 11339), (254, 11357), (257, 11381), (265, 11435), (266, 11441), (268, 11453),

Gene: SynergyX\_14 Start: 11027, Stop: 13042, Start Num: 46

Candidate Starts for SynergyX\_14:

(Start: 46 @11027 has 65 MA's), (50, 11042), (59, 11120), (61, 11168), (115, 11525), (120, 11549), (149, 11714), (158, 11762), (164, 11834), (175, 11915), (178, 11969), (201, 12188), (202, 12191), (207, 12245), (216, 12293), (224, 12356), (226, 12377), (227, 12380), (247, 12572), (248, 12581), (252, 12599), (254, 12617), (255, 12620), (260, 12662), (265, 12695), (278, 12785), (279, 12818), (282, 12935),

Gene: TA17A\_15 Start: 12411, Stop: 14438, Start Num: 44

Candidate Starts for TA17A\_15:

(Start: 44 @12411 has 36 MA's), (61, 12555), (64, 12576), (71, 12630), (84, 12744), (115, 12909), (127, 12981), (149, 13098), (159, 13158), (162, 13176), (164, 13230), (175, 13311), (201, 13584), (202, 13587), (208, 13653), (241, 13911), (247, 13971), (248, 13980), (252, 13998), (256, 14022), (265, 14094), (272, 14142), (280, 14286), (282, 14325), (286, 14382), (287, 14418), (288, 14424),

Gene: TPA2\_21 Start: 12968, Stop: 14209, Start Num: 115

Candidate Starts for TPA2\_21:

(Start: 48 @12464 has 10 MA's), (65, 12626), (81, 12797), (97, 12878), (109, 12920), (115, 12968), (133, 13061), (144, 13130), (154, 13181), (157, 13202), (164, 13274), (188, 13499), (195, 13565), (201, 13622), (208, 13688), (215, 13715), (224, 13790), (231, 13838), (237, 13895), (244, 13970), (247, 14006), (248, 14015), (251, 14030), (252, 14033), (256, 14057), (261, 14099), (265, 14129),

Gene: TallGrassMM\_12 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for TallGrassMM\_12:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Taptic\_9 Start: 10537, Stop: 12588, Start Num: 48

Candidate Starts for Taptic\_9:

(Start: 48 @10537 has 10 MA's), (50, 10549), (52, 10576), (59, 10630), (61, 10678), (74, 10783), (Start: 82 @10888 has 1 MA's), (96, 10960), (124, 11095), (132, 11134), (136, 11164), (144, 11209), (147, 11230), (163, 11338), (164, 11356), (173, 11425), (174, 11431), (183, 11524), (199, 11683), (201, 11707), (204, 11737), (208, 11773), (215, 11800), (224, 11875), (229, 11914), (237, 11980), (244, 12055), (251, 12115), (265, 12214), (266, 12220), (275, 12283), (281, 12439), (284, 12490), (285, 12496), (289, 12580),

Gene: Telesworld\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Telesworld\_11:

(Start: 49 @9464 has 280 MA's), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Thonko\_13 Start: 9413, Stop: 11170, Start Num: 45

Candidate Starts for Thonko\_13:

(Start: 45 @9413 has 1 MA's), (50, 9428), (70, 9611), (92, 9803), (104, 9842), (115, 9908), (121, 9941), (127, 9986), (130, 10007), (141, 10067), (164, 10244), (172, 10301), (181, 10391), (183, 10412), (195, 10538), (201, 10595), (205, 10640), (207, 10652), (208, 10661), (213, 10682), (224, 10763), (226, 10784), (236, 10859), (237, 10868), (241, 10919), (243, 10937), (244, 10943), (247, 10979), (252, 11006), (254, 11024), (256, 11030), (257, 11048), (269, 11132),

Gene: Thora\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for Thora\_12:

(Start: 49 @9754 has 280 MA's), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: ThreeOh3D2\_12 Start: 9755, Stop: 11500, Start Num: 49

Candidate Starts for ThreeOh3D2\_12:

(Start: 49 @9755 has 280 MA's), (63, 9902), (121, 10289), (141, 10415), (149, 10466), (164, 10574), (195, 10868), (201, 10925), (206, 10970), (207, 10979), (208, 10988), (226, 11111), (236, 11189), (237, 11198), (244, 11273), (247, 11309), (252, 11336), (254, 11354), (257, 11378), (265, 11432), (266, 11438), (268, 11450),

Gene: Thunderbird\_11 Start: 9463, Stop: 11205, Start Num: 49

Candidate Starts for Thunderbird\_11:

(Start: 49 @9463 has 280 MA's), (63, 9610), (121, 9994), (141, 10120), (149, 10171), (164, 10279), (195, 10573), (201, 10630), (206, 10675), (207, 10684), (208, 10693), (226, 10816), (236, 10894), (237, 10903), (244, 10978), (247, 11014), (252, 11041), (254, 11059), (257, 11083), (265, 11137), (266, 11143), (268, 11155),

Gene: Timmi\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Timmi\_11:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Tinciduntolum\_16 Start: 12527, Stop: 14557, Start Num: 44

Candidate Starts for Tinciduntolum\_16:

(Start: 44 @12527 has 36 MA's), (61, 12671), (64, 12692), (71, 12749), (84, 12863), (115, 13028), (127, 13100), (149, 13217), (159, 13277), (162, 13295), (164, 13349), (175, 13430), (201, 13703), (202, 13706), (208, 13772), (241, 14030), (247, 14090), (248, 14099), (252, 14117), (256, 14141), (265, 14213), (272, 14261), (280, 14405), (282, 14444), (286, 14501), (287, 14537), (288, 14543),

Gene: TinyTerror\_14 Start: 11029, Stop: 13041, Start Num: 46

Candidate Starts for TinyTerror\_14:

(Start: 46 @11029 has 65 MA's), (50, 11044), (59, 11122), (61, 11170), (115, 11524), (120, 11548), (149, 11713), (158, 11761), (164, 11833), (175, 11914), (178, 11968), (201, 12187), (202, 12190), (207, 12244), (216, 12292), (224, 12355), (226, 12376), (227, 12379), (247, 12571), (248, 12580), (252, 12598), (254, 12616), (255, 12619), (260, 12661), (265, 12694), (282, 12934),

Gene: TomBombadil\_12 Start: 9757, Stop: 11505, Start Num: 49

Candidate Starts for TomBombadil\_12:

(Start: 49 @9757 has 280 MA's), (121, 10294), (141, 10420), (149, 10471), (164, 10579), (195, 10873), (201, 10930), (206, 10975), (207, 10984), (208, 10993), (226, 11116), (236, 11194), (237, 11203), (244, 11278), (247, 11314), (252, 11341), (254, 11359), (257, 11383), (265, 11437), (266, 11443), (268, 11455),

Gene: Tomlarah\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Tomlarah\_12:

(Start: 49 @9757 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Toni\_11 Start: 9465, Stop: 11213, Start Num: 49

Candidate Starts for Toni\_11:

(Start: 49 @9465 has 280 MA's), (121, 10002), (141, 10128), (149, 10179), (164, 10287), (195, 10581), (201, 10638), (206, 10683), (207, 10692), (208, 10701), (226, 10824), (236, 10902), (237, 10911), (244, 10986), (247, 11022), (252, 11049), (254, 11067), (257, 11091), (265, 11145), (266, 11151), (268, 11163),

Gene: Tonitrus\_30 Start: 19280, Stop: 21067, Start Num: 31

Candidate Starts for Tonitrus\_30:

(Start: 31 @19280 has 1 MA's), (51, 19370), (55, 19391), (66, 19514), (76, 19589), (78, 19601), (129, 19958), (150, 20066), (164, 20168), (168, 20189), (172, 20225), (178, 20297), (185, 20333), (187, 20357), (197, 20450), (198, 20462), (201, 20495), (210, 20570), (220, 20639), (229, 20699), (232, 20720), (234, 20735), (237, 20765), (250, 20897), (253, 20921), (266, 21008),

Gene: TooFast2Furius\_13 Start: 9992, Stop: 11737, Start Num: 49

Candidate Starts for TooFast2Furius\_13:

(Start: 49 @9992 has 280 MA's), (63, 10139), (121, 10526), (141, 10652), (149, 10703), (164, 10811), (195, 11105), (201, 11162), (206, 11207), (207, 11216), (208, 11225), (226, 11348), (236, 11426), (237, 11435), (244, 11510), (247, 11546), (252, 11573), (254, 11591), (257, 11615), (265, 11669), (266, 11675), (268, 11687),

Gene: Tooj\_12 Start: 9755, Stop: 11503, Start Num: 49

Candidate Starts for Tooj\_12:

(Start: 49 @9755 has 280 MA's), (63, 9902), (121, 10292), (141, 10418), (149, 10469), (164, 10577), (195, 10871), (201, 10928), (206, 10973), (207, 10982), (208, 10991), (226, 11114), (236, 11192), (237, 11201), (244, 11276), (247, 11312), (252, 11339), (254, 11357), (257, 11381), (265, 11435), (266, 11441), (268, 11453),

Gene: TraderJ\_13 Start: 11329, Stop: 13011, Start Num: 46

Candidate Starts for TraderJ\_13:

(Start: 46 @11329 has 65 MA's), (59, 11416), (61, 11464), (85, 11653), (115, 11764), (120, 11788), (127, 11836), (143, 11926), (166, 12085), (168, 12094), (174, 12142), (181, 12220), (184, 12253), (188, 12301), (195, 12367), (200, 12415), (201, 12424), (202, 12427), (209, 12499), (215, 12517), (219, 12568), (226, 12613), (228, 12625), (231, 12640), (243, 12766), (247, 12808), (251, 12832), (252, 12835), (254, 12853),

Gene: Tres\_15 Start: 12411, Stop: 14438, Start Num: 44

Candidate Starts for Tres\_15:

(Start: 44 @12411 has 36 MA's), (61, 12555), (64, 12576), (71, 12630), (76, 12657), (84, 12744), (115, 12909), (127, 12981), (149, 13098), (159, 13158), (162, 13176), (164, 13230), (175, 13311), (201, 13584), (202, 13587), (208, 13653), (241, 13911), (247, 13971), (248, 13980), (252, 13998), (256,

14022), (265, 14094), (272, 14142), (280, 14286), (282, 14325), (286, 14382), (287, 14418), (288, 14424),

Gene: Triad\_12 Start: 9307, Stop: 11052, Start Num: 49

Candidate Starts for Triad\_12:

(Start: 49 @9307 has 280 MA's), (63, 9454), (121, 9841), (141, 9967), (149, 10018), (164, 10126), (195, 10420), (201, 10477), (206, 10522), (207, 10531), (208, 10540), (226, 10663), (236, 10741), (237, 10750), (244, 10825), (247, 10861), (252, 10888), (254, 10906), (257, 10930), (265, 10984), (266, 10990), (268, 11002),

Gene: True\_11 Start: 9462, Stop: 11210, Start Num: 49

Candidate Starts for True\_11:

(Start: 49 @9462 has 280 MA's), (121, 9999), (141, 10125), (149, 10176), (164, 10284), (195, 10578), (201, 10635), (206, 10680), (207, 10689), (208, 10698), (226, 10821), (236, 10899), (237, 10908), (244, 10983), (247, 11019), (252, 11046), (254, 11064), (257, 11088), (265, 11142), (266, 11148), (268, 11160),

Gene: Trypo\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for Trypo\_12:

(Start: 49 @9754 has 280 MA's), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: Tydolla\_14 Start: 11764, Stop: 13779, Start Num: 46

Candidate Starts for Tydolla\_14:

(Start: 43 @11752 has 6 MA's), (Start: 46 @11764 has 65 MA's), (50, 11779), (59, 11857), (61, 11905), (115, 12262), (120, 12286), (149, 12451), (158, 12499), (164, 12571), (175, 12652), (178, 12706), (201, 12925), (202, 12928), (207, 12982), (216, 13030), (224, 13093), (226, 13114), (227, 13117), (247, 13309), (248, 13318), (252, 13336), (254, 13354), (255, 13357), (260, 13399), (265, 13432), (278, 13522), (279, 13555), (282, 13672),

Gene: TyrionL\_11 Start: 9316, Stop: 11061, Start Num: 49

Candidate Starts for TyrionL\_11:

(Start: 49 @9316 has 280 MA's), (121, 9850), (141, 9976), (149, 10027), (164, 10135), (195, 10429), (201, 10486), (206, 10531), (207, 10540), (208, 10549), (226, 10672), (236, 10750), (237, 10759), (244, 10834), (247, 10870), (252, 10897), (254, 10915), (257, 10939), (265, 10993), (266, 10999), (268, 11011),

Gene: UAch1\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for UAch1\_12:

(Start: 49 @9757 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: UncleHowie\_12 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for UncleHowie\_12:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Usavi\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for Usavi\_12:

(Start: 49 @9754 has 280 MA's), (63, 9901), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: Vaishali24\_11 Start: 9429, Stop: 11174, Start Num: 49

Candidate Starts for Vaishali24\_11:

(Start: 49 @9429 has 280 MA's), (63, 9576), (121, 9963), (141, 10089), (149, 10140), (164, 10248), (195, 10542), (196, 10551), (201, 10599), (206, 10644), (207, 10653), (208, 10662), (226, 10785), (236, 10863), (237, 10872), (244, 10947), (247, 10983), (252, 11010), (254, 11028), (257, 11052), (265, 11106), (266, 11112), (268, 11124),

Gene: Valjean\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Valjean\_12:

(Start: 49 @9757 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Vaticameos\_12 Start: 9461, Stop: 11206, Start Num: 49

Candidate Starts for Vaticameos\_12:

(Start: 49 @9461 has 280 MA's), (63, 9608), (121, 9995), (141, 10121), (149, 10172), (164, 10280), (195, 10574), (201, 10631), (206, 10676), (207, 10685), (208, 10694), (226, 10817), (236, 10895), (237, 10904), (244, 10979), (247, 11015), (252, 11042), (254, 11060), (257, 11084), (265, 11138), (266, 11144), (268, 11156),

Gene: Veritas\_11 Start: 9304, Stop: 11049, Start Num: 49

Candidate Starts for Veritas\_11:

(Start: 49 @9304 has 280 MA's), (121, 9838), (141, 9964), (149, 10015), (164, 10123), (195, 10417), (201, 10474), (206, 10519), (207, 10528), (208, 10537), (226, 10660), (236, 10738), (237, 10747), (244, 10822), (247, 10858), (252, 10885), (254, 10903), (257, 10927), (265, 10981), (266, 10987), (268, 10999),

Gene: Vic9\_00015 Start: 12851, Stop: 14878, Start Num: 44

Candidate Starts for Vic9\_00015:

(Start: 44 @12851 has 36 MA's), (61, 12995), (64, 13016), (71, 13070), (84, 13184), (115, 13349), (127, 13421), (149, 13538), (159, 13598), (162, 13616), (164, 13670), (175, 13751), (201, 14024), (202, 14027), (208, 14093), (241, 14351), (247, 14411), (248, 14420), (252, 14438), (256, 14462), (265, 14534), (272, 14582), (280, 14726), (282, 14765), (286, 14822), (287, 14858), (288, 14864),

Gene: Vincenzo\_13 Start: 12220, Stop: 14025, Start Num: 30

Candidate Starts for Vincenzo\_13:

(1, 11848), (2, 11857), (Start: 30 @12220 has 45 MA's), (35, 12250), (41, 12271), (50, 12292), (70, 12475), (86, 12649), (115, 12769), (131, 12868), (135, 12895), (141, 12925), (143, 12946), (144, 12952), (145, 12955), (172, 13150), (182, 13249), (184, 13273), (188, 13321), (195, 13387), (206, 13492), (208, 13510), (213, 13531), (224, 13612), (231, 13660), (242, 13771), (243, 13786), (245, 13795), (247, 13828), (252, 13855), (257, 13897), (261, 13921), (265, 13951), (268, 13969),

Gene: VioletZ\_12 Start: 11476, Stop: 13257, Start Num: 30

Candidate Starts for VioletZ\_12:

(Start: 30 @11476 has 45 MA's), (50, 11542), (68, 11692), (70, 11725), (73, 11755), (86, 11887), (96, 11920), (115, 12016), (131, 12112), (135, 12139), (140, 12166), (141, 12169), (143, 12190), (164, 12337), (181, 12484), (195, 12631), (202, 12691), (203, 12715), (205, 12733), (207, 12745), (208, 12754), (213, 12775), (217, 12805), (224, 12856), (231, 12904), (237, 12961), (240, 13003), (243, 13030), (246, 13042), (247, 13072), (252, 13099), (256, 13123), (257, 13141), (261, 13165), (265, 13195), (266, 13201),

Gene: Virapocalypse\_12 Start: 9755, Stop: 11500, Start Num: 49

Candidate Starts for Virapocalypse\_12:

(Start: 49 @9755 has 280 MA's), (121, 10289), (141, 10415), (149, 10466), (164, 10574), (195, 10868), (201, 10925), (206, 10970), (207, 10979), (208, 10988), (226, 11111), (236, 11189), (237, 11198), (244, 11273), (247, 11309), (252, 11336), (254, 11354), (257, 11378), (265, 11432), (266, 11438), (268, 11450),

Gene: Virgeve\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Virgeve\_11:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Vista\_12 Start: 9757, Stop: 11505, Start Num: 49

Candidate Starts for Vista\_12:

(Start: 49 @9757 has 280 MA's), (121, 10294), (141, 10420), (149, 10471), (164, 10579), (195, 10873), (201, 10930), (206, 10975), (207, 10984), (208, 10993), (226, 11116), (236, 11194), (237, 11203), (244, 11278), (247, 11314), (252, 11341), (254, 11359), (257, 11383), (265, 11437), (266, 11443), (268, 11455),

Gene: Vivaldi\_12 Start: 9755, Stop: 11500, Start Num: 49

Candidate Starts for Vivaldi\_12:

(Start: 49 @9755 has 280 MA's), (121, 10289), (141, 10415), (149, 10466), (164, 10574), (195, 10868), (201, 10925), (206, 10970), (207, 10979), (208, 10988), (226, 11111), (236, 11189), (237, 11198), (244, 11273), (247, 11309), (252, 11336), (254, 11354), (257, 11378), (265, 11432), (266, 11438), (268, 11450),

Gene: Vortex\_12 Start: 9465, Stop: 11210, Start Num: 49

Candidate Starts for Vortex\_12:

(Start: 49 @9465 has 280 MA's), (63, 9612), (121, 9999), (141, 10125), (149, 10176), (164, 10284), (195, 10578), (201, 10635), (206, 10680), (207, 10689), (208, 10698), (226, 10821), (236, 10899), (237, 10908), (244, 10983), (247, 11019), (252, 11046), (254, 11064), (257, 11088), (265, 11142), (266, 11148), (268, 11160),

Gene: Waleliano\_12 Start: 11476, Stop: 13254, Start Num: 30

Candidate Starts for Waleliano\_12:

(Start: 30 @11476 has 45 MA's), (50, 11542), (68, 11692), (70, 11725), (73, 11755), (86, 11884), (96, 11917), (115, 12013), (131, 12109), (135, 12136), (140, 12163), (141, 12166), (143, 12187), (164, 12334), (181, 12481), (195, 12628), (202, 12688), (203, 12712), (205, 12730), (208, 12751), (213, 12772), (224, 12853), (231, 12901), (237, 12958), (240, 13000), (243, 13027), (246, 13039), (247, 13069), (252, 13096), (256, 13120), (257, 13138), (261, 13162), (265, 13192), (266, 13198),

Gene: Wallhey\_11 Start: 9316, Stop: 11061, Start Num: 49

Candidate Starts for Wallhey\_11:

(Start: 49 @9316 has 280 MA's), (121, 9850), (141, 9976), (149, 10027), (164, 10135), (195, 10429), (201, 10486), (206, 10531), (207, 10540), (208, 10549), (226, 10672), (236, 10750), (237, 10759), (244, 10834), (247, 10870), (252, 10897), (254, 10915), (257, 10939), (265, 10993), (266, 10999), (268, 11011),

Gene: Waterdiva\_12 Start: 9758, Stop: 11503, Start Num: 49

Candidate Starts for Waterdiva\_12:

(Start: 49 @9758 has 280 MA's), (121, 10292), (141, 10418), (149, 10469), (164, 10577), (195, 10871), (201, 10928), (206, 10973), (207, 10982), (208, 10991), (226, 11114), (236, 11192), (237, 11201), (244, 11276), (247, 11312), (252, 11339), (254, 11357), (257, 11381), (265, 11435), (266, 11441), (268, 11453),

Gene: Weher20\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for Weher20\_12:

(Start: 49 @9754 has 280 MA's), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (169, 10600), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: West99\_15 Start: 12528, Stop: 14558, Start Num: 44

Candidate Starts for West99\_15:

(Start: 44 @12528 has 36 MA's), (61, 12672), (64, 12693), (71, 12747), (76, 12774), (84, 12861), (115, 13029), (127, 13101), (149, 13218), (159, 13278), (162, 13296), (164, 13350), (175, 13431), (201, 13704), (202, 13707), (208, 13773), (241, 14031), (247, 14091), (248, 14100), (252, 14118), (256, 14142), (265, 14214), (272, 14262), (280, 14406), (282, 14445), (286, 14502), (287, 14538), (288, 14544),

Gene: Windsor\_11 Start: 9418, Stop: 11163, Start Num: 49

Candidate Starts for Windsor\_11:

(Start: 49 @9418 has 280 MA's), (121, 9952), (141, 10078), (149, 10129), (164, 10237), (195, 10531), (201, 10588), (206, 10633), (207, 10642), (208, 10651), (226, 10774), (236, 10852), (237, 10861), (244, 10936), (247, 10972), (252, 10999), (254, 11017), (257, 11041), (265, 11095), (266, 11101), (268, 11113),

Gene: Wooper\_13 Start: 11332, Stop: 13017, Start Num: 46

Candidate Starts for Wooper\_13:

(Start: 46 @11332 has 65 MA's), (59, 11419), (61, 11467), (85, 11659), (115, 11770), (120, 11794), (127, 11842), (143, 11932), (166, 12091), (168, 12100), (174, 12148), (181, 12226), (184, 12259), (188, 12307), (195, 12373), (200, 12421), (201, 12430), (202, 12433), (209, 12505), (215, 12523), (219, 12574), (226, 12619), (228, 12631), (231, 12646), (243, 12772), (247, 12814), (251, 12838), (252, 12841), (254, 12859),

Gene: Xavier\_11 Start: 9464, Stop: 11209, Start Num: 49

Candidate Starts for Xavier\_11:

(Start: 49 @9464 has 280 MA's), (63, 9611), (121, 9998), (141, 10124), (149, 10175), (164, 10283), (195, 10577), (201, 10634), (206, 10679), (207, 10688), (208, 10697), (226, 10820), (236, 10898), (237, 10907), (244, 10982), (247, 11018), (252, 11045), (254, 11063), (257, 11087), (265, 11141), (266, 11147), (268, 11159),

Gene: Xincheng\_12 Start: 11300, Stop: 13078, Start Num: 30

Candidate Starts for Xincheng\_12:

(Start: 30 @11300 has 45 MA's), (50, 11366), (70, 11549), (73, 11579), (86, 11708), (110, 11798), (115, 11837), (122, 11876), (135, 11960), (140, 11987), (141, 11990), (143, 12011), (164, 12158),

(181, 12305), (192, 12437), (195, 12452), (202, 12512), (203, 12536), (205, 12554), (208, 12575), (213, 12596), (224, 12677), (231, 12725), (237, 12782), (240, 12824), (243, 12851), (246, 12863), (247, 12893), (248, 12902), (252, 12920), (256, 12944), (257, 12962), (261, 12986), (265, 13016), (266, 13022),

Gene: Yago84\_11 Start: 10186, Stop: 11883, Start Num: 46

Candidate Starts for Yago84\_11:

(Start: 46 @10186 has 65 MA's), (98, 10552), (103, 10567), (115, 10627), (127, 10699), (143, 10789), (161, 10879), (168, 10957), (195, 11227), (201, 11284), (207, 11341), (208, 11350), (224, 11452), (226, 11473), (229, 11491), (247, 11668), (250, 11686), (251, 11692), (252, 11695), (256, 11719), (260, 11758), (265, 11791), (266, 11797),

Gene: Yahalom\_14 Start: 11038, Stop: 13053, Start Num: 46

Candidate Starts for Yahalom\_14:

(40, 11014), (Start: 43 @11026 has 6 MA's), (Start: 46 @11038 has 65 MA's), (50, 11053), (59, 11131), (61, 11179), (115, 11536), (120, 11560), (149, 11725), (155, 11755), (158, 11773), (163, 11827), (164, 11845), (175, 11926), (178, 11980), (201, 12199), (202, 12202), (207, 12256), (216, 12304), (224, 12367), (226, 12388), (227, 12391), (247, 12583), (248, 12592), (252, 12610), (254, 12628), (255, 12631), (260, 12673), (265, 12706), (278, 12796), (279, 12829), (282, 12946),

Gene: Yeshua\_13 Start: 11333, Stop: 13024, Start Num: 46

Candidate Starts for Yeshua\_13:

(Start: 46 @11333 has 65 MA's), (59, 11420), (61, 11468), (85, 11660), (111, 11747), (115, 11777), (120, 11801), (127, 11849), (156, 11999), (158, 12017), (166, 12101), (168, 12110), (179, 12227), (184, 12266), (188, 12314), (195, 12380), (201, 12437), (202, 12440), (207, 12494), (209, 12512), (215, 12530), (219, 12581), (226, 12626), (228, 12638), (231, 12653), (243, 12779), (247, 12821), (251, 12845), (252, 12848), (254, 12866),

Gene: Yinz\_14 Start: 11056, Stop: 13080, Start Num: 46

Candidate Starts for Yinz\_14:

(Start: 46 @11056 has 65 MA's), (50, 11071), (59, 11149), (61, 11197), (94, 11458), (115, 11563), (120, 11587), (149, 11752), (158, 11800), (164, 11872), (175, 11953), (178, 12007), (201, 12226), (202, 12229), (207, 12283), (216, 12331), (224, 12394), (226, 12415), (227, 12418), (247, 12610), (248, 12619), (252, 12637), (254, 12655), (255, 12658), (260, 12700), (265, 12733), (279, 12856), (282, 12973),

Gene: Yoshand\_12 Start: 9755, Stop: 11500, Start Num: 49

Candidate Starts for Yoshand\_12:

(Start: 49 @9755 has 280 MA's), (63, 9902), (121, 10289), (141, 10415), (149, 10466), (164, 10574), (195, 10868), (201, 10925), (206, 10970), (207, 10979), (208, 10988), (226, 11111), (236, 11189), (237, 11198), (244, 11273), (247, 11309), (252, 11336), (254, 11354), (257, 11378), (265, 11432), (266, 11438), (268, 11450),

Gene: YouGoGlencoco\_12 Start: 9754, Stop: 11499, Start Num: 49

Candidate Starts for YouGoGlencoco\_12:

(Start: 49 @9754 has 280 MA's), (121, 10288), (141, 10414), (149, 10465), (164, 10573), (195, 10867), (201, 10924), (206, 10969), (207, 10978), (208, 10987), (226, 11110), (236, 11188), (237, 11197), (244, 11272), (247, 11308), (252, 11335), (254, 11353), (257, 11377), (265, 11431), (266, 11437), (268, 11449),

Gene: Zaider\_13 Start: 9987, Stop: 11732, Start Num: 49

Candidate Starts for Zaider\_13:

(Start: 49 @9987 has 280 MA's), (121, 10521), (141, 10647), (149, 10698), (164, 10806), (195, 11100), (201, 11157), (206, 11202), (207, 11211), (208, 11220), (226, 11343), (236, 11421), (237, 11430), (244, 11505), (247, 11541), (252, 11568), (254, 11586), (257, 11610), (265, 11664), (266, 11670), (268, 11682),

Gene: Zelda\_12 Start: 9757, Stop: 11502, Start Num: 49

Candidate Starts for Zelda\_12:

(Start: 49 @9757 has 280 MA's), (121, 10291), (141, 10417), (149, 10468), (164, 10576), (195, 10870), (201, 10927), (206, 10972), (207, 10981), (208, 10990), (226, 11113), (236, 11191), (237, 11200), (244, 11275), (247, 11311), (252, 11338), (254, 11356), (257, 11380), (265, 11434), (266, 11440), (268, 11452),

Gene: Zemanar\_13 Start: 11476, Stop: 13254, Start Num: 30

Candidate Starts for Zemanar\_13:

(Start: 30 @11476 has 45 MA's), (50, 11542), (68, 11692), (70, 11725), (73, 11755), (86, 11884), (96, 11917), (115, 12013), (131, 12109), (135, 12136), (140, 12163), (141, 12166), (143, 12187), (164, 12334), (181, 12481), (195, 12628), (202, 12688), (203, 12712), (205, 12730), (208, 12751), (213, 12772), (224, 12853), (231, 12901), (237, 12958), (240, 13000), (243, 13027), (246, 13039), (247, 13069), (252, 13096), (256, 13120), (257, 13138), (261, 13162), (265, 13192), (266, 13198),

Gene: Zenteno07\_17 Start: 10822, Stop: 12648, Start Num: 32

Candidate Starts for Zenteno07\_17:

(26, 10798), (Start: 32 @10822 has 2 MA's), (38, 10852), (50, 10894), (59, 10966), (101, 11314), (108, 11344), (112, 11359), (121, 11419), (135, 11515), (140, 11542), (164, 11722), (185, 11905), (188, 11947), (195, 12013), (201, 12070), (202, 12073), (213, 12157), (226, 12259), (228, 12274), (229, 12280), (242, 12400), (243, 12415), (247, 12457), (252, 12484), (256, 12508), (257, 12526), (264, 12577), (265, 12580), (268, 12598),

Gene: Zonia\_12 Start: 9771, Stop: 11516, Start Num: 49

Candidate Starts for Zonia\_12:

(Start: 49 @9771 has 280 MA's), (121, 10305), (141, 10431), (149, 10482), (164, 10590), (195, 10884), (201, 10941), (206, 10986), (207, 10995), (208, 11004), (226, 11127), (236, 11205), (237, 11214), (244, 11289), (247, 11325), (252, 11352), (254, 11370), (257, 11394), (265, 11448), (266, 11454), (268, 11466),