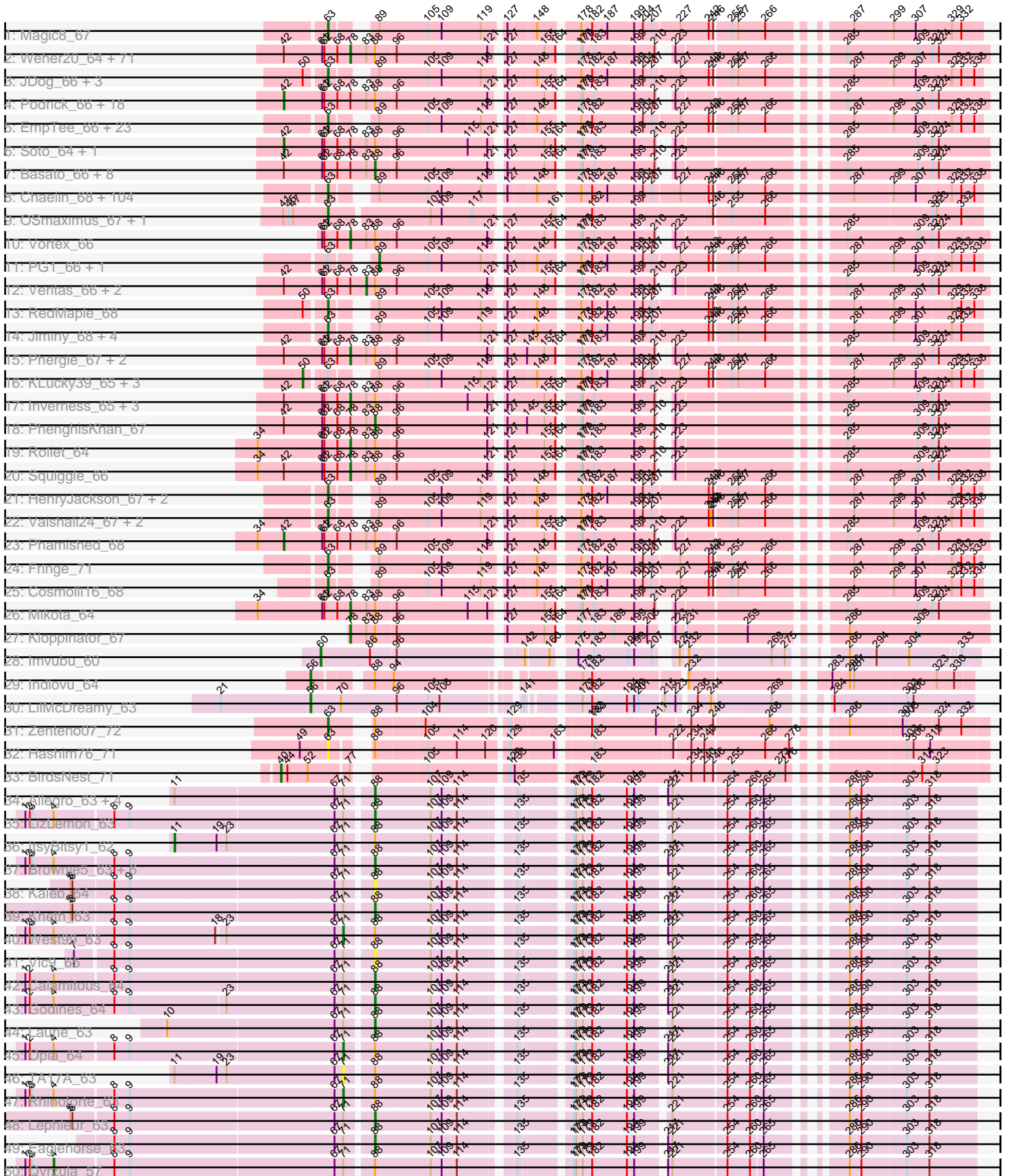
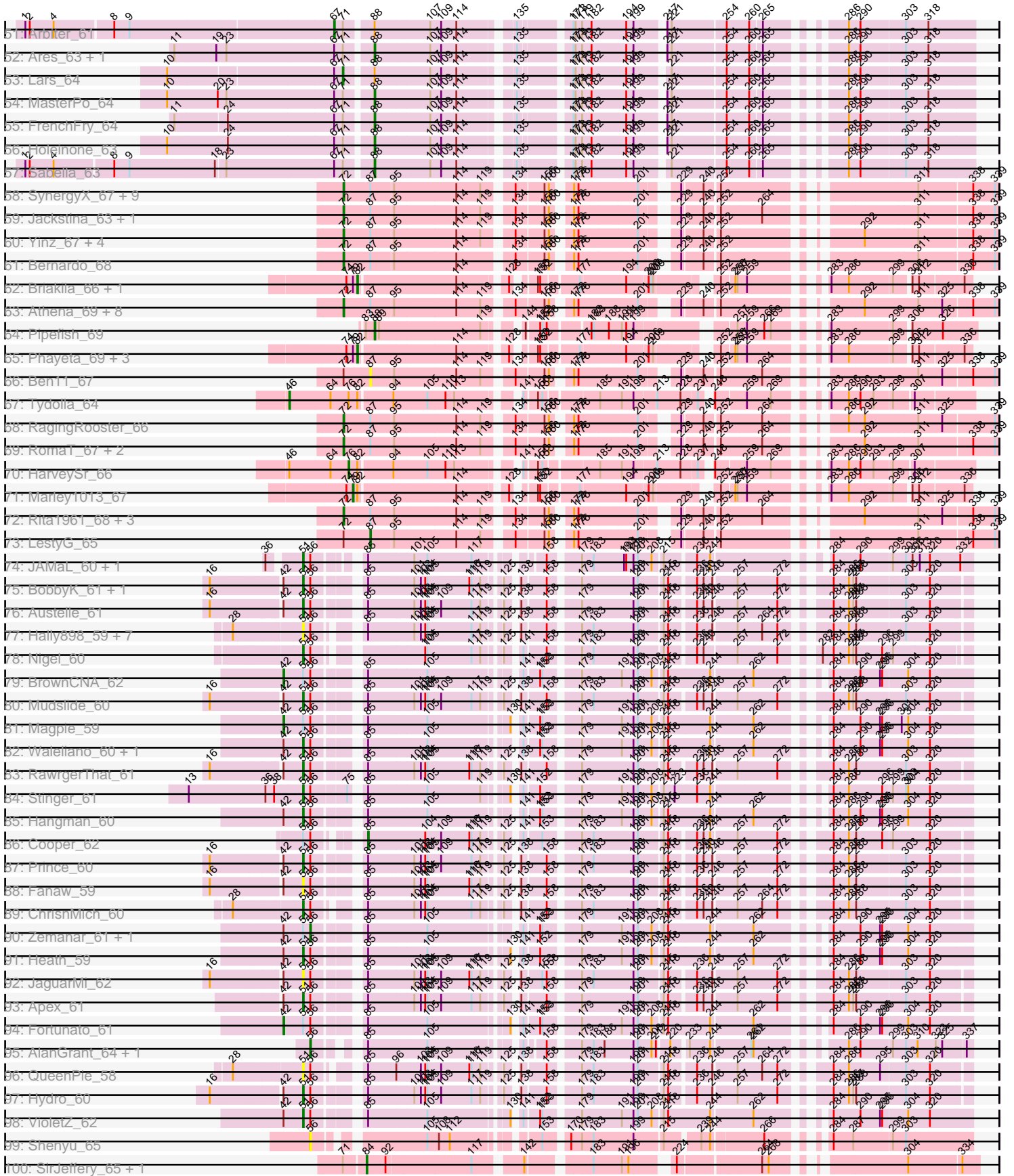


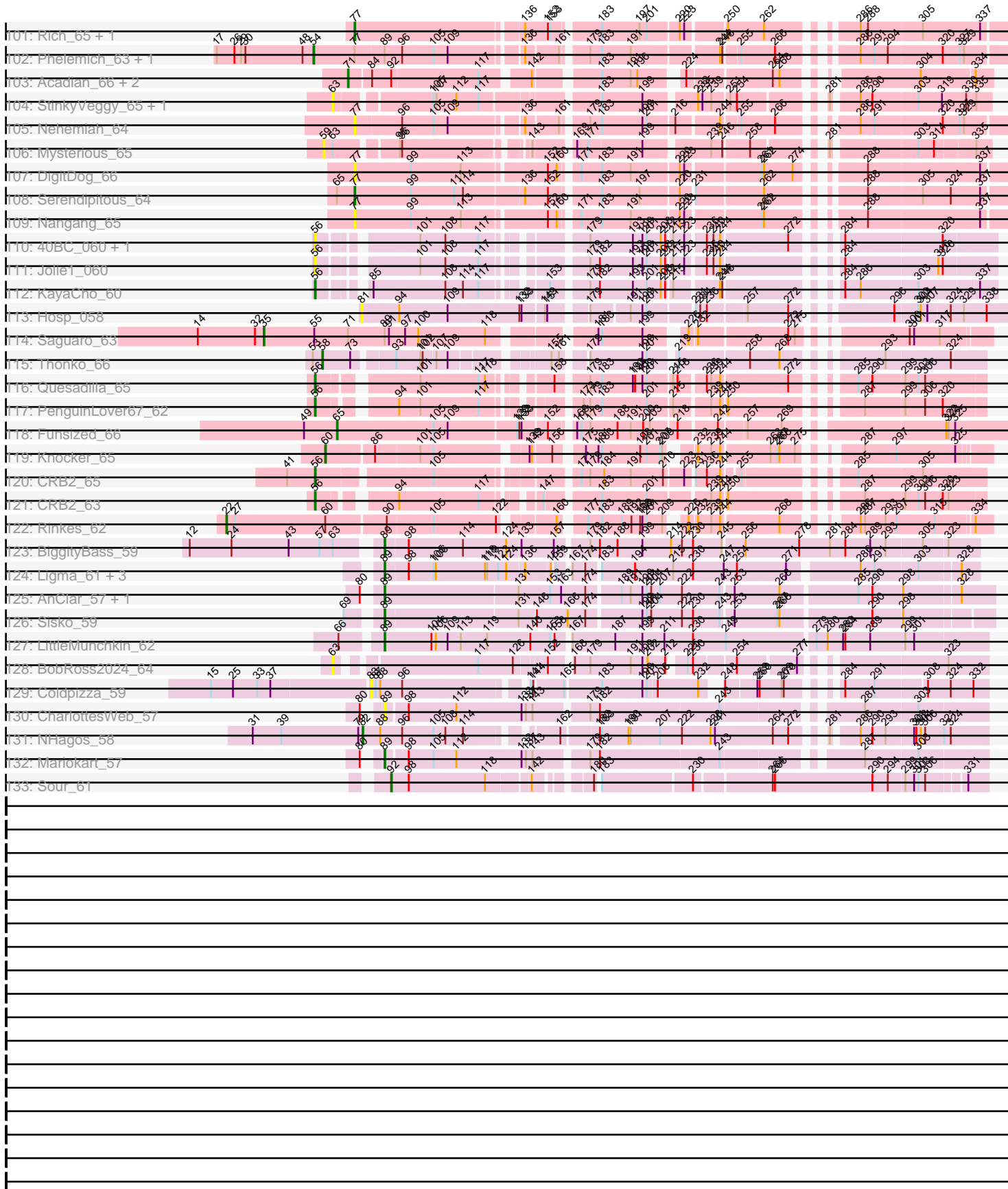
Pham 196192



Pham 196192



Pham 196192



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 196192 Report

This analysis was run 12/09/24 on database version 580.

Pham number 196192 has 446 members, 45 are drafts.

Phages represented in each track:

- Track 1 : Magic8\_67
- Track 2 : Weher20\_64, FriarPreacher\_65, Murdoc\_64, DirtJuice\_67, Mulan\_66, Pherdinand\_67, Vista\_65, Buckeye\_67, Thora\_65, Zonia\_67, Zelda\_67, Vivaldi\_67, Plmatters\_65, MitKao\_66, Maru\_66, BlackStallion\_67, ImtiyazSitla\_67, Yoshand\_67, Ashraf\_67, UncleHowie\_64, Dati\_64, Gyarad\_0066, Mosaic\_64, LeeLot\_66, Grand2040\_65, PinheadLarry\_66, Doddsville\_65, Sophia\_65, Surely\_67, Etaye\_66, Chorkpop\_67, Trypo\_68, Kailash\_65, Mana\_65, Melc17\_64, Scrick\_66, Fang\_68, Durga\_69, MelsMeow\_66, Emiris\_68, Legolas\_68, Phareon\_65, LemonSlice\_67, Morgushi\_65, Daffy\_65, PhrodoBaggins\_68, Wallhey\_67, Slatt\_67, Solosis\_65, Harvey\_64, AltPhacts\_65, Phipps\_66, Held\_65, Potter\_64, BlueHusk\_68, DonSancho\_63, Maskar\_67, YouGoGlencoco\_67, HighStump\_68, TallGrassMM\_65, Phleuron\_65, Kwksand96\_67, MRabcd\_66, Dingo\_64, Puhltonio\_65, Adriana\_68, DuchessDung\_66, Daka\_69, Matalotodo\_65, KingVeVeVe\_65, TomBombadil\_67, BatteryCK\_65
- Track 3 : JDog\_66, Pops\_65, AbsoluteMadLad\_67, CheetO\_66
- Track 4 : Podrick\_66, Prickles\_68, Derpp\_67, Cher\_67, Pipsqueak\_64, MichaelPhcott\_65, Iridoclysis\_66, Pinkman\_66, Craff\_70, TyrionL\_67, Squid\_66, Lego3393\_64, Cobra\_67, FugateOSU\_67, CharlieGBrown\_65, Placalicious\_67, Labeouficaum\_67, Haimas\_65, Mesh1\_67
- Track 5 : EmpTee\_66, LuckyMarjie\_64, Aelin\_66, Pacifista\_66, Selr12\_68, Schadenfreude\_67, ABU\_66, Cornobble\_66, Kwadwo\_66, Sigman\_67, Colbert\_65, Spartan300\_66, Beaglebox\_65, Dice\_66, JacAttac\_67, Telesworld\_65, Phunky\_65, Vaticameos\_64, Orfeu\_66, ShiVal\_65, Nyala\_66, Tooj\_65, Apizium\_66, Dione\_65
- Track 6 : Soto\_64, SDcharge11\_66
- Track 7 : Basato\_66, Banjo\_65, Oline\_66, GeneCoco\_67, Swish\_67, KingTut\_58, SassyCat97\_65, Lasso\_66, Hamish\_64
- Track 8 : Chaelin\_68, Boehler\_67, Tomlarah\_68, Megamind20\_68, Chah\_68, Gareth\_67, Nicole21\_68, Manad\_66, Simielle\_67, Giraffe\_67, DelRivs\_65, Andre\_69, Waterdiva\_67, Numberten\_66, Freya\_64, Chunky\_67, Roy17\_65, Orwigg\_67, ThreeOh3D2\_68, Windsor\_67, Bishoperium\_67, SilverBell\_68, OliverWalter\_66, Eugenia\_67, Mutante\_67, Serendipity\_66, Inchworm\_69, Frankicide\_65, KlimbOn\_66, Altwerkus\_65, Kikipoo\_68, Skippy\_68, Lopsy\_65, Childish\_66, ProfessorX\_65, Brilliant\_70, Virapocalypse\_68, Newman\_65, Crownjwl\_65, Swiphy\_71, Badfish\_67, Mcshane\_66, Jiraiya\_71, Hertubise\_66, Hocus\_66, QueenBeane\_67, Antonia\_66, Chute\_68, Olive\_66, Soile\_68, Longacauda\_68, Mecca\_67, DoesntMatter\_64, Toni\_67, Haleema\_66, Olak\_66, Lulumae\_64, Keitherie\_69, LeiMonet\_70, Scoot17C\_67, Megatron\_67, Quisquilliae\_68,

Bluephacebaby\_67, IsaacEli\_68, Xavier\_66, Lulwa\_65, LasagnaCat\_69, Jillium\_67, True\_65, Katniss\_68, Coletti\_70, Charles1\_68, Riggan\_68, Gwilliam\_69, UAch1\_67, Ricotta\_67, Omniscient\_68, PhatCats2014\_67, Hartsy\_66, Piglet\_0067, CamL\_67, Timmi\_66, PhatLouie\_69, CampRoach\_68, Serpentine\_0067, Anderson\_68, HSavage\_65, JangoPhett\_66, Gophee\_68, Cannibal\_67, Virgeve\_66, Samaymay\_67, Kimbrough\_68, Schueller\_67, Rimu\_70, Hetaeria\_66, Oosterbaan\_66, Roscoe\_67, Lumine\_68, Burr\_67, DaddyDaniels\_69, Zaider\_68, Valjean\_66, Morty\_68, MrPhizzler\_67

- Track 9 : OSmaximus\_67, Fozzie\_66
- Track 10 : Vortex\_66
- Track 11 : PG1\_66, Orion\_67
- Track 12 : Veritas\_66, FluffyNinja\_67, LostAndPhound\_66
- Track 13 : RedMaple\_68
- Track 14 : Jiminy\_68, JakeO\_68, Thunderbird\_67, Duggie\_67, Struggle\_67
- Track 15 : Phergie\_67, PhrankReynolds\_66, Mag7\_65
- Track 16 : KLucky39\_65, Suffolk\_65, Eremos\_66, Nacho\_0070
- Track 17 : Inverness\_65, MiniBoss\_64, Horchata\_64, Sheila\_63
- Track 18 : PhenghisKhan\_67
- Track 19 : Roliet\_64
- Track 20 : Squiggle\_66
- Track 21 : HenryJackson\_67, Kahve\_67, Usavi\_68
- Track 22 : Vaishali24\_67, Robyn\_67, Carthage\_67
- Track 23 : Phamished\_68
- Track 24 : Fringe\_71
- Track 25 : Cosmolli16\_68
- Track 26 : Mikota\_64
- Track 27 : Kloppinator\_67
- Track 28 : Imvubu\_60
- Track 29 : Indlovu\_64
- Track 30 : LilMcDreamy\_63
- Track 31 : Zenteno07\_72
- Track 32 : Hashim76\_71
- Track 33 : BirdsNest\_71
- Track 34 : Allegro\_63, Glass\_64, Phantasmagoria\_62, Faze9\_62, Bananafish\_64
- Track 35 : LizLemon\_63
- Track 36 : ItsyBitsy1\_62
- Track 37 : Brownie5\_63, Coffee\_63, Rosebush\_62, Tinciduntolum\_64, Boyle\_63, Hedgerow\_63, Tres\_63
- Track 38 : Kaleb\_64
- Track 39 : Kheth\_63
- Track 40 : West99\_63
- Track 41 : Vic9\_65
- Track 42 : Calamitous\_64
- Track 43 : Godines\_64
- Track 44 : Laurie\_63
- Track 45 : Opia\_64
- Track 46 : TA17A\_63
- Track 47 : Rhinoforte\_63
- Track 48 : Lephleur\_63
- Track 49 : Eaglehorse\_63
- Track 50 : Qyrzula\_57
- Track 51 : Arbiter\_61
- Track 52 : Ares\_63, Blocker23\_63

- Track 53 : Lars\_64
- Track 54 : MasterPo\_64
- Track 55 : FrenchFry\_64
- Track 56 : Holeinone\_63
- Track 57 : Sabella\_63
- Track 58 : SynergyX\_67, Gadget\_68, MmasiCarm\_68, Kamiyu\_67, Phaedrus\_62, Philly\_66, Chandler\_67, Compostia\_66, Abinghost\_67, Baloo\_66
- Track 59 : Jackstina\_63, Phlyer\_67
- Track 60 : Yinz\_67, ChaChing\_67, GlenHope\_68, Daisy\_66, Heathcliff\_67
- Track 61 : Bernardo\_68
- Track 62 : Briakila\_66, Neos5\_66
- Track 63 : Athena\_69, Audrey\_67, Gervas\_68, Kronus\_67, Corofin\_67, Yahalom\_65, Devonte\_66, Halfpint\_66, OrangeOswald\_67
- Track 64 : Pipefish\_69
- Track 65 : Phayeta\_69, SlippinJimmy\_69, Obutu\_68, Morty007\_65
- Track 66 : Ben11\_67
- Track 67 : Tydolla\_64
- Track 68 : RagingRooster\_66
- Track 69 : RomaT\_67, Akoma\_67, Nozo\_67
- Track 70 : HarveySr\_66
- Track 71 : Marley1013\_67
- Track 72 : Rita1961\_68, Mortcellus\_67, Deenasa\_67, Casbah\_67
- Track 73 : LestyG\_65
- Track 74 : JAMaL\_60, Xincheng\_61
- Track 75 : BobbyK\_61, Frederick\_61
- Track 76 : Austelle\_61
- Track 77 : Hally898\_59, Ahwei\_59, Nanao\_59, Lambano\_59, Epah\_59, GinPorsche\_59, Antihero\_59, Poster\_59
- Track 78 : Nigel\_60
- Track 79 : BrownCNA\_62
- Track 80 : Mudslide\_60
- Track 81 : Magpie\_59
- Track 82 : Waleliano\_60, Mithril\_60
- Track 83 : RawrgerThat\_61
- Track 84 : Stinger\_61
- Track 85 : Hangman\_60
- Track 86 : Cooper\_62
- Track 87 : Prince\_60
- Track 88 : Fanaw\_59
- Track 89 : ChrisnMich\_60
- Track 90 : Zemanar\_61, Lolalove\_61
- Track 91 : Heath\_59
- Track 92 : JaguarMi\_62
- Track 93 : Apex\_61
- Track 94 : Fortunato\_61
- Track 95 : AlanGrant\_64, Vincenzo\_63
- Track 96 : QueenPie\_58
- Track 97 : Hydro\_60
- Track 98 : VioletZ\_62
- Track 99 : Shenyu\_65
- Track 100 : SirJeffery\_65, EastView9101\_65
- Track 101 : Rich\_65, Bae\_66
- Track 102 : Phelemich\_63, Reprobate\_64

- Track 103 : Acadian\_66, Donny\_67, Suigeneris\_67
- Track 104 : StinkyVeggy\_65, KarasumaRum\_65
- Track 105 : Nehemiah\_64
- Track 106 : Mysterious\_65
- Track 107 : DigitDog\_66
- Track 108 : Serendipitous\_64
- Track 109 : Nangang\_65
- Track 110 : 40BC\_060, 39HC\_060
- Track 111 : Jolie1\_060
- Track 112 : KayaCho\_60
- Track 113 : Hosp\_058
- Track 114 : Saguaro\_63
- Track 115 : Thonko\_66
- Track 116 : Quesadilla\_65
- Track 117 : PenguinLover67\_62
- Track 118 : Funsized\_66
- Track 119 : Knocker\_65
- Track 120 : CRB2\_65
- Track 121 : CRB2\_63
- Track 122 : Rinkes\_62
- Track 123 : BiggityBass\_59
- Track 124 : Ligma\_61, Fresco\_61, Axumite\_61, Shatter\_61
- Track 125 : AnClar\_57, Yago84\_58
- Track 126 : Sisko\_59
- Track 127 : LittleMunchkin\_62
- Track 128 : BobRoss2024\_64
- Track 129 : Coldpizza\_59
- Track 130 : CharlottesWeb\_57
- Track 131 : NHagos\_58
- Track 132 : Mariokart\_57
- Track 133 : Sour\_61

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

The start number called the most often in the published annotations is 63, it was called in 139 of the 401 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ABU\_66, AbsoluteMadLad\_67, Aelin\_66, Altwerkus\_65, Anderson\_68, Andre\_69, Antonia\_66, Apizium\_66, Badfish\_67, Beaglebox\_65, Bishoperium\_67, Bluephacebaby\_67, BobRoss2024\_64, Boehler\_67, Brilliant\_70, Burr\_67, CamL\_67, CampRoach\_68, Cannibal\_67, Carthage\_67, Chaelin\_68, Chah\_68, Charles1\_68, CheetO\_66, Childish\_66, Chunky\_67, Chute\_68, Colbert\_65, Coletti\_70, Cornobble\_66, Cosmolli16\_68, Crownjwl\_65, DaddyDaniels\_69, DelRivs\_65, Dice\_66, Dione\_65, DoesntMatter\_64, Duggie\_67, EmpTee\_66, Eugenia\_67, Fozzie\_66, Frankicide\_65, Freya\_64, Fringe\_71, Gareth\_67, Giraffe\_67, Gophee\_68, Gwilliam\_69, HSavage\_65, Haleema\_66, Hartsy\_66, Hashim76\_71, HenryJackson\_67, Hertubise\_66, Hetaeria\_66, Hocus\_66, Inchworm\_69, IsaacEli\_68, JDog\_66, JacAttac\_67, JakeO\_68, JangoPhett\_66, Jillium\_67, Jiminy\_68, Jiraiya\_71, Kahve\_67, KarasumaRum\_65, Katniss\_68, Keitherie\_69,

Kikipoo\_68, Kimbrough\_68, KlimbOn\_66, Kwadwo\_66, LasagnaCat\_69, LeiMonet\_70, Longacauda\_68, Lopsy\_65, LuckyMarjie\_64, Lulumae\_64, Lulwa\_65, Lumine\_68, Magic8\_67, Manad\_66, Mcshane\_66, Mecca\_67, Megamind20\_68, Megatron\_67, Morty\_68, MrPhizzler\_67, Mutante\_67, Newman\_65, Nicole21\_68, Numberten\_66, Nyala\_66, OSmaximus\_67, Olak\_66, Olive\_66, OliverWalter\_66, Omniscient\_68, Oosterbaan\_66, Orfeu\_66, Orwigg\_67, Pacifista\_66, PhatCats2014\_67, PhatLouie\_69, Phunky\_65, Piglet\_0067, Pops\_65, ProfessorX\_65, QueenBeane\_67, Quisquilliae\_68, RedMaple\_68, Ricotta\_67, Riggan\_68, Rimu\_70, Robyn\_67, Roscoe\_67, Roy17\_65, Samaymay\_67, Schadenfreude\_67, Schueller\_67, Scoot17C\_67, Selr12\_68, Serendipity\_66, Serpentine\_0067, ShiVal\_65, Sigman\_67, SilverBell\_68, Simielle\_67, Skippy\_68, Soile\_68, Spartan300\_66, StinkyVeggy\_65, Struggle\_67, Swiphy\_71, Telesworld\_65, ThreeOh3D2\_68, Thunderbird\_67, Timmi\_66, Tomlarah\_68, Toni\_67, Tooj\_65, True\_65, UAch1\_67, Usavi\_68, Vaishali24\_67, Valjean\_66, Vaticameos\_64, Virapocalypse\_68, Virgeve\_66, Waterdiva\_67, Windsor\_67, Xavier\_66, Zaider\_68, Zenteno07\_72,

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

- BiggityBass\_59, Eremos\_66, KLucky39\_65, Mysterious\_65, Nacho\_0070, Orion\_67, PG1\_66, Suffolk\_65,

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

- 39HC\_060, 40BC\_060, Abinghost\_67, Acadian\_66, Adriana\_68, Ahwei\_59, Akoma\_67, AlanGrant\_64, Allegro\_63, AltPhacts\_65, AnClar\_57, Antihero\_59, Apex\_61, Arbiter\_61, Ares\_63, Ashraf\_67, Athena\_69, Audrey\_67, Austelle\_61, Axumite\_61, Bae\_66, Baloo\_66, Bananafish\_64, Banjo\_65, Basato\_66, BatteryCK\_65, Ben11\_67, Bernardo\_68, BirdsNest\_71, BlackStallion\_67, Blocker23\_63, BlueHusk\_68, BobbyK\_61, Boyle\_63, Briakila\_66, BrownCNA\_62, Brownie5\_63, Buckeye\_67, CRB2\_63, CRB2\_65, Calamitous\_64, Casbah\_67, ChaChing\_67, Chandler\_67, CharlieGBrown\_65, CharlottesWeb\_57, Cher\_67, Chorkpop\_67, ChrisnMich\_60, Cobra\_67, Coffee\_63, Coldpizza\_59, Compostia\_66, Cooper\_62, Corofin\_67, Craff\_70, Daffy\_65, Daisy\_66, Daka\_69, Dati\_64, Deenasa\_67, Derpp\_67, Devonte\_66, DigitDog\_66, Dingo\_64, DirtJuice\_67, Doddsville\_65, DonSanchon\_63, Donny\_67, DuchessDung\_66, Durga\_69, Eaglehorse\_63, EastView9101\_65, Emiris\_68, Epah\_59, Etaye\_66, Fanaw\_59, Fang\_68, Faze9\_62, FluffyNinja\_67, Fortunato\_61, Frederick\_61, FrenchFry\_64, Fresco\_61, FriarPreacher\_65, FugateOSU\_67, Funsized\_66, Gadget\_68, GeneCoco\_67, Gervas\_68, GinPorsche\_59, Glass\_64, GlenHope\_68, Godines\_64, Grand2040\_65, Gyarad\_0066, Haimas\_65, Halfpint\_66, Hally898\_59, Hamish\_64, Hangman\_60, HarveySr\_66, Harvey\_64, Heath\_59, Heathcliff\_67, Hedgerow\_63, Held\_65, HighStump\_68, Holeinone\_63, Horchata\_64, Hosp\_058, Hydro\_60, ImtiyazSitla\_67, Imvubu\_60, Indlovu\_64, Inverness\_65, Iridoclysis\_66, ItsyBitsy1\_62, JAMaL\_60, Jackstina\_63, JaguarMi\_62, Jolie1\_060, Kailash\_65, Kaleb\_64, Kamiyu\_67, KayaCho\_60, Kheth\_63, KingTut\_58, KingVeVeVe\_65, Kloppinator\_67, Knocker\_65, Kronus\_67, Kwksand96\_67, Labeouficaum\_67, Lambano\_59, Lars\_64, Lasso\_66, Laurie\_63, LeeLot\_66, Lego3393\_64, Legolas\_68, LemonSlice\_67, Lephleur\_63, LestyG\_65, Ligma\_61, LiiMcDreamy\_63, LittleMunchkin\_62, LizLemon\_63, Lolalove\_61, LostAndPhound\_66, MRabcd\_66, Mag7\_65, Magpie\_59, Mana\_65, Mariokart\_57, Marley1013\_67, Maru\_66, Maskar\_67, MasterPo\_64, Matalotodo\_65, Melc17\_64, MelsMeow\_66, Mesh1\_67, MichaelPhcott\_65, Mikota\_64, MiniBoss\_64, MitKao\_66, Mithril\_60, MmasiCarm\_68, Morgushi\_65, Mortcellus\_67, Morty007\_65, Mosaic\_64, Mudslide\_60, Mulan\_66, Murdoc\_64, NHagos\_58, Nanao\_59, Nangang\_65, Nehemiah\_64, Neos5\_66, Nigel\_60, Nozo\_67,



Obutu\_68, Oline\_66, Opia\_64, OrangeOswald\_67, PenguinLover67\_62, Phaedrus\_62, Phamished\_68, Phantasmagoria\_62, Phareon\_65, Phayeta\_69, Phelemich\_63, PhenghisKhan\_67, Pherdinand\_67, Phergie\_67, Philly\_66, Phipps\_66, Phleuron\_65, Phlyer\_67, PhrankReynolds\_66, PhrodoBaggins\_68, PinheadLarry\_66, Pinkman\_66, Pipefish\_69, Pipsqueak\_64, Placalicious\_67, Plmatters\_65, Podrick\_66, Poster\_59, Potter\_64, Prickles\_68, Prince\_60, Puhltonio\_65, QueenPie\_58, Quesadilla\_65, Qyrzula\_57, RagingRooster\_66, RawrgerThat\_61, Reprobate\_64, Rhinoforte\_63, Rich\_65, Rinkes\_62, Rita1961\_68, Roliet\_64, RomaT\_67, Rosebush\_62, SDcharge11\_66, Sabella\_63, Saguaro\_63, SassyCat97\_65, Scrick\_66, Serendipitous\_64, Shatter\_61, Sheila\_63, Shenyu\_65, SirJeffery\_65, Sisko\_59, Slatt\_67, SlippinJimmy\_69, Solosis\_65, Sophia\_65, Soto\_64, Sour\_61, Squid\_66, Squiggle\_66, Stinger\_61, Suigeneris\_67, Surely\_67, Swish\_67, SynergyX\_67, TA17A\_63, TallGrassMM\_65, Thonko\_66, Thora\_65, Tinciduntolum\_64, TomBombadil\_67, Tres\_63, Trypo\_68, Tydolla\_64, TyrionL\_67, UncleHowie\_64, Veritas\_66, Vic9\_65, Vincenzo\_63, VioletZ\_62, Vista\_65, Vivaldi\_67, Vortex\_66, Waleliano\_60, Wallhey\_67, Weher20\_64, West99\_63, Xincheng\_61, Yago84\_58, Yahalom\_65, Yinz\_67, Yoshand\_67, YouGoGlencoco\_67, Zelda\_67, Zemanar\_61, Zonia\_67,

### Summary by start number:

#### Start 4:

- Found in 16 of 446 ( 3.6% ) of genes in pham
- Manual Annotations of this start: 1 of 401
- Called 6.2% of time when present
- Phage (with cluster) where this start called: Qyrzula\_57 (B2),

#### Start 11:

- Found in 10 of 446 ( 2.2% ) of genes in pham
- Manual Annotations of this start: 1 of 401
- Called 10.0% of time when present
- Phage (with cluster) where this start called: ItsyBitsy1\_62 (B2),

#### Start 22:

- Found in 1 of 446 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 401
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rinkes\_62 (B9),

#### Start 35:

- Found in 1 of 446 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 401
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Saguaro\_63 (B7),

#### Start 40:

- Found in 1 of 446 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 401
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BirdsNest\_71 (B13),

#### Start 42:

- Found in 135 of 446 ( 30.3% ) of genes in pham

- Manual Annotations of this start: 25 of 401
- Called 18.5% of time when present
- Phage (with cluster) where this start called: BrownCNA\_62 (B4), CharlieGBrown\_65 (B1), Cher\_67 (B1), Cobra\_67 (B1), Craff\_70 (B1), Derpp\_67 (B1), Fortunato\_61 (B4), FugateOSU\_67 (B1), Haimas\_65 (B1), Iridoclysis\_66 (B1), Labeouficaum\_67 (B1), Lego3393\_64 (B1), Magpie\_59 (B4), Mesh1\_67 (B1), MichaelPhcott\_65 (B1), Phamished\_68 (B1), Pinkman\_66 (B1), Pipsqueak\_64 (B1), Placalicious\_67 (B1), Podrick\_66 (B1), Prickles\_68 (B1), SDcharge11\_66 (B1), Soto\_64 (B1), Squid\_66 (B1), TyrionL\_67 (B1),

#### Start 46:

- Found in 2 of 446 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 401
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Tydolla\_64 (B3),

#### Start 50:

- Found in 9 of 446 ( 2.0% ) of genes in pham
- Manual Annotations of this start: 4 of 401
- Called 44.4% of time when present
- Phage (with cluster) where this start called: Eremos\_66 (B1), KLUcky39\_65 (B1), Nacho\_0070 (B1), Suffolk\_65 (B1),

#### Start 51:

- Found in 35 of 446 ( 7.8% ) of genes in pham
- Manual Annotations of this start: 17 of 401
- Called 82.9% of time when present
- Phage (with cluster) where this start called: Ahwei\_59 (B4), Antihero\_59 (B4), Apex\_61 (B4), Austelle\_61 (B4), BobbyK\_61 (B4), ChrisnMich\_60 (B4), Epah\_59 (B4), Fanaw\_59 (B4), Frederick\_61 (B4), GinPorsche\_59 (B4), Hally898\_59 (B4), Hangman\_60 (B4), Heath\_59 (B4), Hydro\_60 (B4), JAMaL\_60 (B4), JaguarMi\_62 (B4), Lambano\_59 (B4), Mithril\_60 (B4), Mudslide\_60 (B4), Nanao\_59 (B4), Nigel\_60 (B4), Poster\_59 (B4), Prince\_60 (B4), QueenPie\_58 (B4), RawrgerThat\_61 (B4), Stinger\_61 (B4), VioletZ\_62 (B4), Waleliano\_60 (B4), Xincheng\_61 (B4),

#### Start 54:

- Found in 2 of 446 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 2 of 401
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phelemich\_63 (B5), Reprobate\_64 (B5),

#### Start 56:

- Found in 48 of 446 ( 10.8% ) of genes in pham
- Manual Annotations of this start: 11 of 401
- Called 31.2% of time when present
- Phage (with cluster) where this start called: 39HC\_060 (B6), 40BC\_060 (B6), AlanGrant\_64 (B4), CRB2\_63 (B9), CRB2\_65 (B9), Indlovu\_64 (B11), Jolie1\_060 (B6), KayaCho\_60 (B6), LilMcDreamy\_63 (B12), Lolalove\_61 (B4), PenguinLover67\_62 (B9), Quesadilla\_65 (B9), Shenyu\_65 (B5), Vincenzo\_63 (B4), Zemanar\_61 (B4),

#### Start 58:

- Found in 1 of 446 ( 0.2% ) of genes in pham

- Manual Annotations of this start: 1 of 401
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Thonko\_66 (B8),

#### Start 59:

- Found in 1 of 446 ( 0.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mysterious\_65 (B5),

#### Start 60:

- Found in 3 of 446 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 2 of 401
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Imvubu\_60 (B10), Knocker\_65 (B9),

#### Start 63:

- Found in 163 of 446 ( 36.5% ) of genes in pham
- Manual Annotations of this start: 139 of 401
- Called 95.1% of time when present
- Phage (with cluster) where this start called: ABU\_66 (B1), AbsoluteMadLad\_67 (B1), Aelin\_66 (B1), Altwerkus\_65 (B1), Anderson\_68 (B1), Andre\_69 (B1), Antonia\_66 (B1), Apizium\_66 (B1), Badfish\_67 (B1), Beaglebox\_65 (B1), Bishoperium\_67 (B1), Bluephacebaby\_67 (B1), BobRoss2024\_64 (DR), Boehler\_67 (B1), Brilliant\_70 (B1), Burr\_67 (B1), CamL\_67 (B1), CampRoach\_68 (B1), Cannibal\_67 (B1), Carthage\_67 (B1), Chaelin\_68 (B1), Chah\_68 (B1), Charles1\_68 (B1), CheetO\_66 (B1), Childish\_66 (B1), Chunky\_67 (B1), Chute\_68 (B1), Colbert\_65 (B1), Coletti\_70 (B1), Cornobble\_66 (B1), Cosmolli16\_68 (B1), Crownjwl\_65 (B1), DaddyDaniels\_69 (B1), DelRivs\_65 (B1), Dice\_66 (B1), Dione\_65 (B1), DoesntMatter\_64 (B1), Duggie\_67 (B1), EmpTee\_66 (B1), Eugenia\_67 (B1), Fozzie\_66 (B1), Frankicide\_65 (B1), Freya\_64 (B1), Fringe\_71 (B1), Gareth\_67 (B1), Giraffe\_67 (B1), Gophee\_68 (B1), Gwilliam\_69 (B1), HSavage\_65 (B1), Haleema\_66 (B1), Hartsy\_66 (B1), Hashim76\_71 (B13), HenryJackson\_67 (B1), Hertubise\_66 (B1), Hetaeria\_66 (B1), Hocus\_66 (B1), Inchworm\_69 (B1), IsaacEli\_68 (B1), JDog\_66 (B1), JacAttac\_67 (B1), JakeO\_68 (B1), JangoPhett\_66 (B1), Jillium\_67 (B1), Jiminy\_68 (B1), Jiraiya\_71 (B1), Kahve\_67 (B1), KarasumaRum\_65 (B5), Katniss\_68 (B1), Keitherie\_69 (B1), Kikipoo\_68 (B1), Kimbrough\_68 (B1), KlimbOn\_66 (B1), Kwadwo\_66 (B1), LasagnaCat\_69 (B1), LeiMonet\_70 (B1), Longacauda\_68 (B1), Lopsy\_65 (B1), LuckyMarjie\_64 (B1), Lulumae\_64 (B1), Lulwa\_65 (B1), Lumine\_68 (B1), Magic8\_67 (B1), Manad\_66 (B1), Mcshane\_66 (B1), Mecca\_67 (B1), Megamind20\_68 (B1), Megatron\_67 (B1), Morty\_68 (B1), MrPhizzler\_67 (B1), Mutante\_67 (B1), Newman\_65 (B1), Nicole21\_68 (B1), Numberten\_66 (B1), Nyala\_66 (B1), OSmaximus\_67 (B1), Olak\_66 (B1), Olive\_66 (B1), OliverWalter\_66 (B1), Omniscient\_68 (B1), Oosterbaan\_66 (B1), Orfeu\_66 (B1), Orwigg\_67 (B1), Pacifista\_66 (B1), PhatCats2014\_67 (B1), PhatLouie\_69 (B1), Phunky\_65 (B1), Piglet\_0067 (B1), Pops\_65 (B1), ProfessorX\_65 (B1), QueenBeane\_67 (B1), Quisquiliae\_68 (B1), RedMaple\_68 (B1), Ricotta\_67 (B1), Riggan\_68 (B1), Rimu\_70 (B1), Robyn\_67 (B1), Roscoe\_67 (B1), Roy17\_65 (B1), Samaymay\_67 (B1), Schadenfreude\_67 (B1), Schueller\_67 (B1), Scoot17C\_67 (B1), Selr12\_68 (B1), Serendipity\_66 (B1), Serpentine\_0067 (B1), ShiVal\_65 (B1), Sigman\_67 (B1), SilverBell\_68 (B1), Simielle\_67 (B1), Skippy\_68 (B1), Soile\_68 (B1), Spartan300\_66 (B1), StinkyVeggy\_65 (B5), Struggle\_67 (B1), Swiphy\_71 (B1), Telesworld\_65 (B1), ThreeOh3D2\_68 (B1), Thunderbird\_67 (B1), Timmi\_66 (B1),

Tomlarah\_68 (B1), Toni\_67 (B1), Tooj\_65 (B1), True\_65 (B1), UAch1\_67 (B1), Usavi\_68 (B1), Vaishali24\_67 (B1), Valjean\_66 (B1), Vaticameos\_64 (B1), Virapocalypse\_68 (B1), Virgeve\_66 (B1), Waterdiva\_67 (B1), Windsor\_67 (B1), Xavier\_66 (B1), Zaider\_68 (B1), Zenteno07\_72 (B13),

Start 65:

- Found in 2 of 446 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 401
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Funsized\_66 (B9),

Start 67:

- Found in 35 of 446 ( 7.8% ) of genes in pham
- Manual Annotations of this start: 1 of 401
- Called 2.9% of time when present
- Phage (with cluster) where this start called: Arbiter\_61 (B2),

Start 71:

- Found in 41 of 446 ( 9.2% ) of genes in pham
- Manual Annotations of this start: 7 of 401
- Called 19.5% of time when present
- Phage (with cluster) where this start called: Acadian\_66 (B5), Donny\_67 (B5), Lars\_64 (B2), Opia\_64 (B2), Rhinoforte\_63 (B2), Suigeneris\_67 (B5), TA17A\_63 (B2), West99\_63 (B2),

Start 72:

- Found in 37 of 446 ( 8.3% ) of genes in pham
- Manual Annotations of this start: 35 of 401
- Called 94.6% of time when present
- Phage (with cluster) where this start called: Abinghost\_67 (B3), Akoma\_67 (B3), Athena\_69 (B3), Audrey\_67 (B3), Baloo\_66 (B3), Bernardo\_68 (B3), Casbah\_67 (B3), ChaChing\_67 (B3), Chandler\_67 (B3), Compostia\_66 (B3), Corofin\_67 (B3), Daisy\_66 (B3), Deenasa\_67 (B3), Devonte\_66 (B3), Gadget\_68 (B3), Gervas\_68 (B3), GlenHope\_68 (B3), Halfpint\_66 (B3), Heathcliff\_67 (B3), Jackstina\_63 (B3), Kamiyu\_67 (B3), Kronus\_67 (B3), MmasiCarm\_68 (B3), Mortcellus\_67 (B3), Nozo\_67 (B3), OrangeOswald\_67 (B3), Phaedrus\_62 (B3), Philly\_66 (B3), Phlyer\_67 (B3), RagingRooster\_66 (B3), Rita1961\_68 (B3), RomaT\_67 (B3), SynergyX\_67 (B3), Yahalom\_65 (B3), Yinz\_67 (B3),

Start 76:

- Found in 2 of 446 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 401
- Called 50.0% of time when present
- Phage (with cluster) where this start called: HarveySr\_66 (B3),

Start 77:

- Found in 9 of 446 ( 2.0% ) of genes in pham
- Manual Annotations of this start: 3 of 401
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Bae\_66 (B5), DigitDog\_66 (B5), Nangang\_65 (B5), Nehemiah\_64 (B5), Rich\_65 (B5), Serendipitous\_64 (B5),

Start 78:

- Found in 119 of 446 ( 26.7% ) of genes in pham
- Manual Annotations of this start: 84 of 401
- Called 70.6% of time when present
- Phage (with cluster) where this start called: Adriana\_68 (B1), AltPhacts\_65 (B1), Ashraf\_67 (B1), BatteryCK\_65 (B1), BlackStallion\_67 (B1), BlueHusk\_68 (B1), Buckeye\_67 (B1), Chorkpop\_67 (B1), Daffy\_65 (B1), Daka\_69 (B1), Dati\_64 (B1), Dingo\_64 (B1), DirtJuice\_67 (B1), Doddsville\_65 (B1), DonSanchon\_63 (B1), DuchessDung\_66 (B1), Durga\_69 (B1), Emiris\_68 (B1), Etaye\_66 (B1), Fang\_68 (B1), FriarPreacher\_65 (B1), Grand2040\_65 (B1), Gyarad\_0066 (B1), Harvey\_64 (B1), Held\_65 (B1), HighStump\_68 (B1), Horchata\_64 (B1), ImtiyazSitla\_67 (B1), Inverness\_65 (B1), Kailash\_65 (B1), KingVeVeVe\_65 (B1), Kloppinator\_67 (B1), Kwksand96\_67 (B1), LeeLot\_66 (B1), Legolas\_68 (B1), LemonSlice\_67 (B1), MRabcd\_66 (B1), Mag7\_65 (B1), Mana\_65 (B1), Maru\_66 (B1), Maskar\_67 (B1), Matalotodo\_65 (B1), Melc17\_64 (B1), MelsMeow\_66 (B1), Mikota\_64 (B1), MiniBoss\_64 (B1), MitKao\_66 (B1), Morgushi\_65 (B1), Mosaic\_64 (B1), Mulan\_66 (B1), Murdoc\_64 (B1), Phareon\_65 (B1), Pherdinand\_67 (B1), Phergie\_67 (B1), Phipps\_66 (B1), Phleuron\_65 (B1), PhrankReynolds\_66 (B1), PhrodoBaggins\_68 (B1), PinheadLarry\_66 (B1), Plmatters\_65 (B1), Potter\_64 (B1), Puhltonio\_65 (B1), Roliet\_64 (B1), Scrick\_66 (B1), Sheila\_63 (B1), Slatt\_67 (B1), Solosis\_65 (B1), Sophia\_65 (B1), Squiggle\_66 (B1), Surely\_67 (B1), TallGrassMM\_65 (B1), Thora\_65 (B1), TomBombadil\_67 (B1), Trypo\_68 (B1), UncleHowie\_64 (B1), Vista\_65 (B1), Vivaldi\_67 (B1), Vortex\_66 (B1), Wallhey\_67 (B1), Weher20\_64 (B1), Yoshand\_67 (B1), YouGoGlencoco\_67 (B1), Zelda\_67 (B1), Zonia\_67 (B1),

#### Start 79:

- Found in 8 of 446 ( 1.8% ) of genes in pham
- Manual Annotations of this start: 1 of 401
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Marley1013\_67 (B3),

#### Start 81:

- Found in 1 of 446 ( 0.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hosp\_058 (B6),

#### Start 82:

- Found in 10 of 446 ( 2.2% ) of genes in pham
- Manual Annotations of this start: 6 of 401
- Called 70.0% of time when present
- Phage (with cluster) where this start called: Briakila\_66 (B3), Morty007\_65 (B3), NHagos\_58 (DR), Neos5\_66 (B3), Obutu\_68 (B3), Phayeta\_69 (B3), SlippinJimmy\_69 (B3),

#### Start 83:

- Found in 121 of 446 ( 27.1% ) of genes in pham
- Manual Annotations of this start: 3 of 401
- Called 3.3% of time when present
- Phage (with cluster) where this start called: Coldpizza\_59 (DR), FluffyNinja\_67 (B1), LostAndPhound\_66 (B1), Veritas\_66 (B1),

#### Start 84:

- Found in 5 of 446 ( 1.1% ) of genes in pham

- Manual Annotations of this start: 1 of 401
- Called 40.0% of time when present
- Phage (with cluster) where this start called: EastView9101\_65 (B5), SirJeffery\_65 (B5),

#### Start 85:

- Found in 37 of 446 ( 8.3% ) of genes in pham
- Manual Annotations of this start: 1 of 401
- Called 2.7% of time when present
- Phage (with cluster) where this start called: Cooper\_62 (B4),

#### Start 87:

- Found in 38 of 446 ( 8.5% ) of genes in pham
- Manual Annotations of this start: 1 of 401
- Called 5.3% of time when present
- Phage (with cluster) where this start called: Ben11\_67 (B3), LestyG\_65 (B3),

#### Start 88:

- Found in 160 of 446 ( 35.9% ) of genes in pham
- Manual Annotations of this start: 36 of 401
- Called 23.8% of time when present
- Phage (with cluster) where this start called: Allegro\_63 (B2), Ares\_63 (B2), Bananafish\_64 (B2), Banjo\_65 (B1), Basato\_66 (B1), Blocker23\_63 (B2), Boyle\_63 (B2), Brownie5\_63 (B2), Calamitous\_64 (B2), Coffee\_63 (B2), Eaglehorse\_63 (B2), Faze9\_62 (B2), FrenchFry\_64 (B2), GeneCoco\_67 (B1), Glass\_64 (B2), Godines\_64 (B2), Hamish\_64 (B1), Hedgerow\_63 (B2), Holeinone\_63 (B2), Kaleb\_64 (B2), Kheth\_63 (B2), KingTut\_58 (B1), Lasso\_66 (B1), Laurie\_63 (B2), Lephleur\_63 (B2), LizLemon\_63 (B2), MasterPo\_64 (B2), Oline\_66 (B1), Phantasmagoria\_62 (B2), PhenghisKhan\_67 (B1), Pipefish\_69 (B3), Rosebush\_62 (B2), Sabella\_63 (B2), SassyCat97\_65 (B1), Swish\_67 (B1), Tinciduntolum\_64 (B2), Tres\_63 (B2), Vic9\_65 (B2),

#### Start 89:

- Found in 169 of 446 ( 37.9% ) of genes in pham
- Manual Annotations of this start: 12 of 401
- Called 7.7% of time when present
- Phage (with cluster) where this start called: AnClar\_57 (DR), Axumite\_61 (DR), BiggityBass\_59 (DR), CharlottesWeb\_57 (DR), Fresco\_61 (DR), Ligma\_61 (DR), LittleMunchkin\_62 (DR), Mariokart\_57 (DR), Orion\_67 (B1), PG1\_66 (B1), Shatter\_61 (DR), Sisko\_59 (DR), Yago84\_58 (DR),

#### Start 92:

- Found in 6 of 446 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 1 of 401
- Called 16.7% of time when present
- Phage (with cluster) where this start called: Sour\_61 (DR),

### Summary by clusters:

There are 14 clusters represented in this pham: B10, B8, B11, B4, B5, B6, B7, B12, B1, B2, B3, DR, B9, B13,

Info for manual annotations of cluster B1:

- Start number 42 was manually annotated 22 times for cluster B1.
- Start number 50 was manually annotated 4 times for cluster B1.
- Start number 63 was manually annotated 138 times for cluster B1.
- Start number 78 was manually annotated 84 times for cluster B1.
- Start number 83 was manually annotated 3 times for cluster B1.
- Start number 88 was manually annotated 10 times for cluster B1.
- Start number 89 was manually annotated 2 times for cluster B1.

Info for manual annotations of cluster B10:

- Start number 60 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B11:

- Start number 56 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B12:

- Start number 56 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B13:

- Start number 40 was manually annotated 1 time for cluster B13.
- Start number 63 was manually annotated 1 time for cluster B13.

Info for manual annotations of cluster B2:

- Start number 4 was manually annotated 1 time for cluster B2.
- Start number 11 was manually annotated 1 time for cluster B2.
- Start number 67 was manually annotated 1 time for cluster B2.
- Start number 71 was manually annotated 4 times for cluster B2.
- Start number 88 was manually annotated 25 times for cluster B2.

Info for manual annotations of cluster B3:

- Start number 46 was manually annotated 1 time for cluster B3.
- Start number 72 was manually annotated 35 times for cluster B3.
- Start number 76 was manually annotated 1 time for cluster B3.
- Start number 79 was manually annotated 1 time for cluster B3.
- Start number 82 was manually annotated 5 times for cluster B3.
- Start number 87 was manually annotated 1 time for cluster B3.
- Start number 88 was manually annotated 1 time for cluster B3.

Info for manual annotations of cluster B4:

- Start number 42 was manually annotated 3 times for cluster B4.
- Start number 51 was manually annotated 17 times for cluster B4.
- Start number 56 was manually annotated 4 times for cluster B4.
- Start number 85 was manually annotated 1 time for cluster B4.

Info for manual annotations of cluster B5:

- Start number 54 was manually annotated 2 times for cluster B5.
- Start number 71 was manually annotated 3 times for cluster B5.
- Start number 77 was manually annotated 3 times for cluster B5.
- Start number 84 was manually annotated 1 time for cluster B5.

Info for manual annotations of cluster B6:

- Start number 56 was manually annotated 1 time for cluster B6.

Info for manual annotations of cluster B7:

- Start number 35 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B8:

- Start number 58 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:

- Start number 22 was manually annotated 1 time for cluster B9.
- Start number 56 was manually annotated 4 times for cluster B9.
- Start number 60 was manually annotated 1 time for cluster B9.
- Start number 65 was manually annotated 1 time for cluster B9.

Info for manual annotations of cluster DR:

- Start number 82 was manually annotated 1 time for cluster DR.
- Start number 89 was manually annotated 10 times for cluster DR.
- Start number 92 was manually annotated 1 time for cluster DR.

### **Gene Information:**

Gene: 39HC\_060 Start: 55484, Stop: 56254, Start Num: 56

Candidate Starts for 39HC\_060:

(Start: 56 @55484 has 11 MA's), (101, 55592), (108, 55625), (117, 55670), (179, 55778), (193, 55835), (199, 55847), (201, 55853), (208, 55871), (212, 55877), (215, 55883), (223, 55898), (236, 55919), (240, 55928), (244, 55937), (272, 56024), (284, 56060), (320, 56186),

Gene: 40BC\_060 Start: 55484, Stop: 56254, Start Num: 56

Candidate Starts for 40BC\_060:

(Start: 56 @55484 has 11 MA's), (101, 55592), (108, 55625), (117, 55670), (179, 55778), (193, 55835), (199, 55847), (201, 55853), (208, 55871), (212, 55877), (215, 55883), (223, 55898), (236, 55919), (240, 55928), (244, 55937), (272, 56024), (284, 56060), (320, 56186),

Gene: ABU\_66 Start: 56527, Stop: 57288, Start Num: 63

Candidate Starts for ABU\_66:

(Start: 63 @56527 has 139 MA's), (Start: 89 @56566 has 12 MA's), (105, 56629), (109, 56647), (119, 56701), (127, 56725), (148, 56758), (178, 56803), (182, 56815), (199, 56872), (204, 56884), (207, 56896), (227, 56932), (242, 56971), (246, 56977), (255, 56998), (257, 57007), (266, 57043), (287, 57127), (299, 57178), (307, 57205), (329, 57250), (332, 57262), (338, 57280),

Gene: Abinghost\_67 Start: 56443, Stop: 57210, Start Num: 72

Candidate Starts for Abinghost\_67:

(Start: 72 @56443 has 35 MA's), (Start: 87 @56479 has 1 MA's), (95, 56509), (114, 56593), (119, 56626), (134, 56659), (156, 56695), (160, 56701), (172, 56719), (176, 56725), (201, 56803), (229, 56839), (240, 56866), (252, 56884), (311, 57103), (338, 57175), (339, 57205),

Gene: AbsoluteMadLad\_67 Start: 56482, Stop: 57243, Start Num: 63

Candidate Starts for AbsoluteMadLad\_67:

(Start: 50 @56455 has 4 MA's), (Start: 63 @56482 has 139 MA's), (Start: 89 @56521 has 12 MA's), (105, 56584), (109, 56602), (119, 56656), (127, 56680), (148, 56713), (178, 56758), (182, 56770), (187, 56791), (199, 56827), (204, 56839), (207, 56851), (227, 56887), (242, 56926), (246, 56932), (255, 56953), (257, 56962), (266, 56998), (287, 57082), (299, 57133), (307, 57160), (329, 57205), (332, 57217), (338, 57235),



Gene: Acadian\_66 Start: 57500, Stop: 58237, Start Num: 71

Candidate Starts for Acadian\_66:

(Start: 71 @57500 has 7 MA's), (Start: 84 @57527 has 1 MA's), (Start: 92 @57551 has 1 MA's), (117, 57665), (142, 57722), (183, 57794), (191, 57833), (196, 57842), (224, 57887), (264, 57992), (268, 58001), (304, 58145), (334, 58214),

Gene: Adriana\_68 Start: 57095, Stop: 57859, Start Num: 78

Candidate Starts for Adriana\_68:

(Start: 42 @57005 has 25 MA's), (61, 57056), (62, 57059), (68, 57077), (Start: 78 @57095 has 84 MA's), (Start: 83 @57116 has 3 MA's), (Start: 88 @57128 has 36 MA's), (96, 57155), (121, 57278), (127, 57290), (155, 57341), (164, 57356), (177, 57377), (179, 57380), (183, 57395), (199, 57449), (210, 57476), (223, 57482), (285, 57668), (309, 57764), (321, 57782), (324, 57791),

Gene: Aelin\_66 Start: 56047, Stop: 56808, Start Num: 63

Candidate Starts for Aelin\_66:

(Start: 63 @56047 has 139 MA's), (Start: 89 @56086 has 12 MA's), (105, 56149), (109, 56167), (119, 56221), (127, 56245), (148, 56278), (178, 56323), (182, 56335), (199, 56392), (204, 56404), (207, 56416), (227, 56452), (242, 56491), (246, 56497), (255, 56518), (257, 56527), (266, 56563), (287, 56647), (299, 56698), (307, 56725), (329, 56770), (332, 56782), (338, 56800),

Gene: Ahwei\_59 Start: 56073, Stop: 56843, Start Num: 51

Candidate Starts for Ahwei\_59:

(28, 55983), (Start: 51 @56073 has 17 MA's), (Start: 56 @56082 has 11 MA's), (Start: 85 @56127 has 1 MA's), (101, 56187), (103, 56196), (104, 56202), (105, 56205), (117, 56265), (119, 56277), (125, 56295), (138, 56307), (158, 56337), (179, 56373), (183, 56388), (199, 56442), (201, 56448), (215, 56478), (218, 56484), (236, 56514), (246, 56535), (257, 56565), (264, 56598), (272, 56619), (284, 56667), (286, 56688), (288, 56697), (303, 56763), (320, 56793),

Gene: Akoma\_67 Start: 56483, Stop: 57250, Start Num: 72

Candidate Starts for Akoma\_67:

(Start: 72 @56483 has 35 MA's), (Start: 87 @56519 has 1 MA's), (95, 56549), (114, 56633), (119, 56666), (134, 56699), (156, 56735), (160, 56741), (172, 56759), (176, 56765), (201, 56843), (229, 56879), (240, 56906), (252, 56924), (264, 56978), (292, 57071), (311, 57143), (338, 57215), (339, 57245),

Gene: AlanGrant\_64 Start: 58328, Stop: 59071, Start Num: 56

Candidate Starts for AlanGrant\_64:

(Start: 56 @58328 has 11 MA's), (Start: 85 @58370 has 1 MA's), (105, 58448), (141, 58553), (158, 58574), (179, 58610), (183, 58625), (186, 58640), (199, 58679), (201, 58685), (208, 58703), (212, 58709), (220, 58724), (233, 58742), (244, 58769), (261, 58820), (262, 58823), (286, 58913), (290, 58928), (299, 58970), (303, 58988), (310, 59003), (323, 59024), (325, 59033), (337, 59063),

Gene: Allegro\_63 Start: 54751, Stop: 55452, Start Num: 88

Candidate Starts for Allegro\_63:

(Start: 11 @54493 has 1 MA's), (Start: 67 @54706 has 1 MA's), (Start: 71 @54718 has 7 MA's), (Start: 88 @54751 has 36 MA's), (107, 54823), (109, 54838), (114, 54859), (135, 54922), (171, 54979), (173, 54982), (179, 54991), (182, 55003), (194, 55051), (199, 55060), (217, 55093), (221, 55099), (254, 55168), (260, 55198), (265, 55213), (286, 55288), (290, 55303), (303, 55363), (318, 55390),

Gene: AltPhacts\_65 Start: 55582, Stop: 56346, Start Num: 78

Candidate Starts for AltPhacts\_65:

(Start: 42 @55492 has 25 MA's), (61, 55543), (62, 55546), (68, 55564), (Start: 78 @55582 has 84 MA's), (Start: 83 @55603 has 3 MA's), (Start: 88 @55615 has 36 MA's), (96, 55642), (121, 55765),

(127, 55777), (155, 55828), (164, 55843), (177, 55864), (179, 55867), (183, 55882), (199, 55936), (210, 55963), (223, 55969), (285, 56155), (309, 56251), (321, 56269), (324, 56278),

Gene: Altwerkus\_65 Start: 55690, Stop: 56451, Start Num: 63

Candidate Starts for Altwerkus\_65:

(Start: 63 @55690 has 139 MA's), (Start: 89 @55729 has 12 MA's), (105, 55792), (109, 55810), (119, 55864), (127, 55888), (148, 55921), (178, 55966), (182, 55978), (187, 55999), (199, 56035), (204, 56047), (207, 56059), (227, 56095), (242, 56134), (246, 56140), (255, 56161), (257, 56170), (266, 56206), (287, 56290), (299, 56341), (307, 56368), (329, 56413), (332, 56425), (338, 56443),

Gene: AnClar\_57 Start: 50875, Stop: 51657, Start Num: 89

Candidate Starts for AnClar\_57:

(80, 50860), (Start: 89 @50875 has 12 MA's), (131, 51052), (153, 51094), (163, 51109), (174, 51139), (189, 51181), (191, 51193), (199, 51208), (201, 51214), (204, 51220), (207, 51232), (222, 51262), (243, 51313), (253, 51328), (268, 51388), (285, 51487), (290, 51505), (298, 51544), (328, 51613),

Gene: Anderson\_68 Start: 56262, Stop: 57023, Start Num: 63

Candidate Starts for Anderson\_68:

(Start: 63 @56262 has 139 MA's), (Start: 89 @56301 has 12 MA's), (105, 56364), (109, 56382), (119, 56436), (127, 56460), (148, 56493), (178, 56538), (182, 56550), (187, 56571), (199, 56607), (204, 56619), (207, 56631), (227, 56667), (242, 56706), (246, 56712), (255, 56733), (257, 56742), (266, 56778), (287, 56862), (299, 56913), (307, 56940), (329, 56985), (332, 56997), (338, 57015),

Gene: Andre\_69 Start: 56442, Stop: 57203, Start Num: 63

Candidate Starts for Andre\_69:

(Start: 63 @56442 has 139 MA's), (Start: 89 @56481 has 12 MA's), (105, 56544), (109, 56562), (119, 56616), (127, 56640), (148, 56673), (178, 56718), (182, 56730), (187, 56751), (199, 56787), (204, 56799), (207, 56811), (227, 56847), (242, 56886), (246, 56892), (255, 56913), (257, 56922), (266, 56958), (287, 57042), (299, 57093), (307, 57120), (329, 57165), (332, 57177), (338, 57195),

Gene: Antihero\_59 Start: 56071, Stop: 56841, Start Num: 51

Candidate Starts for Antihero\_59:

(28, 55981), (Start: 51 @56071 has 17 MA's), (Start: 56 @56080 has 11 MA's), (Start: 85 @56125 has 1 MA's), (101, 56185), (103, 56194), (104, 56200), (105, 56203), (117, 56263), (119, 56275), (125, 56293), (138, 56305), (158, 56335), (179, 56371), (183, 56386), (199, 56440), (201, 56446), (215, 56476), (218, 56482), (236, 56512), (246, 56533), (257, 56563), (264, 56596), (272, 56617), (284, 56665), (286, 56686), (288, 56695), (303, 56761), (320, 56791),

Gene: Antonia\_66 Start: 56046, Stop: 56807, Start Num: 63

Candidate Starts for Antonia\_66:

(Start: 63 @56046 has 139 MA's), (Start: 89 @56085 has 12 MA's), (105, 56148), (109, 56166), (119, 56220), (127, 56244), (148, 56277), (178, 56322), (182, 56334), (187, 56355), (199, 56391), (204, 56403), (207, 56415), (227, 56451), (242, 56490), (246, 56496), (255, 56517), (257, 56526), (266, 56562), (287, 56646), (299, 56697), (307, 56724), (329, 56769), (332, 56781), (338, 56799),

Gene: Apex\_61 Start: 57293, Stop: 58072, Start Num: 51

Candidate Starts for Apex\_61:

(Start: 42 @57266 has 25 MA's), (Start: 51 @57293 has 17 MA's), (Start: 56 @57302 has 11 MA's), (Start: 85 @57356 has 1 MA's), (101, 57416), (103, 57425), (104, 57431), (105, 57434), (109, 57452), (117, 57494), (119, 57506), (125, 57524), (138, 57536), (158, 57566), (179, 57602), (199, 57671), (201, 57677), (215, 57707), (218, 57713), (236, 57743), (240, 57752), (246, 57764), (257, 57794), (272, 57848), (284, 57896), (286, 57917), (287, 57923), (288, 57926), (303, 57992), (320, 58022),

Gene: Apizium\_66 Start: 55708, Stop: 56469, Start Num: 63

Candidate Starts for Apizium\_66:

(Start: 63 @55708 has 139 MA's), (Start: 89 @55747 has 12 MA's), (105, 55810), (109, 55828), (119, 55882), (127, 55906), (148, 55939), (178, 55984), (182, 55996), (199, 56053), (204, 56065), (207, 56077), (227, 56113), (242, 56152), (246, 56158), (255, 56179), (257, 56188), (266, 56224), (287, 56308), (299, 56359), (307, 56386), (329, 56431), (332, 56443), (338, 56461),

Gene: Arbiter\_61 Start: 54813, Stop: 55559, Start Num: 67

Candidate Starts for Arbiter\_61:

(1, 54402), (2, 54408), (Start: 4 @54441 has 1 MA's), (8, 54519), (9, 54540), (Start: 67 @54813 has 1 MA's), (Start: 71 @54825 has 7 MA's), (Start: 88 @54858 has 36 MA's), (107, 54930), (109, 54945), (114, 54966), (135, 55029), (171, 55086), (173, 55089), (179, 55098), (182, 55110), (194, 55158), (199, 55167), (217, 55200), (221, 55206), (254, 55275), (260, 55305), (265, 55320), (286, 55395), (290, 55410), (303, 55470), (318, 55497),

Gene: Ares\_63 Start: 54829, Stop: 55530, Start Num: 88

Candidate Starts for Ares\_63:

(Start: 11 @54571 has 1 MA's), (19, 54628), (23, 54640), (Start: 67 @54784 has 1 MA's), (Start: 71 @54796 has 7 MA's), (Start: 88 @54829 has 36 MA's), (107, 54901), (109, 54916), (114, 54937), (135, 55000), (171, 55057), (173, 55060), (179, 55069), (182, 55081), (194, 55129), (199, 55138), (217, 55171), (221, 55177), (254, 55246), (260, 55276), (265, 55291), (286, 55366), (290, 55381), (303, 55441), (318, 55468),

Gene: Ashraf\_67 Start: 56247, Stop: 57011, Start Num: 78

Candidate Starts for Ashraf\_67:

(Start: 42 @56157 has 25 MA's), (61, 56208), (62, 56211), (68, 56229), (Start: 78 @56247 has 84 MA's), (Start: 83 @56268 has 3 MA's), (Start: 88 @56280 has 36 MA's), (96, 56307), (121, 56430), (127, 56442), (155, 56493), (164, 56508), (177, 56529), (179, 56532), (183, 56547), (199, 56601), (210, 56628), (223, 56634), (285, 56820), (309, 56916), (321, 56934), (324, 56943),

Gene: Athena\_69 Start: 57218, Stop: 57985, Start Num: 72

Candidate Starts for Athena\_69:

(Start: 72 @57218 has 35 MA's), (Start: 87 @57254 has 1 MA's), (95, 57284), (114, 57368), (119, 57401), (134, 57434), (156, 57470), (160, 57476), (172, 57494), (176, 57500), (201, 57578), (229, 57614), (240, 57641), (252, 57659), (292, 57806), (311, 57878), (325, 57911), (338, 57950), (339, 57980),

Gene: Audrey\_67 Start: 56482, Stop: 57249, Start Num: 72

Candidate Starts for Audrey\_67:

(Start: 72 @56482 has 35 MA's), (Start: 87 @56518 has 1 MA's), (95, 56548), (114, 56632), (119, 56665), (134, 56698), (156, 56734), (160, 56740), (172, 56758), (176, 56764), (201, 56842), (229, 56878), (240, 56905), (252, 56923), (292, 57070), (311, 57142), (325, 57175), (338, 57214), (339, 57244),

Gene: Austelle\_61 Start: 57747, Stop: 58526, Start Num: 51

Candidate Starts for Austelle\_61:

(16, 57630), (Start: 42 @57720 has 25 MA's), (Start: 51 @57747 has 17 MA's), (Start: 56 @57756 has 11 MA's), (Start: 85 @57810 has 1 MA's), (101, 57870), (103, 57879), (104, 57885), (105, 57888), (109, 57906), (117, 57948), (119, 57960), (125, 57978), (138, 57990), (158, 58020), (179, 58056), (199, 58125), (201, 58131), (215, 58161), (218, 58167), (236, 58197), (240, 58206), (246, 58218), (257, 58248), (272, 58302), (284, 58350), (286, 58371), (287, 58377), (288, 58380), (303, 58446), (320, 58476),

Gene: Axumite\_61 Start: 49797, Stop: 50528, Start Num: 89

Candidate Starts for Axumite\_61:

(Start: 89 @49797 has 12 MA's), (98, 49827), (105, 49860), (106, 49863), (118, 49929), (119, 49932), (123, 49944), (124, 49953), (136, 49974), (154, 50004), (159, 50007), (167, 50019), (174, 50031), (183, 50046), (194, 50091), (215, 50142), (230, 50169), (247, 50211), (254, 50229), (271, 50295), (286, 50382), (291, 50400), (303, 50457), (328, 50505),

Gene: Badfish\_67 Start: 56548, Stop: 57309, Start Num: 63

Candidate Starts for Badfish\_67:

(Start: 63 @56548 has 139 MA's), (Start: 89 @56587 has 12 MA's), (105, 56650), (109, 56668), (119, 56722), (127, 56746), (148, 56779), (178, 56824), (182, 56836), (187, 56857), (199, 56893), (204, 56905), (207, 56917), (227, 56953), (242, 56992), (246, 56998), (255, 57019), (257, 57028), (266, 57064), (287, 57148), (299, 57199), (307, 57226), (329, 57271), (332, 57283), (338, 57301),

Gene: Bae\_66 Start: 58482, Stop: 59255, Start Num: 77

Candidate Starts for Bae\_66:

(Start: 77 @58482 has 3 MA's), (136, 58692), (152, 58722), (153, 58725), (183, 58779), (197, 58830), (201, 58839), (220, 58878), (223, 58884), (250, 58932), (262, 58980), (286, 59070), (288, 59079), (305, 59151), (337, 59223),

Gene: Baloo\_66 Start: 56315, Stop: 57082, Start Num: 72

Candidate Starts for Baloo\_66:

(Start: 72 @56315 has 35 MA's), (Start: 87 @56351 has 1 MA's), (95, 56381), (114, 56465), (119, 56498), (134, 56531), (156, 56567), (160, 56573), (172, 56591), (176, 56597), (201, 56675), (229, 56711), (240, 56738), (252, 56756), (311, 56975), (338, 57047), (339, 57077),

Gene: Bananafish\_64 Start: 54759, Stop: 55460, Start Num: 88

Candidate Starts for Bananafish\_64:

(Start: 11 @54501 has 1 MA's), (Start: 67 @54714 has 1 MA's), (Start: 71 @54726 has 7 MA's), (Start: 88 @54759 has 36 MA's), (107, 54831), (109, 54846), (114, 54867), (135, 54930), (171, 54987), (173, 54990), (179, 54999), (182, 55011), (194, 55059), (199, 55068), (217, 55101), (221, 55107), (254, 55176), (260, 55206), (265, 55221), (286, 55296), (290, 55311), (303, 55371), (318, 55398),

Gene: Banjo\_65 Start: 56057, Stop: 56788, Start Num: 88

Candidate Starts for Banjo\_65:

(Start: 42 @55934 has 25 MA's), (61, 55985), (62, 55988), (68, 56006), (Start: 78 @56024 has 84 MA's), (Start: 83 @56045 has 3 MA's), (Start: 88 @56057 has 36 MA's), (96, 56084), (121, 56207), (127, 56219), (155, 56270), (164, 56285), (177, 56306), (179, 56309), (183, 56324), (199, 56378), (210, 56405), (223, 56411), (285, 56597), (309, 56693), (321, 56711), (324, 56720),

Gene: Basato\_66 Start: 56333, Stop: 57064, Start Num: 88

Candidate Starts for Basato\_66:

(Start: 42 @56210 has 25 MA's), (61, 56261), (62, 56264), (68, 56282), (Start: 78 @56300 has 84 MA's), (Start: 83 @56321 has 3 MA's), (Start: 88 @56333 has 36 MA's), (96, 56360), (121, 56483), (127, 56495), (155, 56546), (164, 56561), (177, 56582), (179, 56585), (183, 56600), (199, 56654), (210, 56681), (223, 56687), (285, 56873), (309, 56969), (321, 56987), (324, 56996),

Gene: BatteryCK\_65 Start: 55994, Stop: 56758, Start Num: 78

Candidate Starts for BatteryCK\_65:

(Start: 42 @55904 has 25 MA's), (61, 55955), (62, 55958), (68, 55976), (Start: 78 @55994 has 84 MA's), (Start: 83 @56015 has 3 MA's), (Start: 88 @56027 has 36 MA's), (96, 56054), (121, 56177), (127, 56189), (155, 56240), (164, 56255), (177, 56276), (179, 56279), (183, 56294), (199, 56348), (210, 56375), (223, 56381), (285, 56567), (309, 56663), (321, 56681), (324, 56690),

Gene: Beaglebox\_65 Start: 56102, Stop: 56863, Start Num: 63

Candidate Starts for Beaglebox\_65:

(Start: 63 @56102 has 139 MA's), (Start: 89 @56141 has 12 MA's), (105, 56204), (109, 56222), (119, 56276), (127, 56300), (148, 56333), (178, 56378), (182, 56390), (199, 56447), (204, 56459), (207, 56471), (227, 56507), (242, 56546), (246, 56552), (255, 56573), (257, 56582), (266, 56618), (287, 56702), (299, 56753), (307, 56780), (329, 56825), (332, 56837), (338, 56855),

Gene: Ben11\_67 Start: 56736, Stop: 57467, Start Num: 87

Candidate Starts for Ben11\_67:

(Start: 72 @56700 has 35 MA's), (Start: 87 @56736 has 1 MA's), (95, 56766), (114, 56850), (119, 56883), (134, 56916), (156, 56952), (160, 56958), (172, 56976), (176, 56982), (201, 57060), (229, 57096), (240, 57123), (252, 57141), (264, 57195), (311, 57360), (325, 57393), (338, 57432), (339, 57462),

Gene: Bernardo\_68 Start: 56681, Stop: 57448, Start Num: 72

Candidate Starts for Bernardo\_68:

(Start: 72 @56681 has 35 MA's), (Start: 87 @56717 has 1 MA's), (95, 56747), (114, 56831), (134, 56897), (156, 56933), (160, 56939), (172, 56957), (176, 56963), (201, 57041), (229, 57077), (240, 57104), (252, 57122), (311, 57341), (338, 57413), (339, 57443),

Gene: BiggityBass\_59 Start: 51447, Stop: 52217, Start Num: 89

Candidate Starts for BiggityBass\_59:

(12, 51204), (24, 51261), (43, 51339), (57, 51381), (Start: 63 @51399 has 139 MA's), (Start: 89 @51447 has 12 MA's), (98, 51477), (114, 51549), (124, 51606), (133, 51624), (157, 51666), (179, 51705), (182, 51717), (188, 51741), (199, 51774), (214, 51813), (222, 51828), (230, 51843), (245, 51882), (256, 51909), (278, 51981), (281, 52023), (284, 52044), (289, 52077), (293, 52098), (305, 52146), (323, 52176),

Gene: BirdsNest\_71 Start: 57680, Stop: 58516, Start Num: 40

Candidate Starts for BirdsNest\_71:

(Start: 40 @57680 has 1 MA's), (44, 57689), (52, 57716), (Start: 77 @57764 has 3 MA's), (105, 57839), (129, 57941), (133, 57944), (183, 58034), (234, 58166), (240, 58184), (246, 58196), (255, 58217), (273, 58280), (276, 58289), (314, 58433), (323, 58448),

Gene: Bishoperium\_67 Start: 56576, Stop: 57337, Start Num: 63

Candidate Starts for Bishoperium\_67:

(Start: 63 @56576 has 139 MA's), (Start: 89 @56615 has 12 MA's), (105, 56678), (109, 56696), (119, 56750), (127, 56774), (148, 56807), (178, 56852), (182, 56864), (187, 56885), (199, 56921), (204, 56933), (207, 56945), (227, 56981), (242, 57020), (246, 57026), (255, 57047), (257, 57056), (266, 57092), (287, 57176), (299, 57227), (307, 57254), (329, 57299), (332, 57311), (338, 57329),

Gene: BlackStallion\_67 Start: 56294, Stop: 57058, Start Num: 78

Candidate Starts for BlackStallion\_67:

(Start: 42 @56204 has 25 MA's), (61, 56255), (62, 56258), (68, 56276), (Start: 78 @56294 has 84 MA's), (Start: 83 @56315 has 3 MA's), (Start: 88 @56327 has 36 MA's), (96, 56354), (121, 56477), (127, 56489), (155, 56540), (164, 56555), (177, 56576), (179, 56579), (183, 56594), (199, 56648), (210, 56675), (223, 56681), (285, 56867), (309, 56963), (321, 56981), (324, 56990),

Gene: Blocker23\_63 Start: 54826, Stop: 55527, Start Num: 88

Candidate Starts for Blocker23\_63:

(Start: 11 @54568 has 1 MA's), (19, 54625), (23, 54637), (Start: 67 @54781 has 1 MA's), (Start: 71 @54793 has 7 MA's), (Start: 88 @54826 has 36 MA's), (107, 54898), (109, 54913), (114, 54934),

(135, 54997), (171, 55054), (173, 55057), (179, 55066), (182, 55078), (194, 55126), (199, 55135), (217, 55168), (221, 55174), (254, 55243), (260, 55273), (265, 55288), (286, 55363), (290, 55378), (303, 55438), (318, 55465),

Gene: BlueHusk\_68 Start: 56049, Stop: 56813, Start Num: 78

Candidate Starts for BlueHusk\_68:

(Start: 42 @55959 has 25 MA's), (61, 56010), (62, 56013), (68, 56031), (Start: 78 @56049 has 84 MA's), (Start: 83 @56070 has 3 MA's), (Start: 88 @56082 has 36 MA's), (96, 56109), (121, 56232), (127, 56244), (155, 56295), (164, 56310), (177, 56331), (179, 56334), (183, 56349), (199, 56403), (210, 56430), (223, 56436), (285, 56622), (309, 56718), (321, 56736), (324, 56745),

Gene: Bluephacebaby\_67 Start: 56579, Stop: 57340, Start Num: 63

Candidate Starts for Bluephacebaby\_67:

(Start: 63 @56579 has 139 MA's), (Start: 89 @56618 has 12 MA's), (105, 56681), (109, 56699), (119, 56753), (127, 56777), (148, 56810), (178, 56855), (182, 56867), (187, 56888), (199, 56924), (204, 56936), (207, 56948), (227, 56984), (242, 57023), (246, 57029), (255, 57050), (257, 57059), (266, 57095), (287, 57179), (299, 57230), (307, 57257), (329, 57302), (332, 57314), (338, 57332),

Gene: BobRoss2024\_64 Start: 51041, Stop: 51790, Start Num: 63

Candidate Starts for BobRoss2024\_64:

(Start: 63 @51041 has 139 MA's), (117, 51203), (126, 51248), (152, 51287), (168, 51311), (179, 51332), (191, 51386), (199, 51401), (202, 51407), (212, 51431), (225, 51449), (230, 51455), (254, 51506), (277, 51578), (323, 51740),

Gene: BobbyK\_61 Start: 57055, Stop: 57834, Start Num: 51

Candidate Starts for BobbyK\_61:

(16, 56938), (Start: 42 @57028 has 25 MA's), (Start: 51 @57055 has 17 MA's), (Start: 56 @57064 has 11 MA's), (Start: 85 @57118 has 1 MA's), (101, 57178), (103, 57187), (104, 57193), (105, 57196), (116, 57253), (117, 57256), (119, 57268), (125, 57286), (138, 57298), (158, 57328), (179, 57364), (199, 57433), (201, 57439), (215, 57469), (218, 57475), (236, 57505), (240, 57514), (246, 57526), (257, 57556), (272, 57610), (284, 57658), (286, 57679), (287, 57685), (288, 57688), (303, 57754), (320, 57784),

Gene: Boehler\_67 Start: 56224, Stop: 56985, Start Num: 63

Candidate Starts for Boehler\_67:

(Start: 63 @56224 has 139 MA's), (Start: 89 @56263 has 12 MA's), (105, 56326), (109, 56344), (119, 56398), (127, 56422), (148, 56455), (178, 56500), (182, 56512), (187, 56533), (199, 56569), (204, 56581), (207, 56593), (227, 56629), (242, 56668), (246, 56674), (255, 56695), (257, 56704), (266, 56740), (287, 56824), (299, 56875), (307, 56902), (329, 56947), (332, 56959), (338, 56977),

Gene: Boyle\_63 Start: 54867, Stop: 55568, Start Num: 88

Candidate Starts for Boyle\_63:

(1, 54411), (2, 54417), (3, 54420), (Start: 4 @54450 has 1 MA's), (8, 54528), (9, 54549), (Start: 67 @54822 has 1 MA's), (Start: 71 @54834 has 7 MA's), (Start: 88 @54867 has 36 MA's), (107, 54939), (109, 54954), (114, 54975), (135, 55038), (171, 55095), (173, 55098), (179, 55107), (182, 55119), (194, 55167), (199, 55176), (217, 55209), (221, 55215), (254, 55284), (260, 55314), (265, 55329), (286, 55404), (290, 55419), (303, 55479), (318, 55506),

Gene: Briakila\_66 Start: 56395, Stop: 57078, Start Num: 82

Candidate Starts for Briakila\_66:

(74, 56380), (Start: 79 @56389 has 1 MA's), (Start: 82 @56395 has 6 MA's), (114, 56521), (128, 56578), (150, 56599), (152, 56602), (177, 56647), (194, 56707), (206, 56734), (207, 56737), (209, 56740), (252, 56803), (256, 56818), (257, 56821), (259, 56833), (283, 56908), (286, 56932), (299,

56989), (306, 57007), (312, 57016), (336, 57070),

Gene: Brilliant\_70 Start: 56545, Stop: 57306, Start Num: 63

Candidate Starts for Brilliant\_70:

(Start: 63 @56545 has 139 MA's), (Start: 89 @56584 has 12 MA's), (105, 56647), (109, 56665), (119, 56719), (127, 56743), (148, 56776), (178, 56821), (182, 56833), (187, 56854), (199, 56890), (204, 56902), (207, 56914), (227, 56950), (242, 56989), (246, 56995), (255, 57016), (257, 57025), (266, 57061), (287, 57145), (299, 57196), (307, 57223), (329, 57268), (332, 57280), (338, 57298),

Gene: BrownCNA\_62 Start: 57403, Stop: 58212, Start Num: 42

Candidate Starts for BrownCNA\_62:

(Start: 42 @57403 has 25 MA's), (Start: 51 @57430 has 17 MA's), (Start: 56 @57439 has 11 MA's), (Start: 85 @57493 has 1 MA's), (105, 57571), (141, 57676), (152, 57694), (153, 57697), (179, 57739), (191, 57793), (199, 57808), (201, 57814), (208, 57832), (215, 57844), (218, 57850), (244, 57907), (262, 57961), (284, 58030), (290, 58066), (295, 58093), (296, 58096), (304, 58129), (320, 58156),

Gene: Brownie5\_63 Start: 54869, Stop: 55570, Start Num: 88

Candidate Starts for Brownie5\_63:

(1, 54413), (2, 54419), (3, 54422), (Start: 4 @54452 has 1 MA's), (8, 54530), (9, 54551), (Start: 67 @54824 has 1 MA's), (Start: 71 @54836 has 7 MA's), (Start: 88 @54869 has 36 MA's), (107, 54941), (109, 54956), (114, 54977), (135, 55040), (171, 55097), (173, 55100), (179, 55109), (182, 55121), (194, 55169), (199, 55178), (217, 55211), (221, 55217), (254, 55286), (260, 55316), (265, 55331), (286, 55406), (290, 55421), (303, 55481), (318, 55508),

Gene: Buckeye\_67 Start: 57114, Stop: 57878, Start Num: 78

Candidate Starts for Buckeye\_67:

(Start: 42 @57024 has 25 MA's), (61, 57075), (62, 57078), (68, 57096), (Start: 78 @57114 has 84 MA's), (Start: 83 @57135 has 3 MA's), (Start: 88 @57147 has 36 MA's), (96, 57174), (121, 57297), (127, 57309), (155, 57360), (164, 57375), (177, 57396), (179, 57399), (183, 57414), (199, 57468), (210, 57495), (223, 57501), (285, 57687), (309, 57783), (321, 57801), (324, 57810),

Gene: Burr\_67 Start: 56012, Stop: 56773, Start Num: 63

Candidate Starts for Burr\_67:

(Start: 63 @56012 has 139 MA's), (Start: 89 @56051 has 12 MA's), (105, 56114), (109, 56132), (119, 56186), (127, 56210), (148, 56243), (178, 56288), (182, 56300), (187, 56321), (199, 56357), (204, 56369), (207, 56381), (227, 56417), (242, 56456), (246, 56462), (255, 56483), (257, 56492), (266, 56528), (287, 56612), (299, 56663), (307, 56690), (329, 56735), (332, 56747), (338, 56765),

Gene: CRB2\_65 Start: 59396, Stop: 60172, Start Num: 56

Candidate Starts for CRB2\_65:

(41, 59360), (Start: 56 @59396 has 11 MA's), (105, 59537), (171, 59702), (179, 59714), (184, 59732), (191, 59768), (210, 59810), (223, 59834), (231, 59843), (236, 59858), (244, 59876), (255, 59894), (285, 60008), (305, 60092),

Gene: CRB2\_63 Start: 58137, Stop: 58889, Start Num: 56

Candidate Starts for CRB2\_63:

(Start: 56 @58137 has 11 MA's), (94, 58218), (117, 58323), (147, 58380), (183, 58443), (201, 58503), (239, 58575), (244, 58587), (250, 58593), (287, 58737), (299, 58788), (303, 58806), (306, 58815), (320, 58836), (323, 58842),

Gene: Calamitous\_64 Start: 54757, Stop: 55458, Start Num: 88

Candidate Starts for Calamitous\_64:

(1, 54301), (2, 54307), (Start: 4 @54340 has 1 MA's), (8, 54418), (9, 54439), (Start: 67 @54712 has 1 MA's), (Start: 71 @54724 has 7 MA's), (Start: 88 @54757 has 36 MA's), (107, 54829), (109, 54844), (114, 54865), (135, 54928), (171, 54985), (173, 54988), (179, 54997), (182, 55009), (194, 55057), (199, 55066), (217, 55099), (221, 55105), (254, 55174), (260, 55204), (265, 55219), (286, 55294), (290, 55309), (303, 55369), (318, 55396),

Gene: CamL\_67 Start: 56344, Stop: 57105, Start Num: 63

Candidate Starts for CamL\_67:

(Start: 63 @56344 has 139 MA's), (Start: 89 @56383 has 12 MA's), (105, 56446), (109, 56464), (119, 56518), (127, 56542), (148, 56575), (178, 56620), (182, 56632), (187, 56653), (199, 56689), (204, 56701), (207, 56713), (227, 56749), (242, 56788), (246, 56794), (255, 56815), (257, 56824), (266, 56860), (287, 56944), (299, 56995), (307, 57022), (329, 57067), (332, 57079), (338, 57097),

Gene: CampRoach\_68 Start: 56451, Stop: 57212, Start Num: 63

Candidate Starts for CampRoach\_68:

(Start: 63 @56451 has 139 MA's), (Start: 89 @56490 has 12 MA's), (105, 56553), (109, 56571), (119, 56625), (127, 56649), (148, 56682), (178, 56727), (182, 56739), (187, 56760), (199, 56796), (204, 56808), (207, 56820), (227, 56856), (242, 56895), (246, 56901), (255, 56922), (257, 56931), (266, 56967), (287, 57051), (299, 57102), (307, 57129), (329, 57174), (332, 57186), (338, 57204),

Gene: Cannibal\_67 Start: 56286, Stop: 57047, Start Num: 63

Candidate Starts for Cannibal\_67:

(Start: 63 @56286 has 139 MA's), (Start: 89 @56325 has 12 MA's), (105, 56388), (109, 56406), (119, 56460), (127, 56484), (148, 56517), (178, 56562), (182, 56574), (187, 56595), (199, 56631), (204, 56643), (207, 56655), (227, 56691), (242, 56730), (246, 56736), (255, 56757), (257, 56766), (266, 56802), (287, 56886), (299, 56937), (307, 56964), (329, 57009), (332, 57021), (338, 57039),

Gene: Carthage\_67 Start: 55950, Stop: 56711, Start Num: 63

Candidate Starts for Carthage\_67:

(Start: 63 @55950 has 139 MA's), (Start: 89 @55989 has 12 MA's), (105, 56052), (109, 56070), (119, 56124), (127, 56148), (148, 56181), (178, 56226), (182, 56238), (199, 56295), (204, 56307), (207, 56319), (242, 56394), (244, 56397), (246, 56400), (255, 56421), (257, 56430), (266, 56466), (287, 56550), (299, 56601), (307, 56628), (329, 56673), (332, 56685), (338, 56703),

Gene: Casbah\_67 Start: 56802, Stop: 57569, Start Num: 72

Candidate Starts for Casbah\_67:

(Start: 72 @56802 has 35 MA's), (Start: 87 @56838 has 1 MA's), (95, 56868), (114, 56952), (119, 56985), (134, 57018), (156, 57054), (160, 57060), (172, 57078), (176, 57084), (201, 57162), (229, 57198), (240, 57225), (252, 57243), (264, 57297), (292, 57390), (311, 57462), (325, 57495), (338, 57534), (339, 57564),

Gene: ChaChing\_67 Start: 56500, Stop: 57267, Start Num: 72

Candidate Starts for ChaChing\_67:

(Start: 72 @56500 has 35 MA's), (Start: 87 @56536 has 1 MA's), (95, 56566), (114, 56650), (119, 56683), (134, 56716), (156, 56752), (160, 56758), (172, 56776), (176, 56782), (201, 56860), (229, 56896), (240, 56923), (252, 56941), (292, 57088), (311, 57160), (338, 57232), (339, 57262),

Gene: Chaelin\_68 Start: 56575, Stop: 57336, Start Num: 63

Candidate Starts for Chaelin\_68:

(Start: 63 @56575 has 139 MA's), (Start: 89 @56614 has 12 MA's), (105, 56677), (109, 56695), (119, 56749), (127, 56773), (148, 56806), (178, 56851), (182, 56863), (187, 56884), (199, 56920), (204, 56932), (207, 56944), (227, 56980), (242, 57019), (246, 57025), (255, 57046), (257, 57055), (266, 57091), (287, 57175), (299, 57226), (307, 57253), (329, 57298), (332, 57310), (338, 57328),



Gene: Chah\_68 Start: 55989, Stop: 56750, Start Num: 63

Candidate Starts for Chah\_68:

(Start: 63 @55989 has 139 MA's), (Start: 89 @56028 has 12 MA's), (105, 56091), (109, 56109), (119, 56163), (127, 56187), (148, 56220), (178, 56265), (182, 56277), (187, 56298), (199, 56334), (204, 56346), (207, 56358), (227, 56394), (242, 56433), (246, 56439), (255, 56460), (257, 56469), (266, 56505), (287, 56589), (299, 56640), (307, 56667), (329, 56712), (332, 56724), (338, 56742),

Gene: Chandler\_67 Start: 57262, Stop: 58029, Start Num: 72

Candidate Starts for Chandler\_67:

(Start: 72 @57262 has 35 MA's), (Start: 87 @57298 has 1 MA's), (95, 57328), (114, 57412), (119, 57445), (134, 57478), (156, 57514), (160, 57520), (172, 57538), (176, 57544), (201, 57622), (229, 57658), (240, 57685), (252, 57703), (311, 57922), (338, 57994), (339, 58024),

Gene: Charles1\_68 Start: 56299, Stop: 57060, Start Num: 63

Candidate Starts for Charles1\_68:

(Start: 63 @56299 has 139 MA's), (Start: 89 @56338 has 12 MA's), (105, 56401), (109, 56419), (119, 56473), (127, 56497), (148, 56530), (178, 56575), (182, 56587), (187, 56608), (199, 56644), (204, 56656), (207, 56668), (227, 56704), (242, 56743), (246, 56749), (255, 56770), (257, 56779), (266, 56815), (287, 56899), (299, 56950), (307, 56977), (329, 57022), (332, 57034), (338, 57052),

Gene: CharlieGBrown\_65 Start: 55849, Stop: 56703, Start Num: 42

Candidate Starts for CharlieGBrown\_65:

(Start: 42 @55849 has 25 MA's), (61, 55900), (62, 55903), (68, 55921), (Start: 78 @55939 has 84 MA's), (Start: 83 @55960 has 3 MA's), (Start: 88 @55972 has 36 MA's), (96, 55999), (121, 56122), (127, 56134), (155, 56185), (164, 56200), (177, 56221), (179, 56224), (183, 56239), (199, 56293), (210, 56320), (223, 56326), (285, 56512), (309, 56608), (321, 56626), (324, 56635),

Gene: CharlottesWeb\_57 Start: 48329, Stop: 49075, Start Num: 89

Candidate Starts for CharlottesWeb\_57:

(80, 48317), (Start: 89 @48329 has 12 MA's), (98, 48356), (112, 48419), (133, 48503), (137, 48509), (143, 48518), (179, 48584), (182, 48596), (243, 48755), (287, 48917), (303, 48986),

Gene: CheetO\_66 Start: 56262, Stop: 57023, Start Num: 63

Candidate Starts for CheetO\_66:

(Start: 50 @56235 has 4 MA's), (Start: 63 @56262 has 139 MA's), (Start: 89 @56301 has 12 MA's), (105, 56364), (109, 56382), (119, 56436), (127, 56460), (148, 56493), (178, 56538), (182, 56550), (187, 56571), (199, 56607), (204, 56619), (207, 56631), (227, 56667), (242, 56706), (246, 56712), (255, 56733), (257, 56742), (266, 56778), (287, 56862), (299, 56913), (307, 56940), (329, 56985), (332, 56997), (338, 57015),

Gene: Cher\_67 Start: 56454, Stop: 57308, Start Num: 42

Candidate Starts for Cher\_67:

(Start: 42 @56454 has 25 MA's), (61, 56505), (62, 56508), (68, 56526), (Start: 78 @56544 has 84 MA's), (Start: 83 @56565 has 3 MA's), (Start: 88 @56577 has 36 MA's), (96, 56604), (121, 56727), (127, 56739), (155, 56790), (164, 56805), (177, 56826), (179, 56829), (183, 56844), (199, 56898), (210, 56925), (223, 56931), (285, 57117), (309, 57213), (321, 57231), (324, 57240),

Gene: Childish\_66 Start: 56565, Stop: 57326, Start Num: 63

Candidate Starts for Childish\_66:

(Start: 63 @56565 has 139 MA's), (Start: 89 @56604 has 12 MA's), (105, 56667), (109, 56685), (119, 56739), (127, 56763), (148, 56796), (178, 56841), (182, 56853), (187, 56874), (199, 56910), (204, 56922), (207, 56934), (227, 56970), (242, 57009), (246, 57015), (255, 57036), (257, 57045), (266,

57081), (287, 57165), (299, 57216), (307, 57243), (329, 57288), (332, 57300), (338, 57318),

Gene: Chorkpop\_67 Start: 56031, Stop: 56795, Start Num: 78

Candidate Starts for Chorkpop\_67:

(Start: 42 @55941 has 25 MA's), (61, 55992), (62, 55995), (68, 56013), (Start: 78 @56031 has 84 MA's), (Start: 83 @56052 has 3 MA's), (Start: 88 @56064 has 36 MA's), (96, 56091), (121, 56214), (127, 56226), (155, 56277), (164, 56292), (177, 56313), (179, 56316), (183, 56331), (199, 56385), (210, 56412), (223, 56418), (285, 56604), (309, 56700), (321, 56718), (324, 56727),

Gene: ChrisnMich\_60 Start: 56085, Stop: 56855, Start Num: 51

Candidate Starts for ChrisnMich\_60:

(28, 55995), (Start: 51 @56085 has 17 MA's), (Start: 56 @56094 has 11 MA's), (Start: 85 @56139 has 1 MA's), (101, 56199), (103, 56208), (104, 56214), (105, 56217), (117, 56277), (119, 56289), (125, 56307), (138, 56319), (158, 56349), (179, 56385), (183, 56400), (199, 56454), (201, 56460), (215, 56490), (218, 56496), (236, 56526), (240, 56535), (246, 56547), (257, 56577), (264, 56610), (272, 56631), (284, 56679), (286, 56700), (288, 56709), (303, 56775), (320, 56805),

Gene: Chunky\_67 Start: 55879, Stop: 56640, Start Num: 63

Candidate Starts for Chunky\_67:

(Start: 63 @55879 has 139 MA's), (Start: 89 @55918 has 12 MA's), (105, 55981), (109, 55999), (119, 56053), (127, 56077), (148, 56110), (178, 56155), (182, 56167), (187, 56188), (199, 56224), (204, 56236), (207, 56248), (227, 56284), (242, 56323), (246, 56329), (255, 56350), (257, 56359), (266, 56395), (287, 56479), (299, 56530), (307, 56557), (329, 56602), (332, 56614), (338, 56632),

Gene: Chute\_68 Start: 56603, Stop: 57364, Start Num: 63

Candidate Starts for Chute\_68:

(Start: 63 @56603 has 139 MA's), (Start: 89 @56642 has 12 MA's), (105, 56705), (109, 56723), (119, 56777), (127, 56801), (148, 56834), (178, 56879), (182, 56891), (187, 56912), (199, 56948), (204, 56960), (207, 56972), (227, 57008), (242, 57047), (246, 57053), (255, 57074), (257, 57083), (266, 57119), (287, 57203), (299, 57254), (307, 57281), (329, 57326), (332, 57338), (338, 57356),

Gene: Cobra\_67 Start: 56485, Stop: 57339, Start Num: 42

Candidate Starts for Cobra\_67:

(Start: 42 @56485 has 25 MA's), (61, 56536), (62, 56539), (68, 56557), (Start: 78 @56575 has 84 MA's), (Start: 83 @56596 has 3 MA's), (Start: 88 @56608 has 36 MA's), (96, 56635), (121, 56758), (127, 56770), (155, 56821), (164, 56836), (177, 56857), (179, 56860), (183, 56875), (199, 56929), (210, 56956), (223, 56962), (285, 57148), (309, 57244), (321, 57262), (324, 57271),

Gene: Coffee\_63 Start: 54861, Stop: 55562, Start Num: 88

Candidate Starts for Coffee\_63:

(1, 54405), (2, 54411), (3, 54414), (Start: 4 @54444 has 1 MA's), (8, 54522), (9, 54543), (Start: 67 @54816 has 1 MA's), (Start: 71 @54828 has 7 MA's), (Start: 88 @54861 has 36 MA's), (107, 54933), (109, 54948), (114, 54969), (135, 55032), (171, 55089), (173, 55092), (179, 55101), (182, 55113), (194, 55161), (199, 55170), (217, 55203), (221, 55209), (254, 55278), (260, 55308), (265, 55323), (286, 55398), (290, 55413), (303, 55473), (318, 55500),

Gene: Colbert\_65 Start: 55601, Stop: 56362, Start Num: 63

Candidate Starts for Colbert\_65:

(Start: 63 @55601 has 139 MA's), (Start: 89 @55640 has 12 MA's), (105, 55703), (109, 55721), (119, 55775), (127, 55799), (148, 55832), (178, 55877), (182, 55889), (199, 55946), (204, 55958), (207, 55970), (227, 56006), (242, 56045), (246, 56051), (255, 56072), (257, 56081), (266, 56117), (287, 56201), (299, 56252), (307, 56279), (329, 56324), (332, 56336), (338, 56354),

Gene: Coldpizza\_59 Start: 51702, Stop: 52400, Start Num: 83

Candidate Starts for Coldpizza\_59:

(15, 51492), (25, 51522), (33, 51555), (37, 51573), (Start: 83 @51702 has 3 MA's), (Start: 87 @51708 has 1 MA's), (Start: 88 @51714 has 36 MA's), (96, 51741), (141, 51888), (144, 51891), (165, 51927), (183, 51972), (199, 52026), (201, 52032), (206, 52044), (232, 52095), (248, 52107), (259, 52146), (260, 52149), (269, 52179), (270, 52182), (284, 52224), (291, 52263), (308, 52326), (324, 52353), (332, 52380),

Gene: Coletti\_70 Start: 57103, Stop: 57864, Start Num: 63

Candidate Starts for Coletti\_70:

(Start: 63 @57103 has 139 MA's), (Start: 89 @57142 has 12 MA's), (105, 57205), (109, 57223), (119, 57277), (127, 57301), (148, 57334), (178, 57379), (182, 57391), (187, 57412), (199, 57448), (204, 57460), (207, 57472), (227, 57508), (242, 57547), (246, 57553), (255, 57574), (257, 57583), (266, 57619), (287, 57703), (299, 57754), (307, 57781), (329, 57826), (332, 57838), (338, 57856),

Gene: Compostia\_66 Start: 56883, Stop: 57650, Start Num: 72

Candidate Starts for Compostia\_66:

(Start: 72 @56883 has 35 MA's), (Start: 87 @56919 has 1 MA's), (95, 56949), (114, 57033), (119, 57066), (134, 57099), (156, 57135), (160, 57141), (172, 57159), (176, 57165), (201, 57243), (229, 57279), (240, 57306), (252, 57324), (311, 57543), (338, 57615), (339, 57645),

Gene: Cooper\_62 Start: 56612, Stop: 57328, Start Num: 85

Candidate Starts for Cooper\_62:

(Start: 51 @56561 has 17 MA's), (Start: 56 @56570 has 11 MA's), (Start: 85 @56612 has 1 MA's), (104, 56687), (109, 56708), (116, 56747), (117, 56750), (119, 56762), (125, 56780), (141, 56795), (153, 56816), (179, 56858), (183, 56873), (199, 56927), (201, 56933), (215, 56963), (218, 56969), (236, 56999), (240, 57008), (244, 57017), (257, 57050), (272, 57104), (284, 57152), (286, 57173), (288, 57182), (296, 57218), (299, 57230), (320, 57278),

Gene: Cornobble\_66 Start: 56036, Stop: 56797, Start Num: 63

Candidate Starts for Cornobble\_66:

(Start: 63 @56036 has 139 MA's), (Start: 89 @56075 has 12 MA's), (105, 56138), (109, 56156), (119, 56210), (127, 56234), (148, 56267), (178, 56312), (182, 56324), (199, 56381), (204, 56393), (207, 56405), (227, 56441), (242, 56480), (246, 56486), (255, 56507), (257, 56516), (266, 56552), (287, 56636), (299, 56687), (307, 56714), (329, 56759), (332, 56771), (338, 56789),

Gene: Corofin\_67 Start: 56513, Stop: 57280, Start Num: 72

Candidate Starts for Corofin\_67:

(Start: 72 @56513 has 35 MA's), (Start: 87 @56549 has 1 MA's), (95, 56579), (114, 56663), (119, 56696), (134, 56729), (156, 56765), (160, 56771), (172, 56789), (176, 56795), (201, 56873), (229, 56909), (240, 56936), (252, 56954), (292, 57101), (311, 57173), (325, 57206), (338, 57245), (339, 57275),

Gene: Cosmolli16\_68 Start: 56746, Stop: 57507, Start Num: 63

Candidate Starts for Cosmolli16\_68:

(Start: 63 @56746 has 139 MA's), (Start: 89 @56785 has 12 MA's), (105, 56848), (109, 56866), (119, 56920), (127, 56944), (148, 56977), (178, 57022), (182, 57034), (187, 57055), (199, 57091), (204, 57103), (207, 57115), (227, 57151), (242, 57190), (246, 57196), (255, 57217), (257, 57226), (266, 57262), (287, 57346), (299, 57397), (307, 57424), (329, 57469), (332, 57481), (338, 57499),

Gene: Craff\_70 Start: 56888, Stop: 57742, Start Num: 42

Candidate Starts for Craff\_70:

(Start: 42 @56888 has 25 MA's), (61, 56939), (62, 56942), (68, 56960), (Start: 78 @56978 has 84 MA's), (Start: 83 @56999 has 3 MA's), (Start: 88 @57011 has 36 MA's), (96, 57038), (121, 57161), (127, 57173), (155, 57224), (164, 57239), (177, 57260), (179, 57263), (183, 57278), (199, 57332), (210, 57359), (223, 57365), (285, 57551), (309, 57647), (321, 57665), (324, 57674),

Gene: Crownjwl\_65 Start: 56064, Stop: 56825, Start Num: 63

Candidate Starts for Crownjwl\_65:

(Start: 63 @56064 has 139 MA's), (Start: 89 @56103 has 12 MA's), (105, 56166), (109, 56184), (119, 56238), (127, 56262), (148, 56295), (178, 56340), (182, 56352), (187, 56373), (199, 56409), (204, 56421), (207, 56433), (227, 56469), (242, 56508), (246, 56514), (255, 56535), (257, 56544), (266, 56580), (287, 56664), (299, 56715), (307, 56742), (329, 56787), (332, 56799), (338, 56817),

Gene: DaddyDaniels\_69 Start: 56522, Stop: 57283, Start Num: 63

Candidate Starts for DaddyDaniels\_69:

(Start: 63 @56522 has 139 MA's), (Start: 89 @56561 has 12 MA's), (105, 56624), (109, 56642), (119, 56696), (127, 56720), (148, 56753), (178, 56798), (182, 56810), (187, 56831), (199, 56867), (204, 56879), (207, 56891), (227, 56927), (242, 56966), (246, 56972), (255, 56993), (257, 57002), (266, 57038), (287, 57122), (299, 57173), (307, 57200), (329, 57245), (332, 57257), (338, 57275),

Gene: Daffy\_65 Start: 56016, Stop: 56780, Start Num: 78

Candidate Starts for Daffy\_65:

(Start: 42 @55926 has 25 MA's), (61, 55977), (62, 55980), (68, 55998), (Start: 78 @56016 has 84 MA's), (Start: 83 @56037 has 3 MA's), (Start: 88 @56049 has 36 MA's), (96, 56076), (121, 56199), (127, 56211), (155, 56262), (164, 56277), (177, 56298), (179, 56301), (183, 56316), (199, 56370), (210, 56397), (223, 56403), (285, 56589), (309, 56685), (321, 56703), (324, 56712),

Gene: Daisy\_66 Start: 56046, Stop: 56813, Start Num: 72

Candidate Starts for Daisy\_66:

(Start: 72 @56046 has 35 MA's), (Start: 87 @56082 has 1 MA's), (95, 56112), (114, 56196), (119, 56229), (134, 56262), (156, 56298), (160, 56304), (172, 56322), (176, 56328), (201, 56406), (229, 56442), (240, 56469), (252, 56487), (292, 56634), (311, 56706), (338, 56778), (339, 56808),

Gene: Daka\_69 Start: 56530, Stop: 57294, Start Num: 78

Candidate Starts for Daka\_69:

(Start: 42 @56440 has 25 MA's), (61, 56491), (62, 56494), (68, 56512), (Start: 78 @56530 has 84 MA's), (Start: 83 @56551 has 3 MA's), (Start: 88 @56563 has 36 MA's), (96, 56590), (121, 56713), (127, 56725), (155, 56776), (164, 56791), (177, 56812), (179, 56815), (183, 56830), (199, 56884), (210, 56911), (223, 56917), (285, 57103), (309, 57199), (321, 57217), (324, 57226),

Gene: Dati\_64 Start: 56359, Stop: 57123, Start Num: 78

Candidate Starts for Dati\_64:

(Start: 42 @56269 has 25 MA's), (61, 56320), (62, 56323), (68, 56341), (Start: 78 @56359 has 84 MA's), (Start: 83 @56380 has 3 MA's), (Start: 88 @56392 has 36 MA's), (96, 56419), (121, 56542), (127, 56554), (155, 56605), (164, 56620), (177, 56641), (179, 56644), (183, 56659), (199, 56713), (210, 56740), (223, 56746), (285, 56932), (309, 57028), (321, 57046), (324, 57055),

Gene: Deenasa\_67 Start: 57349, Stop: 58116, Start Num: 72

Candidate Starts for Deenasa\_67:

(Start: 72 @57349 has 35 MA's), (Start: 87 @57385 has 1 MA's), (95, 57415), (114, 57499), (119, 57532), (134, 57565), (156, 57601), (160, 57607), (172, 57625), (176, 57631), (201, 57709), (229, 57745), (240, 57772), (252, 57790), (264, 57844), (292, 57937), (311, 58009), (325, 58042), (338, 58081), (339, 58111),

Gene: DelRivs\_65 Start: 56012, Stop: 56773, Start Num: 63

Candidate Starts for DelRivs\_65:

(Start: 63 @56012 has 139 MA's), (Start: 89 @56051 has 12 MA's), (105, 56114), (109, 56132), (119, 56186), (127, 56210), (148, 56243), (178, 56288), (182, 56300), (187, 56321), (199, 56357), (204, 56369), (207, 56381), (227, 56417), (242, 56456), (246, 56462), (255, 56483), (257, 56492), (266, 56528), (287, 56612), (299, 56663), (307, 56690), (329, 56735), (332, 56747), (338, 56765),

Gene: Derpp\_67 Start: 56025, Stop: 56879, Start Num: 42

Candidate Starts for Derpp\_67:

(Start: 42 @56025 has 25 MA's), (61, 56076), (62, 56079), (68, 56097), (Start: 78 @56115 has 84 MA's), (Start: 83 @56136 has 3 MA's), (Start: 88 @56148 has 36 MA's), (96, 56175), (121, 56298), (127, 56310), (155, 56361), (164, 56376), (177, 56397), (179, 56400), (183, 56415), (199, 56469), (210, 56496), (223, 56502), (285, 56688), (309, 56784), (321, 56802), (324, 56811),

Gene: Devonte\_66 Start: 56125, Stop: 56892, Start Num: 72

Candidate Starts for Devonte\_66:

(Start: 72 @56125 has 35 MA's), (Start: 87 @56161 has 1 MA's), (95, 56191), (114, 56275), (119, 56308), (134, 56341), (156, 56377), (160, 56383), (172, 56401), (176, 56407), (201, 56485), (229, 56521), (240, 56548), (252, 56566), (292, 56713), (311, 56785), (325, 56818), (338, 56857), (339, 56887),

Gene: Dice\_66 Start: 56010, Stop: 56771, Start Num: 63

Candidate Starts for Dice\_66:

(Start: 63 @56010 has 139 MA's), (Start: 89 @56049 has 12 MA's), (105, 56112), (109, 56130), (119, 56184), (127, 56208), (148, 56241), (178, 56286), (182, 56298), (199, 56355), (204, 56367), (207, 56379), (227, 56415), (242, 56454), (246, 56460), (255, 56481), (257, 56490), (266, 56526), (287, 56610), (299, 56661), (307, 56688), (329, 56733), (332, 56745), (338, 56763),

Gene: DigitDog\_66 Start: 57567, Stop: 58343, Start Num: 77

Candidate Starts for DigitDog\_66:

(Start: 77 @57567 has 3 MA's), (99, 57639), (113, 57705), (152, 57810), (160, 57822), (171, 57840), (183, 57867), (191, 57906), (220, 57966), (223, 57972), (261, 58065), (262, 58068), (274, 58107), (288, 58167), (337, 58311),

Gene: Dingo\_64 Start: 55558, Stop: 56322, Start Num: 78

Candidate Starts for Dingo\_64:

(Start: 42 @55468 has 25 MA's), (61, 55519), (62, 55522), (68, 55540), (Start: 78 @55558 has 84 MA's), (Start: 83 @55579 has 3 MA's), (Start: 88 @55591 has 36 MA's), (96, 55618), (121, 55741), (127, 55753), (155, 55804), (164, 55819), (177, 55840), (179, 55843), (183, 55858), (199, 55912), (210, 55939), (223, 55945), (285, 56131), (309, 56227), (321, 56245), (324, 56254),

Gene: Dione\_65 Start: 55744, Stop: 56505, Start Num: 63

Candidate Starts for Dione\_65:

(Start: 63 @55744 has 139 MA's), (Start: 89 @55783 has 12 MA's), (105, 55846), (109, 55864), (119, 55918), (127, 55942), (148, 55975), (178, 56020), (182, 56032), (199, 56089), (204, 56101), (207, 56113), (227, 56149), (242, 56188), (246, 56194), (255, 56215), (257, 56224), (266, 56260), (287, 56344), (299, 56395), (307, 56422), (329, 56467), (332, 56479), (338, 56497),

Gene: DirtJuice\_67 Start: 56321, Stop: 57085, Start Num: 78

Candidate Starts for DirtJuice\_67:

(Start: 42 @56231 has 25 MA's), (61, 56282), (62, 56285), (68, 56303), (Start: 78 @56321 has 84 MA's), (Start: 83 @56342 has 3 MA's), (Start: 88 @56354 has 36 MA's), (96, 56381), (121, 56504), (127, 56516), (155, 56567), (164, 56582), (177, 56603), (179, 56606), (183, 56621), (199, 56675),

(210, 56702), (223, 56708), (285, 56894), (309, 56990), (321, 57008), (324, 57017),

Gene: Doddsville\_65 Start: 56078, Stop: 56842, Start Num: 78

Candidate Starts for Doddsville\_65:

(Start: 42 @55988 has 25 MA's), (61, 56039), (62, 56042), (68, 56060), (Start: 78 @56078 has 84 MA's), (Start: 83 @56099 has 3 MA's), (Start: 88 @56111 has 36 MA's), (96, 56138), (121, 56261), (127, 56273), (155, 56324), (164, 56339), (177, 56360), (179, 56363), (183, 56378), (199, 56432), (210, 56459), (223, 56465), (285, 56651), (309, 56747), (321, 56765), (324, 56774),

Gene: DoesntMatter\_64 Start: 56034, Stop: 56795, Start Num: 63

Candidate Starts for DoesntMatter\_64:

(Start: 63 @56034 has 139 MA's), (Start: 89 @56073 has 12 MA's), (105, 56136), (109, 56154), (119, 56208), (127, 56232), (148, 56265), (178, 56310), (182, 56322), (187, 56343), (199, 56379), (204, 56391), (207, 56403), (227, 56439), (242, 56478), (246, 56484), (255, 56505), (257, 56514), (266, 56550), (287, 56634), (299, 56685), (307, 56712), (329, 56757), (332, 56769), (338, 56787),

Gene: DonSanchon\_63 Start: 55713, Stop: 56477, Start Num: 78

Candidate Starts for DonSanchon\_63:

(Start: 42 @55623 has 25 MA's), (61, 55674), (62, 55677), (68, 55695), (Start: 78 @55713 has 84 MA's), (Start: 83 @55734 has 3 MA's), (Start: 88 @55746 has 36 MA's), (96, 55773), (121, 55896), (127, 55908), (155, 55959), (164, 55974), (177, 55995), (179, 55998), (183, 56013), (199, 56067), (210, 56094), (223, 56100), (285, 56286), (309, 56382), (321, 56400), (324, 56409),

Gene: Donny\_67 Start: 57544, Stop: 58281, Start Num: 71

Candidate Starts for Donny\_67:

(Start: 71 @57544 has 7 MA's), (Start: 84 @57571 has 1 MA's), (Start: 92 @57595 has 1 MA's), (117, 57709), (142, 57766), (183, 57838), (191, 57877), (196, 57886), (224, 57931), (264, 58036), (268, 58045), (304, 58189), (334, 58258),

Gene: DuchessDung\_66 Start: 55594, Stop: 56358, Start Num: 78

Candidate Starts for DuchessDung\_66:

(Start: 42 @55504 has 25 MA's), (61, 55555), (62, 55558), (68, 55576), (Start: 78 @55594 has 84 MA's), (Start: 83 @55615 has 3 MA's), (Start: 88 @55627 has 36 MA's), (96, 55654), (121, 55777), (127, 55789), (155, 55840), (164, 55855), (177, 55876), (179, 55879), (183, 55894), (199, 55948), (210, 55975), (223, 55981), (285, 56167), (309, 56263), (321, 56281), (324, 56290),

Gene: Duggie\_67 Start: 56287, Stop: 57048, Start Num: 63

Candidate Starts for Duggie\_67:

(Start: 63 @56287 has 139 MA's), (Start: 89 @56326 has 12 MA's), (105, 56389), (109, 56407), (119, 56461), (127, 56485), (148, 56518), (178, 56563), (182, 56575), (187, 56596), (199, 56632), (204, 56644), (207, 56656), (242, 56731), (246, 56737), (255, 56758), (257, 56767), (266, 56803), (287, 56887), (299, 56938), (307, 56965), (329, 57010), (332, 57022),

Gene: Durga\_69 Start: 56821, Stop: 57585, Start Num: 78

Candidate Starts for Durga\_69:

(Start: 42 @56731 has 25 MA's), (61, 56782), (62, 56785), (68, 56803), (Start: 78 @56821 has 84 MA's), (Start: 83 @56842 has 3 MA's), (Start: 88 @56854 has 36 MA's), (96, 56881), (121, 57004), (127, 57016), (155, 57067), (164, 57082), (177, 57103), (179, 57106), (183, 57121), (199, 57175), (210, 57202), (223, 57208), (285, 57394), (309, 57490), (321, 57508), (324, 57517),

Gene: Eaglehorse\_63 Start: 54747, Stop: 55448, Start Num: 88

Candidate Starts for Eaglehorse\_63:

(8, 54408), (9, 54429), (Start: 67 @54702 has 1 MA's), (Start: 71 @54714 has 7 MA's), (Start: 88 @54747 has 36 MA's), (107, 54819), (109, 54834), (114, 54855), (135, 54918), (171, 54975), (173, 54978), (179, 54987), (182, 54999), (194, 55047), (199, 55056), (217, 55089), (221, 55095), (254, 55164), (260, 55194), (265, 55209), (286, 55284), (290, 55299), (303, 55359), (318, 55386),

Gene: EastView9101\_65 Start: 57271, Stop: 57981, Start Num: 84

Candidate Starts for EastView9101\_65:

(Start: 71 @57244 has 7 MA's), (Start: 84 @57271 has 1 MA's), (Start: 92 @57295 has 1 MA's), (117, 57409), (142, 57466), (183, 57538), (191, 57577), (196, 57586), (224, 57631), (264, 57736), (268, 57745), (304, 57889), (334, 57958),

Gene: Emiris\_68 Start: 56730, Stop: 57494, Start Num: 78

Candidate Starts for Emiris\_68:

(Start: 42 @56640 has 25 MA's), (61, 56691), (62, 56694), (68, 56712), (Start: 78 @56730 has 84 MA's), (Start: 83 @56751 has 3 MA's), (Start: 88 @56763 has 36 MA's), (96, 56790), (121, 56913), (127, 56925), (155, 56976), (164, 56991), (177, 57012), (179, 57015), (183, 57030), (199, 57084), (210, 57111), (223, 57117), (285, 57303), (309, 57399), (321, 57417), (324, 57426),

Gene: EmpTee\_66 Start: 56254, Stop: 57015, Start Num: 63

Candidate Starts for EmpTee\_66:

(Start: 63 @56254 has 139 MA's), (Start: 89 @56293 has 12 MA's), (105, 56356), (109, 56374), (119, 56428), (127, 56452), (148, 56485), (178, 56530), (182, 56542), (199, 56599), (204, 56611), (207, 56623), (227, 56659), (242, 56698), (246, 56704), (255, 56725), (257, 56734), (266, 56770), (287, 56854), (299, 56905), (307, 56932), (329, 56977), (332, 56989), (338, 57007),

Gene: Epah\_59 Start: 56071, Stop: 56841, Start Num: 51

Candidate Starts for Epah\_59:

(28, 55981), (Start: 51 @56071 has 17 MA's), (Start: 56 @56080 has 11 MA's), (Start: 85 @56125 has 1 MA's), (101, 56185), (103, 56194), (104, 56200), (105, 56203), (117, 56263), (119, 56275), (125, 56293), (138, 56305), (158, 56335), (179, 56371), (183, 56386), (199, 56440), (201, 56446), (215, 56476), (218, 56482), (236, 56512), (246, 56533), (257, 56563), (264, 56596), (272, 56617), (284, 56665), (286, 56686), (288, 56695), (303, 56761), (320, 56791),

Gene: Eremos\_66 Start: 56222, Stop: 57010, Start Num: 50

Candidate Starts for Eremos\_66:

(Start: 50 @56222 has 4 MA's), (Start: 63 @56249 has 139 MA's), (Start: 89 @56288 has 12 MA's), (105, 56351), (109, 56369), (119, 56423), (127, 56447), (148, 56480), (178, 56525), (182, 56537), (187, 56558), (199, 56594), (204, 56606), (207, 56618), (227, 56654), (242, 56693), (246, 56699), (255, 56720), (257, 56729), (266, 56765), (287, 56849), (299, 56900), (307, 56927), (329, 56972), (332, 56984), (338, 57002),

Gene: Etaye\_66 Start: 56873, Stop: 57637, Start Num: 78

Candidate Starts for Etaye\_66:

(Start: 42 @56783 has 25 MA's), (61, 56834), (62, 56837), (68, 56855), (Start: 78 @56873 has 84 MA's), (Start: 83 @56894 has 3 MA's), (Start: 88 @56906 has 36 MA's), (96, 56933), (121, 57056), (127, 57068), (155, 57119), (164, 57134), (177, 57155), (179, 57158), (183, 57173), (199, 57227), (210, 57254), (223, 57260), (285, 57446), (309, 57542), (321, 57560), (324, 57569),

Gene: Eugenia\_67 Start: 56683, Stop: 57444, Start Num: 63

Candidate Starts for Eugenia\_67:

(Start: 63 @56683 has 139 MA's), (Start: 89 @56722 has 12 MA's), (105, 56785), (109, 56803), (119, 56857), (127, 56881), (148, 56914), (178, 56959), (182, 56971), (187, 56992), (199, 57028), (204, 57040), (207, 57052), (227, 57088), (242, 57127), (246, 57133), (255, 57154), (257, 57163), (266,

57199), (287, 57283), (299, 57334), (307, 57361), (329, 57406), (332, 57418), (338, 57436),

Gene: Fanaw\_59 Start: 56966, Stop: 57745, Start Num: 51

Candidate Starts for Fanaw\_59:

(16, 56849), (Start: 42 @56939 has 25 MA's), (Start: 51 @56966 has 17 MA's), (Start: 56 @56975 has 11 MA's), (Start: 85 @57029 has 1 MA's), (101, 57089), (103, 57098), (104, 57104), (105, 57107), (116, 57164), (117, 57167), (119, 57179), (125, 57197), (138, 57209), (158, 57239), (179, 57275), (199, 57344), (201, 57350), (215, 57380), (218, 57386), (236, 57416), (246, 57437), (257, 57467), (272, 57521), (284, 57569), (286, 57590), (288, 57599), (303, 57665), (320, 57695),

Gene: Fang\_68 Start: 56563, Stop: 57327, Start Num: 78

Candidate Starts for Fang\_68:

(Start: 42 @56473 has 25 MA's), (61, 56524), (62, 56527), (68, 56545), (Start: 78 @56563 has 84 MA's), (Start: 83 @56584 has 3 MA's), (Start: 88 @56596 has 36 MA's), (96, 56623), (121, 56746), (127, 56758), (155, 56809), (164, 56824), (177, 56845), (179, 56848), (183, 56863), (199, 56917), (210, 56944), (223, 56950), (285, 57136), (309, 57232), (321, 57250), (324, 57259),

Gene: Faze9\_62 Start: 54886, Stop: 55587, Start Num: 88

Candidate Starts for Faze9\_62:

(Start: 11 @54628 has 1 MA's), (Start: 67 @54841 has 1 MA's), (Start: 71 @54853 has 7 MA's), (Start: 88 @54886 has 36 MA's), (107, 54958), (109, 54973), (114, 54994), (135, 55057), (171, 55114), (173, 55117), (179, 55126), (182, 55138), (194, 55186), (199, 55195), (217, 55228), (221, 55234), (254, 55303), (260, 55333), (265, 55348), (286, 55423), (290, 55438), (303, 55498), (318, 55525),

Gene: FluffyNinja\_67 Start: 56316, Stop: 57059, Start Num: 83

Candidate Starts for FluffyNinja\_67:

(Start: 42 @56205 has 25 MA's), (61, 56256), (62, 56259), (68, 56277), (Start: 78 @56295 has 84 MA's), (Start: 83 @56316 has 3 MA's), (Start: 88 @56328 has 36 MA's), (96, 56355), (121, 56478), (127, 56490), (155, 56541), (164, 56556), (177, 56577), (179, 56580), (183, 56595), (199, 56649), (210, 56676), (223, 56682), (285, 56868), (309, 56964), (321, 56982), (324, 56991),

Gene: Fortunato\_61 Start: 57101, Stop: 57910, Start Num: 42

Candidate Starts for Fortunato\_61:

(Start: 42 @57101 has 25 MA's), (Start: 51 @57128 has 17 MA's), (Start: 56 @57137 has 11 MA's), (Start: 85 @57191 has 1 MA's), (105, 57269), (130, 57368), (141, 57374), (152, 57392), (153, 57395), (179, 57437), (191, 57491), (199, 57506), (201, 57512), (208, 57530), (215, 57542), (218, 57548), (244, 57605), (262, 57659), (284, 57728), (290, 57764), (295, 57791), (296, 57794), (304, 57827), (320, 57854),

Gene: Fozzie\_66 Start: 56516, Stop: 57304, Start Num: 63

Candidate Starts for Fozzie\_66:

(41, 56456), (45, 56462), (47, 56468), (Start: 63 @56516 has 139 MA's), (107, 56642), (109, 56657), (117, 56699), (161, 56789), (182, 56828), (199, 56885), (246, 56990), (255, 57011), (266, 57056), (321, 57236), (323, 57242), (332, 57275),

Gene: Frankicide\_65 Start: 56074, Stop: 56835, Start Num: 63

Candidate Starts for Frankicide\_65:

(Start: 63 @56074 has 139 MA's), (Start: 89 @56113 has 12 MA's), (105, 56176), (109, 56194), (119, 56248), (127, 56272), (148, 56305), (178, 56350), (182, 56362), (187, 56383), (199, 56419), (204, 56431), (207, 56443), (227, 56479), (242, 56518), (246, 56524), (255, 56545), (257, 56554), (266, 56590), (287, 56674), (299, 56725), (307, 56752), (329, 56797), (332, 56809), (338, 56827),

Gene: Frederick\_61 Start: 56997, Stop: 57776, Start Num: 51



Candidate Starts for Frederick\_61:

(16, 56880), (Start: 42 @56970 has 25 MA's), (Start: 51 @56997 has 17 MA's), (Start: 56 @57006 has 11 MA's), (Start: 85 @57060 has 1 MA's), (101, 57120), (103, 57129), (104, 57135), (105, 57138), (116, 57195), (117, 57198), (119, 57210), (125, 57228), (138, 57240), (158, 57270), (179, 57306), (199, 57375), (201, 57381), (215, 57411), (218, 57417), (236, 57447), (240, 57456), (246, 57468), (257, 57498), (272, 57552), (284, 57600), (286, 57621), (287, 57627), (288, 57630), (303, 57696), (320, 57726),

Gene: FrenchFry\_64 Start: 54872, Stop: 55573, Start Num: 88

Candidate Starts for FrenchFry\_64:

(Start: 11 @54614 has 1 MA's), (24, 54683), (Start: 67 @54827 has 1 MA's), (Start: 71 @54839 has 7 MA's), (Start: 88 @54872 has 36 MA's), (107, 54944), (109, 54959), (114, 54980), (135, 55043), (171, 55100), (173, 55103), (179, 55112), (182, 55124), (194, 55172), (199, 55181), (217, 55214), (221, 55220), (254, 55289), (260, 55319), (265, 55334), (286, 55409), (290, 55424), (303, 55484), (318, 55511),

Gene: Fresco\_61 Start: 49797, Stop: 50528, Start Num: 89

Candidate Starts for Fresco\_61:

(Start: 89 @49797 has 12 MA's), (98, 49827), (105, 49860), (106, 49863), (118, 49929), (119, 49932), (123, 49944), (124, 49953), (136, 49974), (154, 50004), (159, 50007), (167, 50019), (174, 50031), (183, 50046), (194, 50091), (215, 50142), (230, 50169), (247, 50211), (254, 50229), (271, 50295), (286, 50382), (291, 50400), (303, 50457), (328, 50505),

Gene: Freya\_64 Start: 55734, Stop: 56495, Start Num: 63

Candidate Starts for Freya\_64:

(Start: 63 @55734 has 139 MA's), (Start: 89 @55773 has 12 MA's), (105, 55836), (109, 55854), (119, 55908), (127, 55932), (148, 55965), (178, 56010), (182, 56022), (187, 56043), (199, 56079), (204, 56091), (207, 56103), (227, 56139), (242, 56178), (246, 56184), (255, 56205), (257, 56214), (266, 56250), (287, 56334), (299, 56385), (307, 56412), (329, 56457), (332, 56469), (338, 56487),

Gene: FriarPreacher\_65 Start: 56114, Stop: 56878, Start Num: 78

Candidate Starts for FriarPreacher\_65:

(Start: 42 @56024 has 25 MA's), (61, 56075), (62, 56078), (68, 56096), (Start: 78 @56114 has 84 MA's), (Start: 83 @56135 has 3 MA's), (Start: 88 @56147 has 36 MA's), (96, 56174), (121, 56297), (127, 56309), (155, 56360), (164, 56375), (177, 56396), (179, 56399), (183, 56414), (199, 56468), (210, 56495), (223, 56501), (285, 56687), (309, 56783), (321, 56801), (324, 56810),

Gene: Fringe\_71 Start: 56909, Stop: 57670, Start Num: 63

Candidate Starts for Fringe\_71:

(Start: 63 @56909 has 139 MA's), (Start: 89 @56948 has 12 MA's), (105, 57011), (109, 57029), (119, 57083), (127, 57107), (148, 57140), (178, 57185), (182, 57197), (187, 57218), (199, 57254), (204, 57266), (207, 57278), (227, 57314), (242, 57353), (246, 57359), (255, 57380), (266, 57425), (287, 57509), (299, 57560), (307, 57587), (329, 57632), (332, 57644), (338, 57662),

Gene: FugateOSU\_67 Start: 56977, Stop: 57831, Start Num: 42

Candidate Starts for FugateOSU\_67:

(Start: 42 @56977 has 25 MA's), (61, 57028), (62, 57031), (68, 57049), (Start: 78 @57067 has 84 MA's), (Start: 83 @57088 has 3 MA's), (Start: 88 @57100 has 36 MA's), (96, 57127), (121, 57250), (127, 57262), (155, 57313), (164, 57328), (177, 57349), (179, 57352), (183, 57367), (199, 57421), (210, 57448), (223, 57454), (285, 57640), (309, 57736), (321, 57754), (324, 57763),

Gene: Funsized\_66 Start: 59303, Stop: 60118, Start Num: 65

Candidate Starts for Funsized\_66:

(49, 59258), (Start: 65 @59303 has 1 MA's), (105, 59426), (109, 59444), (129, 59534), (132, 59537), (133, 59540), (152, 59570), (169, 59594), (171, 59600), (179, 59612), (188, 59648), (191, 59666), (200, 59681), (203, 59690), (218, 59723), (242, 59771), (257, 59804), (269, 59849), (322, 60035), (323, 60038), (325, 60047),

Gene: Gadget\_68 Start: 56813, Stop: 57580, Start Num: 72

Candidate Starts for Gadget\_68:

(Start: 72 @56813 has 35 MA's), (Start: 87 @56849 has 1 MA's), (95, 56879), (114, 56963), (119, 56996), (134, 57029), (156, 57065), (160, 57071), (172, 57089), (176, 57095), (201, 57173), (229, 57209), (240, 57236), (252, 57254), (311, 57473), (338, 57545), (339, 57575),

Gene: Gareth\_67 Start: 56530, Stop: 57291, Start Num: 63

Candidate Starts for Gareth\_67:

(Start: 63 @56530 has 139 MA's), (Start: 89 @56569 has 12 MA's), (105, 56632), (109, 56650), (119, 56704), (127, 56728), (148, 56761), (178, 56806), (182, 56818), (187, 56839), (199, 56875), (204, 56887), (207, 56899), (227, 56935), (242, 56974), (246, 56980), (255, 57001), (257, 57010), (266, 57046), (287, 57130), (299, 57181), (307, 57208), (329, 57253), (332, 57265), (338, 57283),

Gene: GeneCoco\_67 Start: 56596, Stop: 57327, Start Num: 88

Candidate Starts for GeneCoco\_67:

(Start: 42 @56473 has 25 MA's), (61, 56524), (62, 56527), (68, 56545), (Start: 78 @56563 has 84 MA's), (Start: 83 @56584 has 3 MA's), (Start: 88 @56596 has 36 MA's), (96, 56623), (121, 56746), (127, 56758), (155, 56809), (164, 56824), (177, 56845), (179, 56848), (183, 56863), (199, 56917), (210, 56944), (223, 56950), (285, 57136), (309, 57232), (321, 57250), (324, 57259),

Gene: Gervas\_68 Start: 56907, Stop: 57674, Start Num: 72

Candidate Starts for Gervas\_68:

(Start: 72 @56907 has 35 MA's), (Start: 87 @56943 has 1 MA's), (95, 56973), (114, 57057), (119, 57090), (134, 57123), (156, 57159), (160, 57165), (172, 57183), (176, 57189), (201, 57267), (229, 57303), (240, 57330), (252, 57348), (292, 57495), (311, 57567), (325, 57600), (338, 57639), (339, 57669),

Gene: GinPorsche\_59 Start: 56071, Stop: 56841, Start Num: 51

Candidate Starts for GinPorsche\_59:

(28, 55981), (Start: 51 @56071 has 17 MA's), (Start: 56 @56080 has 11 MA's), (Start: 85 @56125 has 1 MA's), (101, 56185), (103, 56194), (104, 56200), (105, 56203), (117, 56263), (119, 56275), (125, 56293), (138, 56305), (158, 56335), (179, 56371), (183, 56386), (199, 56440), (201, 56446), (215, 56476), (218, 56482), (236, 56512), (246, 56533), (257, 56563), (264, 56596), (272, 56617), (284, 56665), (286, 56686), (288, 56695), (303, 56761), (320, 56791),

Gene: Giraffe\_67 Start: 56525, Stop: 57286, Start Num: 63

Candidate Starts for Giraffe\_67:

(Start: 63 @56525 has 139 MA's), (Start: 89 @56564 has 12 MA's), (105, 56627), (109, 56645), (119, 56699), (127, 56723), (148, 56756), (178, 56801), (182, 56813), (187, 56834), (199, 56870), (204, 56882), (207, 56894), (227, 56930), (242, 56969), (246, 56975), (255, 56996), (257, 57005), (266, 57041), (287, 57125), (299, 57176), (307, 57203), (329, 57248), (332, 57260), (338, 57278),

Gene: Glass\_64 Start: 54874, Stop: 55575, Start Num: 88

Candidate Starts for Glass\_64:

(Start: 11 @54616 has 1 MA's), (Start: 67 @54829 has 1 MA's), (Start: 71 @54841 has 7 MA's), (Start: 88 @54874 has 36 MA's), (107, 54946), (109, 54961), (114, 54982), (135, 55045), (171, 55102), (173, 55105), (179, 55114), (182, 55126), (194, 55174), (199, 55183), (217, 55216), (221, 55222), (254, 55291), (260, 55321), (265, 55336), (286, 55411), (290, 55426), (303, 55486), (318, 55513),

Gene: GlenHope\_68 Start: 56473, Stop: 57240, Start Num: 72

Candidate Starts for GlenHope\_68:

(Start: 72 @56473 has 35 MA's), (Start: 87 @56509 has 1 MA's), (95, 56539), (114, 56623), (119, 56656), (134, 56689), (156, 56725), (160, 56731), (172, 56749), (176, 56755), (201, 56833), (229, 56869), (240, 56896), (252, 56914), (292, 57061), (311, 57133), (338, 57205), (339, 57235),

Gene: Godines\_64 Start: 55133, Stop: 55834, Start Num: 88

Candidate Starts for Godines\_64:

(1, 54671), (2, 54677), (Start: 4 @54710 has 1 MA's), (8, 54794), (9, 54815), (23, 54944), (Start: 67 @55088 has 1 MA's), (Start: 71 @55100 has 7 MA's), (Start: 88 @55133 has 36 MA's), (107, 55205), (109, 55220), (114, 55241), (135, 55304), (171, 55361), (173, 55364), (179, 55373), (182, 55385), (194, 55433), (199, 55442), (217, 55475), (221, 55481), (254, 55550), (260, 55580), (265, 55595), (286, 55670), (290, 55685), (303, 55745), (318, 55772),

Gene: Gophee\_68 Start: 56516, Stop: 57277, Start Num: 63

Candidate Starts for Gophee\_68:

(Start: 63 @56516 has 139 MA's), (Start: 89 @56555 has 12 MA's), (105, 56618), (109, 56636), (119, 56690), (127, 56714), (148, 56747), (178, 56792), (182, 56804), (187, 56825), (199, 56861), (204, 56873), (207, 56885), (227, 56921), (242, 56960), (246, 56966), (255, 56987), (257, 56996), (266, 57032), (287, 57116), (299, 57167), (307, 57194), (329, 57239), (332, 57251), (338, 57269),

Gene: Grand2040\_65 Start: 56506, Stop: 57270, Start Num: 78

Candidate Starts for Grand2040\_65:

(Start: 42 @56416 has 25 MA's), (61, 56467), (62, 56470), (68, 56488), (Start: 78 @56506 has 84 MA's), (Start: 83 @56527 has 3 MA's), (Start: 88 @56539 has 36 MA's), (96, 56566), (121, 56689), (127, 56701), (155, 56752), (164, 56767), (177, 56788), (179, 56791), (183, 56806), (199, 56860), (210, 56887), (223, 56893), (285, 57079), (309, 57175), (321, 57193), (324, 57202),

Gene: Gwilliam\_69 Start: 56924, Stop: 57685, Start Num: 63

Candidate Starts for Gwilliam\_69:

(Start: 63 @56924 has 139 MA's), (Start: 89 @56963 has 12 MA's), (105, 57026), (109, 57044), (119, 57098), (127, 57122), (148, 57155), (178, 57200), (182, 57212), (187, 57233), (199, 57269), (204, 57281), (207, 57293), (227, 57329), (242, 57368), (246, 57374), (255, 57395), (257, 57404), (266, 57440), (287, 57524), (299, 57575), (307, 57602), (329, 57647), (332, 57659), (338, 57677),

Gene: Gyarad\_0066 Start: 55883, Stop: 56647, Start Num: 78

Candidate Starts for Gyarad\_0066:

(Start: 42 @55793 has 25 MA's), (61, 55844), (62, 55847), (68, 55865), (Start: 78 @55883 has 84 MA's), (Start: 83 @55904 has 3 MA's), (Start: 88 @55916 has 36 MA's), (96, 55943), (121, 56066), (127, 56078), (155, 56129), (164, 56144), (177, 56165), (179, 56168), (183, 56183), (199, 56237), (210, 56264), (223, 56270), (285, 56456), (309, 56552), (321, 56570), (324, 56579),

Gene: HSavage\_65 Start: 56052, Stop: 56813, Start Num: 63

Candidate Starts for HSavage\_65:

(Start: 63 @56052 has 139 MA's), (Start: 89 @56091 has 12 MA's), (105, 56154), (109, 56172), (119, 56226), (127, 56250), (148, 56283), (178, 56328), (182, 56340), (187, 56361), (199, 56397), (204, 56409), (207, 56421), (227, 56457), (242, 56496), (246, 56502), (255, 56523), (257, 56532), (266, 56568), (287, 56652), (299, 56703), (307, 56730), (329, 56775), (332, 56787), (338, 56805),

Gene: Haimas\_65 Start: 55924, Stop: 56778, Start Num: 42

Candidate Starts for Haimas\_65:

(Start: 42 @55924 has 25 MA's), (61, 55975), (62, 55978), (68, 55996), (Start: 78 @56014 has 84 MA's), (Start: 83 @56035 has 3 MA's), (Start: 88 @56047 has 36 MA's), (96, 56074), (121, 56197), (127, 56209), (155, 56260), (164, 56275), (177, 56296), (179, 56299), (183, 56314), (199, 56368), (210, 56395), (223, 56401), (285, 56587), (309, 56683), (321, 56701), (324, 56710),

Gene: Haleema\_66 Start: 56071, Stop: 56832, Start Num: 63

Candidate Starts for Haleema\_66:

(Start: 63 @56071 has 139 MA's), (Start: 89 @56110 has 12 MA's), (105, 56173), (109, 56191), (119, 56245), (127, 56269), (148, 56302), (178, 56347), (182, 56359), (187, 56380), (199, 56416), (204, 56428), (207, 56440), (227, 56476), (242, 56515), (246, 56521), (255, 56542), (257, 56551), (266, 56587), (287, 56671), (299, 56722), (307, 56749), (329, 56794), (332, 56806), (338, 56824),

Gene: Halfpint\_66 Start: 56224, Stop: 56991, Start Num: 72

Candidate Starts for Halfpint\_66:

(Start: 72 @56224 has 35 MA's), (Start: 87 @56260 has 1 MA's), (95, 56290), (114, 56374), (119, 56407), (134, 56440), (156, 56476), (160, 56482), (172, 56500), (176, 56506), (201, 56584), (229, 56620), (240, 56647), (252, 56665), (292, 56812), (311, 56884), (325, 56917), (338, 56956), (339, 56986),

Gene: Hally898\_59 Start: 56086, Stop: 56856, Start Num: 51

Candidate Starts for Hally898\_59:

(28, 55996), (Start: 51 @56086 has 17 MA's), (Start: 56 @56095 has 11 MA's), (Start: 85 @56140 has 1 MA's), (101, 56200), (103, 56209), (104, 56215), (105, 56218), (117, 56278), (119, 56290), (125, 56308), (138, 56320), (158, 56350), (179, 56386), (183, 56401), (199, 56455), (201, 56461), (215, 56491), (218, 56497), (236, 56527), (246, 56548), (257, 56578), (264, 56611), (272, 56632), (284, 56680), (286, 56701), (288, 56710), (303, 56776), (320, 56806),

Gene: Hamish\_64 Start: 55979, Stop: 56710, Start Num: 88

Candidate Starts for Hamish\_64:

(Start: 42 @55856 has 25 MA's), (61, 55907), (62, 55910), (68, 55928), (Start: 78 @55946 has 84 MA's), (Start: 83 @55967 has 3 MA's), (Start: 88 @55979 has 36 MA's), (96, 56006), (121, 56129), (127, 56141), (155, 56192), (164, 56207), (177, 56228), (179, 56231), (183, 56246), (199, 56300), (210, 56327), (223, 56333), (285, 56519), (309, 56615), (321, 56633), (324, 56642),

Gene: Hangman\_60 Start: 57170, Stop: 57952, Start Num: 51

Candidate Starts for Hangman\_60:

(Start: 42 @57143 has 25 MA's), (Start: 51 @57170 has 17 MA's), (Start: 56 @57179 has 11 MA's), (Start: 85 @57233 has 1 MA's), (105, 57311), (141, 57416), (152, 57434), (153, 57437), (179, 57479), (191, 57533), (199, 57548), (201, 57554), (208, 57572), (215, 57584), (218, 57590), (244, 57647), (262, 57701), (284, 57770), (286, 57791), (290, 57806), (295, 57833), (296, 57836), (304, 57869), (320, 57896),

Gene: Hartsy\_66 Start: 56213, Stop: 56974, Start Num: 63

Candidate Starts for Hartsy\_66:

(Start: 63 @56213 has 139 MA's), (Start: 89 @56252 has 12 MA's), (105, 56315), (109, 56333), (119, 56387), (127, 56411), (148, 56444), (178, 56489), (182, 56501), (187, 56522), (199, 56558), (204, 56570), (207, 56582), (227, 56618), (242, 56657), (246, 56663), (255, 56684), (257, 56693), (266, 56729), (287, 56813), (299, 56864), (307, 56891), (329, 56936), (332, 56948), (338, 56966),

Gene: Harvey\_64 Start: 56043, Stop: 56807, Start Num: 78

Candidate Starts for Harvey\_64:

(Start: 42 @55953 has 25 MA's), (61, 56004), (62, 56007), (68, 56025), (Start: 78 @56043 has 84 MA's), (Start: 83 @56064 has 3 MA's), (Start: 88 @56076 has 36 MA's), (96, 56103), (121, 56226),

(127, 56238), (155, 56289), (164, 56304), (177, 56325), (179, 56328), (183, 56343), (199, 56397), (210, 56424), (223, 56430), (285, 56616), (309, 56712), (321, 56730), (324, 56739),

Gene: HarveySr\_66 Start: 55982, Stop: 56695, Start Num: 76

Candidate Starts for HarveySr\_66:

(Start: 46 @55904 has 1 MA's), (64, 55958), (Start: 76 @55982 has 1 MA's), (Start: 82 @55994 has 6 MA's), (94, 56036), (105, 56081), (110, 56105), (113, 56117), (141, 56183), (150, 56198), (153, 56204), (185, 56270), (191, 56300), (199, 56315), (213, 56342), (228, 56372), (237, 56393), (248, 56402), (259, 56441), (269, 56474), (283, 56516), (286, 56540), (290, 56555), (293, 56573), (299, 56597), (307, 56621),

Gene: Hashim76\_71 Start: 57737, Stop: 58498, Start Num: 63

Candidate Starts for Hashim76\_71:

(49, 57701), (Start: 63 @57737 has 139 MA's), (Start: 88 @57767 has 36 MA's), (105, 57833), (114, 57872), (120, 57911), (129, 57935), (163, 57989), (183, 58028), (222, 58130), (234, 58151), (240, 58169), (266, 58247), (278, 58280), (303, 58394), (306, 58403), (319, 58424),

Gene: Heath\_59 Start: 56797, Stop: 57579, Start Num: 51

Candidate Starts for Heath\_59:

(Start: 42 @56770 has 25 MA's), (Start: 51 @56797 has 17 MA's), (Start: 56 @56806 has 11 MA's), (Start: 85 @56860 has 1 MA's), (105, 56938), (130, 57037), (141, 57043), (152, 57061), (179, 57106), (191, 57160), (199, 57175), (201, 57181), (208, 57199), (215, 57211), (218, 57217), (244, 57274), (262, 57328), (284, 57397), (290, 57433), (295, 57460), (296, 57463), (304, 57496), (320, 57523),

Gene: Heathcliff\_67 Start: 56440, Stop: 57207, Start Num: 72

Candidate Starts for Heathcliff\_67:

(Start: 72 @56440 has 35 MA's), (Start: 87 @56476 has 1 MA's), (95, 56506), (114, 56590), (119, 56623), (134, 56656), (156, 56692), (160, 56698), (172, 56716), (176, 56722), (201, 56800), (229, 56836), (240, 56863), (252, 56881), (292, 57028), (311, 57100), (338, 57172), (339, 57202),

Gene: Hedgerow\_63 Start: 54844, Stop: 55545, Start Num: 88

Candidate Starts for Hedgerow\_63:

(1, 54388), (2, 54394), (3, 54397), (Start: 4 @54427 has 1 MA's), (8, 54505), (9, 54526), (Start: 67 @54799 has 1 MA's), (Start: 71 @54811 has 7 MA's), (Start: 88 @54844 has 36 MA's), (107, 54916), (109, 54931), (114, 54952), (135, 55015), (171, 55072), (173, 55075), (179, 55084), (182, 55096), (194, 55144), (199, 55153), (217, 55186), (221, 55192), (254, 55261), (260, 55291), (265, 55306), (286, 55381), (290, 55396), (303, 55456), (318, 55483),

Gene: Held\_65 Start: 56017, Stop: 56781, Start Num: 78

Candidate Starts for Held\_65:

(Start: 42 @55927 has 25 MA's), (61, 55978), (62, 55981), (68, 55999), (Start: 78 @56017 has 84 MA's), (Start: 83 @56038 has 3 MA's), (Start: 88 @56050 has 36 MA's), (96, 56077), (121, 56200), (127, 56212), (155, 56263), (164, 56278), (177, 56299), (179, 56302), (183, 56317), (199, 56371), (210, 56398), (223, 56404), (285, 56590), (309, 56686), (321, 56704), (324, 56713),

Gene: HenryJackson\_67 Start: 56554, Stop: 57315, Start Num: 63

Candidate Starts for HenryJackson\_67:

(Start: 63 @56554 has 139 MA's), (Start: 89 @56593 has 12 MA's), (105, 56656), (109, 56674), (119, 56728), (127, 56752), (148, 56785), (178, 56830), (182, 56842), (187, 56863), (199, 56899), (204, 56911), (207, 56923), (242, 56998), (246, 57004), (255, 57025), (257, 57034), (266, 57070), (287, 57154), (299, 57205), (307, 57232), (329, 57277), (332, 57289), (338, 57307),

Gene: Hertubise\_66 Start: 56320, Stop: 57081, Start Num: 63

Candidate Starts for Hertubise\_66:

(Start: 63 @56320 has 139 MA's), (Start: 89 @56359 has 12 MA's), (105, 56422), (109, 56440), (119, 56494), (127, 56518), (148, 56551), (178, 56596), (182, 56608), (187, 56629), (199, 56665), (204, 56677), (207, 56689), (227, 56725), (242, 56764), (246, 56770), (255, 56791), (257, 56800), (266, 56836), (287, 56920), (299, 56971), (307, 56998), (329, 57043), (332, 57055), (338, 57073),

Gene: Hetaeria\_66 Start: 56260, Stop: 57021, Start Num: 63

Candidate Starts for Hetaeria\_66:

(Start: 63 @56260 has 139 MA's), (Start: 89 @56299 has 12 MA's), (105, 56362), (109, 56380), (119, 56434), (127, 56458), (148, 56491), (178, 56536), (182, 56548), (187, 56569), (199, 56605), (204, 56617), (207, 56629), (227, 56665), (242, 56704), (246, 56710), (255, 56731), (257, 56740), (266, 56776), (287, 56860), (299, 56911), (307, 56938), (329, 56983), (332, 56995), (338, 57013),

Gene: HighStump\_68 Start: 56520, Stop: 57284, Start Num: 78

Candidate Starts for HighStump\_68:

(Start: 42 @56430 has 25 MA's), (61, 56481), (62, 56484), (68, 56502), (Start: 78 @56520 has 84 MA's), (Start: 83 @56541 has 3 MA's), (Start: 88 @56553 has 36 MA's), (96, 56580), (121, 56703), (127, 56715), (155, 56766), (164, 56781), (177, 56802), (179, 56805), (183, 56820), (199, 56874), (210, 56901), (223, 56907), (285, 57093), (309, 57189), (321, 57207), (324, 57216),

Gene: Hocus\_66 Start: 56015, Stop: 56776, Start Num: 63

Candidate Starts for Hocus\_66:

(Start: 63 @56015 has 139 MA's), (Start: 89 @56054 has 12 MA's), (105, 56117), (109, 56135), (119, 56189), (127, 56213), (148, 56246), (178, 56291), (182, 56303), (187, 56324), (199, 56360), (204, 56372), (207, 56384), (227, 56420), (242, 56459), (246, 56465), (255, 56486), (257, 56495), (266, 56531), (287, 56615), (299, 56666), (307, 56693), (329, 56738), (332, 56750), (338, 56768),

Gene: Holeinone\_63 Start: 54732, Stop: 55433, Start Num: 88

Candidate Starts for Holeinone\_63:

(10, 54462), (24, 54543), (Start: 67 @54687 has 1 MA's), (Start: 71 @54699 has 7 MA's), (Start: 88 @54732 has 36 MA's), (107, 54804), (109, 54819), (114, 54840), (135, 54903), (171, 54960), (173, 54963), (179, 54972), (182, 54984), (194, 55032), (199, 55041), (217, 55074), (221, 55080), (254, 55149), (260, 55179), (265, 55194), (286, 55269), (290, 55284), (303, 55344), (318, 55371),

Gene: Horchata\_64 Start: 56038, Stop: 56802, Start Num: 78

Candidate Starts for Horchata\_64:

(Start: 42 @55948 has 25 MA's), (61, 55999), (62, 56002), (68, 56020), (Start: 78 @56038 has 84 MA's), (Start: 83 @56059 has 3 MA's), (Start: 88 @56071 has 36 MA's), (96, 56098), (115, 56194), (121, 56221), (127, 56233), (155, 56284), (164, 56299), (177, 56320), (179, 56323), (183, 56338), (199, 56392), (210, 56419), (223, 56425), (285, 56611), (309, 56707), (321, 56725), (324, 56734),

Gene: Hosp\_058 Start: 53715, Stop: 54479, Start Num: 81

Candidate Starts for Hosp\_058:

(81, 53715), (94, 53760), (109, 53823), (132, 53919), (133, 53922), (149, 53949), (151, 53952), (179, 53991), (191, 54039), (199, 54054), (201, 54060), (231, 54114), (234, 54120), (236, 54129), (257, 54177), (272, 54231), (296, 54333), (303, 54363), (304, 54366), (307, 54375), (324, 54402), (329, 54420), (338, 54450),

Gene: Hydro\_60 Start: 57134, Stop: 57913, Start Num: 51

Candidate Starts for Hydro\_60:

(16, 57017), (Start: 42 @57107 has 25 MA's), (Start: 51 @57134 has 17 MA's), (Start: 56 @57143 has 11 MA's), (Start: 85 @57197 has 1 MA's), (101, 57257), (103, 57266), (104, 57272), (105, 57275), (109, 57293), (117, 57335), (119, 57347), (125, 57365), (138, 57377), (158, 57407), (179, 57443),

(183, 57458), (199, 57512), (201, 57518), (215, 57548), (218, 57554), (236, 57584), (246, 57605), (257, 57635), (272, 57689), (284, 57737), (286, 57758), (287, 57764), (288, 57767), (303, 57833), (320, 57863),

Gene: ImtiyazSitla\_67 Start: 56247, Stop: 57011, Start Num: 78

Candidate Starts for ImtiyazSitla\_67:

(Start: 42 @56157 has 25 MA's), (61, 56208), (62, 56211), (68, 56229), (Start: 78 @56247 has 84 MA's), (Start: 83 @56268 has 3 MA's), (Start: 88 @56280 has 36 MA's), (96, 56307), (121, 56430), (127, 56442), (155, 56493), (164, 56508), (177, 56529), (179, 56532), (183, 56547), (199, 56601), (210, 56628), (223, 56634), (285, 56820), (309, 56916), (321, 56934), (324, 56943),

Gene: Imvubu\_60 Start: 55578, Stop: 56336, Start Num: 60

Candidate Starts for Imvubu\_60:

(Start: 60 @55578 has 2 MA's), (86, 55644), (96, 55677), (142, 55833), (160, 55863), (175, 55884), (183, 55902), (195, 55947), (199, 55956), (207, 55980), (226, 55998), (232, 56007), (269, 56112), (275, 56130), (286, 56172), (294, 56208), (304, 56253), (333, 56313),

Gene: Inchworm\_69 Start: 56411, Stop: 57172, Start Num: 63

Candidate Starts for Inchworm\_69:

(Start: 63 @56411 has 139 MA's), (Start: 89 @56450 has 12 MA's), (105, 56513), (109, 56531), (119, 56585), (127, 56609), (148, 56642), (178, 56687), (182, 56699), (187, 56720), (199, 56756), (204, 56768), (207, 56780), (227, 56816), (242, 56855), (246, 56861), (255, 56882), (257, 56891), (266, 56927), (287, 57011), (299, 57062), (307, 57089), (329, 57134), (332, 57146), (338, 57164),

Gene: Indlovu\_64 Start: 57486, Stop: 58259, Start Num: 56

Candidate Starts for Indlovu\_64:

(Start: 56 @57486 has 11 MA's), (Start: 88 @57549 has 36 MA's), (94, 57573), (179, 57786), (182, 57798), (232, 57915), (283, 58077), (286, 58101), (287, 58107), (323, 58212), (330, 58236),

Gene: Inverness\_65 Start: 56047, Stop: 56811, Start Num: 78

Candidate Starts for Inverness\_65:

(Start: 42 @55957 has 25 MA's), (61, 56008), (62, 56011), (68, 56029), (Start: 78 @56047 has 84 MA's), (Start: 83 @56068 has 3 MA's), (Start: 88 @56080 has 36 MA's), (96, 56107), (115, 56203), (121, 56230), (127, 56242), (155, 56293), (164, 56308), (177, 56329), (179, 56332), (183, 56347), (199, 56401), (210, 56428), (223, 56434), (285, 56620), (309, 56716), (321, 56734), (324, 56743),

Gene: Iridoclysis\_66 Start: 56241, Stop: 57095, Start Num: 42

Candidate Starts for Iridoclysis\_66:

(Start: 42 @56241 has 25 MA's), (61, 56292), (62, 56295), (68, 56313), (Start: 78 @56331 has 84 MA's), (Start: 83 @56352 has 3 MA's), (Start: 88 @56364 has 36 MA's), (96, 56391), (121, 56514), (127, 56526), (155, 56577), (164, 56592), (177, 56613), (179, 56616), (183, 56631), (199, 56685), (210, 56712), (223, 56718), (285, 56904), (309, 57000), (321, 57018), (324, 57027),

Gene: IsaacEli\_68 Start: 56543, Stop: 57304, Start Num: 63

Candidate Starts for IsaacEli\_68:

(Start: 63 @56543 has 139 MA's), (Start: 89 @56582 has 12 MA's), (105, 56645), (109, 56663), (119, 56717), (127, 56741), (148, 56774), (178, 56819), (182, 56831), (187, 56852), (199, 56888), (204, 56900), (207, 56912), (227, 56948), (242, 56987), (246, 56993), (255, 57014), (257, 57023), (266, 57059), (287, 57143), (299, 57194), (307, 57221), (329, 57266), (332, 57278), (338, 57296),

Gene: ItsyBitsy1\_62 Start: 54704, Stop: 55663, Start Num: 11

Candidate Starts for ItsyBitsy1\_62:

(Start: 11 @54704 has 1 MA's), (19, 54761), (23, 54773), (Start: 67 @54917 has 1 MA's), (Start: 71 @54929 has 7 MA's), (Start: 88 @54962 has 36 MA's), (107, 55034), (109, 55049), (114, 55070), (135, 55133), (171, 55190), (173, 55193), (179, 55202), (182, 55214), (194, 55262), (199, 55271), (221, 55310), (254, 55379), (260, 55409), (265, 55424), (286, 55499), (290, 55514), (303, 55574), (318, 55601),

Gene: JAMaL\_60 Start: 57206, Stop: 57964, Start Num: 51

Candidate Starts for JAMaL\_60:

(36, 57167), (Start: 51 @57206 has 17 MA's), (Start: 56 @57215 has 11 MA's), (Start: 85 @57263 has 1 MA's), (101, 57323), (105, 57341), (117, 57401), (158, 57467), (179, 57503), (183, 57518), (193, 57560), (194, 57563), (199, 57572), (201, 57578), (208, 57596), (215, 57608), (236, 57644), (244, 57662), (284, 57785), (290, 57821), (299, 57863), (303, 57881), (306, 57890), (313, 57899), (320, 57911), (332, 57950),

Gene: JDog\_66 Start: 56564, Stop: 57325, Start Num: 63

Candidate Starts for JDog\_66:

(Start: 50 @56537 has 4 MA's), (Start: 63 @56564 has 139 MA's), (Start: 89 @56603 has 12 MA's), (105, 56666), (109, 56684), (119, 56738), (127, 56762), (148, 56795), (178, 56840), (182, 56852), (187, 56873), (199, 56909), (204, 56921), (207, 56933), (227, 56969), (242, 57008), (246, 57014), (255, 57035), (257, 57044), (266, 57080), (287, 57164), (299, 57215), (307, 57242), (329, 57287), (332, 57299), (338, 57317),

Gene: JacAttac\_67 Start: 56008, Stop: 56769, Start Num: 63

Candidate Starts for JacAttac\_67:

(Start: 63 @56008 has 139 MA's), (Start: 89 @56047 has 12 MA's), (105, 56110), (109, 56128), (119, 56182), (127, 56206), (148, 56239), (178, 56284), (182, 56296), (199, 56353), (204, 56365), (207, 56377), (227, 56413), (242, 56452), (246, 56458), (255, 56479), (257, 56488), (266, 56524), (287, 56608), (299, 56659), (307, 56686), (329, 56731), (332, 56743), (338, 56761),

Gene: Jackstina\_63 Start: 56365, Stop: 57132, Start Num: 72

Candidate Starts for Jackstina\_63:

(Start: 72 @56365 has 35 MA's), (Start: 87 @56401 has 1 MA's), (95, 56431), (114, 56515), (119, 56548), (134, 56581), (156, 56617), (160, 56623), (172, 56641), (176, 56647), (201, 56725), (229, 56761), (240, 56788), (252, 56806), (264, 56860), (311, 57025), (338, 57097), (339, 57127),

Gene: JaguarMi\_62 Start: 58202, Stop: 58981, Start Num: 51

Candidate Starts for JaguarMi\_62:

(16, 58085), (Start: 42 @58175 has 25 MA's), (Start: 51 @58202 has 17 MA's), (Start: 56 @58211 has 11 MA's), (Start: 85 @58265 has 1 MA's), (101, 58325), (103, 58334), (104, 58340), (105, 58343), (109, 58361), (116, 58400), (117, 58403), (119, 58415), (125, 58433), (138, 58445), (153, 58469), (158, 58475), (179, 58511), (183, 58526), (199, 58580), (201, 58586), (215, 58616), (218, 58622), (236, 58652), (246, 58673), (257, 58703), (272, 58757), (284, 58805), (286, 58826), (288, 58835), (303, 58901), (320, 58931),

Gene: JakeO\_68 Start: 56289, Stop: 57050, Start Num: 63

Candidate Starts for JakeO\_68:

(Start: 63 @56289 has 139 MA's), (Start: 89 @56328 has 12 MA's), (105, 56391), (109, 56409), (119, 56463), (127, 56487), (148, 56520), (178, 56565), (182, 56577), (187, 56598), (199, 56634), (204, 56646), (207, 56658), (242, 56733), (246, 56739), (255, 56760), (257, 56769), (266, 56805), (287, 56889), (299, 56940), (307, 56967), (329, 57012), (332, 57024),

Gene: JangoPhett\_66 Start: 56349, Stop: 57110, Start Num: 63

Candidate Starts for JangoPhett\_66:



(Start: 63 @56349 has 139 MA's), (Start: 89 @56388 has 12 MA's), (105, 56451), (109, 56469), (119, 56523), (127, 56547), (148, 56580), (178, 56625), (182, 56637), (187, 56658), (199, 56694), (204, 56706), (207, 56718), (227, 56754), (242, 56793), (246, 56799), (255, 56820), (257, 56829), (266, 56865), (287, 56949), (299, 57000), (307, 57027), (329, 57072), (332, 57084), (338, 57102),

Gene: Jillium\_67 Start: 56549, Stop: 57310, Start Num: 63

Candidate Starts for Jillium\_67:

(Start: 63 @56549 has 139 MA's), (Start: 89 @56588 has 12 MA's), (105, 56651), (109, 56669), (119, 56723), (127, 56747), (148, 56780), (178, 56825), (182, 56837), (187, 56858), (199, 56894), (204, 56906), (207, 56918), (227, 56954), (242, 56993), (246, 56999), (255, 57020), (257, 57029), (266, 57065), (287, 57149), (299, 57200), (307, 57227), (329, 57272), (332, 57284), (338, 57302),

Gene: Jiminy\_68 Start: 56125, Stop: 56886, Start Num: 63

Candidate Starts for Jiminy\_68:

(Start: 63 @56125 has 139 MA's), (Start: 89 @56164 has 12 MA's), (105, 56227), (109, 56245), (119, 56299), (127, 56323), (148, 56356), (178, 56401), (182, 56413), (187, 56434), (199, 56470), (204, 56482), (207, 56494), (242, 56569), (246, 56575), (255, 56596), (257, 56605), (266, 56641), (287, 56725), (299, 56776), (307, 56803), (329, 56848), (332, 56860),

Gene: Jiraiya\_71 Start: 56321, Stop: 57082, Start Num: 63

Candidate Starts for Jiraiya\_71:

(Start: 63 @56321 has 139 MA's), (Start: 89 @56360 has 12 MA's), (105, 56423), (109, 56441), (119, 56495), (127, 56519), (148, 56552), (178, 56597), (182, 56609), (187, 56630), (199, 56666), (204, 56678), (207, 56690), (227, 56726), (242, 56765), (246, 56771), (255, 56792), (257, 56801), (266, 56837), (287, 56921), (299, 56972), (307, 56999), (329, 57044), (332, 57056), (338, 57074),

Gene: Jolie1\_060 Start: 55627, Stop: 56397, Start Num: 56

Candidate Starts for Jolie1\_060:

(Start: 56 @55627 has 11 MA's), (101, 55735), (108, 55768), (117, 55813), (179, 55921), (182, 55933), (193, 55978), (199, 55990), (201, 55996), (208, 56014), (212, 56020), (215, 56026), (223, 56041), (236, 56062), (240, 56071), (244, 56080), (284, 56203), (316, 56323), (320, 56329),

Gene: KLucky39\_65 Start: 55868, Stop: 56656, Start Num: 50

Candidate Starts for KLucky39\_65:

(Start: 50 @55868 has 4 MA's), (Start: 63 @55895 has 139 MA's), (Start: 89 @55934 has 12 MA's), (105, 55997), (109, 56015), (119, 56069), (127, 56093), (148, 56126), (178, 56171), (182, 56183), (187, 56204), (199, 56240), (204, 56252), (207, 56264), (227, 56300), (242, 56339), (246, 56345), (255, 56366), (257, 56375), (266, 56411), (287, 56495), (299, 56546), (307, 56573), (329, 56618), (332, 56630), (338, 56648),

Gene: Kahve\_67 Start: 56551, Stop: 57312, Start Num: 63

Candidate Starts for Kahve\_67:

(Start: 63 @56551 has 139 MA's), (Start: 89 @56590 has 12 MA's), (105, 56653), (109, 56671), (119, 56725), (127, 56749), (148, 56782), (178, 56827), (182, 56839), (187, 56860), (199, 56896), (204, 56908), (207, 56920), (242, 56995), (246, 57001), (255, 57022), (257, 57031), (266, 57067), (287, 57151), (299, 57202), (307, 57229), (329, 57274), (332, 57286), (338, 57304),

Gene: Kailash\_65 Start: 56438, Stop: 57202, Start Num: 78

Candidate Starts for Kailash\_65:

(Start: 42 @56348 has 25 MA's), (61, 56399), (62, 56402), (68, 56420), (Start: 78 @56438 has 84 MA's), (Start: 83 @56459 has 3 MA's), (Start: 88 @56471 has 36 MA's), (96, 56498), (121, 56621), (127, 56633), (155, 56684), (164, 56699), (177, 56720), (179, 56723), (183, 56738), (199, 56792), (210, 56819), (223, 56825), (285, 57011), (309, 57107), (321, 57125), (324, 57134),

Gene: Kaleb\_64 Start: 54879, Stop: 55580, Start Num: 88

Candidate Starts for Kaleb\_64:

(5, 54483), (6, 54486), (8, 54540), (9, 54561), (Start: 67 @54834 has 1 MA's), (Start: 71 @54846 has 7 MA's), (Start: 88 @54879 has 36 MA's), (107, 54951), (109, 54966), (114, 54987), (135, 55050), (171, 55107), (173, 55110), (179, 55119), (182, 55131), (194, 55179), (199, 55188), (221, 55227), (254, 55296), (260, 55326), (265, 55341), (286, 55416), (290, 55431), (303, 55491), (318, 55518),

Gene: Kamiyu\_67 Start: 56442, Stop: 57209, Start Num: 72

Candidate Starts for Kamiyu\_67:

(Start: 72 @56442 has 35 MA's), (Start: 87 @56478 has 1 MA's), (95, 56508), (114, 56592), (119, 56625), (134, 56658), (156, 56694), (160, 56700), (172, 56718), (176, 56724), (201, 56802), (229, 56838), (240, 56865), (252, 56883), (311, 57102), (338, 57174), (339, 57204),

Gene: KarasumaRum\_65 Start: 57415, Stop: 58170, Start Num: 63

Candidate Starts for KarasumaRum\_65:

(Start: 63 @57415 has 139 MA's), (105, 57529), (107, 57532), (112, 57559), (117, 57589), (183, 57724), (199, 57778), (232, 57838), (235, 57844), (239, 57856), (251, 57877), (254, 57886), (281, 57973), (286, 58003), (290, 58018), (303, 58078), (319, 58108), (330, 58138), (335, 58150),

Gene: Katniss\_68 Start: 55991, Stop: 56752, Start Num: 63

Candidate Starts for Katniss\_68:

(Start: 63 @55991 has 139 MA's), (Start: 89 @56030 has 12 MA's), (105, 56093), (109, 56111), (119, 56165), (127, 56189), (148, 56222), (178, 56267), (182, 56279), (187, 56300), (199, 56336), (204, 56348), (207, 56360), (227, 56396), (242, 56435), (246, 56441), (255, 56462), (257, 56471), (266, 56507), (287, 56591), (299, 56642), (307, 56669), (329, 56714), (332, 56726), (338, 56744),

Gene: KayaCho\_60 Start: 55739, Stop: 56506, Start Num: 56

Candidate Starts for KayaCho\_60:

(Start: 56 @55739 has 11 MA's), (Start: 85 @55787 has 1 MA's), (108, 55880), (114, 55904), (117, 55925), (153, 55991), (179, 56033), (182, 56045), (193, 56090), (201, 56108), (208, 56126), (212, 56132), (215, 56138), (244, 56192), (246, 56195), (284, 56315), (286, 56336), (303, 56411), (337, 56483),

Gene: Keitherie\_69 Start: 56613, Stop: 57374, Start Num: 63

Candidate Starts for Keitherie\_69:

(Start: 63 @56613 has 139 MA's), (Start: 89 @56652 has 12 MA's), (105, 56715), (109, 56733), (119, 56787), (127, 56811), (148, 56844), (178, 56889), (182, 56901), (187, 56922), (199, 56958), (204, 56970), (207, 56982), (227, 57018), (242, 57057), (246, 57063), (255, 57084), (257, 57093), (266, 57129), (287, 57213), (299, 57264), (307, 57291), (329, 57336), (332, 57348), (338, 57366),

Gene: Kheth\_63 Start: 54791, Stop: 55492, Start Num: 88

Candidate Starts for Kheth\_63:

(5, 54395), (6, 54398), (8, 54452), (9, 54473), (Start: 67 @54746 has 1 MA's), (Start: 71 @54758 has 7 MA's), (Start: 88 @54791 has 36 MA's), (107, 54863), (109, 54878), (114, 54899), (135, 54962), (171, 55019), (173, 55022), (179, 55031), (182, 55043), (194, 55091), (199, 55100), (217, 55133), (221, 55139), (254, 55208), (260, 55238), (265, 55253), (286, 55328), (290, 55343), (303, 55403), (318, 55430),

Gene: Kikipoo\_68 Start: 56543, Stop: 57304, Start Num: 63

Candidate Starts for Kikipoo\_68:

(Start: 63 @56543 has 139 MA's), (Start: 89 @56582 has 12 MA's), (105, 56645), (109, 56663), (119, 56717), (127, 56741), (148, 56774), (178, 56819), (182, 56831), (187, 56852), (199, 56888), (204,

56900), (207, 56912), (227, 56948), (242, 56987), (246, 56993), (255, 57014), (257, 57023), (266, 57059), (287, 57143), (299, 57194), (307, 57221), (329, 57266), (332, 57278), (338, 57296),

Gene: Kimbrough\_68 Start: 56593, Stop: 57354, Start Num: 63

Candidate Starts for Kimbrough\_68:

(Start: 63 @56593 has 139 MA's), (Start: 89 @56632 has 12 MA's), (105, 56695), (109, 56713), (119, 56767), (127, 56791), (148, 56824), (178, 56869), (182, 56881), (187, 56902), (199, 56938), (204, 56950), (207, 56962), (227, 56998), (242, 57037), (246, 57043), (255, 57064), (257, 57073), (266, 57109), (287, 57193), (299, 57244), (307, 57271), (329, 57316), (332, 57328), (338, 57346),

Gene: KingTut\_58 Start: 52778, Stop: 53509, Start Num: 88

Candidate Starts for KingTut\_58:

(Start: 42 @52655 has 25 MA's), (61, 52706), (62, 52709), (68, 52727), (Start: 78 @52745 has 84 MA's), (Start: 83 @52766 has 3 MA's), (Start: 88 @52778 has 36 MA's), (96, 52805), (121, 52928), (127, 52940), (155, 52991), (164, 53006), (177, 53027), (179, 53030), (183, 53045), (199, 53099), (210, 53126), (223, 53132), (285, 53318), (309, 53414), (321, 53432), (324, 53441),

Gene: KingVeVeVe\_65 Start: 55548, Stop: 56312, Start Num: 78

Candidate Starts for KingVeVeVe\_65:

(Start: 42 @55458 has 25 MA's), (61, 55509), (62, 55512), (68, 55530), (Start: 78 @55548 has 84 MA's), (Start: 83 @55569 has 3 MA's), (Start: 88 @55581 has 36 MA's), (96, 55608), (121, 55731), (127, 55743), (155, 55794), (164, 55809), (177, 55830), (179, 55833), (183, 55848), (199, 55902), (210, 55929), (223, 55935), (285, 56121), (309, 56217), (321, 56235), (324, 56244),

Gene: KlimbOn\_66 Start: 56052, Stop: 56813, Start Num: 63

Candidate Starts for KlimbOn\_66:

(Start: 63 @56052 has 139 MA's), (Start: 89 @56091 has 12 MA's), (105, 56154), (109, 56172), (119, 56226), (127, 56250), (148, 56283), (178, 56328), (182, 56340), (187, 56361), (199, 56397), (204, 56409), (207, 56421), (227, 56457), (242, 56496), (246, 56502), (255, 56523), (257, 56532), (266, 56568), (287, 56652), (299, 56703), (307, 56730), (329, 56775), (332, 56787), (338, 56805),

Gene: Kloppinator\_67 Start: 56203, Stop: 56970, Start Num: 78

Candidate Starts for Kloppinator\_67:

(Start: 78 @56203 has 84 MA's), (Start: 83 @56224 has 3 MA's), (Start: 88 @56236 has 36 MA's), (96, 56263), (127, 56398), (155, 56449), (164, 56464), (177, 56485), (183, 56503), (189, 56530), (199, 56557), (205, 56575), (223, 56593), (231, 56605), (259, 56683), (286, 56782), (309, 56875),

Gene: Knocker\_65 Start: 58505, Stop: 59257, Start Num: 60

Candidate Starts for Knocker\_65:

(Start: 60 @58505 has 2 MA's), (86, 58562), (101, 58619), (105, 58637), (139, 58748), (142, 58751), (156, 58775), (175, 58802), (181, 58817), (183, 58820), (198, 58871), (201, 58880), (207, 58898), (209, 58901), (232, 58925), (239, 58943), (244, 58955), (263, 59015), (267, 59024), (268, 59027), (275, 59048), (287, 59096), (297, 59138), (325, 59216),

Gene: Kronus\_67 Start: 57538, Stop: 58305, Start Num: 72

Candidate Starts for Kronus\_67:

(Start: 72 @57538 has 35 MA's), (Start: 87 @57574 has 1 MA's), (95, 57604), (114, 57688), (119, 57721), (134, 57754), (156, 57790), (160, 57796), (172, 57814), (176, 57820), (201, 57898), (229, 57934), (240, 57961), (252, 57979), (292, 58126), (311, 58198), (325, 58231), (338, 58270), (339, 58300),

Gene: Kwadwo\_66 Start: 56002, Stop: 56763, Start Num: 63

Candidate Starts for Kwadwo\_66:

(Start: 63 @56002 has 139 MA's), (Start: 89 @56041 has 12 MA's), (105, 56104), (109, 56122), (119, 56176), (127, 56200), (148, 56233), (178, 56278), (182, 56290), (199, 56347), (204, 56359), (207, 56371), (227, 56407), (242, 56446), (246, 56452), (255, 56473), (257, 56482), (266, 56518), (287, 56602), (299, 56653), (307, 56680), (329, 56725), (332, 56737), (338, 56755),

Gene: Kwksand96\_67 Start: 56127, Stop: 56891, Start Num: 78

Candidate Starts for Kwksand96\_67:

(Start: 42 @56037 has 25 MA's), (61, 56088), (62, 56091), (68, 56109), (Start: 78 @56127 has 84 MA's), (Start: 83 @56148 has 3 MA's), (Start: 88 @56160 has 36 MA's), (96, 56187), (121, 56310), (127, 56322), (155, 56373), (164, 56388), (177, 56409), (179, 56412), (183, 56427), (199, 56481), (210, 56508), (223, 56514), (285, 56700), (309, 56796), (321, 56814), (324, 56823),

Gene: Labeouficaum\_67 Start: 56025, Stop: 56879, Start Num: 42

Candidate Starts for Labeouficaum\_67:

(Start: 42 @56025 has 25 MA's), (61, 56076), (62, 56079), (68, 56097), (Start: 78 @56115 has 84 MA's), (Start: 83 @56136 has 3 MA's), (Start: 88 @56148 has 36 MA's), (96, 56175), (121, 56298), (127, 56310), (155, 56361), (164, 56376), (177, 56397), (179, 56400), (183, 56415), (199, 56469), (210, 56496), (223, 56502), (285, 56688), (309, 56784), (321, 56802), (324, 56811),

Gene: Lambano\_59 Start: 56086, Stop: 56856, Start Num: 51

Candidate Starts for Lambano\_59:

(28, 55996), (Start: 51 @56086 has 17 MA's), (Start: 56 @56095 has 11 MA's), (Start: 85 @56140 has 1 MA's), (101, 56200), (103, 56209), (104, 56215), (105, 56218), (117, 56278), (119, 56290), (125, 56308), (138, 56320), (158, 56350), (179, 56386), (183, 56401), (199, 56455), (201, 56461), (215, 56491), (218, 56497), (236, 56527), (246, 56548), (257, 56578), (264, 56611), (272, 56632), (284, 56680), (286, 56701), (288, 56710), (303, 56776), (320, 56806),

Gene: Lars\_64 Start: 54819, Stop: 55553, Start Num: 71

Candidate Starts for Lars\_64:

(10, 54588), (Start: 67 @54807 has 1 MA's), (Start: 71 @54819 has 7 MA's), (Start: 88 @54852 has 36 MA's), (107, 54924), (109, 54939), (114, 54960), (135, 55023), (171, 55080), (173, 55083), (179, 55092), (182, 55104), (194, 55152), (199, 55161), (221, 55200), (254, 55269), (260, 55299), (265, 55314), (286, 55389), (290, 55404), (303, 55464), (318, 55491),

Gene: LasagnaCat\_69 Start: 56423, Stop: 57184, Start Num: 63

Candidate Starts for LasagnaCat\_69:

(Start: 63 @56423 has 139 MA's), (Start: 89 @56462 has 12 MA's), (105, 56525), (109, 56543), (119, 56597), (127, 56621), (148, 56654), (178, 56699), (182, 56711), (187, 56732), (199, 56768), (204, 56780), (207, 56792), (227, 56828), (242, 56867), (246, 56873), (255, 56894), (257, 56903), (266, 56939), (287, 57023), (299, 57074), (307, 57101), (329, 57146), (332, 57158), (338, 57176),

Gene: Lasso\_66 Start: 56298, Stop: 57029, Start Num: 88

Candidate Starts for Lasso\_66:

(Start: 42 @56175 has 25 MA's), (61, 56226), (62, 56229), (68, 56247), (Start: 78 @56265 has 84 MA's), (Start: 83 @56286 has 3 MA's), (Start: 88 @56298 has 36 MA's), (96, 56325), (121, 56448), (127, 56460), (155, 56511), (164, 56526), (177, 56547), (179, 56550), (183, 56565), (199, 56619), (210, 56646), (223, 56652), (285, 56838), (309, 56934), (321, 56952), (324, 56961),

Gene: Laurie\_63 Start: 54552, Stop: 55253, Start Num: 88

Candidate Starts for Laurie\_63:

(10, 54285), (Start: 67 @54507 has 1 MA's), (Start: 71 @54519 has 7 MA's), (Start: 88 @54552 has 36 MA's), (107, 54624), (109, 54639), (114, 54660), (135, 54723), (171, 54780), (173, 54783), (179, 54792), (182, 54804), (194, 54852), (199, 54861), (221, 54900), (254, 54969), (260, 54999), (265,

55014), (286, 55089), (290, 55104), (303, 55164), (318, 55191),

Gene: LeeLot\_66 Start: 56621, Stop: 57385, Start Num: 78

Candidate Starts for LeeLot\_66:

(Start: 42 @56531 has 25 MA's), (61, 56582), (62, 56585), (68, 56603), (Start: 78 @56621 has 84 MA's), (Start: 83 @56642 has 3 MA's), (Start: 88 @56654 has 36 MA's), (96, 56681), (121, 56804), (127, 56816), (155, 56867), (164, 56882), (177, 56903), (179, 56906), (183, 56921), (199, 56975), (210, 57002), (223, 57008), (285, 57194), (309, 57290), (321, 57308), (324, 57317),

Gene: Lego3393\_64 Start: 56483, Stop: 57337, Start Num: 42

Candidate Starts for Lego3393\_64:

(Start: 42 @56483 has 25 MA's), (61, 56534), (62, 56537), (68, 56555), (Start: 78 @56573 has 84 MA's), (Start: 83 @56594 has 3 MA's), (Start: 88 @56606 has 36 MA's), (96, 56633), (121, 56756), (127, 56768), (155, 56819), (164, 56834), (177, 56855), (179, 56858), (183, 56873), (199, 56927), (210, 56954), (223, 56960), (285, 57146), (309, 57242), (321, 57260), (324, 57269),

Gene: Legolas\_68 Start: 56360, Stop: 57124, Start Num: 78

Candidate Starts for Legolas\_68:

(Start: 42 @56270 has 25 MA's), (61, 56321), (62, 56324), (68, 56342), (Start: 78 @56360 has 84 MA's), (Start: 83 @56381 has 3 MA's), (Start: 88 @56393 has 36 MA's), (96, 56420), (121, 56543), (127, 56555), (155, 56606), (164, 56621), (177, 56642), (179, 56645), (183, 56660), (199, 56714), (210, 56741), (223, 56747), (285, 56933), (309, 57029), (321, 57047), (324, 57056),

Gene: LeiMonet\_70 Start: 56495, Stop: 57256, Start Num: 63

Candidate Starts for LeiMonet\_70:

(Start: 63 @56495 has 139 MA's), (Start: 89 @56534 has 12 MA's), (105, 56597), (109, 56615), (119, 56669), (127, 56693), (148, 56726), (178, 56771), (182, 56783), (187, 56804), (199, 56840), (204, 56852), (207, 56864), (227, 56900), (242, 56939), (246, 56945), (255, 56966), (257, 56975), (266, 57011), (287, 57095), (299, 57146), (307, 57173), (329, 57218), (332, 57230), (338, 57248),

Gene: LemonSlice\_67 Start: 56012, Stop: 56776, Start Num: 78

Candidate Starts for LemonSlice\_67:

(Start: 42 @55922 has 25 MA's), (61, 55973), (62, 55976), (68, 55994), (Start: 78 @56012 has 84 MA's), (Start: 83 @56033 has 3 MA's), (Start: 88 @56045 has 36 MA's), (96, 56072), (121, 56195), (127, 56207), (155, 56258), (164, 56273), (177, 56294), (179, 56297), (183, 56312), (199, 56366), (210, 56393), (223, 56399), (285, 56585), (309, 56681), (321, 56699), (324, 56708),

Gene: Lephleur\_63 Start: 54717, Stop: 55418, Start Num: 88

Candidate Starts for Lephleur\_63:

(5, 54324), (6, 54327), (8, 54378), (9, 54399), (Start: 67 @54672 has 1 MA's), (Start: 71 @54684 has 7 MA's), (Start: 88 @54717 has 36 MA's), (107, 54789), (109, 54804), (114, 54825), (135, 54888), (171, 54945), (173, 54948), (179, 54957), (182, 54969), (194, 55017), (199, 55026), (221, 55065), (254, 55134), (260, 55164), (265, 55179), (286, 55254), (290, 55269), (303, 55329), (318, 55356),

Gene: LestyG\_65 Start: 56004, Stop: 56735, Start Num: 87

Candidate Starts for LestyG\_65:

(Start: 72 @55968 has 35 MA's), (Start: 87 @56004 has 1 MA's), (95, 56034), (114, 56118), (119, 56151), (134, 56184), (156, 56220), (160, 56226), (172, 56244), (176, 56250), (201, 56328), (229, 56364), (240, 56391), (252, 56409), (311, 56628), (338, 56700), (339, 56730),

Gene: Ligma\_61 Start: 49797, Stop: 50528, Start Num: 89

Candidate Starts for Ligma\_61:

(Start: 89 @49797 has 12 MA's), (98, 49827), (105, 49860), (106, 49863), (118, 49929), (119, 49932), (123, 49944), (124, 49953), (136, 49974), (154, 50004), (159, 50007), (167, 50019), (174, 50031), (183, 50046), (194, 50091), (215, 50142), (230, 50169), (247, 50211), (254, 50229), (271, 50295), (286, 50382), (291, 50400), (303, 50457), (328, 50505),

Gene: LilMcDreamy\_63 Start: 57096, Stop: 57872, Start Num: 56

Candidate Starts for LilMcDreamy\_63:

(21, 56973), (Start: 56 @57096 has 11 MA's), (70, 57135), (96, 57207), (105, 57249), (108, 57264), (141, 57354), (179, 57411), (182, 57423), (194, 57471), (199, 57480), (201, 57486), (215, 57516), (223, 57531), (236, 57552), (244, 57570), (269, 57645), (284, 57690), (303, 57786), (306, 57795),

Gene: LittleMunchkin\_62 Start: 52481, Stop: 53263, Start Num: 89

Candidate Starts for LittleMunchkin\_62:

(66, 52433), (Start: 89 @52481 has 12 MA's), (104, 52544), (106, 52550), (109, 52565), (113, 52583), (119, 52619), (140, 52673), (153, 52700), (158, 52703), (167, 52718), (187, 52775), (199, 52811), (211, 52841), (230, 52880), (249, 52925), (279, 53039), (280, 53054), (283, 53075), (284, 53078), (289, 53111), (299, 53159), (301, 53171),

Gene: LizLemon\_63 Start: 54879, Stop: 55580, Start Num: 88

Candidate Starts for LizLemon\_63:

(1, 54423), (2, 54429), (3, 54432), (Start: 4 @54462 has 1 MA's), (8, 54540), (9, 54561), (Start: 67 @54834 has 1 MA's), (Start: 71 @54846 has 7 MA's), (Start: 88 @54879 has 36 MA's), (107, 54951), (109, 54966), (114, 54987), (135, 55050), (171, 55107), (173, 55110), (179, 55119), (182, 55131), (194, 55179), (199, 55188), (221, 55227), (254, 55296), (260, 55326), (265, 55341), (286, 55416), (290, 55431), (303, 55491), (318, 55518),

Gene: Lolalove\_61 Start: 57140, Stop: 57913, Start Num: 56

Candidate Starts for Lolalove\_61:

(Start: 42 @57104 has 25 MA's), (Start: 51 @57131 has 17 MA's), (Start: 56 @57140 has 11 MA's), (Start: 85 @57194 has 1 MA's), (105, 57272), (141, 57377), (152, 57395), (153, 57398), (179, 57440), (191, 57494), (199, 57509), (201, 57515), (208, 57533), (215, 57545), (218, 57551), (244, 57608), (262, 57662), (284, 57731), (290, 57767), (295, 57794), (296, 57797), (304, 57830), (320, 57857),

Gene: Longacauda\_68 Start: 56398, Stop: 57159, Start Num: 63

Candidate Starts for Longacauda\_68:

(Start: 63 @56398 has 139 MA's), (Start: 89 @56437 has 12 MA's), (105, 56500), (109, 56518), (119, 56572), (127, 56596), (148, 56629), (178, 56674), (182, 56686), (187, 56707), (199, 56743), (204, 56755), (207, 56767), (227, 56803), (242, 56842), (246, 56848), (255, 56869), (257, 56878), (266, 56914), (287, 56998), (299, 57049), (307, 57076), (329, 57121), (332, 57133), (338, 57151),

Gene: Lopsy\_65 Start: 55692, Stop: 56453, Start Num: 63

Candidate Starts for Lopsy\_65:

(Start: 63 @55692 has 139 MA's), (Start: 89 @55731 has 12 MA's), (105, 55794), (109, 55812), (119, 55866), (127, 55890), (148, 55923), (178, 55968), (182, 55980), (187, 56001), (199, 56037), (204, 56049), (207, 56061), (227, 56097), (242, 56136), (246, 56142), (255, 56163), (257, 56172), (266, 56208), (287, 56292), (299, 56343), (307, 56370), (329, 56415), (332, 56427), (338, 56445),

Gene: LostAndPhound\_66 Start: 56586, Stop: 57329, Start Num: 83

Candidate Starts for LostAndPhound\_66:

(Start: 42 @56475 has 25 MA's), (61, 56526), (62, 56529), (68, 56547), (Start: 78 @56565 has 84 MA's), (Start: 83 @56586 has 3 MA's), (Start: 88 @56598 has 36 MA's), (96, 56625), (121, 56748), (127, 56760), (155, 56811), (164, 56826), (177, 56847), (179, 56850), (183, 56865), (199, 56919), (210, 56946), (223, 56952), (285, 57138), (309, 57234), (321, 57252), (324, 57261),

Gene: LuckyMarjie\_64 Start: 55753, Stop: 56514, Start Num: 63

Candidate Starts for LuckyMarjie\_64:

(Start: 63 @55753 has 139 MA's), (Start: 89 @55792 has 12 MA's), (105, 55855), (109, 55873), (119, 55927), (127, 55951), (148, 55984), (178, 56029), (182, 56041), (199, 56098), (204, 56110), (207, 56122), (227, 56158), (242, 56197), (246, 56203), (255, 56224), (257, 56233), (266, 56269), (287, 56353), (299, 56404), (307, 56431), (329, 56476), (332, 56488), (338, 56506),

Gene: Lulumae\_64 Start: 55737, Stop: 56498, Start Num: 63

Candidate Starts for Lulumae\_64:

(Start: 63 @55737 has 139 MA's), (Start: 89 @55776 has 12 MA's), (105, 55839), (109, 55857), (119, 55911), (127, 55935), (148, 55968), (178, 56013), (182, 56025), (187, 56046), (199, 56082), (204, 56094), (207, 56106), (227, 56142), (242, 56181), (246, 56187), (255, 56208), (257, 56217), (266, 56253), (287, 56337), (299, 56388), (307, 56415), (329, 56460), (332, 56472), (338, 56490),

Gene: Lulwa\_65 Start: 55335, Stop: 56096, Start Num: 63

Candidate Starts for Lulwa\_65:

(Start: 63 @55335 has 139 MA's), (Start: 89 @55374 has 12 MA's), (105, 55437), (109, 55455), (119, 55509), (127, 55533), (148, 55566), (178, 55611), (182, 55623), (187, 55644), (199, 55680), (204, 55692), (207, 55704), (227, 55740), (242, 55779), (246, 55785), (255, 55806), (257, 55815), (266, 55851), (287, 55935), (299, 55986), (307, 56013), (329, 56058), (332, 56070), (338, 56088),

Gene: Lumine\_68 Start: 56221, Stop: 56982, Start Num: 63

Candidate Starts for Lumine\_68:

(Start: 63 @56221 has 139 MA's), (Start: 89 @56260 has 12 MA's), (105, 56323), (109, 56341), (119, 56395), (127, 56419), (148, 56452), (178, 56497), (182, 56509), (187, 56530), (199, 56566), (204, 56578), (207, 56590), (227, 56626), (242, 56665), (246, 56671), (255, 56692), (257, 56701), (266, 56737), (287, 56821), (299, 56872), (307, 56899), (329, 56944), (332, 56956), (338, 56974),

Gene: MRabcd\_66 Start: 56334, Stop: 57098, Start Num: 78

Candidate Starts for MRabcd\_66:

(Start: 42 @56244 has 25 MA's), (61, 56295), (62, 56298), (68, 56316), (Start: 78 @56334 has 84 MA's), (Start: 83 @56355 has 3 MA's), (Start: 88 @56367 has 36 MA's), (96, 56394), (121, 56517), (127, 56529), (155, 56580), (164, 56595), (177, 56616), (179, 56619), (183, 56634), (199, 56688), (210, 56715), (223, 56721), (285, 56907), (309, 57003), (321, 57021), (324, 57030),

Gene: Mag7\_65 Start: 55982, Stop: 56746, Start Num: 78

Candidate Starts for Mag7\_65:

(Start: 42 @55892 has 25 MA's), (61, 55943), (62, 55946), (68, 55964), (Start: 78 @55982 has 84 MA's), (Start: 83 @56003 has 3 MA's), (Start: 88 @56015 has 36 MA's), (96, 56042), (121, 56165), (127, 56177), (145, 56204), (155, 56228), (164, 56243), (177, 56264), (179, 56267), (183, 56282), (199, 56336), (210, 56363), (223, 56369), (285, 56555), (309, 56651), (321, 56669), (324, 56678),

Gene: Magic8\_67 Start: 56343, Stop: 57104, Start Num: 63

Candidate Starts for Magic8\_67:

(Start: 63 @56343 has 139 MA's), (Start: 89 @56382 has 12 MA's), (105, 56445), (109, 56463), (119, 56517), (127, 56541), (148, 56574), (178, 56619), (182, 56631), (187, 56652), (199, 56688), (204, 56700), (207, 56712), (227, 56748), (242, 56787), (246, 56793), (255, 56814), (257, 56823), (266, 56859), (287, 56943), (299, 56994), (307, 57021), (329, 57066), (332, 57078),

Gene: Magpie\_59 Start: 57028, Stop: 57837, Start Num: 42

Candidate Starts for Magpie\_59:

(Start: 42 @57028 has 25 MA's), (Start: 51 @57055 has 17 MA's), (Start: 56 @57064 has 11 MA's), (Start: 85 @57118 has 1 MA's), (105, 57196), (130, 57295), (141, 57301), (152, 57319), (153, 57322), (179, 57364), (191, 57418), (199, 57433), (201, 57439), (208, 57457), (215, 57469), (218, 57475), (244, 57532), (262, 57586), (284, 57655), (290, 57691), (295, 57718), (296, 57721), (301, 57745), (304, 57754), (320, 57781),

Gene: Mana\_65 Start: 56006, Stop: 56740, Start Num: 78

Candidate Starts for Mana\_65:

(Start: 42 @55916 has 25 MA's), (61, 55967), (62, 55970), (68, 55988), (Start: 78 @56006 has 84 MA's), (Start: 83 @56027 has 3 MA's), (Start: 88 @56039 has 36 MA's), (96, 56066), (121, 56189), (127, 56201), (155, 56252), (164, 56267), (177, 56288), (179, 56291), (183, 56306), (199, 56360), (210, 56387), (223, 56393), (285, 56579), (309, 56675), (321, 56693), (324, 56702),

Gene: Manad\_66 Start: 56304, Stop: 57065, Start Num: 63

Candidate Starts for Manad\_66:

(Start: 63 @56304 has 139 MA's), (Start: 89 @56343 has 12 MA's), (105, 56406), (109, 56424), (119, 56478), (127, 56502), (148, 56535), (178, 56580), (182, 56592), (187, 56613), (199, 56649), (204, 56661), (207, 56673), (227, 56709), (242, 56748), (246, 56754), (255, 56775), (257, 56784), (266, 56820), (287, 56904), (299, 56955), (307, 56982), (329, 57027), (332, 57039), (338, 57057),

Gene: Mariokart\_57 Start: 48614, Stop: 49360, Start Num: 89

Candidate Starts for Mariokart\_57:

(80, 48602), (Start: 89 @48614 has 12 MA's), (98, 48641), (105, 48674), (112, 48704), (133, 48788), (137, 48794), (143, 48803), (179, 48869), (182, 48881), (243, 49040), (287, 49202), (303, 49271),

Gene: Marley1013\_67 Start: 57098, Stop: 57787, Start Num: 79

Candidate Starts for Marley1013\_67:

(74, 57089), (Start: 79 @57098 has 1 MA's), (Start: 82 @57104 has 6 MA's), (114, 57230), (128, 57287), (150, 57308), (152, 57311), (177, 57356), (194, 57416), (206, 57443), (209, 57449), (252, 57512), (256, 57527), (257, 57530), (259, 57542), (283, 57617), (286, 57641), (299, 57698), (306, 57716), (312, 57725), (336, 57779),

Gene: Maru\_66 Start: 56446, Stop: 57210, Start Num: 78

Candidate Starts for Maru\_66:

(Start: 42 @56356 has 25 MA's), (61, 56407), (62, 56410), (68, 56428), (Start: 78 @56446 has 84 MA's), (Start: 83 @56467 has 3 MA's), (Start: 88 @56479 has 36 MA's), (96, 56506), (121, 56629), (127, 56641), (155, 56692), (164, 56707), (177, 56728), (179, 56731), (183, 56746), (199, 56800), (210, 56827), (223, 56833), (285, 57019), (309, 57115), (321, 57133), (324, 57142),

Gene: Maskar\_67 Start: 56247, Stop: 57011, Start Num: 78

Candidate Starts for Maskar\_67:

(Start: 42 @56157 has 25 MA's), (61, 56208), (62, 56211), (68, 56229), (Start: 78 @56247 has 84 MA's), (Start: 83 @56268 has 3 MA's), (Start: 88 @56280 has 36 MA's), (96, 56307), (121, 56430), (127, 56442), (155, 56493), (164, 56508), (177, 56529), (179, 56532), (183, 56547), (199, 56601), (210, 56628), (223, 56634), (285, 56820), (309, 56916), (321, 56934), (324, 56943),

Gene: MasterPo\_64 Start: 54749, Stop: 55450, Start Num: 88

Candidate Starts for MasterPo\_64:

(10, 54479), (20, 54548), (23, 54560), (Start: 67 @54704 has 1 MA's), (Start: 71 @54716 has 7 MA's), (Start: 88 @54749 has 36 MA's), (107, 54821), (109, 54836), (114, 54857), (135, 54920), (171, 54977), (173, 54980), (179, 54989), (182, 55001), (194, 55049), (199, 55058), (217, 55091), (221, 55097), (254, 55166), (260, 55196), (265, 55211), (286, 55286), (290, 55301), (303, 55361), (318, 55388),



Gene: Matalotodo\_65 Start: 56846, Stop: 57610, Start Num: 78

Candidate Starts for Matalotodo\_65:

(Start: 42 @56756 has 25 MA's), (61, 56807), (62, 56810), (68, 56828), (Start: 78 @56846 has 84 MA's), (Start: 83 @56867 has 3 MA's), (Start: 88 @56879 has 36 MA's), (96, 56906), (121, 57029), (127, 57041), (155, 57092), (164, 57107), (177, 57128), (179, 57131), (183, 57146), (199, 57200), (210, 57227), (223, 57233), (285, 57419), (309, 57515), (321, 57533), (324, 57542),

Gene: Mcshane\_66 Start: 56015, Stop: 56776, Start Num: 63

Candidate Starts for Mcshane\_66:

(Start: 63 @56015 has 139 MA's), (Start: 89 @56054 has 12 MA's), (105, 56117), (109, 56135), (119, 56189), (127, 56213), (148, 56246), (178, 56291), (182, 56303), (187, 56324), (199, 56360), (204, 56372), (207, 56384), (227, 56420), (242, 56459), (246, 56465), (255, 56486), (257, 56495), (266, 56531), (287, 56615), (299, 56666), (307, 56693), (329, 56738), (332, 56750), (338, 56768),

Gene: Mecca\_67 Start: 56580, Stop: 57341, Start Num: 63

Candidate Starts for Mecca\_67:

(Start: 63 @56580 has 139 MA's), (Start: 89 @56619 has 12 MA's), (105, 56682), (109, 56700), (119, 56754), (127, 56778), (148, 56811), (178, 56856), (182, 56868), (187, 56889), (199, 56925), (204, 56937), (207, 56949), (227, 56985), (242, 57024), (246, 57030), (255, 57051), (257, 57060), (266, 57096), (287, 57180), (299, 57231), (307, 57258), (329, 57303), (332, 57315), (338, 57333),

Gene: Megamind20\_68 Start: 56003, Stop: 56764, Start Num: 63

Candidate Starts for Megamind20\_68:

(Start: 63 @56003 has 139 MA's), (Start: 89 @56042 has 12 MA's), (105, 56105), (109, 56123), (119, 56177), (127, 56201), (148, 56234), (178, 56279), (182, 56291), (187, 56312), (199, 56348), (204, 56360), (207, 56372), (227, 56408), (242, 56447), (246, 56453), (255, 56474), (257, 56483), (266, 56519), (287, 56603), (299, 56654), (307, 56681), (329, 56726), (332, 56738), (338, 56756),

Gene: Megatron\_67 Start: 56530, Stop: 57291, Start Num: 63

Candidate Starts for Megatron\_67:

(Start: 63 @56530 has 139 MA's), (Start: 89 @56569 has 12 MA's), (105, 56632), (109, 56650), (119, 56704), (127, 56728), (148, 56761), (178, 56806), (182, 56818), (187, 56839), (199, 56875), (204, 56887), (207, 56899), (227, 56935), (242, 56974), (246, 56980), (255, 57001), (257, 57010), (266, 57046), (287, 57130), (299, 57181), (307, 57208), (329, 57253), (332, 57265), (338, 57283),

Gene: Melc17\_64 Start: 56647, Stop: 57411, Start Num: 78

Candidate Starts for Melc17\_64:

(Start: 42 @56557 has 25 MA's), (61, 56608), (62, 56611), (68, 56629), (Start: 78 @56647 has 84 MA's), (Start: 83 @56668 has 3 MA's), (Start: 88 @56680 has 36 MA's), (96, 56707), (121, 56830), (127, 56842), (155, 56893), (164, 56908), (177, 56929), (179, 56932), (183, 56947), (199, 57001), (210, 57028), (223, 57034), (285, 57220), (309, 57316), (321, 57334), (324, 57343),

Gene: MelsMeow\_66 Start: 56300, Stop: 57064, Start Num: 78

Candidate Starts for MelsMeow\_66:

(Start: 42 @56210 has 25 MA's), (61, 56261), (62, 56264), (68, 56282), (Start: 78 @56300 has 84 MA's), (Start: 83 @56321 has 3 MA's), (Start: 88 @56333 has 36 MA's), (96, 56360), (121, 56483), (127, 56495), (155, 56546), (164, 56561), (177, 56582), (179, 56585), (183, 56600), (199, 56654), (210, 56681), (223, 56687), (285, 56873), (309, 56969), (321, 56987), (324, 56996),

Gene: Mesh1\_67 Start: 56492, Stop: 57346, Start Num: 42

Candidate Starts for Mesh1\_67:

(Start: 42 @56492 has 25 MA's), (61, 56543), (62, 56546), (68, 56564), (Start: 78 @56582 has 84 MA's), (Start: 83 @56603 has 3 MA's), (Start: 88 @56615 has 36 MA's), (96, 56642), (121, 56765), (127, 56777), (155, 56828), (164, 56843), (177, 56864), (179, 56867), (183, 56882), (199, 56936), (210, 56963), (223, 56969), (285, 57155), (309, 57251), (321, 57269), (324, 57278),

Gene: MichaelPhcott\_65 Start: 55889, Stop: 56743, Start Num: 42

Candidate Starts for MichaelPhcott\_65:

(Start: 42 @55889 has 25 MA's), (61, 55940), (62, 55943), (68, 55961), (Start: 78 @55979 has 84 MA's), (Start: 83 @56000 has 3 MA's), (Start: 88 @56012 has 36 MA's), (96, 56039), (121, 56162), (127, 56174), (155, 56225), (164, 56240), (177, 56261), (179, 56264), (183, 56279), (199, 56333), (210, 56360), (223, 56366), (285, 56552), (309, 56648), (321, 56666), (324, 56675),

Gene: Mikota\_64 Start: 55546, Stop: 56310, Start Num: 78

Candidate Starts for Mikota\_64:

(34, 55420), (61, 55507), (62, 55510), (68, 55528), (Start: 78 @55546 has 84 MA's), (Start: 83 @55567 has 3 MA's), (Start: 88 @55579 has 36 MA's), (96, 55606), (115, 55702), (121, 55729), (127, 55741), (155, 55792), (164, 55807), (177, 55828), (179, 55831), (183, 55846), (199, 55900), (210, 55927), (223, 55933), (285, 56119), (309, 56215), (321, 56233), (324, 56242),

Gene: MiniBoss\_64 Start: 55351, Stop: 56115, Start Num: 78

Candidate Starts for MiniBoss\_64:

(Start: 42 @55261 has 25 MA's), (61, 55312), (62, 55315), (68, 55333), (Start: 78 @55351 has 84 MA's), (Start: 83 @55372 has 3 MA's), (Start: 88 @55384 has 36 MA's), (96, 55411), (115, 55507), (121, 55534), (127, 55546), (155, 55597), (164, 55612), (177, 55633), (179, 55636), (183, 55651), (199, 55705), (210, 55732), (223, 55738), (285, 55924), (309, 56020), (321, 56038), (324, 56047),

Gene: MitKao\_66 Start: 56016, Stop: 56780, Start Num: 78

Candidate Starts for MitKao\_66:

(Start: 42 @55926 has 25 MA's), (61, 55977), (62, 55980), (68, 55998), (Start: 78 @56016 has 84 MA's), (Start: 83 @56037 has 3 MA's), (Start: 88 @56049 has 36 MA's), (96, 56076), (121, 56199), (127, 56211), (155, 56262), (164, 56277), (177, 56298), (179, 56301), (183, 56316), (199, 56370), (210, 56397), (223, 56403), (285, 56589), (309, 56685), (321, 56703), (324, 56712),

Gene: Mithril\_60 Start: 57285, Stop: 58067, Start Num: 51

Candidate Starts for Mithril\_60:

(Start: 42 @57258 has 25 MA's), (Start: 51 @57285 has 17 MA's), (Start: 56 @57294 has 11 MA's), (Start: 85 @57348 has 1 MA's), (105, 57426), (141, 57531), (152, 57549), (153, 57552), (179, 57594), (191, 57648), (199, 57663), (201, 57669), (208, 57687), (215, 57699), (218, 57705), (244, 57762), (262, 57816), (284, 57885), (290, 57921), (295, 57948), (296, 57951), (304, 57984), (320, 58011),

Gene: MmasiCarm\_68 Start: 56893, Stop: 57660, Start Num: 72

Candidate Starts for MmasiCarm\_68:

(Start: 72 @56893 has 35 MA's), (Start: 87 @56929 has 1 MA's), (95, 56959), (114, 57043), (119, 57076), (134, 57109), (156, 57145), (160, 57151), (172, 57169), (176, 57175), (201, 57253), (229, 57289), (240, 57316), (252, 57334), (311, 57553), (338, 57625), (339, 57655),

Gene: Morgushi\_65 Start: 56005, Stop: 56769, Start Num: 78

Candidate Starts for Morgushi\_65:

(Start: 42 @55915 has 25 MA's), (61, 55966), (62, 55969), (68, 55987), (Start: 78 @56005 has 84 MA's), (Start: 83 @56026 has 3 MA's), (Start: 88 @56038 has 36 MA's), (96, 56065), (121, 56188), (127, 56200), (155, 56251), (164, 56266), (177, 56287), (179, 56290), (183, 56305), (199, 56359), (210, 56386), (223, 56392), (285, 56578), (309, 56674), (321, 56692), (324, 56701),

Gene: Mortcellus\_67 Start: 57555, Stop: 58322, Start Num: 72

Candidate Starts for Mortcellus\_67:

(Start: 72 @57555 has 35 MA's), (Start: 87 @57591 has 1 MA's), (95, 57621), (114, 57705), (119, 57738), (134, 57771), (156, 57807), (160, 57813), (172, 57831), (176, 57837), (201, 57915), (229, 57951), (240, 57978), (252, 57996), (264, 58050), (292, 58143), (311, 58215), (325, 58248), (338, 58287), (339, 58317),

Gene: Morty\_68 Start: 56544, Stop: 57305, Start Num: 63

Candidate Starts for Morty\_68:

(Start: 63 @56544 has 139 MA's), (Start: 89 @56583 has 12 MA's), (105, 56646), (109, 56664), (119, 56718), (127, 56742), (148, 56775), (178, 56820), (182, 56832), (187, 56853), (199, 56889), (204, 56901), (207, 56913), (227, 56949), (242, 56988), (246, 56994), (255, 57015), (257, 57024), (266, 57060), (287, 57144), (299, 57195), (307, 57222), (329, 57267), (332, 57279), (338, 57297),

Gene: Morty007\_65 Start: 57104, Stop: 57787, Start Num: 82

Candidate Starts for Morty007\_65:

(74, 57089), (Start: 79 @57098 has 1 MA's), (Start: 82 @57104 has 6 MA's), (114, 57230), (128, 57287), (150, 57308), (152, 57311), (177, 57356), (194, 57416), (206, 57443), (209, 57449), (252, 57512), (256, 57527), (257, 57530), (259, 57542), (283, 57617), (286, 57641), (299, 57698), (306, 57716), (312, 57725), (336, 57779),

Gene: Mosaic\_64 Start: 56010, Stop: 56774, Start Num: 78

Candidate Starts for Mosaic\_64:

(Start: 42 @55920 has 25 MA's), (61, 55971), (62, 55974), (68, 55992), (Start: 78 @56010 has 84 MA's), (Start: 83 @56031 has 3 MA's), (Start: 88 @56043 has 36 MA's), (96, 56070), (121, 56193), (127, 56205), (155, 56256), (164, 56271), (177, 56292), (179, 56295), (183, 56310), (199, 56364), (210, 56391), (223, 56397), (285, 56583), (309, 56679), (321, 56697), (324, 56706),

Gene: MrPhizzler\_67 Start: 56484, Stop: 57245, Start Num: 63

Candidate Starts for MrPhizzler\_67:

(Start: 63 @56484 has 139 MA's), (Start: 89 @56523 has 12 MA's), (105, 56586), (109, 56604), (119, 56658), (127, 56682), (148, 56715), (178, 56760), (182, 56772), (187, 56793), (199, 56829), (204, 56841), (207, 56853), (227, 56889), (242, 56928), (246, 56934), (255, 56955), (257, 56964), (266, 57000), (287, 57084), (299, 57135), (307, 57162), (329, 57207), (332, 57219), (338, 57237),

Gene: Mudslide\_60 Start: 57386, Stop: 58165, Start Num: 51

Candidate Starts for Mudslide\_60:

(16, 57269), (Start: 42 @57359 has 25 MA's), (Start: 51 @57386 has 17 MA's), (Start: 56 @57395 has 11 MA's), (Start: 85 @57449 has 1 MA's), (101, 57509), (103, 57518), (104, 57524), (105, 57527), (109, 57545), (117, 57587), (119, 57599), (125, 57617), (138, 57629), (158, 57659), (179, 57695), (183, 57710), (199, 57764), (201, 57770), (215, 57800), (218, 57806), (236, 57836), (240, 57845), (246, 57857), (257, 57887), (272, 57941), (284, 57989), (286, 58010), (287, 58016), (288, 58019), (303, 58085), (320, 58115),

Gene: Mulan\_66 Start: 56245, Stop: 57009, Start Num: 78

Candidate Starts for Mulan\_66:

(Start: 42 @56155 has 25 MA's), (61, 56206), (62, 56209), (68, 56227), (Start: 78 @56245 has 84 MA's), (Start: 83 @56266 has 3 MA's), (Start: 88 @56278 has 36 MA's), (96, 56305), (121, 56428), (127, 56440), (155, 56491), (164, 56506), (177, 56527), (179, 56530), (183, 56545), (199, 56599), (210, 56626), (223, 56632), (285, 56818), (309, 56914), (321, 56932), (324, 56941),

Gene: Murdoc\_64 Start: 56294, Stop: 57058, Start Num: 78

Candidate Starts for Murdoc\_64:

(Start: 42 @56204 has 25 MA's), (61, 56255), (62, 56258), (68, 56276), (Start: 78 @56294 has 84 MA's), (Start: 83 @56315 has 3 MA's), (Start: 88 @56327 has 36 MA's), (96, 56354), (121, 56477), (127, 56489), (155, 56540), (164, 56555), (177, 56576), (179, 56579), (183, 56594), (199, 56648), (210, 56675), (223, 56681), (285, 56867), (309, 56963), (321, 56981), (324, 56990),

Gene: Mutante\_67 Start: 56027, Stop: 56788, Start Num: 63

Candidate Starts for Mutante\_67:

(Start: 63 @56027 has 139 MA's), (Start: 89 @56066 has 12 MA's), (105, 56129), (109, 56147), (119, 56201), (127, 56225), (148, 56258), (178, 56303), (182, 56315), (187, 56336), (199, 56372), (204, 56384), (207, 56396), (227, 56432), (242, 56471), (246, 56477), (255, 56498), (257, 56507), (266, 56543), (287, 56627), (299, 56678), (307, 56705), (329, 56750), (332, 56762), (338, 56780),

Gene: Mysterious\_65 Start: 57321, Stop: 58067, Start Num: 59

Candidate Starts for Mysterious\_65:

(59, 57321), (Start: 63 @57333 has 139 MA's), (95, 57405), (96, 57408), (143, 57555), (169, 57597), (177, 57612), (199, 57681), (239, 57759), (246, 57774), (258, 57807), (281, 57876), (303, 57981), (314, 58002), (335, 58047),

Gene: NHagos\_58 Start: 49051, Stop: 49803, Start Num: 82

Candidate Starts for NHagos\_58:

(31, 48901), (39, 48940), (Start: 79 @49045 has 1 MA's), (Start: 82 @49051 has 6 MA's), (Start: 88 @49075 has 36 MA's), (96, 49102), (105, 49144), (108, 49159), (114, 49183), (162, 49282), (182, 49327), (183, 49330), (190, 49366), (191, 49369), (207, 49408), (222, 49438), (238, 49477), (241, 49483), (264, 49561), (272, 49582), (281, 49609), (286, 49639), (290, 49654), (293, 49672), (301, 49708), (302, 49711), (304, 49717), (306, 49720), (321, 49744), (324, 49753),

Gene: Nacho\_0070 Start: 57038, Stop: 57826, Start Num: 50

Candidate Starts for Nacho\_0070:

(Start: 50 @57038 has 4 MA's), (Start: 63 @57065 has 139 MA's), (Start: 89 @57104 has 12 MA's), (105, 57167), (109, 57185), (119, 57239), (127, 57263), (148, 57296), (178, 57341), (182, 57353), (187, 57374), (199, 57410), (204, 57422), (207, 57434), (227, 57470), (242, 57509), (246, 57515), (255, 57536), (257, 57545), (266, 57581), (287, 57665), (299, 57716), (307, 57743), (329, 57788), (332, 57800), (338, 57818),

Gene: Nanao\_59 Start: 56076, Stop: 56846, Start Num: 51

Candidate Starts for Nanao\_59:

(28, 55986), (Start: 51 @56076 has 17 MA's), (Start: 56 @56085 has 11 MA's), (Start: 85 @56130 has 1 MA's), (101, 56190), (103, 56199), (104, 56205), (105, 56208), (117, 56268), (119, 56280), (125, 56298), (138, 56310), (158, 56340), (179, 56376), (183, 56391), (199, 56445), (201, 56451), (215, 56481), (218, 56487), (236, 56517), (246, 56538), (257, 56568), (264, 56601), (272, 56622), (284, 56670), (286, 56691), (288, 56700), (303, 56766), (320, 56796),

Gene: Nangang\_65 Start: 57593, Stop: 58369, Start Num: 77

Candidate Starts for Nangang\_65:

(Start: 77 @57593 has 3 MA's), (99, 57665), (113, 57731), (152, 57836), (160, 57848), (171, 57866), (183, 57893), (191, 57932), (220, 57992), (223, 57998), (261, 58091), (262, 58094), (288, 58193), (337, 58337),

Gene: Nehemiah\_64 Start: 57367, Stop: 58125, Start Num: 77

Candidate Starts for Nehemiah\_64:

(Start: 77 @57367 has 3 MA's), (96, 57424), (105, 57466), (109, 57484), (136, 57571), (161, 57610), (179, 57637), (183, 57652), (199, 57706), (201, 57712), (216, 57745), (244, 57799), (255, 57820), (266, 57865), (286, 57940), (291, 57958), (320, 58045), (327, 58066), (329, 58072),

Gene: Neos5\_66 Start: 56566, Stop: 57249, Start Num: 82

Candidate Starts for Neos5\_66:

(74, 56551), (Start: 79 @56560 has 1 MA's), (Start: 82 @56566 has 6 MA's), (114, 56692), (128, 56749), (150, 56770), (152, 56773), (177, 56818), (194, 56878), (206, 56905), (207, 56908), (209, 56911), (252, 56974), (256, 56989), (257, 56992), (259, 57004), (283, 57079), (286, 57103), (299, 57160), (306, 57178), (312, 57187), (336, 57241),

Gene: Newman\_65 Start: 56342, Stop: 57103, Start Num: 63

Candidate Starts for Newman\_65:

(Start: 63 @56342 has 139 MA's), (Start: 89 @56381 has 12 MA's), (105, 56444), (109, 56462), (119, 56516), (127, 56540), (148, 56573), (178, 56618), (182, 56630), (187, 56651), (199, 56687), (204, 56699), (207, 56711), (227, 56747), (242, 56786), (246, 56792), (255, 56813), (257, 56822), (266, 56858), (287, 56942), (299, 56993), (307, 57020), (329, 57065), (332, 57077), (338, 57095),

Gene: Nicole21\_68 Start: 56306, Stop: 57067, Start Num: 63

Candidate Starts for Nicole21\_68:

(Start: 63 @56306 has 139 MA's), (Start: 89 @56345 has 12 MA's), (105, 56408), (109, 56426), (119, 56480), (127, 56504), (148, 56537), (178, 56582), (182, 56594), (187, 56615), (199, 56651), (204, 56663), (207, 56675), (227, 56711), (242, 56750), (246, 56756), (255, 56777), (257, 56786), (266, 56822), (287, 56906), (299, 56957), (307, 56984), (329, 57029), (332, 57041), (338, 57059),

Gene: Nigel\_60 Start: 56189, Stop: 56956, Start Num: 51

Candidate Starts for Nigel\_60:

(Start: 51 @56189 has 17 MA's), (Start: 56 @56198 has 11 MA's), (104, 56318), (105, 56321), (117, 56381), (119, 56393), (125, 56411), (141, 56426), (158, 56453), (179, 56489), (183, 56504), (199, 56558), (201, 56564), (215, 56594), (218, 56600), (236, 56630), (240, 56639), (257, 56681), (272, 56735), (282, 56768), (284, 56783), (286, 56804), (287, 56810), (288, 56813), (296, 56849), (299, 56861), (320, 56909),

Gene: Nozo\_67 Start: 57249, Stop: 58016, Start Num: 72

Candidate Starts for Nozo\_67:

(Start: 72 @57249 has 35 MA's), (Start: 87 @57285 has 1 MA's), (95, 57315), (114, 57399), (119, 57432), (134, 57465), (156, 57501), (160, 57507), (172, 57525), (176, 57531), (201, 57609), (229, 57645), (240, 57672), (252, 57690), (264, 57744), (292, 57837), (311, 57909), (338, 57981), (339, 58011),

Gene: Numberten\_66 Start: 56250, Stop: 57011, Start Num: 63

Candidate Starts for Numberten\_66:

(Start: 63 @56250 has 139 MA's), (Start: 89 @56289 has 12 MA's), (105, 56352), (109, 56370), (119, 56424), (127, 56448), (148, 56481), (178, 56526), (182, 56538), (187, 56559), (199, 56595), (204, 56607), (207, 56619), (227, 56655), (242, 56694), (246, 56700), (255, 56721), (257, 56730), (266, 56766), (287, 56850), (299, 56901), (307, 56928), (329, 56973), (332, 56985), (338, 57003),

Gene: Nyala\_66 Start: 56025, Stop: 56786, Start Num: 63

Candidate Starts for Nyala\_66:

(Start: 63 @56025 has 139 MA's), (Start: 89 @56064 has 12 MA's), (105, 56127), (109, 56145), (119, 56199), (127, 56223), (148, 56256), (178, 56301), (182, 56313), (199, 56370), (204, 56382), (207, 56394), (227, 56430), (242, 56469), (246, 56475), (255, 56496), (257, 56505), (266, 56541), (287, 56625), (299, 56676), (307, 56703), (329, 56748), (332, 56760), (338, 56778),

Gene: OSmaximus\_67 Start: 56755, Stop: 57543, Start Num: 63

Candidate Starts for OSmaximus\_67:

(41, 56695), (45, 56701), (47, 56707), (Start: 63 @56755 has 139 MA's), (107, 56881), (109, 56896), (117, 56938), (161, 57028), (182, 57067), (199, 57124), (246, 57229), (255, 57250), (266, 57295), (321, 57475), (323, 57481), (332, 57514),

Gene: Obutu\_68 Start: 56786, Stop: 57469, Start Num: 82

Candidate Starts for Obutu\_68:

(74, 56771), (Start: 79 @56780 has 1 MA's), (Start: 82 @56786 has 6 MA's), (114, 56912), (128, 56969), (150, 56990), (152, 56993), (177, 57038), (194, 57098), (206, 57125), (209, 57131), (252, 57194), (256, 57209), (257, 57212), (259, 57224), (283, 57299), (286, 57323), (299, 57380), (306, 57398), (312, 57407), (336, 57461),

Gene: Olak\_66 Start: 56031, Stop: 56792, Start Num: 63

Candidate Starts for Olak\_66:

(Start: 63 @56031 has 139 MA's), (Start: 89 @56070 has 12 MA's), (105, 56133), (109, 56151), (119, 56205), (127, 56229), (148, 56262), (178, 56307), (182, 56319), (187, 56340), (199, 56376), (204, 56388), (207, 56400), (227, 56436), (242, 56475), (246, 56481), (255, 56502), (257, 56511), (266, 56547), (287, 56631), (299, 56682), (307, 56709), (329, 56754), (332, 56766), (338, 56784),

Gene: Oline\_66 Start: 56210, Stop: 56941, Start Num: 88

Candidate Starts for Oline\_66:

(Start: 42 @56087 has 25 MA's), (61, 56138), (62, 56141), (68, 56159), (Start: 78 @56177 has 84 MA's), (Start: 83 @56198 has 3 MA's), (Start: 88 @56210 has 36 MA's), (96, 56237), (121, 56360), (127, 56372), (155, 56423), (164, 56438), (177, 56459), (179, 56462), (183, 56477), (199, 56531), (210, 56558), (223, 56564), (285, 56750), (309, 56846), (321, 56864), (324, 56873),

Gene: Olive\_66 Start: 56244, Stop: 57005, Start Num: 63

Candidate Starts for Olive\_66:

(Start: 63 @56244 has 139 MA's), (Start: 89 @56283 has 12 MA's), (105, 56346), (109, 56364), (119, 56418), (127, 56442), (148, 56475), (178, 56520), (182, 56532), (187, 56553), (199, 56589), (204, 56601), (207, 56613), (227, 56649), (242, 56688), (246, 56694), (255, 56715), (257, 56724), (266, 56760), (287, 56844), (299, 56895), (307, 56922), (329, 56967), (332, 56979), (338, 56997),

Gene: OliverWalter\_66 Start: 56350, Stop: 57111, Start Num: 63

Candidate Starts for OliverWalter\_66:

(Start: 63 @56350 has 139 MA's), (Start: 89 @56389 has 12 MA's), (105, 56452), (109, 56470), (119, 56524), (127, 56548), (148, 56581), (178, 56626), (182, 56638), (187, 56659), (199, 56695), (204, 56707), (207, 56719), (227, 56755), (242, 56794), (246, 56800), (255, 56821), (257, 56830), (266, 56866), (287, 56950), (299, 57001), (307, 57028), (329, 57073), (332, 57085), (338, 57103),

Gene: Omniscient\_68 Start: 56888, Stop: 57649, Start Num: 63

Candidate Starts for Omniscient\_68:

(Start: 63 @56888 has 139 MA's), (Start: 89 @56927 has 12 MA's), (105, 56990), (109, 57008), (119, 57062), (127, 57086), (148, 57119), (178, 57164), (182, 57176), (187, 57197), (199, 57233), (204, 57245), (207, 57257), (227, 57293), (242, 57332), (246, 57338), (255, 57359), (257, 57368), (266, 57404), (287, 57488), (299, 57539), (307, 57566), (329, 57611), (332, 57623), (338, 57641),

Gene: Oosterbaan\_66 Start: 56307, Stop: 57068, Start Num: 63

Candidate Starts for Oosterbaan\_66:

(Start: 63 @56307 has 139 MA's), (Start: 89 @56346 has 12 MA's), (105, 56409), (109, 56427), (119, 56481), (127, 56505), (148, 56538), (178, 56583), (182, 56595), (187, 56616), (199, 56652), (204, 56664), (207, 56676), (227, 56712), (242, 56751), (246, 56757), (255, 56778), (257, 56787), (266, 56823), (287, 56907), (299, 56958), (307, 56985), (329, 57030), (332, 57042), (338, 57060),

Gene: Opia\_64 Start: 54736, Stop: 55470, Start Num: 71

Candidate Starts for Opia\_64:

(1, 54313), (2, 54319), (Start: 4 @54352 has 1 MA's), (8, 54430), (9, 54451), (Start: 67 @54724 has 1 MA's), (Start: 71 @54736 has 7 MA's), (Start: 88 @54769 has 36 MA's), (107, 54841), (109, 54856), (114, 54877), (135, 54940), (171, 54997), (173, 55000), (179, 55009), (182, 55021), (194, 55069), (199, 55078), (217, 55111), (221, 55117), (254, 55186), (260, 55216), (265, 55231), (286, 55306), (290, 55321), (303, 55381), (318, 55408),

Gene: OrangeOswald\_67 Start: 56490, Stop: 57257, Start Num: 72

Candidate Starts for OrangeOswald\_67:

(Start: 72 @56490 has 35 MA's), (Start: 87 @56526 has 1 MA's), (95, 56556), (114, 56640), (119, 56673), (134, 56706), (156, 56742), (160, 56748), (172, 56766), (176, 56772), (201, 56850), (229, 56886), (240, 56913), (252, 56931), (292, 57078), (311, 57150), (325, 57183), (338, 57222), (339, 57252),

Gene: Orfeu\_66 Start: 56564, Stop: 57325, Start Num: 63

Candidate Starts for Orfeu\_66:

(Start: 63 @56564 has 139 MA's), (Start: 89 @56603 has 12 MA's), (105, 56666), (109, 56684), (119, 56738), (127, 56762), (148, 56795), (178, 56840), (182, 56852), (199, 56909), (204, 56921), (207, 56933), (227, 56969), (242, 57008), (246, 57014), (255, 57035), (257, 57044), (266, 57080), (287, 57164), (299, 57215), (307, 57242), (329, 57287), (332, 57299), (338, 57317),

Gene: Orion\_67 Start: 56008, Stop: 56730, Start Num: 89

Candidate Starts for Orion\_67:

(Start: 63 @55969 has 139 MA's), (Start: 89 @56008 has 12 MA's), (105, 56071), (109, 56089), (119, 56143), (127, 56167), (148, 56200), (178, 56245), (182, 56257), (187, 56278), (199, 56314), (204, 56326), (207, 56338), (227, 56374), (242, 56413), (246, 56419), (255, 56440), (257, 56449), (266, 56485), (287, 56569), (299, 56620), (307, 56647), (329, 56692), (332, 56704), (338, 56722),

Gene: Orwigg\_67 Start: 55949, Stop: 56710, Start Num: 63

Candidate Starts for Orwigg\_67:

(Start: 63 @55949 has 139 MA's), (Start: 89 @55988 has 12 MA's), (105, 56051), (109, 56069), (119, 56123), (127, 56147), (148, 56180), (178, 56225), (182, 56237), (187, 56258), (199, 56294), (204, 56306), (207, 56318), (227, 56354), (242, 56393), (246, 56399), (255, 56420), (257, 56429), (266, 56465), (287, 56549), (299, 56600), (307, 56627), (329, 56672), (332, 56684), (338, 56702),

Gene: PG1\_66 Start: 56579, Stop: 57301, Start Num: 89

Candidate Starts for PG1\_66:

(Start: 63 @56540 has 139 MA's), (Start: 89 @56579 has 12 MA's), (105, 56642), (109, 56660), (119, 56714), (127, 56738), (148, 56771), (178, 56816), (182, 56828), (187, 56849), (199, 56885), (204, 56897), (207, 56909), (227, 56945), (242, 56984), (246, 56990), (255, 57011), (257, 57020), (266, 57056), (287, 57140), (299, 57191), (307, 57218), (329, 57263), (332, 57275), (338, 57293),

Gene: Pacifista\_66 Start: 56026, Stop: 56787, Start Num: 63

Candidate Starts for Pacifista\_66:

(Start: 63 @56026 has 139 MA's), (Start: 89 @56065 has 12 MA's), (105, 56128), (109, 56146), (119, 56200), (127, 56224), (148, 56257), (178, 56302), (182, 56314), (199, 56371), (204, 56383), (207, 56395), (227, 56431), (242, 56470), (246, 56476), (255, 56497), (257, 56506), (266, 56542), (287, 56626), (299, 56677), (307, 56704), (329, 56749), (332, 56761), (338, 56779),

Gene: PenguinLover67\_62 Start: 57060, Stop: 57812, Start Num: 56

Candidate Starts for PenguinLover67\_62:

(Start: 56 @57060 has 11 MA's), (94, 57141), (101, 57168), (117, 57246), (173, 57342), (179, 57351), (183, 57366), (201, 57426), (215, 57456), (239, 57498), (244, 57510), (250, 57516), (287, 57660), (299, 57711), (306, 57738), (320, 57759),

Gene: Phaedrus\_62 Start: 55915, Stop: 56682, Start Num: 72

Candidate Starts for Phaedrus\_62:

(Start: 72 @55915 has 35 MA's), (Start: 87 @55951 has 1 MA's), (95, 55981), (114, 56065), (119, 56098), (134, 56131), (156, 56167), (160, 56173), (172, 56191), (176, 56197), (201, 56275), (229, 56311), (240, 56338), (252, 56356), (311, 56575), (338, 56647), (339, 56677),

Gene: Phamished\_68 Start: 56138, Stop: 56992, Start Num: 42

Candidate Starts for Phamished\_68:

(34, 56102), (Start: 42 @56138 has 25 MA's), (61, 56189), (62, 56192), (68, 56210), (Start: 78 @56228 has 84 MA's), (Start: 83 @56249 has 3 MA's), (Start: 88 @56261 has 36 MA's), (96, 56288), (121, 56411), (127, 56423), (155, 56474), (164, 56489), (177, 56510), (179, 56513), (183, 56528), (199, 56582), (210, 56609), (223, 56615), (285, 56801), (309, 56897), (321, 56915), (324, 56924),

Gene: Phantasmagoria\_62 Start: 54761, Stop: 55462, Start Num: 88

Candidate Starts for Phantasmagoria\_62:

(Start: 11 @54503 has 1 MA's), (Start: 67 @54716 has 1 MA's), (Start: 71 @54728 has 7 MA's), (Start: 88 @54761 has 36 MA's), (107, 54833), (109, 54848), (114, 54869), (135, 54932), (171, 54989), (173, 54992), (179, 55001), (182, 55013), (194, 55061), (199, 55070), (217, 55103), (221, 55109), (254, 55178), (260, 55208), (265, 55223), (286, 55298), (290, 55313), (303, 55373), (318, 55400),

Gene: Phareon\_65 Start: 55736, Stop: 56500, Start Num: 78

Candidate Starts for Phareon\_65:

(Start: 42 @55646 has 25 MA's), (61, 55697), (62, 55700), (68, 55718), (Start: 78 @55736 has 84 MA's), (Start: 83 @55757 has 3 MA's), (Start: 88 @55769 has 36 MA's), (96, 55796), (121, 55919), (127, 55931), (155, 55982), (164, 55997), (177, 56018), (179, 56021), (183, 56036), (199, 56090), (210, 56117), (223, 56123), (285, 56309), (309, 56405), (321, 56423), (324, 56432),

Gene: PhatCats2014\_67 Start: 56545, Stop: 57306, Start Num: 63

Candidate Starts for PhatCats2014\_67:

(Start: 63 @56545 has 139 MA's), (Start: 89 @56584 has 12 MA's), (105, 56647), (109, 56665), (119, 56719), (127, 56743), (148, 56776), (178, 56821), (182, 56833), (187, 56854), (199, 56890), (204, 56902), (207, 56914), (227, 56950), (242, 56989), (246, 56995), (255, 57016), (257, 57025), (266, 57061), (287, 57145), (299, 57196), (307, 57223), (329, 57268), (332, 57280), (338, 57298),

Gene: PhatLouie\_69 Start: 56564, Stop: 57325, Start Num: 63

Candidate Starts for PhatLouie\_69:

(Start: 63 @56564 has 139 MA's), (Start: 89 @56603 has 12 MA's), (105, 56666), (109, 56684), (119, 56738), (127, 56762), (148, 56795), (178, 56840), (182, 56852), (187, 56873), (199, 56909), (204, 56921), (207, 56933), (227, 56969), (242, 57008), (246, 57014), (255, 57035), (257, 57044), (266, 57080), (287, 57164), (299, 57215), (307, 57242), (329, 57287), (332, 57299), (338, 57317),

Gene: Phayeta\_69 Start: 56690, Stop: 57373, Start Num: 82

Candidate Starts for Phayeta\_69:

(74, 56675), (Start: 79 @56684 has 1 MA's), (Start: 82 @56690 has 6 MA's), (114, 56816), (128, 56873), (150, 56894), (152, 56897), (177, 56942), (194, 57002), (206, 57029), (209, 57035), (252, 57098), (256, 57113), (257, 57116), (259, 57128), (283, 57203), (286, 57227), (299, 57284), (306, 57302), (312, 57311), (336, 57365),

Gene: Phelemich\_63 Start: 57307, Stop: 58119, Start Num: 54



Candidate Starts for Phelemich\_63:

(17, 57175), (26, 57199), (29, 57208), (30, 57214), (48, 57292), (Start: 54 @57307 has 2 MA's), (Start: 77 @57361 has 3 MA's), (Start: 89 @57397 has 12 MA's), (96, 57418), (105, 57460), (109, 57478), (136, 57565), (161, 57604), (179, 57631), (183, 57646), (191, 57685), (244, 57793), (246, 57796), (255, 57814), (266, 57859), (286, 57934), (291, 57952), (294, 57970), (320, 58039), (327, 58060), (329, 58066),

Gene: PhenghisKhan\_67 Start: 56217, Stop: 56948, Start Num: 88

Candidate Starts for PhenghisKhan\_67:

(Start: 42 @56094 has 25 MA's), (61, 56145), (62, 56148), (68, 56166), (Start: 78 @56184 has 84 MA's), (Start: 83 @56205 has 3 MA's), (Start: 88 @56217 has 36 MA's), (96, 56244), (121, 56367), (127, 56379), (145, 56406), (155, 56430), (164, 56445), (177, 56466), (179, 56469), (183, 56484), (199, 56538), (210, 56565), (223, 56571), (285, 56757), (309, 56853), (321, 56871), (324, 56880),

Gene: Pherdinand\_67 Start: 56297, Stop: 57061, Start Num: 78

Candidate Starts for Pherdinand\_67:

(Start: 42 @56207 has 25 MA's), (61, 56258), (62, 56261), (68, 56279), (Start: 78 @56297 has 84 MA's), (Start: 83 @56318 has 3 MA's), (Start: 88 @56330 has 36 MA's), (96, 56357), (121, 56480), (127, 56492), (155, 56543), (164, 56558), (177, 56579), (179, 56582), (183, 56597), (199, 56651), (210, 56678), (223, 56684), (285, 56870), (309, 56966), (321, 56984), (324, 56993),

Gene: Phergie\_67 Start: 56176, Stop: 56940, Start Num: 78

Candidate Starts for Phergie\_67:

(Start: 42 @56086 has 25 MA's), (61, 56137), (62, 56140), (68, 56158), (Start: 78 @56176 has 84 MA's), (Start: 83 @56197 has 3 MA's), (Start: 88 @56209 has 36 MA's), (96, 56236), (121, 56359), (127, 56371), (145, 56398), (155, 56422), (164, 56437), (177, 56458), (179, 56461), (183, 56476), (199, 56530), (210, 56557), (223, 56563), (285, 56749), (309, 56845), (321, 56863), (324, 56872),

Gene: Philly\_66 Start: 56302, Stop: 57069, Start Num: 72

Candidate Starts for Philly\_66:

(Start: 72 @56302 has 35 MA's), (Start: 87 @56338 has 1 MA's), (95, 56368), (114, 56452), (119, 56485), (134, 56518), (156, 56554), (160, 56560), (172, 56578), (176, 56584), (201, 56662), (229, 56698), (240, 56725), (252, 56743), (311, 56962), (338, 57034), (339, 57064),

Gene: Phipps\_66 Start: 56095, Stop: 56859, Start Num: 78

Candidate Starts for Phipps\_66:

(Start: 42 @56005 has 25 MA's), (61, 56056), (62, 56059), (68, 56077), (Start: 78 @56095 has 84 MA's), (Start: 83 @56116 has 3 MA's), (Start: 88 @56128 has 36 MA's), (96, 56155), (121, 56278), (127, 56290), (155, 56341), (164, 56356), (177, 56377), (179, 56380), (183, 56395), (199, 56449), (210, 56476), (223, 56482), (285, 56668), (309, 56764), (321, 56782), (324, 56791),

Gene: Phleuron\_65 Start: 55982, Stop: 56746, Start Num: 78

Candidate Starts for Phleuron\_65:

(Start: 42 @55892 has 25 MA's), (61, 55943), (62, 55946), (68, 55964), (Start: 78 @55982 has 84 MA's), (Start: 83 @56003 has 3 MA's), (Start: 88 @56015 has 36 MA's), (96, 56042), (121, 56165), (127, 56177), (155, 56228), (164, 56243), (177, 56264), (179, 56267), (183, 56282), (199, 56336), (210, 56363), (223, 56369), (285, 56555), (309, 56651), (321, 56669), (324, 56678),

Gene: Phlyer\_67 Start: 57198, Stop: 57965, Start Num: 72

Candidate Starts for Phlyer\_67:

(Start: 72 @57198 has 35 MA's), (Start: 87 @57234 has 1 MA's), (95, 57264), (114, 57348), (119, 57381), (134, 57414), (156, 57450), (160, 57456), (172, 57474), (176, 57480), (201, 57558), (229, 57594), (240, 57621), (252, 57639), (264, 57693), (311, 57858), (338, 57930), (339, 57960),

Gene: PhrankReynolds\_66 Start: 56181, Stop: 56945, Start Num: 78

Candidate Starts for PhrankReynolds\_66:

(Start: 42 @56091 has 25 MA's), (61, 56142), (62, 56145), (68, 56163), (Start: 78 @56181 has 84 MA's), (Start: 83 @56202 has 3 MA's), (Start: 88 @56214 has 36 MA's), (96, 56241), (121, 56364), (127, 56376), (145, 56403), (155, 56427), (164, 56442), (177, 56463), (179, 56466), (183, 56481), (199, 56535), (210, 56562), (223, 56568), (285, 56754), (309, 56850), (321, 56868), (324, 56877),

Gene: PhrodoBaggins\_68 Start: 56401, Stop: 57165, Start Num: 78

Candidate Starts for PhrodoBaggins\_68:

(Start: 42 @56311 has 25 MA's), (61, 56362), (62, 56365), (68, 56383), (Start: 78 @56401 has 84 MA's), (Start: 83 @56422 has 3 MA's), (Start: 88 @56434 has 36 MA's), (96, 56461), (121, 56584), (127, 56596), (155, 56647), (164, 56662), (177, 56683), (179, 56686), (183, 56701), (199, 56755), (210, 56782), (223, 56788), (285, 56974), (309, 57070), (321, 57088), (324, 57097),

Gene: Phunky\_65 Start: 56048, Stop: 56809, Start Num: 63

Candidate Starts for Phunky\_65:

(Start: 63 @56048 has 139 MA's), (Start: 89 @56087 has 12 MA's), (105, 56150), (109, 56168), (119, 56222), (127, 56246), (148, 56279), (178, 56324), (182, 56336), (199, 56393), (204, 56405), (207, 56417), (227, 56453), (242, 56492), (246, 56498), (255, 56519), (257, 56528), (266, 56564), (287, 56648), (299, 56699), (307, 56726), (329, 56771), (332, 56783), (338, 56801),

Gene: Piglet\_0067 Start: 56517, Stop: 57278, Start Num: 63

Candidate Starts for Piglet\_0067:

(Start: 63 @56517 has 139 MA's), (Start: 89 @56556 has 12 MA's), (105, 56619), (109, 56637), (119, 56691), (127, 56715), (148, 56748), (178, 56793), (182, 56805), (187, 56826), (199, 56862), (204, 56874), (207, 56886), (227, 56922), (242, 56961), (246, 56967), (255, 56988), (257, 56997), (266, 57033), (287, 57117), (299, 57168), (307, 57195), (329, 57240), (332, 57252), (338, 57270),

Gene: PinheadLarry\_66 Start: 56343, Stop: 57107, Start Num: 78

Candidate Starts for PinheadLarry\_66:

(Start: 42 @56253 has 25 MA's), (61, 56304), (62, 56307), (68, 56325), (Start: 78 @56343 has 84 MA's), (Start: 83 @56364 has 3 MA's), (Start: 88 @56376 has 36 MA's), (96, 56403), (121, 56526), (127, 56538), (155, 56589), (164, 56604), (177, 56625), (179, 56628), (183, 56643), (199, 56697), (210, 56724), (223, 56730), (285, 56916), (309, 57012), (321, 57030), (324, 57039),

Gene: Pinkman\_66 Start: 56029, Stop: 56883, Start Num: 42

Candidate Starts for Pinkman\_66:

(Start: 42 @56029 has 25 MA's), (61, 56080), (62, 56083), (68, 56101), (Start: 78 @56119 has 84 MA's), (Start: 83 @56140 has 3 MA's), (Start: 88 @56152 has 36 MA's), (96, 56179), (121, 56302), (127, 56314), (155, 56365), (164, 56380), (177, 56401), (179, 56404), (183, 56419), (199, 56473), (210, 56500), (223, 56506), (285, 56692), (309, 56788), (321, 56806), (324, 56815),

Gene: Pipefish\_69 Start: 57341, Stop: 58021, Start Num: 88

Candidate Starts for Pipefish\_69:

(Start: 83 @57329 has 3 MA's), (Start: 88 @57341 has 36 MA's), (Start: 89 @57347 has 12 MA's), (119, 57482), (144, 57515), (152, 57530), (153, 57533), (158, 57539), (182, 57587), (183, 57590), (188, 57611), (191, 57629), (194, 57635), (199, 57644), (257, 57752), (259, 57764), (266, 57788), (269, 57797), (283, 57839), (299, 57920), (306, 57938), (326, 57977),

Gene: Pipsqueak\_64 Start: 55932, Stop: 56786, Start Num: 42

Candidate Starts for Pipsqueak\_64:

(Start: 42 @55932 has 25 MA's), (61, 55983), (62, 55986), (68, 56004), (Start: 78 @56022 has 84 MA's), (Start: 83 @56043 has 3 MA's), (Start: 88 @56055 has 36 MA's), (96, 56082), (121, 56205), (127, 56217), (155, 56268), (164, 56283), (177, 56304), (179, 56307), (183, 56322), (199, 56376), (210, 56403), (223, 56409), (285, 56595), (309, 56691), (321, 56709), (324, 56718),

Gene: Placalicious\_67 Start: 56973, Stop: 57827, Start Num: 42

Candidate Starts for Placalicious\_67:

(Start: 42 @56973 has 25 MA's), (61, 57024), (62, 57027), (68, 57045), (Start: 78 @57063 has 84 MA's), (Start: 83 @57084 has 3 MA's), (Start: 88 @57096 has 36 MA's), (96, 57123), (121, 57246), (127, 57258), (155, 57309), (164, 57324), (177, 57345), (179, 57348), (183, 57363), (199, 57417), (210, 57444), (223, 57450), (285, 57636), (309, 57732), (321, 57750), (324, 57759),

Gene: Plmatters\_65 Start: 56034, Stop: 56798, Start Num: 78

Candidate Starts for Plmatters\_65:

(Start: 42 @55944 has 25 MA's), (61, 55995), (62, 55998), (68, 56016), (Start: 78 @56034 has 84 MA's), (Start: 83 @56055 has 3 MA's), (Start: 88 @56067 has 36 MA's), (96, 56094), (121, 56217), (127, 56229), (155, 56280), (164, 56295), (177, 56316), (179, 56319), (183, 56334), (199, 56388), (210, 56415), (223, 56421), (285, 56607), (309, 56703), (321, 56721), (324, 56730),

Gene: Podrick\_66 Start: 56013, Stop: 56867, Start Num: 42

Candidate Starts for Podrick\_66:

(Start: 42 @56013 has 25 MA's), (61, 56064), (62, 56067), (68, 56085), (Start: 78 @56103 has 84 MA's), (Start: 83 @56124 has 3 MA's), (Start: 88 @56136 has 36 MA's), (96, 56163), (121, 56286), (127, 56298), (155, 56349), (164, 56364), (177, 56385), (179, 56388), (183, 56403), (199, 56457), (210, 56484), (223, 56490), (285, 56676), (309, 56772), (321, 56790), (324, 56799),

Gene: Pops\_65 Start: 56047, Stop: 56808, Start Num: 63

Candidate Starts for Pops\_65:

(Start: 50 @56020 has 4 MA's), (Start: 63 @56047 has 139 MA's), (Start: 89 @56086 has 12 MA's), (105, 56149), (109, 56167), (119, 56221), (127, 56245), (148, 56278), (178, 56323), (182, 56335), (187, 56356), (199, 56392), (204, 56404), (207, 56416), (227, 56452), (242, 56491), (246, 56497), (255, 56518), (257, 56527), (266, 56563), (287, 56647), (299, 56698), (307, 56725), (329, 56770), (332, 56782), (338, 56800),

Gene: Poster\_59 Start: 56077, Stop: 56847, Start Num: 51

Candidate Starts for Poster\_59:

(28, 55987), (Start: 51 @56077 has 17 MA's), (Start: 56 @56086 has 11 MA's), (Start: 85 @56131 has 1 MA's), (101, 56191), (103, 56200), (104, 56206), (105, 56209), (117, 56269), (119, 56281), (125, 56299), (138, 56311), (158, 56341), (179, 56377), (183, 56392), (199, 56446), (201, 56452), (215, 56482), (218, 56488), (236, 56518), (246, 56539), (257, 56569), (264, 56602), (272, 56623), (284, 56671), (286, 56692), (288, 56701), (303, 56767), (320, 56797),

Gene: Potter\_64 Start: 56028, Stop: 56792, Start Num: 78

Candidate Starts for Potter\_64:

(Start: 42 @55938 has 25 MA's), (61, 55989), (62, 55992), (68, 56010), (Start: 78 @56028 has 84 MA's), (Start: 83 @56049 has 3 MA's), (Start: 88 @56061 has 36 MA's), (96, 56088), (121, 56211), (127, 56223), (155, 56274), (164, 56289), (177, 56310), (179, 56313), (183, 56328), (199, 56382), (210, 56409), (223, 56415), (285, 56601), (309, 56697), (321, 56715), (324, 56724),

Gene: Prickles\_68 Start: 56439, Stop: 57293, Start Num: 42

Candidate Starts for Prickles\_68:

(Start: 42 @56439 has 25 MA's), (61, 56490), (62, 56493), (68, 56511), (Start: 78 @56529 has 84 MA's), (Start: 83 @56550 has 3 MA's), (Start: 88 @56562 has 36 MA's), (96, 56589), (121, 56712),

(127, 56724), (155, 56775), (164, 56790), (177, 56811), (179, 56814), (183, 56829), (199, 56883), (210, 56910), (223, 56916), (285, 57102), (309, 57198), (321, 57216), (324, 57225),

Gene: Prince\_60 Start: 57290, Stop: 58069, Start Num: 51

Candidate Starts for Prince\_60:

(16, 57173), (Start: 42 @57263 has 25 MA's), (Start: 51 @57290 has 17 MA's), (Start: 56 @57299 has 11 MA's), (Start: 85 @57353 has 1 MA's), (101, 57413), (103, 57422), (104, 57428), (105, 57431), (109, 57449), (117, 57491), (119, 57503), (125, 57521), (138, 57533), (158, 57563), (179, 57599), (183, 57614), (199, 57668), (201, 57674), (215, 57704), (218, 57710), (236, 57740), (240, 57749), (246, 57761), (257, 57791), (272, 57845), (284, 57893), (286, 57914), (288, 57923), (303, 57989), (320, 58019),

Gene: ProfessorX\_65 Start: 56041, Stop: 56802, Start Num: 63

Candidate Starts for ProfessorX\_65:

(Start: 63 @56041 has 139 MA's), (Start: 89 @56080 has 12 MA's), (105, 56143), (109, 56161), (119, 56215), (127, 56239), (148, 56272), (178, 56317), (182, 56329), (187, 56350), (199, 56386), (204, 56398), (207, 56410), (227, 56446), (242, 56485), (246, 56491), (255, 56512), (257, 56521), (266, 56557), (287, 56641), (299, 56692), (307, 56719), (329, 56764), (332, 56776), (338, 56794),

Gene: Puhltonio\_65 Start: 56303, Stop: 57067, Start Num: 78

Candidate Starts for Puhltonio\_65:

(Start: 42 @56213 has 25 MA's), (61, 56264), (62, 56267), (68, 56285), (Start: 78 @56303 has 84 MA's), (Start: 83 @56324 has 3 MA's), (Start: 88 @56336 has 36 MA's), (96, 56363), (121, 56486), (127, 56498), (155, 56549), (164, 56564), (177, 56585), (179, 56588), (183, 56603), (199, 56657), (210, 56684), (223, 56690), (285, 56876), (309, 56972), (321, 56990), (324, 56999),

Gene: QueenBeane\_67 Start: 56344, Stop: 57105, Start Num: 63

Candidate Starts for QueenBeane\_67:

(Start: 63 @56344 has 139 MA's), (Start: 89 @56383 has 12 MA's), (105, 56446), (109, 56464), (119, 56518), (127, 56542), (148, 56575), (178, 56620), (182, 56632), (187, 56653), (199, 56689), (204, 56701), (207, 56713), (227, 56749), (242, 56788), (246, 56794), (255, 56815), (257, 56824), (266, 56860), (287, 56944), (299, 56995), (307, 57022), (329, 57067), (332, 57079), (338, 57097),

Gene: QueenPie\_58 Start: 56832, Stop: 57602, Start Num: 51

Candidate Starts for QueenPie\_58:

(28, 56742), (Start: 51 @56832 has 17 MA's), (Start: 56 @56841 has 11 MA's), (Start: 85 @56886 has 1 MA's), (96, 56922), (103, 56955), (104, 56961), (105, 56964), (109, 56982), (116, 57021), (117, 57024), (119, 57036), (125, 57054), (138, 57066), (158, 57096), (179, 57132), (183, 57147), (199, 57201), (201, 57207), (215, 57237), (218, 57243), (236, 57273), (246, 57294), (257, 57324), (264, 57357), (272, 57378), (284, 57426), (286, 57447), (295, 57489), (303, 57522), (320, 57552),

Gene: Quesadilla\_65 Start: 57448, Stop: 58206, Start Num: 56

Candidate Starts for Quesadilla\_65:

(Start: 56 @57448 has 11 MA's), (101, 57559), (117, 57637), (118, 57646), (158, 57709), (179, 57745), (183, 57760), (193, 57802), (194, 57805), (199, 57814), (201, 57820), (215, 57850), (218, 57856), (236, 57886), (239, 57892), (244, 57904), (272, 57991), (285, 58045), (290, 58063), (299, 58105), (303, 58123), (306, 58132),

Gene: Quisquilliae\_68 Start: 56305, Stop: 57066, Start Num: 63

Candidate Starts for Quisquilliae\_68:

(Start: 63 @56305 has 139 MA's), (Start: 89 @56344 has 12 MA's), (105, 56407), (109, 56425), (119, 56479), (127, 56503), (148, 56536), (178, 56581), (182, 56593), (187, 56614), (199, 56650), (204, 56662), (207, 56674), (227, 56710), (242, 56749), (246, 56755), (255, 56776), (257, 56785), (266,

56821), (287, 56905), (299, 56956), (307, 56983), (329, 57028), (332, 57040), (338, 57058),

Gene: Qyrzula\_57 Start: 54463, Stop: 55581, Start Num: 4

Candidate Starts for Qyrzula\_57:

(1, 54424), (2, 54430), (3, 54433), (Start: 4 @54463 has 1 MA's), (8, 54541), (9, 54562), (Start: 67 @54835 has 1 MA's), (Start: 71 @54847 has 7 MA's), (Start: 88 @54880 has 36 MA's), (107, 54952), (109, 54967), (114, 54988), (135, 55051), (171, 55108), (173, 55111), (179, 55120), (182, 55132), (194, 55180), (199, 55189), (217, 55222), (221, 55228), (254, 55297), (260, 55327), (265, 55342), (286, 55417), (290, 55432), (303, 55492), (318, 55519),

Gene: RagingRooster\_66 Start: 56130, Stop: 56897, Start Num: 72

Candidate Starts for RagingRooster\_66:

(Start: 72 @56130 has 35 MA's), (Start: 87 @56166 has 1 MA's), (95, 56196), (114, 56280), (119, 56313), (134, 56346), (156, 56382), (160, 56388), (172, 56406), (176, 56412), (201, 56490), (229, 56526), (240, 56553), (252, 56571), (264, 56625), (286, 56697), (292, 56718), (311, 56790), (325, 56823), (339, 56892),

Gene: RawrgerThat\_61 Start: 57132, Stop: 57911, Start Num: 51

Candidate Starts for RawrgerThat\_61:

(16, 57015), (Start: 42 @57105 has 25 MA's), (Start: 51 @57132 has 17 MA's), (Start: 56 @57141 has 11 MA's), (Start: 85 @57195 has 1 MA's), (101, 57255), (103, 57264), (104, 57270), (105, 57273), (116, 57330), (117, 57333), (119, 57345), (125, 57363), (138, 57375), (158, 57405), (179, 57441), (199, 57510), (201, 57516), (215, 57546), (218, 57552), (236, 57582), (240, 57591), (246, 57603), (257, 57633), (272, 57687), (284, 57735), (286, 57756), (288, 57765), (303, 57831), (320, 57861),

Gene: RedMaple\_68 Start: 56783, Stop: 57544, Start Num: 63

Candidate Starts for RedMaple\_68:

(Start: 50 @56756 has 4 MA's), (Start: 63 @56783 has 139 MA's), (Start: 89 @56822 has 12 MA's), (105, 56885), (109, 56903), (119, 56957), (127, 56981), (148, 57014), (178, 57059), (182, 57071), (187, 57092), (199, 57128), (204, 57140), (207, 57152), (242, 57227), (246, 57233), (255, 57254), (257, 57263), (266, 57299), (287, 57383), (299, 57434), (307, 57461), (329, 57506), (332, 57518), (338, 57536),

Gene: Reprobate\_64 Start: 57312, Stop: 58124, Start Num: 54

Candidate Starts for Reprobate\_64:

(17, 57180), (26, 57204), (29, 57213), (30, 57219), (48, 57297), (Start: 54 @57312 has 2 MA's), (Start: 77 @57366 has 3 MA's), (Start: 89 @57402 has 12 MA's), (96, 57423), (105, 57465), (109, 57483), (136, 57570), (161, 57609), (179, 57636), (183, 57651), (191, 57690), (244, 57798), (246, 57801), (255, 57819), (266, 57864), (286, 57939), (291, 57957), (294, 57975), (320, 58044), (327, 58065), (329, 58071),

Gene: Rhinoforte\_63 Start: 54769, Stop: 55503, Start Num: 71

Candidate Starts for Rhinoforte\_63:

(1, 54346), (2, 54352), (3, 54355), (Start: 4 @54385 has 1 MA's), (8, 54463), (9, 54484), (Start: 67 @54757 has 1 MA's), (Start: 71 @54769 has 7 MA's), (Start: 88 @54802 has 36 MA's), (107, 54874), (109, 54889), (114, 54910), (135, 54973), (171, 55030), (173, 55033), (179, 55042), (182, 55054), (194, 55102), (199, 55111), (221, 55150), (254, 55219), (260, 55249), (265, 55264), (286, 55339), (290, 55354), (303, 55414), (318, 55441),

Gene: Rich\_65 Start: 58542, Stop: 59315, Start Num: 77

Candidate Starts for Rich\_65:

(Start: 77 @58542 has 3 MA's), (136, 58752), (152, 58782), (153, 58785), (183, 58839), (197, 58890), (201, 58899), (220, 58938), (223, 58944), (250, 58992), (262, 59040), (286, 59130), (288, 59139),

(305, 59211), (337, 59283),

Gene: Ricotta\_67 Start: 56038, Stop: 56799, Start Num: 63

Candidate Starts for Ricotta\_67:

(Start: 63 @56038 has 139 MA's), (Start: 89 @56077 has 12 MA's), (105, 56140), (109, 56158), (119, 56212), (127, 56236), (148, 56269), (178, 56314), (182, 56326), (187, 56347), (199, 56383), (204, 56395), (207, 56407), (227, 56443), (242, 56482), (246, 56488), (255, 56509), (257, 56518), (266, 56554), (287, 56638), (299, 56689), (307, 56716), (329, 56761), (332, 56773), (338, 56791),

Gene: Riggan\_68 Start: 56337, Stop: 57098, Start Num: 63

Candidate Starts for Riggan\_68:

(Start: 63 @56337 has 139 MA's), (Start: 89 @56376 has 12 MA's), (105, 56439), (109, 56457), (119, 56511), (127, 56535), (148, 56568), (178, 56613), (182, 56625), (187, 56646), (199, 56682), (204, 56694), (207, 56706), (227, 56742), (242, 56781), (246, 56787), (255, 56808), (257, 56817), (266, 56853), (287, 56937), (299, 56988), (307, 57015), (329, 57060), (332, 57072), (338, 57090),

Gene: Rimu\_70 Start: 56505, Stop: 57266, Start Num: 63

Candidate Starts for Rimu\_70:

(Start: 63 @56505 has 139 MA's), (Start: 89 @56544 has 12 MA's), (105, 56607), (109, 56625), (119, 56679), (127, 56703), (148, 56736), (178, 56781), (182, 56793), (187, 56814), (199, 56850), (204, 56862), (207, 56874), (227, 56910), (242, 56949), (246, 56955), (255, 56976), (257, 56985), (266, 57021), (287, 57105), (299, 57156), (307, 57183), (329, 57228), (332, 57240), (338, 57258),

Gene: Rinke\_62 Start: 56905, Stop: 57795, Start Num: 22

Candidate Starts for Rinke\_62:

(Start: 22 @56905 has 1 MA's), (27, 56917), (Start: 60 @57037 has 2 MA's), (90, 57112), (105, 57172), (122, 57256), (160, 57316), (177, 57340), (183, 57355), (189, 57382), (192, 57394), (198, 57406), (199, 57409), (201, 57415), (209, 57436), (226, 57451), (232, 57460), (239, 57478), (244, 57490), (268, 57562), (286, 57625), (287, 57631), (293, 57658), (297, 57673), (315, 57724), (334, 57772),

Gene: Rita1961\_68 Start: 56848, Stop: 57615, Start Num: 72

Candidate Starts for Rita1961\_68:

(Start: 72 @56848 has 35 MA's), (Start: 87 @56884 has 1 MA's), (95, 56914), (114, 56998), (119, 57031), (134, 57064), (156, 57100), (160, 57106), (172, 57124), (176, 57130), (201, 57208), (229, 57244), (240, 57271), (252, 57289), (264, 57343), (292, 57436), (311, 57508), (325, 57541), (338, 57580), (339, 57610),

Gene: Robyn\_67 Start: 56610, Stop: 57371, Start Num: 63

Candidate Starts for Robyn\_67:

(Start: 63 @56610 has 139 MA's), (Start: 89 @56649 has 12 MA's), (105, 56712), (109, 56730), (119, 56784), (127, 56808), (148, 56841), (178, 56886), (182, 56898), (199, 56955), (204, 56967), (207, 56979), (242, 57054), (244, 57057), (246, 57060), (255, 57081), (257, 57090), (266, 57126), (287, 57210), (299, 57261), (307, 57288), (329, 57333), (332, 57345), (338, 57363),

Gene: Roliet\_64 Start: 55369, Stop: 56133, Start Num: 78

Candidate Starts for Roliet\_64:

(34, 55243), (61, 55330), (62, 55333), (68, 55351), (Start: 78 @55369 has 84 MA's), (Start: 83 @55390 has 3 MA's), (Start: 88 @55402 has 36 MA's), (96, 55429), (121, 55552), (127, 55564), (155, 55615), (164, 55630), (177, 55651), (179, 55654), (183, 55669), (199, 55723), (210, 55750), (223, 55756), (285, 55942), (309, 56038), (321, 56056), (324, 56065),

Gene: RomaT\_67 Start: 57049, Stop: 57816, Start Num: 72

Candidate Starts for RomaT\_67:

(Start: 72 @57049 has 35 MA's), (Start: 87 @57085 has 1 MA's), (95, 57115), (114, 57199), (119, 57232), (134, 57265), (156, 57301), (160, 57307), (172, 57325), (176, 57331), (201, 57409), (229, 57445), (240, 57472), (252, 57490), (264, 57544), (292, 57637), (311, 57709), (338, 57781), (339, 57811),

Gene: Roscoe\_67 Start: 56484, Stop: 57245, Start Num: 63

Candidate Starts for Roscoe\_67:

(Start: 63 @56484 has 139 MA's), (Start: 89 @56523 has 12 MA's), (105, 56586), (109, 56604), (119, 56658), (127, 56682), (148, 56715), (178, 56760), (182, 56772), (187, 56793), (199, 56829), (204, 56841), (207, 56853), (227, 56889), (242, 56928), (246, 56934), (255, 56955), (257, 56964), (266, 57000), (287, 57084), (299, 57135), (307, 57162), (329, 57207), (332, 57219), (338, 57237),

Gene: Rosebush\_62 Start: 54865, Stop: 55566, Start Num: 88

Candidate Starts for Rosebush\_62:

(1, 54409), (2, 54415), (3, 54418), (Start: 4 @54448 has 1 MA's), (8, 54526), (9, 54547), (Start: 67 @54820 has 1 MA's), (Start: 71 @54832 has 7 MA's), (Start: 88 @54865 has 36 MA's), (107, 54937), (109, 54952), (114, 54973), (135, 55036), (171, 55093), (173, 55096), (179, 55105), (182, 55117), (194, 55165), (199, 55174), (217, 55207), (221, 55213), (254, 55282), (260, 55312), (265, 55327), (286, 55402), (290, 55417), (303, 55477), (318, 55504),

Gene: Roy17\_65 Start: 55737, Stop: 56498, Start Num: 63

Candidate Starts for Roy17\_65:

(Start: 63 @55737 has 139 MA's), (Start: 89 @55776 has 12 MA's), (105, 55839), (109, 55857), (119, 55911), (127, 55935), (148, 55968), (178, 56013), (182, 56025), (187, 56046), (199, 56082), (204, 56094), (207, 56106), (227, 56142), (242, 56181), (246, 56187), (255, 56208), (257, 56217), (266, 56253), (287, 56337), (299, 56388), (307, 56415), (329, 56460), (332, 56472), (338, 56490),

Gene: SDcharge11\_66 Start: 55451, Stop: 56305, Start Num: 42

Candidate Starts for SDcharge11\_66:

(Start: 42 @55451 has 25 MA's), (61, 55502), (62, 55505), (68, 55523), (Start: 78 @55541 has 84 MA's), (Start: 83 @55562 has 3 MA's), (Start: 88 @55574 has 36 MA's), (96, 55601), (115, 55697), (121, 55724), (127, 55736), (155, 55787), (164, 55802), (177, 55823), (179, 55826), (183, 55841), (199, 55895), (210, 55922), (223, 55928), (285, 56114), (309, 56210), (321, 56228), (324, 56237),

Gene: Sabella\_63 Start: 54701, Stop: 55402, Start Num: 88

Candidate Starts for Sabella\_63:

(1, 54245), (2, 54251), (Start: 4 @54284 has 1 MA's), (8, 54362), (9, 54383), (18, 54500), (23, 54512), (Start: 67 @54656 has 1 MA's), (Start: 71 @54668 has 7 MA's), (Start: 88 @54701 has 36 MA's), (107, 54773), (109, 54788), (114, 54809), (135, 54872), (171, 54929), (173, 54932), (179, 54941), (182, 54953), (194, 55001), (199, 55010), (221, 55049), (254, 55118), (260, 55148), (265, 55163), (286, 55238), (290, 55253), (303, 55313), (318, 55340),

Gene: Saguaro\_63 Start: 56656, Stop: 57513, Start Num: 35

Candidate Starts for Saguaro\_63:

(14, 56656), (32, 56644), (Start: 35 @56656 has 1 MA's), (55, 56725), (Start: 71 @56770 has 7 MA's), (Start: 89 @56818 has 12 MA's), (91, 56824), (97, 56845), (100, 56863), (118, 56953), (181, 57067), (183, 57070), (199, 57124), (226, 57166), (232, 57175), (272, 57289), (275, 57298), (300, 57409), (301, 57415), (317, 57448),

Gene: Samaymay\_67 Start: 56344, Stop: 57105, Start Num: 63

Candidate Starts for Samaymay\_67:

(Start: 63 @56344 has 139 MA's), (Start: 89 @56383 has 12 MA's), (105, 56446), (109, 56464), (119, 56518), (127, 56542), (148, 56575), (178, 56620), (182, 56632), (187, 56653), (199, 56689), (204, 56701), (207, 56713), (227, 56749), (242, 56788), (246, 56794), (255, 56815), (257, 56824), (266, 56860), (287, 56944), (299, 56995), (307, 57022), (329, 57067), (332, 57079), (338, 57097),

Gene: SassyCat97\_65 Start: 56051, Stop: 56782, Start Num: 88

Candidate Starts for SassyCat97\_65:

(Start: 42 @55928 has 25 MA's), (61, 55979), (62, 55982), (68, 56000), (Start: 78 @56018 has 84 MA's), (Start: 83 @56039 has 3 MA's), (Start: 88 @56051 has 36 MA's), (96, 56078), (121, 56201), (127, 56213), (155, 56264), (164, 56279), (177, 56300), (179, 56303), (183, 56318), (199, 56372), (210, 56399), (223, 56405), (285, 56591), (309, 56687), (321, 56705), (324, 56714),

Gene: Schadenfreude\_67 Start: 55912, Stop: 56673, Start Num: 63

Candidate Starts for Schadenfreude\_67:

(Start: 63 @55912 has 139 MA's), (Start: 89 @55951 has 12 MA's), (105, 56014), (109, 56032), (119, 56086), (127, 56110), (148, 56143), (178, 56188), (182, 56200), (199, 56257), (204, 56269), (207, 56281), (227, 56317), (242, 56356), (246, 56362), (255, 56383), (257, 56392), (266, 56428), (287, 56512), (299, 56563), (307, 56590), (329, 56635), (332, 56647), (338, 56665),

Gene: Schueller\_67 Start: 56269, Stop: 57030, Start Num: 63

Candidate Starts for Schueller\_67:

(Start: 63 @56269 has 139 MA's), (Start: 89 @56308 has 12 MA's), (105, 56371), (109, 56389), (119, 56443), (127, 56467), (148, 56500), (178, 56545), (182, 56557), (187, 56578), (199, 56614), (204, 56626), (207, 56638), (227, 56674), (242, 56713), (246, 56719), (255, 56740), (257, 56749), (266, 56785), (287, 56869), (299, 56920), (307, 56947), (329, 56992), (332, 57004), (338, 57022),

Gene: Scoot17C\_67 Start: 55971, Stop: 56732, Start Num: 63

Candidate Starts for Scoot17C\_67:

(Start: 63 @55971 has 139 MA's), (Start: 89 @56010 has 12 MA's), (105, 56073), (109, 56091), (119, 56145), (127, 56169), (148, 56202), (178, 56247), (182, 56259), (187, 56280), (199, 56316), (204, 56328), (207, 56340), (227, 56376), (242, 56415), (246, 56421), (255, 56442), (257, 56451), (266, 56487), (287, 56571), (299, 56622), (307, 56649), (329, 56694), (332, 56706), (338, 56724),

Gene: Scrick\_66 Start: 56030, Stop: 56794, Start Num: 78

Candidate Starts for Scrick\_66:

(Start: 42 @55940 has 25 MA's), (61, 55991), (62, 55994), (68, 56012), (Start: 78 @56030 has 84 MA's), (Start: 83 @56051 has 3 MA's), (Start: 88 @56063 has 36 MA's), (96, 56090), (121, 56213), (127, 56225), (155, 56276), (164, 56291), (177, 56312), (179, 56315), (183, 56330), (199, 56384), (210, 56411), (223, 56417), (285, 56603), (309, 56699), (321, 56717), (324, 56726),

Gene: Selr12\_68 Start: 56053, Stop: 56814, Start Num: 63

Candidate Starts for Selr12\_68:

(Start: 63 @56053 has 139 MA's), (Start: 89 @56092 has 12 MA's), (105, 56155), (109, 56173), (119, 56227), (127, 56251), (148, 56284), (178, 56329), (182, 56341), (199, 56398), (204, 56410), (207, 56422), (227, 56458), (242, 56497), (246, 56503), (255, 56524), (257, 56533), (266, 56569), (287, 56653), (299, 56704), (307, 56731), (329, 56776), (332, 56788), (338, 56806),

Gene: Serendipitous\_64 Start: 56928, Stop: 57710, Start Num: 77

Candidate Starts for Serendipitous\_64:

(Start: 65 @56907 has 1 MA's), (Start: 77 @56928 has 3 MA's), (99, 57000), (111, 57057), (114, 57069), (136, 57147), (152, 57177), (183, 57234), (197, 57285), (220, 57333), (231, 57348), (262, 57435), (288, 57534), (305, 57606), (324, 57639), (337, 57678),



Gene: Serendipity\_66 Start: 56326, Stop: 57087, Start Num: 63

Candidate Starts for Serendipity\_66:

(Start: 63 @56326 has 139 MA's), (Start: 89 @56365 has 12 MA's), (105, 56428), (109, 56446), (119, 56500), (127, 56524), (148, 56557), (178, 56602), (182, 56614), (187, 56635), (199, 56671), (204, 56683), (207, 56695), (227, 56731), (242, 56770), (246, 56776), (255, 56797), (257, 56806), (266, 56842), (287, 56926), (299, 56977), (307, 57004), (329, 57049), (332, 57061), (338, 57079),

Gene: Serpentine\_0067 Start: 56409, Stop: 57170, Start Num: 63

Candidate Starts for Serpentine\_0067:

(Start: 63 @56409 has 139 MA's), (Start: 89 @56448 has 12 MA's), (105, 56511), (109, 56529), (119, 56583), (127, 56607), (148, 56640), (178, 56685), (182, 56697), (187, 56718), (199, 56754), (204, 56766), (207, 56778), (227, 56814), (242, 56853), (246, 56859), (255, 56880), (257, 56889), (266, 56925), (287, 57009), (299, 57060), (307, 57087), (329, 57132), (332, 57144), (338, 57162),

Gene: Shatter\_61 Start: 49797, Stop: 50528, Start Num: 89

Candidate Starts for Shatter\_61:

(Start: 89 @49797 has 12 MA's), (98, 49827), (105, 49860), (106, 49863), (118, 49929), (119, 49932), (123, 49944), (124, 49953), (136, 49974), (154, 50004), (159, 50007), (167, 50019), (174, 50031), (183, 50046), (194, 50091), (215, 50142), (230, 50169), (247, 50211), (254, 50229), (271, 50295), (286, 50382), (291, 50400), (303, 50457), (328, 50505),

Gene: Sheila\_63 Start: 55400, Stop: 56164, Start Num: 78

Candidate Starts for Sheila\_63:

(Start: 42 @55310 has 25 MA's), (61, 55361), (62, 55364), (68, 55382), (Start: 78 @55400 has 84 MA's), (Start: 83 @55421 has 3 MA's), (Start: 88 @55433 has 36 MA's), (96, 55460), (115, 55556), (121, 55583), (127, 55595), (155, 55646), (164, 55661), (177, 55682), (179, 55685), (183, 55700), (199, 55754), (210, 55781), (223, 55787), (285, 55973), (309, 56069), (321, 56087), (324, 56096),

Gene: Shenyu\_65 Start: 57643, Stop: 58395, Start Num: 56

Candidate Starts for Shenyu\_65:

(Start: 56 @57643 has 11 MA's), (105, 57766), (108, 57781), (112, 57796), (153, 57892), (170, 57919), (179, 57934), (183, 57949), (199, 58003), (215, 58039), (239, 58081), (244, 58093), (266, 58159), (284, 58213), (287, 58240), (299, 58291), (303, 58309),

Gene: ShiVal\_65 Start: 56052, Stop: 56813, Start Num: 63

Candidate Starts for ShiVal\_65:

(Start: 63 @56052 has 139 MA's), (Start: 89 @56091 has 12 MA's), (105, 56154), (109, 56172), (119, 56226), (127, 56250), (148, 56283), (178, 56328), (182, 56340), (199, 56397), (204, 56409), (207, 56421), (227, 56457), (242, 56496), (246, 56502), (255, 56523), (257, 56532), (266, 56568), (287, 56652), (299, 56703), (307, 56730), (329, 56775), (332, 56787), (338, 56805),

Gene: Sigman\_67 Start: 56008, Stop: 56769, Start Num: 63

Candidate Starts for Sigman\_67:

(Start: 63 @56008 has 139 MA's), (Start: 89 @56047 has 12 MA's), (105, 56110), (109, 56128), (119, 56182), (127, 56206), (148, 56239), (178, 56284), (182, 56296), (199, 56353), (204, 56365), (207, 56377), (227, 56413), (242, 56452), (246, 56458), (255, 56479), (257, 56488), (266, 56524), (287, 56608), (299, 56659), (307, 56686), (329, 56731), (332, 56743), (338, 56761),

Gene: SilverBell\_68 Start: 56289, Stop: 57050, Start Num: 63

Candidate Starts for SilverBell\_68:

(Start: 63 @56289 has 139 MA's), (Start: 89 @56328 has 12 MA's), (105, 56391), (109, 56409), (119, 56463), (127, 56487), (148, 56520), (178, 56565), (182, 56577), (187, 56598), (199, 56634), (204, 56646), (207, 56658), (227, 56694), (242, 56733), (246, 56739), (255, 56760), (257, 56769), (266,

56805), (287, 56889), (299, 56940), (307, 56967), (329, 57012), (332, 57024), (338, 57042),

Gene: Simielle\_67 Start: 56009, Stop: 56770, Start Num: 63

Candidate Starts for Simielle\_67:

(Start: 63 @56009 has 139 MA's), (Start: 89 @56048 has 12 MA's), (105, 56111), (109, 56129), (119, 56183), (127, 56207), (148, 56240), (178, 56285), (182, 56297), (187, 56318), (199, 56354), (204, 56366), (207, 56378), (227, 56414), (242, 56453), (246, 56459), (255, 56480), (257, 56489), (266, 56525), (287, 56609), (299, 56660), (307, 56687), (329, 56732), (332, 56744), (338, 56762),

Gene: SirJeffery\_65 Start: 57604, Stop: 58314, Start Num: 84

Candidate Starts for SirJeffery\_65:

(Start: 71 @57577 has 7 MA's), (Start: 84 @57604 has 1 MA's), (Start: 92 @57628 has 1 MA's), (117, 57742), (142, 57799), (183, 57871), (191, 57910), (196, 57919), (224, 57964), (264, 58069), (268, 58078), (304, 58222), (334, 58291),

Gene: Sisko\_59 Start: 49963, Stop: 50733, Start Num: 89

Candidate Starts for Sisko\_59:

(69, 49927), (Start: 89 @49963 has 12 MA's), (131, 50137), (146, 50158), (166, 50200), (174, 50221), (199, 50290), (201, 50296), (204, 50302), (222, 50344), (230, 50359), (243, 50395), (253, 50410), (267, 50467), (268, 50470), (290, 50587), (298, 50626),

Gene: Skippy\_68 Start: 56262, Stop: 57023, Start Num: 63

Candidate Starts for Skippy\_68:

(Start: 63 @56262 has 139 MA's), (Start: 89 @56301 has 12 MA's), (105, 56364), (109, 56382), (119, 56436), (127, 56460), (148, 56493), (178, 56538), (182, 56550), (187, 56571), (199, 56607), (204, 56619), (207, 56631), (227, 56667), (242, 56706), (246, 56712), (255, 56733), (257, 56742), (266, 56778), (287, 56862), (299, 56913), (307, 56940), (329, 56985), (332, 56997), (338, 57015),

Gene: Slatt\_67 Start: 56314, Stop: 57078, Start Num: 78

Candidate Starts for Slatt\_67:

(Start: 42 @56224 has 25 MA's), (61, 56275), (62, 56278), (68, 56296), (Start: 78 @56314 has 84 MA's), (Start: 83 @56335 has 3 MA's), (Start: 88 @56347 has 36 MA's), (96, 56374), (121, 56497), (127, 56509), (155, 56560), (164, 56575), (177, 56596), (179, 56599), (183, 56614), (199, 56668), (210, 56695), (223, 56701), (285, 56887), (309, 56983), (321, 57001), (324, 57010),

Gene: SlippinJimmy\_69 Start: 57587, Stop: 58270, Start Num: 82

Candidate Starts for SlippinJimmy\_69:

(74, 57572), (Start: 79 @57581 has 1 MA's), (Start: 82 @57587 has 6 MA's), (114, 57713), (128, 57770), (150, 57791), (152, 57794), (177, 57839), (194, 57899), (206, 57926), (209, 57932), (252, 57995), (256, 58010), (257, 58013), (259, 58025), (283, 58100), (286, 58124), (299, 58181), (306, 58199), (312, 58208), (336, 58262),

Gene: Soile\_68 Start: 56558, Stop: 57319, Start Num: 63

Candidate Starts for Soile\_68:

(Start: 63 @56558 has 139 MA's), (Start: 89 @56597 has 12 MA's), (105, 56660), (109, 56678), (119, 56732), (127, 56756), (148, 56789), (178, 56834), (182, 56846), (187, 56867), (199, 56903), (204, 56915), (207, 56927), (227, 56963), (242, 57002), (246, 57008), (255, 57029), (257, 57038), (266, 57074), (287, 57158), (299, 57209), (307, 57236), (329, 57281), (332, 57293), (338, 57311),

Gene: Solosis\_65 Start: 56013, Stop: 56777, Start Num: 78

Candidate Starts for Solosis\_65:

(Start: 42 @55923 has 25 MA's), (61, 55974), (62, 55977), (68, 55995), (Start: 78 @56013 has 84 MA's), (Start: 83 @56034 has 3 MA's), (Start: 88 @56046 has 36 MA's), (96, 56073), (121, 56196),

(127, 56208), (155, 56259), (164, 56274), (177, 56295), (179, 56298), (183, 56313), (199, 56367), (210, 56394), (223, 56400), (285, 56586), (309, 56682), (321, 56700), (324, 56709),

Gene: Sophia\_65 Start: 56006, Stop: 56770, Start Num: 78

Candidate Starts for Sophia\_65:

(Start: 42 @55916 has 25 MA's), (61, 55967), (62, 55970), (68, 55988), (Start: 78 @56006 has 84 MA's), (Start: 83 @56027 has 3 MA's), (Start: 88 @56039 has 36 MA's), (96, 56066), (121, 56189), (127, 56201), (155, 56252), (164, 56267), (177, 56288), (179, 56291), (183, 56306), (199, 56360), (210, 56387), (223, 56393), (285, 56579), (309, 56675), (321, 56693), (324, 56702),

Gene: Soto\_64 Start: 55483, Stop: 56337, Start Num: 42

Candidate Starts for Soto\_64:

(Start: 42 @55483 has 25 MA's), (61, 55534), (62, 55537), (68, 55555), (Start: 78 @55573 has 84 MA's), (Start: 83 @55594 has 3 MA's), (Start: 88 @55606 has 36 MA's), (96, 55633), (115, 55729), (121, 55756), (127, 55768), (155, 55819), (164, 55834), (177, 55855), (179, 55858), (183, 55873), (199, 55927), (210, 55954), (223, 55960), (285, 56146), (309, 56242), (321, 56260), (324, 56269),

Gene: Sour\_61 Start: 52218, Stop: 52940, Start Num: 92

Candidate Starts for Sour\_61:

(Start: 92 @52218 has 1 MA's), (98, 52242), (118, 52344), (142, 52395), (180, 52452), (183, 52455), (230, 52569), (264, 52665), (266, 52668), (290, 52800), (294, 52821), (299, 52842), (301, 52854), (303, 52860), (306, 52869), (331, 52914),

Gene: Spartan300\_66 Start: 56249, Stop: 57010, Start Num: 63

Candidate Starts for Spartan300\_66:

(Start: 63 @56249 has 139 MA's), (Start: 89 @56288 has 12 MA's), (105, 56351), (109, 56369), (119, 56423), (127, 56447), (148, 56480), (178, 56525), (182, 56537), (199, 56594), (204, 56606), (207, 56618), (227, 56654), (242, 56693), (246, 56699), (255, 56720), (257, 56729), (266, 56765), (287, 56849), (299, 56900), (307, 56927), (329, 56972), (332, 56984), (338, 57002),

Gene: Squid\_66 Start: 56216, Stop: 57070, Start Num: 42

Candidate Starts for Squid\_66:

(Start: 42 @56216 has 25 MA's), (61, 56267), (62, 56270), (68, 56288), (Start: 78 @56306 has 84 MA's), (Start: 83 @56327 has 3 MA's), (Start: 88 @56339 has 36 MA's), (96, 56366), (121, 56489), (127, 56501), (155, 56552), (164, 56567), (177, 56588), (179, 56591), (183, 56606), (199, 56660), (210, 56687), (223, 56693), (285, 56879), (309, 56975), (321, 56993), (324, 57002),

Gene: Squiggle\_66 Start: 56025, Stop: 56789, Start Num: 78

Candidate Starts for Squiggle\_66:

(34, 55899), (Start: 42 @55935 has 25 MA's), (61, 55986), (62, 55989), (68, 56007), (Start: 78 @56025 has 84 MA's), (Start: 83 @56046 has 3 MA's), (Start: 88 @56058 has 36 MA's), (96, 56085), (121, 56208), (127, 56220), (155, 56271), (164, 56286), (177, 56307), (179, 56310), (183, 56325), (199, 56379), (210, 56406), (223, 56412), (285, 56598), (309, 56694), (321, 56712), (324, 56721),

Gene: Stinger\_61 Start: 56074, Stop: 56859, Start Num: 51

Candidate Starts for Stinger\_61:

(13, 55918), (36, 56023), (38, 56035), (Start: 51 @56074 has 17 MA's), (Start: 56 @56083 has 11 MA's), (75, 56128), (Start: 85 @56140 has 1 MA's), (105, 56218), (119, 56290), (130, 56317), (141, 56323), (152, 56341), (179, 56386), (191, 56440), (199, 56455), (201, 56461), (208, 56479), (215, 56491), (223, 56506), (236, 56536), (244, 56554), (284, 56677), (286, 56698), (296, 56743), (299, 56755), (303, 56773), (304, 56776), (320, 56803),

Gene: StinkyVeggy\_65 Start: 57415, Stop: 58170, Start Num: 63

Candidate Starts for StinkyVeggy\_65:

(Start: 63 @57415 has 139 MA's), (105, 57529), (107, 57532), (112, 57559), (117, 57589), (183, 57724), (199, 57778), (232, 57838), (235, 57844), (239, 57856), (251, 57877), (254, 57886), (281, 57973), (286, 58003), (290, 58018), (303, 58078), (319, 58108), (330, 58138), (335, 58150),

Gene: Struggle\_67 Start: 56123, Stop: 56884, Start Num: 63

Candidate Starts for Struggle\_67:

(Start: 63 @56123 has 139 MA's), (Start: 89 @56162 has 12 MA's), (105, 56225), (109, 56243), (119, 56297), (127, 56321), (148, 56354), (178, 56399), (182, 56411), (187, 56432), (199, 56468), (204, 56480), (207, 56492), (242, 56567), (246, 56573), (255, 56594), (257, 56603), (266, 56639), (287, 56723), (299, 56774), (307, 56801), (329, 56846), (332, 56858),

Gene: Suffolk\_65 Start: 55795, Stop: 56583, Start Num: 50

Candidate Starts for Suffolk\_65:

(Start: 50 @55795 has 4 MA's), (Start: 63 @55822 has 139 MA's), (Start: 89 @55861 has 12 MA's), (105, 55924), (109, 55942), (119, 55996), (127, 56020), (148, 56053), (178, 56098), (182, 56110), (187, 56131), (199, 56167), (204, 56179), (207, 56191), (227, 56227), (242, 56266), (246, 56272), (255, 56293), (257, 56302), (266, 56338), (287, 56422), (299, 56473), (307, 56500), (329, 56545), (332, 56557), (338, 56575),

Gene: Suigeneris\_67 Start: 57719, Stop: 58456, Start Num: 71

Candidate Starts for Suigeneris\_67:

(Start: 71 @57719 has 7 MA's), (Start: 84 @57746 has 1 MA's), (Start: 92 @57770 has 1 MA's), (117, 57884), (142, 57941), (183, 58013), (191, 58052), (196, 58061), (224, 58106), (264, 58211), (268, 58220), (304, 58364), (334, 58433),

Gene: Surely\_67 Start: 56596, Stop: 57360, Start Num: 78

Candidate Starts for Surely\_67:

(Start: 42 @56506 has 25 MA's), (61, 56557), (62, 56560), (68, 56578), (Start: 78 @56596 has 84 MA's), (Start: 83 @56617 has 3 MA's), (Start: 88 @56629 has 36 MA's), (96, 56656), (121, 56779), (127, 56791), (155, 56842), (164, 56857), (177, 56878), (179, 56881), (183, 56896), (199, 56950), (210, 56977), (223, 56983), (285, 57169), (309, 57265), (321, 57283), (324, 57292),

Gene: Swiphy\_71 Start: 56564, Stop: 57325, Start Num: 63

Candidate Starts for Swiphy\_71:

(Start: 63 @56564 has 139 MA's), (Start: 89 @56603 has 12 MA's), (105, 56666), (109, 56684), (119, 56738), (127, 56762), (148, 56795), (178, 56840), (182, 56852), (187, 56873), (199, 56909), (204, 56921), (207, 56933), (227, 56969), (242, 57008), (246, 57014), (255, 57035), (257, 57044), (266, 57080), (287, 57164), (299, 57215), (307, 57242), (329, 57287), (332, 57299), (338, 57317),

Gene: Swish\_67 Start: 56315, Stop: 57046, Start Num: 88

Candidate Starts for Swish\_67:

(Start: 42 @56192 has 25 MA's), (61, 56243), (62, 56246), (68, 56264), (Start: 78 @56282 has 84 MA's), (Start: 83 @56303 has 3 MA's), (Start: 88 @56315 has 36 MA's), (96, 56342), (121, 56465), (127, 56477), (155, 56528), (164, 56543), (177, 56564), (179, 56567), (183, 56582), (199, 56636), (210, 56663), (223, 56669), (285, 56855), (309, 56951), (321, 56969), (324, 56978),

Gene: SynergyX\_67 Start: 56487, Stop: 57254, Start Num: 72

Candidate Starts for SynergyX\_67:

(Start: 72 @56487 has 35 MA's), (Start: 87 @56523 has 1 MA's), (95, 56553), (114, 56637), (119, 56670), (134, 56703), (156, 56739), (160, 56745), (172, 56763), (176, 56769), (201, 56847), (229, 56883), (240, 56910), (252, 56928), (311, 57147), (338, 57219), (339, 57249),

Gene: TA17A\_63 Start: 54674, Stop: 55408, Start Num: 71

Candidate Starts for TA17A\_63:

(Start: 11 @54449 has 1 MA's), (19, 54506), (23, 54518), (Start: 67 @54662 has 1 MA's), (Start: 71 @54674 has 7 MA's), (Start: 88 @54707 has 36 MA's), (107, 54779), (109, 54794), (114, 54815), (135, 54878), (171, 54935), (173, 54938), (179, 54947), (182, 54959), (194, 55007), (199, 55016), (217, 55049), (221, 55055), (254, 55124), (260, 55154), (265, 55169), (286, 55244), (290, 55259), (303, 55319), (318, 55346),

Gene: TallGrassMM\_65 Start: 55922, Stop: 56686, Start Num: 78

Candidate Starts for TallGrassMM\_65:

(Start: 42 @55832 has 25 MA's), (61, 55883), (62, 55886), (68, 55904), (Start: 78 @55922 has 84 MA's), (Start: 83 @55943 has 3 MA's), (Start: 88 @55955 has 36 MA's), (96, 55982), (121, 56105), (127, 56117), (155, 56168), (164, 56183), (177, 56204), (179, 56207), (183, 56222), (199, 56276), (210, 56303), (223, 56309), (285, 56495), (309, 56591), (321, 56609), (324, 56618),

Gene: Telesworld\_65 Start: 56138, Stop: 56899, Start Num: 63

Candidate Starts for Telesworld\_65:

(Start: 63 @56138 has 139 MA's), (Start: 89 @56177 has 12 MA's), (105, 56240), (109, 56258), (119, 56312), (127, 56336), (148, 56369), (178, 56414), (182, 56426), (199, 56483), (204, 56495), (207, 56507), (227, 56543), (242, 56582), (246, 56588), (255, 56609), (257, 56618), (266, 56654), (287, 56738), (299, 56789), (307, 56816), (329, 56861), (332, 56873), (338, 56891),

Gene: Thonko\_66 Start: 55386, Stop: 56132, Start Num: 58

Candidate Starts for Thonko\_66:

(53, 55374), (Start: 58 @55386 has 1 MA's), (73, 55422), (93, 55470), (101, 55500), (102, 55503), (107, 55518), (109, 55533), (155, 55641), (161, 55650), (179, 55674), (199, 55743), (201, 55749), (219, 55779), (258, 55869), (268, 55908), (293, 56010), (324, 56088),

Gene: Thora\_65 Start: 56362, Stop: 57126, Start Num: 78

Candidate Starts for Thora\_65:

(Start: 42 @56272 has 25 MA's), (61, 56323), (62, 56326), (68, 56344), (Start: 78 @56362 has 84 MA's), (Start: 83 @56383 has 3 MA's), (Start: 88 @56395 has 36 MA's), (96, 56422), (121, 56545), (127, 56557), (155, 56608), (164, 56623), (177, 56644), (179, 56647), (183, 56662), (199, 56716), (210, 56743), (223, 56749), (285, 56935), (309, 57031), (321, 57049), (324, 57058),

Gene: ThreeOh3D2\_68 Start: 56536, Stop: 57297, Start Num: 63

Candidate Starts for ThreeOh3D2\_68:

(Start: 63 @56536 has 139 MA's), (Start: 89 @56575 has 12 MA's), (105, 56638), (109, 56656), (119, 56710), (127, 56734), (148, 56767), (178, 56812), (182, 56824), (187, 56845), (199, 56881), (204, 56893), (207, 56905), (227, 56941), (242, 56980), (246, 56986), (255, 57007), (257, 57016), (266, 57052), (287, 57136), (299, 57187), (307, 57214), (329, 57259), (332, 57271), (338, 57289),

Gene: Thunderbird\_67 Start: 56276, Stop: 57037, Start Num: 63

Candidate Starts for Thunderbird\_67:

(Start: 63 @56276 has 139 MA's), (Start: 89 @56315 has 12 MA's), (105, 56378), (109, 56396), (119, 56450), (127, 56474), (148, 56507), (178, 56552), (182, 56564), (187, 56585), (199, 56621), (204, 56633), (207, 56645), (242, 56720), (246, 56726), (255, 56747), (257, 56756), (266, 56792), (287, 56876), (299, 56927), (307, 56954), (329, 56999), (332, 57011),

Gene: Timmi\_66 Start: 56020, Stop: 56781, Start Num: 63

Candidate Starts for Timmi\_66:

(Start: 63 @56020 has 139 MA's), (Start: 89 @56059 has 12 MA's), (105, 56122), (109, 56140), (119, 56194), (127, 56218), (148, 56251), (178, 56296), (182, 56308), (187, 56329), (199, 56365), (204,

56377), (207, 56389), (227, 56425), (242, 56464), (246, 56470), (255, 56491), (257, 56500), (266, 56536), (287, 56620), (299, 56671), (307, 56698), (329, 56743), (332, 56755), (338, 56773),

Gene: Tinciduntolum\_64 Start: 54868, Stop: 55569, Start Num: 88

Candidate Starts for Tinciduntolum\_64:

(1, 54412), (2, 54418), (3, 54421), (Start: 4 @54451 has 1 MA's), (8, 54529), (9, 54550), (Start: 67 @54823 has 1 MA's), (Start: 71 @54835 has 7 MA's), (Start: 88 @54868 has 36 MA's), (107, 54940), (109, 54955), (114, 54976), (135, 55039), (171, 55096), (173, 55099), (179, 55108), (182, 55120), (194, 55168), (199, 55177), (217, 55210), (221, 55216), (254, 55285), (260, 55315), (265, 55330), (286, 55405), (290, 55420), (303, 55480), (318, 55507),

Gene: TomBombadil\_67 Start: 56580, Stop: 57344, Start Num: 78

Candidate Starts for TomBombadil\_67:

(Start: 42 @56490 has 25 MA's), (61, 56541), (62, 56544), (68, 56562), (Start: 78 @56580 has 84 MA's), (Start: 83 @56601 has 3 MA's), (Start: 88 @56613 has 36 MA's), (96, 56640), (121, 56763), (127, 56775), (155, 56826), (164, 56841), (177, 56862), (179, 56865), (183, 56880), (199, 56934), (210, 56961), (223, 56967), (285, 57153), (309, 57249), (321, 57267), (324, 57276),

Gene: Tomlarah\_68 Start: 56873, Stop: 57634, Start Num: 63

Candidate Starts for Tomlarah\_68:

(Start: 63 @56873 has 139 MA's), (Start: 89 @56912 has 12 MA's), (105, 56975), (109, 56993), (119, 57047), (127, 57071), (148, 57104), (178, 57149), (182, 57161), (187, 57182), (199, 57218), (204, 57230), (207, 57242), (227, 57278), (242, 57317), (246, 57323), (255, 57344), (257, 57353), (266, 57389), (287, 57473), (299, 57524), (307, 57551), (329, 57596), (332, 57608), (338, 57626),

Gene: Toni\_67 Start: 56465, Stop: 57226, Start Num: 63

Candidate Starts for Toni\_67:

(Start: 63 @56465 has 139 MA's), (Start: 89 @56504 has 12 MA's), (105, 56567), (109, 56585), (119, 56639), (127, 56663), (148, 56696), (178, 56741), (182, 56753), (187, 56774), (199, 56810), (204, 56822), (207, 56834), (227, 56870), (242, 56909), (246, 56915), (255, 56936), (257, 56945), (266, 56981), (287, 57065), (299, 57116), (307, 57143), (329, 57188), (332, 57200), (338, 57218),

Gene: Tooj\_65 Start: 55690, Stop: 56451, Start Num: 63

Candidate Starts for Tooj\_65:

(Start: 63 @55690 has 139 MA's), (Start: 89 @55729 has 12 MA's), (105, 55792), (109, 55810), (119, 55864), (127, 55888), (148, 55921), (178, 55966), (182, 55978), (199, 56035), (204, 56047), (207, 56059), (227, 56095), (242, 56134), (246, 56140), (255, 56161), (257, 56170), (266, 56206), (287, 56290), (299, 56341), (307, 56368), (329, 56413), (332, 56425), (338, 56443),

Gene: Tres\_63 Start: 54722, Stop: 55423, Start Num: 88

Candidate Starts for Tres\_63:

(1, 54266), (2, 54272), (3, 54275), (Start: 4 @54305 has 1 MA's), (8, 54383), (9, 54404), (Start: 67 @54677 has 1 MA's), (Start: 71 @54689 has 7 MA's), (Start: 88 @54722 has 36 MA's), (107, 54794), (109, 54809), (114, 54830), (135, 54893), (171, 54950), (173, 54953), (179, 54962), (182, 54974), (194, 55022), (199, 55031), (217, 55064), (221, 55070), (254, 55139), (260, 55169), (265, 55184), (286, 55259), (290, 55274), (303, 55334), (318, 55361),

Gene: True\_65 Start: 56029, Stop: 56790, Start Num: 63

Candidate Starts for True\_65:

(Start: 63 @56029 has 139 MA's), (Start: 89 @56068 has 12 MA's), (105, 56131), (109, 56149), (119, 56203), (127, 56227), (148, 56260), (178, 56305), (182, 56317), (187, 56338), (199, 56374), (204, 56386), (207, 56398), (227, 56434), (242, 56473), (246, 56479), (255, 56500), (257, 56509), (266, 56545), (287, 56629), (299, 56680), (307, 56707), (329, 56752), (332, 56764), (338, 56782),

Gene: Trypo\_68 Start: 56747, Stop: 57511, Start Num: 78

Candidate Starts for Trypo\_68:

(Start: 42 @56657 has 25 MA's), (61, 56708), (62, 56711), (68, 56729), (Start: 78 @56747 has 84 MA's), (Start: 83 @56768 has 3 MA's), (Start: 88 @56780 has 36 MA's), (96, 56807), (121, 56930), (127, 56942), (155, 56993), (164, 57008), (177, 57029), (179, 57032), (183, 57047), (199, 57101), (210, 57128), (223, 57134), (285, 57320), (309, 57416), (321, 57434), (324, 57443),

Gene: Tydolla\_64 Start: 56353, Stop: 57144, Start Num: 46

Candidate Starts for Tydolla\_64:

(Start: 46 @56353 has 1 MA's), (64, 56407), (Start: 76 @56431 has 1 MA's), (Start: 82 @56443 has 6 MA's), (94, 56485), (105, 56530), (110, 56554), (113, 56566), (141, 56632), (150, 56647), (153, 56653), (185, 56719), (191, 56749), (199, 56764), (213, 56791), (228, 56821), (237, 56842), (248, 56851), (259, 56890), (269, 56923), (283, 56965), (286, 56989), (290, 57004), (293, 57022), (299, 57046), (307, 57070),

Gene: TyrionL\_67 Start: 56025, Stop: 56879, Start Num: 42

Candidate Starts for TyrionL\_67:

(Start: 42 @56025 has 25 MA's), (61, 56076), (62, 56079), (68, 56097), (Start: 78 @56115 has 84 MA's), (Start: 83 @56136 has 3 MA's), (Start: 88 @56148 has 36 MA's), (96, 56175), (121, 56298), (127, 56310), (155, 56361), (164, 56376), (177, 56397), (179, 56400), (183, 56415), (199, 56469), (210, 56496), (223, 56502), (285, 56688), (309, 56784), (321, 56802), (324, 56811),

Gene: UAch1\_67 Start: 56260, Stop: 57021, Start Num: 63

Candidate Starts for UAch1\_67:

(Start: 63 @56260 has 139 MA's), (Start: 89 @56299 has 12 MA's), (105, 56362), (109, 56380), (119, 56434), (127, 56458), (148, 56491), (178, 56536), (182, 56548), (187, 56569), (199, 56605), (204, 56617), (207, 56629), (227, 56665), (242, 56704), (246, 56710), (255, 56731), (257, 56740), (266, 56776), (287, 56860), (299, 56911), (307, 56938), (329, 56983), (332, 56995), (338, 57013),

Gene: UncleHowie\_64 Start: 55717, Stop: 56481, Start Num: 78

Candidate Starts for UncleHowie\_64:

(Start: 42 @55627 has 25 MA's), (61, 55678), (62, 55681), (68, 55699), (Start: 78 @55717 has 84 MA's), (Start: 83 @55738 has 3 MA's), (Start: 88 @55750 has 36 MA's), (96, 55777), (121, 55900), (127, 55912), (155, 55963), (164, 55978), (177, 55999), (179, 56002), (183, 56017), (199, 56071), (210, 56098), (223, 56104), (285, 56290), (309, 56386), (321, 56404), (324, 56413),

Gene: Usavi\_68 Start: 56688, Stop: 57449, Start Num: 63

Candidate Starts for Usavi\_68:

(Start: 63 @56688 has 139 MA's), (Start: 89 @56727 has 12 MA's), (105, 56790), (109, 56808), (119, 56862), (127, 56886), (148, 56919), (178, 56964), (182, 56976), (187, 56997), (199, 57033), (204, 57045), (207, 57057), (242, 57132), (246, 57138), (255, 57159), (257, 57168), (266, 57204), (287, 57288), (299, 57339), (307, 57366), (329, 57411), (332, 57423), (338, 57441),

Gene: Vaishali24\_67 Start: 56359, Stop: 57120, Start Num: 63

Candidate Starts for Vaishali24\_67:

(Start: 63 @56359 has 139 MA's), (Start: 89 @56398 has 12 MA's), (105, 56461), (109, 56479), (119, 56533), (127, 56557), (148, 56590), (178, 56635), (182, 56647), (199, 56704), (204, 56716), (207, 56728), (242, 56803), (244, 56806), (246, 56809), (255, 56830), (257, 56839), (266, 56875), (287, 56959), (299, 57010), (307, 57037), (329, 57082), (332, 57094), (338, 57112),

Gene: Valjean\_66 Start: 56259, Stop: 57020, Start Num: 63

Candidate Starts for Valjean\_66:

(Start: 63 @56259 has 139 MA's), (Start: 89 @56298 has 12 MA's), (105, 56361), (109, 56379), (119, 56433), (127, 56457), (148, 56490), (178, 56535), (182, 56547), (187, 56568), (199, 56604), (204, 56616), (207, 56628), (227, 56664), (242, 56703), (246, 56709), (255, 56730), (257, 56739), (266, 56775), (287, 56859), (299, 56910), (307, 56937), (329, 56982), (332, 56994), (338, 57012),

Gene: Vaticameos\_64 Start: 54563, Stop: 55324, Start Num: 63

Candidate Starts for Vaticameos\_64:

(Start: 63 @54563 has 139 MA's), (Start: 89 @54602 has 12 MA's), (105, 54665), (109, 54683), (119, 54737), (127, 54761), (148, 54794), (178, 54839), (182, 54851), (199, 54908), (204, 54920), (207, 54932), (227, 54968), (242, 55007), (246, 55013), (255, 55034), (257, 55043), (266, 55079), (287, 55163), (299, 55214), (307, 55241), (329, 55286), (332, 55298), (338, 55316),

Gene: Veritas\_66 Start: 56215, Stop: 56958, Start Num: 83

Candidate Starts for Veritas\_66:

(Start: 42 @56104 has 25 MA's), (61, 56155), (62, 56158), (68, 56176), (Start: 78 @56194 has 84 MA's), (Start: 83 @56215 has 3 MA's), (Start: 88 @56227 has 36 MA's), (96, 56254), (121, 56377), (127, 56389), (155, 56440), (164, 56455), (177, 56476), (179, 56479), (183, 56494), (199, 56548), (210, 56575), (223, 56581), (285, 56767), (309, 56863), (321, 56881), (324, 56890),

Gene: Vic9\_65 Start: 55573, Stop: 56274, Start Num: 88

Candidate Starts for Vic9\_65:

(7, 55186), (8, 55234), (9, 55255), (Start: 67 @55528 has 1 MA's), (Start: 71 @55540 has 7 MA's), (Start: 88 @55573 has 36 MA's), (107, 55645), (109, 55660), (114, 55681), (135, 55744), (171, 55801), (173, 55804), (179, 55813), (182, 55825), (194, 55873), (199, 55882), (221, 55921), (254, 55990), (260, 56020), (265, 56035), (286, 56110), (290, 56125), (303, 56185), (318, 56212),

Gene: Vincenzo\_63 Start: 58358, Stop: 59101, Start Num: 56

Candidate Starts for Vincenzo\_63:

(Start: 56 @58358 has 11 MA's), (Start: 85 @58400 has 1 MA's), (105, 58478), (141, 58583), (158, 58604), (179, 58640), (183, 58655), (186, 58670), (199, 58709), (201, 58715), (208, 58733), (212, 58739), (220, 58754), (233, 58772), (244, 58799), (261, 58850), (262, 58853), (286, 58943), (290, 58958), (299, 59000), (303, 59018), (310, 59033), (323, 59054), (325, 59063), (337, 59093),

Gene: VioletZ\_62 Start: 57222, Stop: 58004, Start Num: 51

Candidate Starts for VioletZ\_62:

(Start: 42 @57195 has 25 MA's), (Start: 51 @57222 has 17 MA's), (Start: 56 @57231 has 11 MA's), (Start: 85 @57285 has 1 MA's), (105, 57363), (130, 57462), (141, 57468), (152, 57486), (153, 57489), (179, 57531), (191, 57585), (199, 57600), (201, 57606), (208, 57624), (215, 57636), (218, 57642), (244, 57699), (262, 57753), (284, 57822), (290, 57858), (295, 57885), (296, 57888), (304, 57921), (320, 57948),

Gene: Virapocalypse\_68 Start: 56358, Stop: 57119, Start Num: 63

Candidate Starts for Virapocalypse\_68:

(Start: 63 @56358 has 139 MA's), (Start: 89 @56397 has 12 MA's), (105, 56460), (109, 56478), (119, 56532), (127, 56556), (148, 56589), (178, 56634), (182, 56646), (187, 56667), (199, 56703), (204, 56715), (207, 56727), (227, 56763), (242, 56802), (246, 56808), (255, 56829), (257, 56838), (266, 56874), (287, 56958), (299, 57009), (307, 57036), (329, 57081), (332, 57093), (338, 57111),

Gene: Virgeve\_66 Start: 55993, Stop: 56754, Start Num: 63

Candidate Starts for Virgeve\_66:

(Start: 63 @55993 has 139 MA's), (Start: 89 @56032 has 12 MA's), (105, 56095), (109, 56113), (119, 56167), (127, 56191), (148, 56224), (178, 56269), (182, 56281), (187, 56302), (199, 56338), (204, 56350), (207, 56362), (227, 56398), (242, 56437), (246, 56443), (255, 56464), (257, 56473), (266,



56509), (287, 56593), (299, 56644), (307, 56671), (329, 56716), (332, 56728), (338, 56746),

Gene: Vista\_65 Start: 56018, Stop: 56782, Start Num: 78

Candidate Starts for Vista\_65:

(Start: 42 @55928 has 25 MA's), (61, 55979), (62, 55982), (68, 56000), (Start: 78 @56018 has 84 MA's), (Start: 83 @56039 has 3 MA's), (Start: 88 @56051 has 36 MA's), (96, 56078), (121, 56201), (127, 56213), (155, 56264), (164, 56279), (177, 56300), (179, 56303), (183, 56318), (199, 56372), (210, 56399), (223, 56405), (285, 56591), (309, 56687), (321, 56705), (324, 56714),

Gene: Vivaldi\_67 Start: 56479, Stop: 57243, Start Num: 78

Candidate Starts for Vivaldi\_67:

(Start: 42 @56389 has 25 MA's), (61, 56440), (62, 56443), (68, 56461), (Start: 78 @56479 has 84 MA's), (Start: 83 @56500 has 3 MA's), (Start: 88 @56512 has 36 MA's), (96, 56539), (121, 56662), (127, 56674), (155, 56725), (164, 56740), (177, 56761), (179, 56764), (183, 56779), (199, 56833), (210, 56860), (223, 56866), (285, 57052), (309, 57148), (321, 57166), (324, 57175),

Gene: Vortex\_66 Start: 56302, Stop: 57066, Start Num: 78

Candidate Starts for Vortex\_66:

(61, 56263), (62, 56266), (68, 56284), (Start: 78 @56302 has 84 MA's), (Start: 83 @56323 has 3 MA's), (Start: 88 @56335 has 36 MA's), (96, 56362), (121, 56485), (127, 56497), (155, 56548), (164, 56563), (177, 56584), (179, 56587), (183, 56602), (199, 56656), (210, 56683), (223, 56689), (285, 56875), (309, 56971), (321, 56989), (324, 56998),

Gene: Waleliano\_60 Start: 57162, Stop: 57944, Start Num: 51

Candidate Starts for Waleliano\_60:

(Start: 42 @57135 has 25 MA's), (Start: 51 @57162 has 17 MA's), (Start: 56 @57171 has 11 MA's), (Start: 85 @57225 has 1 MA's), (105, 57303), (141, 57408), (152, 57426), (153, 57429), (179, 57471), (191, 57525), (199, 57540), (201, 57546), (208, 57564), (215, 57576), (218, 57582), (244, 57639), (262, 57693), (284, 57762), (290, 57798), (295, 57825), (296, 57828), (304, 57861), (320, 57888),

Gene: Wallhey\_67 Start: 56125, Stop: 56889, Start Num: 78

Candidate Starts for Wallhey\_67:

(Start: 42 @56035 has 25 MA's), (61, 56086), (62, 56089), (68, 56107), (Start: 78 @56125 has 84 MA's), (Start: 83 @56146 has 3 MA's), (Start: 88 @56158 has 36 MA's), (96, 56185), (121, 56308), (127, 56320), (155, 56371), (164, 56386), (177, 56407), (179, 56410), (183, 56425), (199, 56479), (210, 56506), (223, 56512), (285, 56698), (309, 56794), (321, 56812), (324, 56821),

Gene: Waterdiva\_67 Start: 56392, Stop: 57153, Start Num: 63

Candidate Starts for Waterdiva\_67:

(Start: 63 @56392 has 139 MA's), (Start: 89 @56431 has 12 MA's), (105, 56494), (109, 56512), (119, 56566), (127, 56590), (148, 56623), (178, 56668), (182, 56680), (187, 56701), (199, 56737), (204, 56749), (207, 56761), (227, 56797), (242, 56836), (246, 56842), (255, 56863), (257, 56872), (266, 56908), (287, 56992), (299, 57043), (307, 57070), (329, 57115), (332, 57127), (338, 57145),

Gene: Weher20\_64 Start: 56636, Stop: 57400, Start Num: 78

Candidate Starts for Weher20\_64:

(Start: 42 @56546 has 25 MA's), (61, 56597), (62, 56600), (68, 56618), (Start: 78 @56636 has 84 MA's), (Start: 83 @56657 has 3 MA's), (Start: 88 @56669 has 36 MA's), (96, 56696), (121, 56819), (127, 56831), (155, 56882), (164, 56897), (177, 56918), (179, 56921), (183, 56936), (199, 56990), (210, 57017), (223, 57023), (285, 57209), (309, 57305), (321, 57323), (324, 57332),

Gene: West99\_63 Start: 54862, Stop: 55596, Start Num: 71

Candidate Starts for West99\_63:

(1, 54439), (2, 54445), (3, 54448), (Start: 4 @54478 has 1 MA's), (8, 54556), (9, 54577), (18, 54694), (23, 54706), (Start: 67 @54850 has 1 MA's), (Start: 71 @54862 has 7 MA's), (Start: 88 @54895 has 36 MA's), (107, 54967), (109, 54982), (114, 55003), (135, 55066), (171, 55123), (173, 55126), (179, 55135), (182, 55147), (194, 55195), (199, 55204), (217, 55237), (221, 55243), (254, 55312), (260, 55342), (265, 55357), (286, 55432), (290, 55447), (303, 55507), (318, 55534),

Gene: Windsor\_67 Start: 56579, Stop: 57340, Start Num: 63

Candidate Starts for Windsor\_67:

(Start: 63 @56579 has 139 MA's), (Start: 89 @56618 has 12 MA's), (105, 56681), (109, 56699), (119, 56753), (127, 56777), (148, 56810), (178, 56855), (182, 56867), (187, 56888), (199, 56924), (204, 56936), (207, 56948), (227, 56984), (242, 57023), (246, 57029), (255, 57050), (257, 57059), (266, 57095), (287, 57179), (299, 57230), (307, 57257), (329, 57302), (332, 57314), (338, 57332),

Gene: Xavier\_66 Start: 56020, Stop: 56781, Start Num: 63

Candidate Starts for Xavier\_66:

(Start: 63 @56020 has 139 MA's), (Start: 89 @56059 has 12 MA's), (105, 56122), (109, 56140), (119, 56194), (127, 56218), (148, 56251), (178, 56296), (182, 56308), (187, 56329), (199, 56365), (204, 56377), (207, 56389), (227, 56425), (242, 56464), (246, 56470), (255, 56491), (257, 56500), (266, 56536), (287, 56620), (299, 56671), (307, 56698), (329, 56743), (332, 56755), (338, 56773),

Gene: Xincheng\_61 Start: 58341, Stop: 59099, Start Num: 51

Candidate Starts for Xincheng\_61:

(36, 58302), (Start: 51 @58341 has 17 MA's), (Start: 56 @58350 has 11 MA's), (Start: 85 @58398 has 1 MA's), (101, 58458), (105, 58476), (117, 58536), (158, 58602), (179, 58638), (183, 58653), (193, 58695), (194, 58698), (199, 58707), (201, 58713), (208, 58731), (215, 58743), (236, 58779), (244, 58797), (284, 58920), (290, 58956), (299, 58998), (303, 59016), (306, 59025), (313, 59034), (320, 59046), (332, 59085),

Gene: Yago84\_58 Start: 49428, Stop: 50210, Start Num: 89

Candidate Starts for Yago84\_58:

(80, 49413), (Start: 89 @49428 has 12 MA's), (131, 49605), (153, 49647), (163, 49662), (174, 49692), (189, 49734), (191, 49746), (199, 49761), (201, 49767), (204, 49773), (207, 49785), (222, 49815), (243, 49866), (253, 49881), (268, 49941), (285, 50040), (290, 50058), (298, 50097), (328, 50166),

Gene: Yahalom\_65 Start: 56292, Stop: 57059, Start Num: 72

Candidate Starts for Yahalom\_65:

(Start: 72 @56292 has 35 MA's), (Start: 87 @56328 has 1 MA's), (95, 56358), (114, 56442), (119, 56475), (134, 56508), (156, 56544), (160, 56550), (172, 56568), (176, 56574), (201, 56652), (229, 56688), (240, 56715), (252, 56733), (292, 56880), (311, 56952), (325, 56985), (338, 57024), (339, 57054),

Gene: Yinz\_67 Start: 56357, Stop: 57124, Start Num: 72

Candidate Starts for Yinz\_67:

(Start: 72 @56357 has 35 MA's), (Start: 87 @56393 has 1 MA's), (95, 56423), (114, 56507), (119, 56540), (134, 56573), (156, 56609), (160, 56615), (172, 56633), (176, 56639), (201, 56717), (229, 56753), (240, 56780), (252, 56798), (292, 56945), (311, 57017), (338, 57089), (339, 57119),

Gene: Yoshand\_67 Start: 56295, Stop: 57059, Start Num: 78

Candidate Starts for Yoshand\_67:

(Start: 42 @56205 has 25 MA's), (61, 56256), (62, 56259), (68, 56277), (Start: 78 @56295 has 84 MA's), (Start: 83 @56316 has 3 MA's), (Start: 88 @56328 has 36 MA's), (96, 56355), (121, 56478), (127, 56490), (155, 56541), (164, 56556), (177, 56577), (179, 56580), (183, 56595), (199, 56649), (210, 56676), (223, 56682), (285, 56868), (309, 56964), (321, 56982), (324, 56991),

Gene: YouGoGlencoco\_67 Start: 56307, Stop: 57071, Start Num: 78

Candidate Starts for YouGoGlencoco\_67:

(Start: 42 @56217 has 25 MA's), (61, 56268), (62, 56271), (68, 56289), (Start: 78 @56307 has 84 MA's), (Start: 83 @56328 has 3 MA's), (Start: 88 @56340 has 36 MA's), (96, 56367), (121, 56490), (127, 56502), (155, 56553), (164, 56568), (177, 56589), (179, 56592), (183, 56607), (199, 56661), (210, 56688), (223, 56694), (285, 56880), (309, 56976), (321, 56994), (324, 57003),

Gene: Zaider\_68 Start: 56499, Stop: 57260, Start Num: 63

Candidate Starts for Zaider\_68:

(Start: 63 @56499 has 139 MA's), (Start: 89 @56538 has 12 MA's), (105, 56601), (109, 56619), (119, 56673), (127, 56697), (148, 56730), (178, 56775), (182, 56787), (187, 56808), (199, 56844), (204, 56856), (207, 56868), (227, 56904), (242, 56943), (246, 56949), (255, 56970), (257, 56979), (266, 57015), (287, 57099), (299, 57150), (307, 57177), (329, 57222), (332, 57234), (338, 57252),

Gene: Zelda\_67 Start: 56647, Stop: 57411, Start Num: 78

Candidate Starts for Zelda\_67:

(Start: 42 @56557 has 25 MA's), (61, 56608), (62, 56611), (68, 56629), (Start: 78 @56647 has 84 MA's), (Start: 83 @56668 has 3 MA's), (Start: 88 @56680 has 36 MA's), (96, 56707), (121, 56830), (127, 56842), (155, 56893), (164, 56908), (177, 56929), (179, 56932), (183, 56947), (199, 57001), (210, 57028), (223, 57034), (285, 57220), (309, 57316), (321, 57334), (324, 57343),

Gene: Zemanar\_61 Start: 57006, Stop: 57779, Start Num: 56

Candidate Starts for Zemanar\_61:

(Start: 42 @56970 has 25 MA's), (Start: 51 @56997 has 17 MA's), (Start: 56 @57006 has 11 MA's), (Start: 85 @57060 has 1 MA's), (105, 57138), (141, 57243), (152, 57261), (153, 57264), (179, 57306), (191, 57360), (199, 57375), (201, 57381), (208, 57399), (215, 57411), (218, 57417), (244, 57474), (262, 57528), (284, 57597), (290, 57633), (295, 57660), (296, 57663), (304, 57696), (320, 57723),

Gene: Zenteno07\_72 Start: 57916, Stop: 58686, Start Num: 63

Candidate Starts for Zenteno07\_72:

(Start: 63 @57916 has 139 MA's), (Start: 88 @57952 has 36 MA's), (104, 58015), (129, 58120), (182, 58210), (183, 58213), (211, 58297), (234, 58339), (246, 58369), (268, 58441), (286, 58507), (301, 58576), (303, 58582), (324, 58621), (332, 58651),

Gene: Zonia\_67 Start: 56576, Stop: 57340, Start Num: 78

Candidate Starts for Zonia\_67:

(Start: 42 @56486 has 25 MA's), (61, 56537), (62, 56540), (68, 56558), (Start: 78 @56576 has 84 MA's), (Start: 83 @56597 has 3 MA's), (Start: 88 @56609 has 36 MA's), (96, 56636), (121, 56759), (127, 56771), (155, 56822), (164, 56837), (177, 56858), (179, 56861), (183, 56876), (199, 56930), (210, 56957), (223, 56963), (285, 57149), (309, 57245), (321, 57263), (324, 57272),