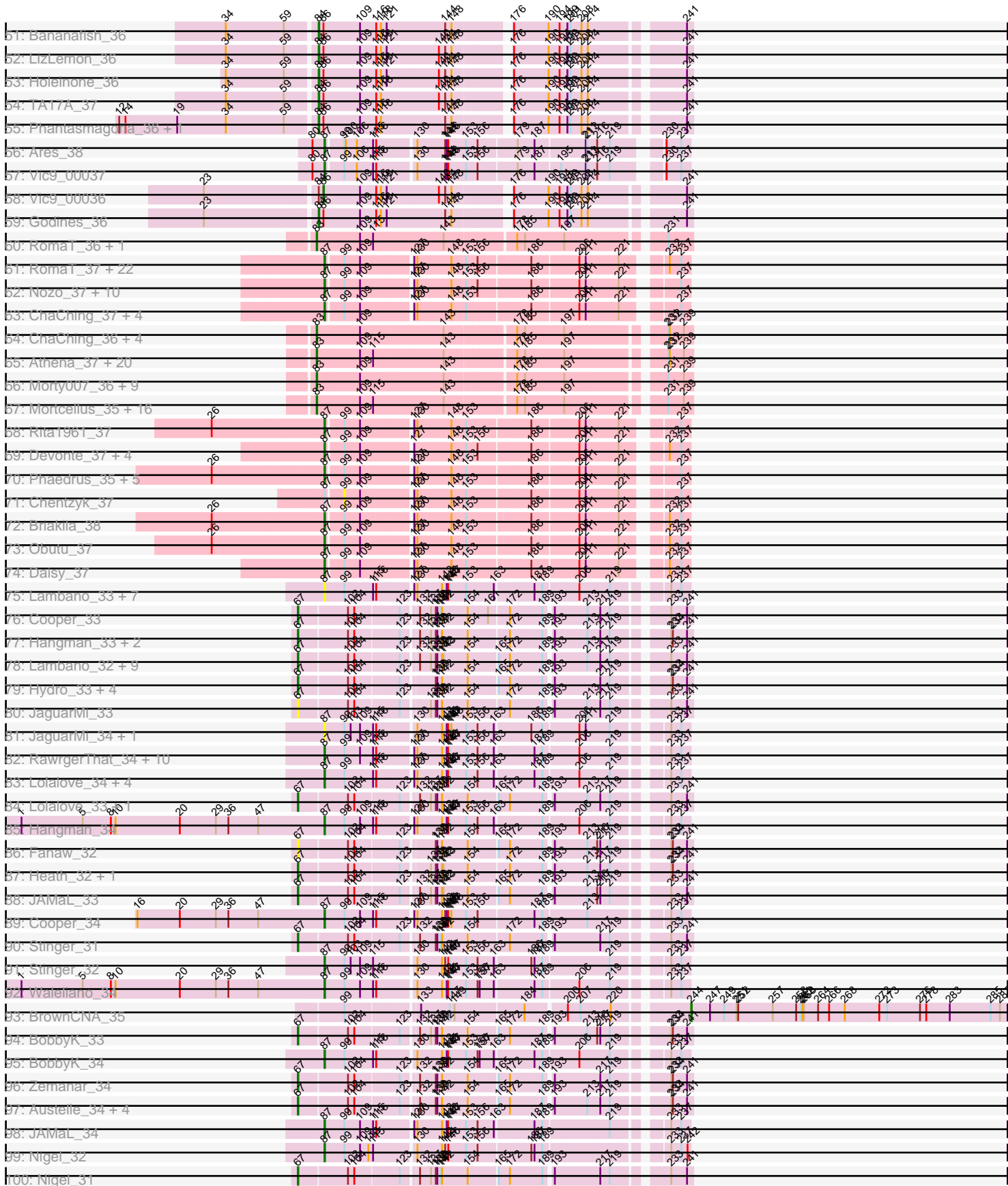


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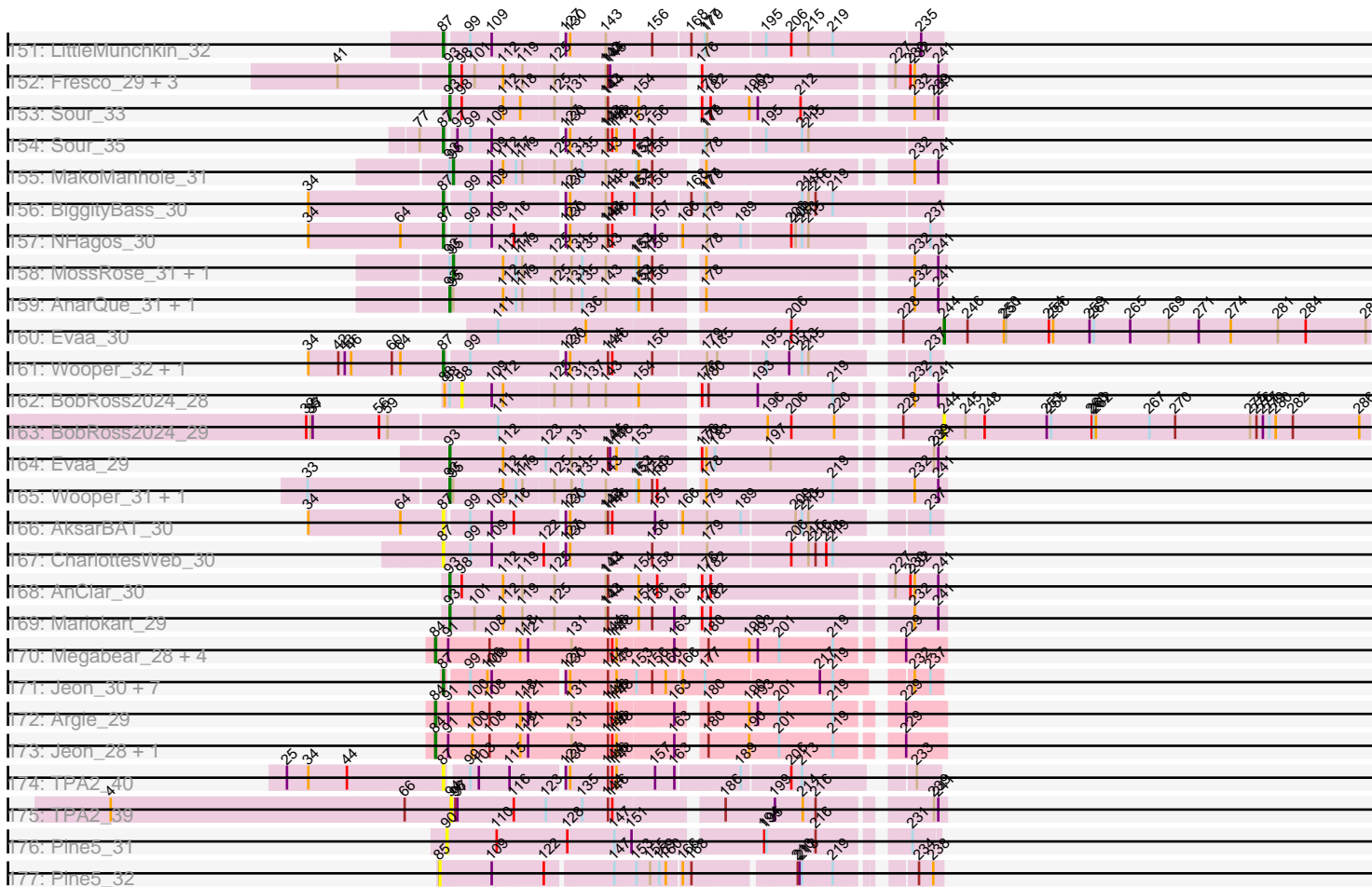
1: Mask_32 + 1	22	59	84	87	99	100	116	127	146	158	173	192	206	219	231
2: Mask_31	22	59	84	87	99	100	116	127	146	158	173	192	206	219	231
3: Don_32	22	59	84	87	99	100	116	127	146	158	173	192	206	219	231
4: Mao1_30 + 1		74	81	99	109	116	127	146	158	173	192	206	219	231	231
5: Mao1_31 + 1		83	81	99	109	116	127	146	158	173	192	206	219	231	231
6: Causa_43		83	81	99	109	116	127	146	158	173	192	206	219	231	231
7: Causa_42 + 1		83	81	99	109	116	127	146	158	173	192	206	219	231	231
8: StAugustine_41		75	80	99	113	113	130	144	163	180	194	212	219	230	230
9: Kwadwo_35 + 54		75	80	99	113	113	130	144	163	180	194	212	219	230	230
10: Cannibal_36 + 77	21, 34	2, 160	51	99	113	113	130	144	163	180	194	212	219	230	230
11: Cannibal_37 + 161	21, 34	2, 160	51	99	113	113	130	144	163	180	194	212	219	230	230
12: Schueller_36 + 52	21, 34	2, 160	75	80	113	113	130	144	163	180	194	212	219	230	230
13: Kallash_36 + 7		40	75	80	113	113	130	144	163	180	194	212	219	230	230
14: KingTut_27 + 69		40	75	80	113	113	130	144	163	180	194	212	219	230	230
15: Manad_35 + 21		40	75	80	113	113	130	144	163	180	194	212	219	230	230
16: KingVeVeVe_36 + 4	21, 34	2, 160	75	80	99	113	130	144	163	180	194	212	219	230	230
17: Chute_36 + 6	21, 34	2, 160	75	80	99	113	130	144	163	180	194	212	219	230	230
18: DaddyDaniels_36 + 43	21, 34	2, 160	75	80	99	113	130	144	163	180	194	212	219	230	230
19: MeisMeow_36 + 5	21, 34	2, 160	75	80	99	113	130	144	163	180	194	212	219	230	230
20: LostAndPhound_36 + 16	21, 34	2, 160	75	80	99	113	130	144	163	180	194	212	219	230	230
21: AllPhacts_37 + 12	21, 34	2, 160	75	80	99	113	130	144	163	180	194	212	219	230	230
22: Dingo_37 + 6	21, 34	2, 160	75	80	99	113	130	144	163	180	194	212	219	230	230
23: PinheadLarry_37 + 4	21, 34	2, 160	75	80	99	113	130	144	163	180	194	212	219	230	230
24: Lopsy_35 + 3	21, 34	2, 160	75	80	99	113	130	144	163	180	194	212	219	230	230
25: ProfessorX_37 + 14	21, 34	2, 160	75	80	99	113	130	144	163	180	194	212	219	230	230
26: Badfish_36	21, 34	2, 160	75	80	99	113	130	144	163	180	194	212	219	230	230
27: ElvisPhasiey_36	21, 34	2, 160	75	80	99	113	130	144	163	180	194	212	219	230	230
28: Riggan_37	21, 34	2, 160	75	80	99	113	130	144	163	180	194	212	219	230	230
29: Plata_37	21, 34	2, 160	75	80	99	113	130	144	163	180	194	212	219	230	230
30: BlueHusk_37 + 1	21, 34	2, 160	75	80	99	113	130	144	163	180	194	212	219	230	230
31: Indessa_36		40	75	80	113	113	130	144	163	180	194	212	219	230	230
32: Plata_36		40	75	80	113	113	130	144	163	180	194	212	219	230	230
33: Imvubu_29		83	81	99	109	116	127	146	158	173	192	206	219	231	231
34: Imvubu_30		70	81	99	109	116	127	146	158	173	192	206	219	231	231
35: Indiovu_34		74	81	99	109	116	127	146	158	173	192	206	219	231	231
36: Indiovu_35		74	81	99	109	116	127	146	158	173	192	206	219	231	231
37: LilMcDreamy_33		52	99	109	116	127	146	158	173	192	206	219	231	231	231
38: LilMcDreamy_31		55	99	109	116	127	146	158	173	192	206	219	231	231	231
39: Hashim76_39 + 1		63	99	109	116	127	146	158	173	192	206	219	231	231	231
40: Zenteno07_41		55	99	109	116	127	146	158	173	192	206	219	231	231	231
41: Zenteno07_40	21, 34	63	99	109	116	127	146	158	173	192	206	219	231	231	231
42: Hashim76_40	21, 34	63	99	109	116	127	146	158	173	192	206	219	231	231	231
43: BirdsNest_39	34	59	86	108	116	127	146	158	173	192	206	219	231	231	231
44: Lars_36 + 22	34	59	86	108	116	127	146	158	173	192	206	219	231	231	231
45: Rosebush_37 + 33	34	59	86	108	116	127	146	158	173	192	206	219	231	231	231
46: Koinan_36 + 1	23	86	108	116	127	146	158	173	192	206	219	231	231	231	231
47: Qyrzuia_34 + 1	23	86	108	116	127	146	158	173	192	206	219	231	231	231	231
48: Lars_38 + 1	23	86	108	116	127	146	158	173	192	206	219	231	231	231	231
49: Ares_36	34	59	86	108	116	127	146	158	173	192	206	219	231	231	231
50: Allegro_36 + 1	34	59	86	108	116	127	146	158	173	192	206	219	231	231	231

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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 215643 Report

This analysis was run 02/22/25 on database version 588.

Pham number 215643 has 994 members, 142 are drafts.

Phages represented in each track:

- Track 1 : Mask\_32, Dori\_33
- Track 2 : Mask\_31
- Track 3 : Dori\_32
- Track 4 : Mao1\_30, Sejanus\_31
- Track 5 : Mao1\_31, Sejanus\_32
- Track 6 : Causa\_43
- Track 7 : Causa\_42, StAugustine\_40
- Track 8 : StAugustine\_41
- Track 9 : Kwadwo\_35, Mana\_35, Fang\_36, Swish\_36, IsaacEli\_36, Scoot17C\_36, Lasso\_36, Mesh1\_36, UAch1\_36, MitKao\_36, TomBombadil\_36, Xavier\_35, Megatron\_36, FriarPreacher\_36, PinheadLarry\_36, Harvey\_36, Vortex\_36, Chah\_37, Hertubise\_36, QueenBeane\_36, Held\_36, Chunky\_36, Vaticameos\_36, Gyarad\_0036, YouGoGlencoco\_36, Cosmolli16\_35, LuckyMarjie\_35, TallGrassMM\_36, Mosaic\_35, Piglet\_0035, JacAttac\_36, OSmaximus\_36, Puhltonio\_36, Dione\_35, UncleHowie\_36, Squid\_36, Daffy\_36, Phamished\_36, Vista\_36, ABU\_36, FluffyNinja\_36, Serendipity\_36, Serpentine\_0036, Murdoc\_36, Haimas\_36, Sophia\_35, Nicole21\_36, Surely\_36, ThreeOh3D2\_36, Kikipoo\_36, CamL\_36, Yoshand\_36, Magic8\_36, Gareth\_35, Waterdiva\_36
- Track 10 : Cannibal\_36, Schueller\_35, Morgushi\_36, Freya\_35, Olak\_35, Childish\_35, BlackStallion\_36, Mcshane\_35, LostAndPhound\_35, Mecca\_35, Samaymay\_36, Haleema\_35, Timmi\_35, Bishoperium\_35, Orion\_36, Potter\_35, PhrodoBaggins\_35, Phareon\_36, Pacifista\_35, Gwilliam\_36, Fozzie\_35, Omniscient\_36, Banjo\_35, Iridoclysis\_36, AngelCake\_35, Adriana\_36, Lego3393\_36, Kimbrough\_36, Lumine\_35, LeeLot\_36, Oosterbaan\_36, Matalotodo\_36, Sigman\_36, LeiMonet\_36, Inverness\_36, Eugenia\_36, LemonSlice\_36, DonSancho\_35, Nathan\_37, Thora\_36, HighStump\_35, Dice\_35, Cher\_35, Boehler\_36, Pherdinand\_36, Katniss\_36, Squiggle\_36, True\_35, Newman\_36, PhatCats2014\_36, Simielle\_35, Morty\_36, PG1\_36, Phunky\_36, Legolas\_35, Mesmerelda\_36, Toni\_35, Hetaeria\_36, Hamish\_36, Mutante\_35, Orfeu\_35, Placalicious\_35, Jesabah\_36, DelRivs\_35, Gwennie1\_36, SassyCat97\_35, Chorkpop\_36, Solosis\_35, Scrick\_36, Maru\_35, Inchworm\_36, Selr12\_36, Ricotta\_35, Soile\_36, Mulan\_35, FugateOSU\_35, MRabcd\_35, Chipette\_37
- Track 11 : Cannibal\_37, KingTut\_28, Manad\_36, Mana\_36, Morgushi\_37, IsaacEli\_37, Freya\_36, Olak\_36, Scoot17C\_37, BlackStallion\_37, Waterdiva\_37, Puhltonio\_37, Lasso\_37, Mcshane\_36, UAch1\_37, Mecca\_36, Lumine\_36, Samaymay\_37, Schadenfreude\_36, Haleema\_36, Scrick\_37, Timmi\_36, TomBombadil\_37, Bishoperium\_36, Craff\_37, Phipps\_37, Kahve\_36, Altwerkus\_36,

Lulwa\_37, PhrodoBaggins\_36, Megatron\_37, FriarPreacher\_37, LeeLot\_37, Kwadwo\_36, Murdoc\_37, Podrick\_37, Bluephacebaby\_36, Antonia\_36, Lopsy\_36, Harvey\_37, Anderson\_37, SassyCat97\_36, Vortex\_37, Chah\_38, Hertubise\_37, RedMaple\_36, Telesworld\_36, QueenBeane\_37, Fozzie\_36, Banjo\_36, Fang\_37, Phareon\_37, Iridoclysis\_37, Badfish\_37, Fringe\_37, Adriana\_37, Lego3393\_37, Giraffe\_37, Kimbrough\_37, Oosterbaan\_37, Pops\_37, Nyala\_36, Colbert\_37, Matalotodo\_37, Sigman\_37, SilverBell\_37, Pacifista\_36, YouGoGlencoco\_37, Zelda\_37, Cosmolli16\_36, LemonSlice\_37, Usavi\_37, DonSanchon\_36, Legolas\_36, LuckyMarjie\_36, Thora\_37, Mesh1\_37, Eremos\_37, Apizium\_36, Beaglebox\_36, Daka\_37, Dice\_36, Cher\_36, Carthage\_35, JacAttac\_37, OSmaximus\_37, Dione\_36, Eugenia\_37, Daffy\_37, Skippy\_37, Katniss\_37, Squiggle\_37, Plmatters\_37, True\_36, PG1\_37, Gophee\_37, Kloppinator\_37, PhatCats2014\_37, HenryJackson\_36, Squid\_37, Morty\_37, Nathan\_38, CamL\_37, Phunky\_37, Cornobble\_36, FugateOSU\_36, ABU\_37, Numberten\_37, Vaishali24\_36, Tooj\_37, Hamish\_37, Mesmerelda\_37, FluffyNinja\_37, HighStump\_36, Vivaldi\_37, Mutante\_36, Orfeu\_36, Serendipity\_37, Andre\_37, TallGrassMM\_37, CharlieGBrown\_36, Placalicious\_36, Haimas\_37, Suffolk\_37, Xavier\_36, Jillium\_36, Sophia\_36, Grand2040\_36, Surely\_37, Slatt\_37, Vista\_37, Jesabah\_37, Solosis\_36, Virapocalypse\_37, Maru\_36, ThreeOh3D2\_37, Kikipoo\_37, Hetaeria\_37, Aelin\_36, Burr\_36, Yoshand\_37, Selr12\_37, UncleHowie\_37, Childish\_36, Ricotta\_36, Prickles\_37, Pherdinand\_37, Riverton\_36, JangoPhett\_37, Boehler\_37, Phamished\_37, DoesntMatter\_37, KLucky39\_37, Pipsqueak\_37, Zaider\_38, Buckeye\_37, Swish\_37, Omniscient\_37, Gareth\_36, Quisquiliae\_37, Robyn\_36, Orion\_37

- Track 12 : Schueller\_36, Kailash\_37, BatteryCK\_36, DaddyDaniels\_37, Durga\_37, Ashraf\_36, Emiris\_37, Jiraiya\_36, Cobra\_37, JDog\_36, Etaye\_37, Doddsville\_37, Kwksand96\_36, CampRoach\_37, GeneCoco\_37, Brilliant\_37, Jiminy\_36, Iridessa\_37, Longacauda\_36, Caspiroi\_38, Hartsy\_37, Hocus\_36, Veritas\_36, Swiphy\_38, Trypo\_37, JakeO\_36, Struggle\_36, Pinkman\_36, Cornbread\_37, ImtiyazSitla\_36, PhatLouie\_37, PhrankReynolds\_36, Khan1\_37, Labeouficaum\_36, DelRivs\_36, Gwennie1\_37, PhenghisKhan\_36, Rimu\_38, DuchessDung\_35, Phleuron\_36, Phergie\_36, MrPhizzler\_36, Mag7\_36, Soile\_37, Maskar\_36, Derpp\_36, TyrionL\_36, Zonia\_37, Thunderbird\_36, LasagnaCat\_37, MichaelPhcott\_36, Wallhey\_36, Duggie\_36
- Track 13 : Kailash\_36, Cobra\_36, GeneCoco\_36, Derpp\_35, Wallhey\_35, Hocus\_35, TyrionL\_35, MichaelPhcott\_35
- Track 14 : KingTut\_27, Chute\_35, Sheila\_36, Basato\_37, Aelin\_35, Lulumae\_35, AltPhacts\_36, Phipps\_36, Lulwa\_36, CheetO\_36, Dingo\_36, HenryJackson\_35, Podrick\_36, Beaglebox\_35, Robyn\_35, Bluephacebaby\_35, ProfessorX\_36, Chaelin\_36, Anderson\_36, Tomlarah\_36, Charles1\_36, RedMaple\_35, SirBeauregard\_36, Pops\_36, DirtJuice\_36, Nyala\_35, Kahve\_35, SilverBell\_36, Zelda\_36, Frankicide\_36, Schadenfreude\_35, Skippy\_36, Coletti\_35, Plmatters\_36, Megamind20\_36, Soto\_36, Zaider\_37, Roscoe\_37, Cornobble\_35, Fringe\_36, Numberten\_36, Vaishali24\_35, BlueHusk\_36, TooFast2Furius\_37, OliverWalter\_36, Windsor\_35, Kloppinator\_36, Virgeve\_35, HSavage\_36, Andre\_36, Roy17\_36, KlimbOn\_36, Suffolk\_36, Mikota\_36, Slatt\_36, Virapocalypse\_36, Crownjwl\_36, Burr\_35, Valjean\_36, Olive\_36, Quisquiliae\_36, MiniBoss\_36, Prickles\_36, Riverton\_35, Orwigg\_35, Horchata\_36, DoesntMatter\_36, Gophee\_36, Pipsqueak\_36, Buckeye\_36
- Track 15 : Manad\_35, Riggan\_36, Craff\_36, ShiVal\_36, Roliet\_36, Telesworld\_35, EmpTee\_36, Apizium\_35, Altwerkus\_35, Carthage\_34, Antonia\_35, JakeO\_35, Keitherie\_36, Vivaldi\_36, Nacho\_0036, CharlieGBrown\_35, JangoPhett\_36, Spartan300\_36, Jillium\_35, KLucky39\_36, AbsoluteMadLad\_35, SDcharge11\_36
- Track 16 : KingVeVeVe\_36, Colbert\_36, Eremos\_36, Daka\_36, Grand2040\_35

- Track 17 : Chute\_36, Chaelin\_37, SirBeauregard\_37, Coletti\_36, Windsor\_36, Keitherie\_37, Virgeve\_36
- Track 18 : DaddyDaniels\_36, Durga\_36, MelsMeow\_35, Emiris\_36, Kwksand96\_35, CampRoach\_36, Brilliant\_36, Jiminy\_35, Longacauda\_35, Mag7\_35, Hartsy\_36, Caspiboi\_37, LasagnaCat\_36, Rimu\_37, Veritas\_35, Swiphy\_37, Etaye\_36, Doddsville\_36, Trypo\_36, Struggle\_35, Weher20\_36, Pinkman\_35, Cornbread\_36, PhrankReynolds\_35, Melc17\_36, Khan1\_36, Labeouficaum\_35, Jiraiya\_35, Phergie\_35, PhenghisKhan\_35, Ashraf\_35, DuchessDung\_34, Phleuron\_35, Dati\_36, MrPhizzler\_35, BatteryCK\_35, Oline\_35, Maskar\_35, ImtiyazSitla\_35, PhatLouie\_36, Zonia\_36, Thunderbird\_35, Duggie\_35, JDog\_35
- Track 19 : MelsMeow\_36, ElvisPhasley\_37, Weher20\_37, Melc17\_37, Dati\_37, Oline\_36
- Track 20 : LostAndPhound\_36, Potter\_36, Held\_37, Chunky\_37, LeiMonet\_37, Inverness\_37, Gyrad\_0037, Gwilliam\_37, Newman\_37, Piglet\_0036, MRabcd\_36, Mosaic\_36, MitKao\_37, Serpentine\_0037, Chorkpop\_37, Mulan\_36, Chipette\_38
- Track 21 : AltPhacts\_37, Roliet\_37, KingVeVeVe\_37, Horchata\_37, Frankicide\_37, Soto\_37, TooFast2Furius\_38, Nacho\_0037, Crownjwl\_37, HSavage\_37, DirtJuice\_37, KlimbOn\_37, SDcharge11\_37
- Track 22 : Dingo\_37, CheetO\_37, Basato\_38, Sheila\_37, OliverWalter\_37, Mikota\_37, AbsoluteMadLad\_36
- Track 23 : PinheadLarry\_37, AngelCake\_36, Nicole21\_37, Inchworm\_37, Magic8\_37
- Track 24 : Lopsy\_35, Tooj\_36, Giraffe\_36, Usavi\_36
- Track 25 : ProfessorX\_37, Tomlarah\_37, Megamind20\_37, EmpTee\_37, ShiVal\_37, Charles1\_37, Simielle\_36, Roscoe\_38, Toni\_36, Lulumae\_36, Roy17\_37, Spartan300\_37, Valjean\_37, Olive\_37, Orwig\_36
- Track 26 : Badfish\_36
- Track 27 : ElvisPhasley\_36
- Track 28 : Riggan\_37
- Track 29 : Plata\_37
- Track 30 : BlueHusk\_37, MiniBoss\_37
- Track 31 : Iridessa\_36
- Track 32 : Plata\_36
- Track 33 : Imvubu\_29
- Track 34 : Imvubu\_30
- Track 35 : Indlovu\_34
- Track 36 : Indlovu\_35
- Track 37 : LilMcDreamy\_33
- Track 38 : LilMcDreamy\_31
- Track 39 : Hashim76\_39, BirdsNest\_38
- Track 40 : Zenteno07\_41
- Track 41 : Zenteno07\_40
- Track 42 : Hashim76\_40
- Track 43 : BirdsNest\_39
- Track 44 : Lars\_36, Rosebush\_36, Kaleb\_36, West99\_36, PrinceCharming\_36, Coffee\_36, Glass\_36, LilSmirk\_36, Sabella\_36, Boyle\_36, Kheth\_36, Hedgerow\_36, Opia\_36, Blocker23\_36, Arbiter\_36, ItsyBitsy1\_36, Lephleur\_36, Tres\_36, FrenchFry\_36, Calamitous\_36, Rhinoforte\_36, Tinciduntolum\_37, Brownie5\_36
- Track 45 : Rosebush\_37, Kaleb\_38, Kolhan\_38, Qyrzula\_35, Glass\_38, Holeinone\_38, Opia\_38, Allegro\_38, Sabella\_37, Bananafish\_38, Boyle\_38, Eaglehorse\_38, Hedgerow\_38, Coffee\_38, Blocker23\_38, ItsyBitsy1\_38, Arbiter\_37, TA17A\_39, West99\_38, MasterPo\_38, Lephleur\_38, FrenchFry\_38, Calamitous\_38, Rhinoforte\_38, Phantasmagoria\_38, Laurie\_37, LilSmirk\_38, Tinciduntolum\_39,

PrinceCharming\_38, Tres\_38, Faze9\_37, Godines\_38, Kheth\_38, Brownie5\_38

- Track 46 : Kolhan\_36, MasterPo\_36
- Track 47 : Qyrzula\_34, Laurie\_36
- Track 48 : Lars\_38, LizLemon\_38
- Track 49 : Ares\_36
- Track 50 : Allegro\_36, Eaglehorse\_36
- Track 51 : Bananafish\_36
- Track 52 : LizLemon\_36
- Track 53 : Holeinone\_36
- Track 54 : TA17A\_37
- Track 55 : Phantasmagoria\_36, Faze9\_36
- Track 56 : Ares\_38
- Track 57 : Vic9\_00037
- Track 58 : Vic9\_00036
- Track 59 : Godines\_36
- Track 60 : RomaT\_36, Daisy\_36
- Track 61 : RomaT\_37, Jackstina\_34, Gervas\_37, Phlyer\_37, Mortcellus\_36, Yahalom\_37, SlippinJimmy\_37, Casbah\_36, Marley1013\_37, TinyTerror\_37, Audrey\_37, MmasiCarm\_37, Morty007\_37, Shenandoah\_37, Philly\_36, Kronus\_36, Pipefish\_39, LestyG\_37, Compostia\_38, Bernardo\_37, Corofin\_37, Ben11\_36, Chalmers\_37
- Track 62 : Nozo\_37, Glubnar\_37, Phayeta\_38, Tydolla\_37, Heathcliff\_37, GlenHope\_38, Deenasa\_37, Baloo\_37, SwainyDoc\_37, Neos5\_37, OrangeOswald\_37
- Track 63 : ChaChing\_37, Athena\_38, Olivio\_36, Marlia\_37, Halfpint\_36
- Track 64 : ChaChing\_36, Olivio\_35, Chentzyk\_35, MmasiCarm\_36, Halfpint\_35
- Track 65 : Athena\_37, Gervas\_36, Tydolla\_36, Heathcliff\_36, Devonte\_36, Audrey\_36, TinyTerror\_36, Chandler\_36, LestyG\_36, Abinghost\_36, Deenasa\_36, Shenandoah\_36, Baloo\_36, RagingRooster\_36, Corofin\_36, SynergyX\_36, Neos5\_36, Bernardo\_36, SwainyDoc\_36, OrangeOswald\_36, Nozo\_36
- Track 66 : Morty007\_36, Glubnar\_36, Marley1013\_36, Phaedrus\_34, Phayeta\_37, Akoma\_36, Gadget\_37, Kamiyu\_36, HarveySr\_36, Yinz\_36
- Track 67 : Mortcellus\_35, SlippinJimmy\_36, Casbah\_35, Phlyer\_36, GlenHope\_37, Obutu\_36, Compostia\_37, Pipefish\_38, Marlia\_36, Jackstina\_33, Briakila\_37, Ben11\_35, Chalmers\_36, Philly\_35, Kronus\_35, Rita1961\_36, Yahalom\_36
- Track 68 : Rita1961\_37
- Track 69 : Devonte\_37, Abinghost\_37, RagingRooster\_37, Chandler\_37, SynergyX\_37
- Track 70 : Phaedrus\_35, Akoma\_37, Gadget\_38, Yinz\_37, Kamiyu\_37, HarveySr\_37
- Track 71 : Chentzyk\_37
- Track 72 : Briakila\_38
- Track 73 : Obutu\_37
- Track 74 : Daisy\_37
- Track 75 : Lambano\_33, GinPorsche\_33, Antihero\_33, Ahwei\_33, Nanao\_33, Hally898\_33, Epah\_33, Poster\_33
- Track 76 : Cooper\_33
- Track 77 : Hangman\_33, Waleliano\_33, BrownCNA\_34
- Track 78 : Lambano\_32, GinPorsche\_32, Prince\_33, Antihero\_32, Ahwei\_32, Nanao\_32, ChrisnMich\_32, Hally898\_32, Epah\_32, Poster\_32
- Track 79 : Hydro\_33, Mithril\_33, RawrgerThat\_33, VioletZ\_33, Fortunato\_33
- Track 80 : JaguarMi\_33
- Track 81 : JaguarMi\_34, Xincheng\_33



- Track 82 : RawrgerThat\_34, Mithril\_34, Fortunato\_34, Hydro\_34, Austelle\_35, Zemanar\_35, VioletZ\_34, Apex\_34, Magpie\_33, Mudslide\_34, Frederick\_34
- Track 83 : Lolalove\_34, Fanaw\_33, Heath\_33, QueenPie\_33, ChrisnMich\_33
- Track 84 : Lolalove\_33, Xincheng\_32
- Track 85 : Hangman\_34
- Track 86 : Fanaw\_32
- Track 87 : Heath\_32, QueenPie\_32
- Track 88 : JAMaL\_33
- Track 89 : Cooper\_34
- Track 90 : Stinger\_31
- Track 91 : Stinger\_32
- Track 92 : Waleliano\_34
- Track 93 : BrownCNA\_35
- Track 94 : BobbyK\_33
- Track 95 : BobbyK\_34
- Track 96 : Zemanar\_34
- Track 97 : Austelle\_34, Magpie\_32, Apex\_33, Mudslide\_33, Frederick\_33
- Track 98 : JAMaL\_34
- Track 99 : Nigel\_32
- Track 100 : Nigel\_31
- Track 101 : Prince\_34
- Track 102 : AlanGrant\_35, Vincenzo\_35
- Track 103 : AlanGrant\_34, Vincenzo\_34
- Track 104 : Acadian\_35, Rita130\_35, Suigeneris\_35, SirJeffery\_35, EastView9101\_34, Donny\_35
- Track 105 : Acadian\_36, EastView9101\_35, Donny\_36, Suigeneris\_36, SirJeffery\_36
- Track 106 : Reprobate\_36, Nehemiah\_36, Phelemich\_36, Mysterious\_38
- Track 107 : Nangang\_35, DigitDog\_35, Shenyu\_35
- Track 108 : Nangang\_36
- Track 109 : Bae\_35, Rich\_35
- Track 110 : Bae\_34
- Track 111 : Rita130\_36
- Track 112 : Serendipitous\_35
- Track 113 : Serendipitous\_34
- Track 114 : StinkyVeggy\_37, KarasumaRum\_37
- Track 115 : StinkyVeggy\_38, KarasumaRum\_38
- Track 116 : DigitDog\_36, Shenyu\_36
- Track 117 : Nehemiah\_34, Phelemich\_35, Mysterious\_36, Reprobate\_35
- Track 118 : Rich\_34
- Track 119 : 40BC\_030, ForDig\_31, Hosp\_028, 39HC\_030
- Track 120 : KayaCho\_30
- Track 121 : Jolie1\_030
- Track 122 : Hosp\_029, 39HC\_031, ForDig\_32, Jolie1\_031, 40BC\_031
- Track 123 : KayaCho\_31
- Track 124 : Saguaro\_37
- Track 125 : Saguaro\_38
- Track 126 : Thonko\_36
- Track 127 : Thonko\_35
- Track 128 : Knocker\_38
- Track 129 : Rinkes\_37
- Track 130 : CRB2\_39
- Track 131 : Rinkes\_38

- Track 132 : Funsized\_38
- Track 133 : Funsized\_39
- Track 134 : PenguinLover67\_39
- Track 135 : PenguinLover67\_38
- Track 136 : Knocker\_37
- Track 137 : Quesadilla\_39
- Track 138 : Quesadilla\_38
- Track 139 : Coldpizza\_33
- Track 140 : Coldpizza\_32
- Track 141 : Sisko\_30, Yago84\_30, AnClar\_31
- Track 142 : BiggityBass\_29
- Track 143 : AksarBAT\_29
- Track 144 : NHagos\_29
- Track 145 : Axumite\_30, Ligma\_30, Fresco\_30, Shatter\_30
- Track 146 : Sisko\_29, Yago84\_29
- Track 147 : CaiB\_32, MossRose\_32, AnarQue\_32, CloverMinnie\_32, MakoManhole\_32
- Track 148 : CharlottesWeb\_29
- Track 149 : LittleMunchkin\_31
- Track 150 : Mariokart\_30
- Track 151 : LittleMunchkin\_32
- Track 152 : Fresco\_29, Axumite\_29, Shatter\_29, Ligma\_29
- Track 153 : Sour\_33
- Track 154 : Sour\_35
- Track 155 : MakoManhole\_31
- Track 156 : BiggityBass\_30
- Track 157 : NHagos\_30
- Track 158 : MossRose\_31, CaiB\_31
- Track 159 : AnarQue\_31, CloverMinnie\_31
- Track 160 : Evaa\_30
- Track 161 : Wooper\_32, Yeshua\_32
- Track 162 : BobRoss2024\_28
- Track 163 : BobRoss2024\_29
- Track 164 : Evaa\_29
- Track 165 : Wooper\_31, Yeshua\_31
- Track 166 : AksarBAT\_30
- Track 167 : CharlottesWeb\_30
- Track 168 : AnClar\_30
- Track 169 : Mariokart\_29
- Track 170 : Megabear\_28, D12\_28, Cepens\_28, PR\_28, Taptic\_28
- Track 171 : Jeon\_30, Argie\_31, Cepens\_30, GodPhather\_31, D12\_29, PR\_30, Taptic\_30, Megabear\_30
- Track 172 : Argie\_29
- Track 173 : Jeon\_28, GodPhather\_29
- Track 174 : TPA2\_40
- Track 175 : TPA2\_39
- Track 176 : Pine5\_31
- Track 177 : Pine5\_32

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

The start number called the most often in the published annotations is 87, it was called in 531 of the 852 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 39HC\_030, 39HC\_031, 40BC\_030, 40BC\_031, ABU\_36, ABU\_37, Abinghost\_37, AbsoluteMadLad\_35, AbsoluteMadLad\_36, Acadian\_35, Acadian\_36, Adriana\_37, Aelin\_36, Ahwei\_33, Akoma\_37, AksarBAT\_30, AlanGrant\_35, Allegro\_38, AltPhacts\_37, Altwerkus\_35, Altwerkus\_36, AnClar\_31, AnarQue\_32, Anderson\_37, Andre\_37, AngelCake\_36, Antihero\_33, Antonia\_35, Antonia\_36, Apex\_34, Apizium\_35, Apizium\_36, Arbiter\_37, Ares\_38, Argie\_31, Ashraf\_36, Athena\_38, Audrey\_37, Austelle\_35, Axumite\_30, Badfish\_37, Bae\_34, Bae\_35, Baloo\_37, Bananafish\_38, Banjo\_36, Basato\_38, BatteryCK\_36, Beaglebox\_36, Ben11\_36, Bernardo\_37, BiggityBass\_30, BirdsNest\_38, BirdsNest\_39, Bishoperium\_36, BlackStallion\_37, Blocker23\_38, BlueHusk\_37, Bluephacebaby\_36, BobbyK\_34, Boehler\_37, Boyle\_38, Briakila\_38, Brilliant\_37, Brownie5\_38, Buckeye\_37, Burr\_36, CRB2\_39, CaiB\_32, Calamitous\_38, CamL\_36, CamL\_37, CampRoach\_37, Cannibal\_37, Carthage\_34, Carthage\_35, Casbah\_36, Caspiboi\_38, Causa\_43, Cepens\_30, ChaChing\_37, Chaelin\_37, Chah\_37, Chah\_38, Chalmers\_37, Chandler\_37, Charles1\_37, CharlieGBrown\_35, CharlieGBrown\_36, CharlottesWeb\_30, CheetO\_37, Cher\_36, Childish\_36, Chipette\_38, Chorkpop\_37, ChrisnMich\_33, Chunky\_36, Chunky\_37, Chute\_36, CloverMinnie\_32, Cobra\_36, Cobra\_37, Coffee\_38, Colbert\_36, Colbert\_37, Coldpizza\_33, Coletti\_36, Compostia\_38, Cooper\_34, Cornbread\_37, Cornobble\_36, Corofin\_37, Cosmolli16\_35, Cosmolli16\_36, Craff\_36, Craff\_37, Crownjwl\_37, D12\_29, DaddyDaniels\_37, Daffy\_36, Daffy\_37, Daisy\_37, Daka\_36, Daka\_37, Dati\_37, Deenasa\_37, DelRivs\_36, Derpp\_35, Derpp\_36, Devonte\_37, Dice\_36, DigitDog\_35, DigitDog\_36, Dingo\_37, Dione\_35, Dione\_36, DirtJuice\_37, Doddsville\_37, DoesntMatter\_37, DonSanchon\_36, Donny\_35, Donny\_36, Dori\_33, DuchessDung\_35, Duggie\_36, Durga\_37, Eaglehorse\_38, EastView9101\_34, EastView9101\_35, ElvisPhasley\_37, Emiris\_37, EmpTee\_36, EmpTee\_37, Epah\_33, Eremos\_36, Eremos\_37, Etaye\_37, Eugenia\_37, Fanaw\_33, Fang\_36, Fang\_37, Faze9\_37, FluffyNinja\_36, FluffyNinja\_37, ForDig\_31, ForDig\_32, Fortunato\_34, Fozzie\_36, Frankicide\_37, Frederick\_34, FrenchFry\_38, Fresco\_30, Freya\_36, FriarPreacher\_36, FriarPreacher\_37, Fringe\_37, FugateOSU\_36, Funsized\_38, Funsized\_39, Gadget\_38, Gareth\_35, Gareth\_36, GeneCoco\_36, GeneCoco\_37, Gervas\_37, GinPorsche\_33, Giraffe\_37, Glass\_38, GlenHope\_38, Glubnar\_37, GodPhather\_31, Godines\_38, Gophee\_37, Grand2040\_35, Grand2040\_36, Gwennie1\_37, Gwilliam\_37, Gyarad\_0036, Gyarad\_0037, HSavage\_37, Haimas\_36, Haimas\_37, Haleema\_36, Halfpint\_36, Hally898\_33, Hamish\_37, Hangman\_34, Hartsy\_37, HarveySr\_37, Harvey\_36, Harvey\_37, Hashim76\_39, Hashim76\_40, Heath\_33, Heathcliff\_37, Hedgerow\_38, Held\_36, Held\_37, HenryJackson\_36, Hertubise\_36, Hertubise\_37, Hetaeria\_37, HighStump\_36, Hocus\_35, Hocus\_36, Holeinone\_38, Horchata\_37, Hosp\_028, Hosp\_029, Hydro\_34, ImtiyazSitla\_36, Imvubu\_29, Imvubu\_30, Inchworm\_37, Indlovu\_35, Inverness\_37, Iridessa\_37, Iridoclysis\_37, IsaacEli\_36, IsaacEli\_37, ItsyBitsy1\_38, JAMaL\_34, JDog\_36, JacAttac\_36, JacAttac\_37, Jackstina\_34, JaguarMi\_34, JakeO\_35, JakeO\_36, JangoPhett\_36, JangoPhett\_37, Jeon\_30, Jesabah\_37, Jillium\_35, Jillium\_36, Jiminy\_36, Jiraiya\_36, Jolie1\_030, Jolie1\_031, KLucky39\_36, KLucky39\_37, Kahve\_36, Kailash\_36, Kailash\_37, Kaleb\_38, Kamiyu\_37, KarasumaRum\_38, Katniss\_37, KayaCho\_30, KayaCho\_31, Keitherie\_36, Keitherie\_37, Khan1\_37, Kheth\_38, Kikipoo\_36, Kikipoo\_37, Kimbrough\_37, KingTut\_28, KingVeVeVe\_36, KingVeVeVe\_37, KlimbOn\_37, Kloppinator\_37, Knocker\_37, Knocker\_38,

Kolhan\_38, Kronus\_36, Kwadwo\_35, Kwadwo\_36, Kwksand96\_36, Labeouficaum\_36, Lambano\_33, Lars\_38, LasagnaCat\_37, Lasso\_36, Lasso\_37, Laurie\_37, LeeLot\_37, Lego3393\_37, Legolas\_36, LeiMonet\_37, LemonSlice\_37, Lephleur\_38, LestyG\_37, Ligma\_30, LilMcDreamy\_33, LilSmirk\_38, LittleMunchkin\_32, LizLemon\_38, Lolalove\_34, Longacauda\_36, Lopsy\_36, LostAndPhound\_36, LuckyMarjie\_35, LuckyMarjie\_36, Lulumae\_36, Lulwa\_37, Lumine\_36, MRabcd\_36, Mag7\_36, Magic8\_36, Magic8\_37, Magpie\_33, MakoManhole\_32, Mana\_35, Mana\_36, Manad\_35, Manad\_36, Mao1\_31, Mariokart\_30, Marley1013\_37, Marlia\_37, Maru\_36, Mask\_32, Maskar\_36, MasterPo\_38, Matalotodo\_37, Mcshane\_36, Mecca\_36, Megabear\_30, Megamind20\_37, Megatron\_36, Megatron\_37, Melc17\_37, MelsMeow\_36, Mesh1\_36, Mesh1\_37, Mesmerelda\_37, MichaelPhcott\_35, MichaelPhcott\_36, Mikota\_37, MiniBoss\_37, MitKao\_36, MitKao\_37, Mithril\_34, MmasiCarm\_37, Morgushi\_37, Mortcellus\_36, Morty007\_37, Morty\_37, Mosaic\_35, Mosaic\_36, MossRose\_32, MrPhizzler\_36, Mudslide\_34, Mulan\_36, Murdoc\_36, Murdoc\_37, Mutante\_36, Mysterious\_36, Mysterious\_38, NHagos\_30, Nacho\_0036, Nacho\_0037, Nanao\_33, Nangang\_35, Nathan\_38, Nehemiah\_34, Nehemiah\_36, Neos5\_37, Newman\_37, Nicole21\_36, Nicole21\_37, Nigel\_32, Nozo\_37, Numberten\_37, Nyala\_36, OSmaximus\_36, OSmaximus\_37, Obutu\_37, Olak\_36, Oline\_36, Olive\_37, OliverWalter\_37, Olivio\_36, Omniscient\_37, Oosterbaan\_37, Opia\_38, OrangeOswald\_37, Orfeu\_36, Orion\_37, Orwigg\_36, PG1\_37, PR\_30, Pacifista\_36, PenguinLover67\_39, Phaedrus\_35, Phamished\_36, Phamished\_37, Phantasmagoria\_38, Phareon\_37, PhatCats2014\_37, PhatLouie\_37, Phayeta\_38, Phelemich\_35, Phelemich\_36, PhenghisKhan\_36, Pherdinand\_37, Phergie\_36, Philly\_36, Phipps\_37, Phleuron\_36, Phlyer\_37, PhrankReynolds\_36, PhrodoBaggins\_36, Phunky\_37, Piglet\_0035, Piglet\_0036, PinheadLarry\_36, PinheadLarry\_37, Pinkman\_36, Pipefish\_39, Pipsqueak\_37, Placalicious\_36, Plata\_37, Plmatters\_37, Podrick\_37, Pops\_37, Poster\_33, Potter\_36, Prickles\_37, PrinceCharming\_38, Prince\_34, ProfessorX\_37, Puhltonio\_36, Puhltonio\_37, QueenBeane\_36, QueenBeane\_37, QueenPie\_33, Quisquillae\_37, Qyrzula\_35, RagingRooster\_37, RawrgerThat\_34, RedMaple\_36, Reprobate\_35, Reprobate\_36, Rhinoforte\_38, Rich\_34, Rich\_35, Ricotta\_36, Riggan\_36, Riggan\_37, Rimu\_38, Rinkes\_37, Rinkes\_38, Rita130\_35, Rita130\_36, Rita1961\_37, Riverton\_36, Robyn\_36, Roliet\_36, Roliet\_37, RomaT\_37, Roscoe\_38, Rosebush\_37, Roy17\_37, SDcharge11\_36, SDcharge11\_37, Sabella\_37, Saguaro\_37, Saguaro\_38, Samaymay\_37, SassyCat97\_36, Schadenfreude\_36, Schueller\_36, Scoot17C\_36, Scoot17C\_37, Scrick\_37, Sejanus\_32, Selr12\_37, Serendipitous\_34, Serendipitous\_35, Serendipity\_36, Serendipity\_37, Serpentine\_0036, Serpentine\_0037, Shatter\_30, Sheila\_37, Shenandoah\_37, Shenyu\_35, Shenyu\_36, ShiVal\_36, ShiVal\_37, Sigman\_37, SilverBell\_37, Simielle\_36, SirBeauregard\_37, SirJeffery\_35, SirJeffery\_36, Sisko\_30, Skippy\_37, Slatt\_37, SlippinJimmy\_37, Soile\_37, Solosis\_36, Sophia\_35, Sophia\_36, Soto\_37, Sour\_35, Spartan300\_36, Spartan300\_37, Squid\_36, Squid\_37, Squiggle\_37, StAugustine\_41, Stinger\_32, StinkyVeggy\_38, Struggle\_36, Suffolk\_37, Suigeneris\_35, Suigeneris\_36, Surely\_36, Surely\_37, SwainyDoc\_37, Swiphy\_38, Swish\_36, Swish\_37, SynergyX\_37, TA17A\_39, TPA2\_40, TallGrassMM\_36, TallGrassMM\_37, Taptic\_30, Telesworld\_35, Telesworld\_36, Thonko\_36, Thora\_37, ThreeOh3D2\_36, ThreeOh3D2\_37, Thunderbird\_36, Timmi\_36, Tinciduntolum\_39, TinyTerror\_37, TomBombadil\_36, TomBombadil\_37, Tomlarah\_37, Toni\_36, TooFast2Furius\_38, Tooj\_37, Tres\_38, True\_36, Trypo\_37, Tydolla\_37, TyrionL\_35, TyrionL\_36, UAch1\_36, UAch1\_37, UncleHowie\_36, UncleHowie\_37, Usavi\_37, Vaishali24\_36, Valjean\_37, Vaticameos\_36, Veritas\_36, Vic9\_00037, Vincenzo\_35, VioletZ\_34, Virapocalypse\_37, Virgeve\_36, Vista\_36, Vista\_37, Vivaldi\_36, Vivaldi\_37,

Vortex\_36, Vortex\_37, Waleliano\_34, Wallhey\_35, Wallhey\_36, Waterdiva\_36, Waterdiva\_37, Weher20\_37, West99\_38, Windsor\_36, Wooper\_32, Xavier\_35, Xavier\_36, Xincheng\_33, Yago84\_30, Yahalom\_37, Yeshua\_32, Yinz\_37, Yoshand\_36, Yoshand\_37, YouGoGlencoco\_36, YouGoGlencoco\_37, Zaider\_38, Zelda\_37, Zemanar\_35, Zenteno07\_40, Zenteno07\_41, Zonia\_37,

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

- Adriana\_36, Aelin\_35, AltPhacts\_36, Anderson\_36, Andre\_36, AngelCake\_35, Ashraf\_35, Banjo\_35, Basato\_37, BatteryCK\_35, Beaglebox\_35, Bishoperium\_35, BlackStallion\_36, BlueHusk\_36, Bluephacebaby\_35, Boehler\_36, Brilliant\_36, Buckeye\_36, Burr\_35, CampRoach\_36, Cannibal\_36, Caspiboi\_37, Chaelin\_36, Charles1\_36, CheetO\_36, Chentzyk\_37, Cher\_35, Childish\_35, Chipette\_37, Chorkpop\_36, Chute\_35, Coletti\_35, Cornbread\_36, Cornobble\_35, Crownjwl\_36, DaddyDaniels\_36, Dati\_36, DelRivs\_35, Dice\_35, Dingo\_36, DirtJuice\_36, Doddsville\_36, DoesntMatter\_36, DonSanchon\_35, DuchessDung\_34, Duggie\_35, Durga\_36, ElvisPhasley\_36, Emiris\_36, Etaye\_36, Eugenia\_36, Fozzie\_35, Frankicide\_36, Freya\_35, Fringe\_36, FugateOSU\_35, Giraffe\_36, Gophee\_36, Gwennie1\_36, Gwilliam\_36, HSavage\_36, Haleema\_35, Hamish\_36, Hartsy\_36, HenryJackson\_35, Hetaeria\_36, HighStump\_35, Horchata\_36, ImtiyazSitla\_35, Inchworm\_36, Indlovu\_34, Inverness\_36, Iridessa\_36, Iridoclysis\_36, JDog\_35, Jesabah\_36, Jiminy\_35, Jiraiya\_35, Kahve\_35, KarasumaRum\_37, Katniss\_36, Khan1\_36, Kimbrough\_36, KingTut\_27, KlimbOn\_36, Kloppinator\_36, Kwksand96\_35, Labeouficaum\_35, LasagnaCat\_36, LeeLot\_36, Lego3393\_36, Legolas\_35, LeiMonet\_36, LemonSlice\_36, Longacauda\_35, Lopsy\_35, LostAndPhound\_35, Lulumae\_35, Lulwa\_36, Lumine\_35, MRabcd\_35, Mag7\_35, Maru\_35, Maskar\_35, Matalotodo\_36, Mcshane\_35, Mecca\_35, Megamind20\_36, Melc17\_36, MelsMeow\_35, Mesmerelda\_36, Mikota\_36, MiniBoss\_36, Morgushi\_36, Morty\_36, MrPhizzler\_35, Mulan\_35, Mutante\_35, Nangang\_36, Nathan\_37, Newman\_36, Numberten\_36, Nyala\_35, Olak\_35, Oline\_35, Olive\_36, OliverWalter\_36, Omniscient\_36, Oosterbaan\_36, Orfeu\_35, Orion\_36, Orwigg\_35, PG1\_36, Pacifista\_35, PenguinLover67\_38, Phareon\_36, PhatCats2014\_36, PhatLouie\_36, PhenghisKhan\_35, Pherdinand\_36, Phergie\_35, Phipps\_36, Phleuron\_35, PhrankReynolds\_35, PhrodoBaggins\_35, Phunky\_36, Pinkman\_35, Pipsqueak\_36, Placalicious\_35, Plata\_36, Plmatters\_36, Podrick\_36, Pops\_36, Potter\_35, Prickles\_36, ProfessorX\_36, Quesadilla\_38, Quisquiliae\_36, RedMaple\_35, Ricotta\_35, Rimu\_37, Riverton\_35, Robyn\_35, Roscoe\_37, Roy17\_36, Samaymay\_36, SassyCat97\_35, Schadenfreude\_35, Schueller\_35, Scrick\_36, Selr12\_36, Sheila\_36, Sigman\_36, SilverBell\_36, Simielle\_35, SirBeauregard\_36, Skippy\_36, Slatt\_36, Soile\_36, Solosis\_35, Soto\_36, Squiggle\_36, StinkyVeggy\_37, Struggle\_35, Suffolk\_36, Swiphy\_37, Thora\_36, Thunderbird\_35, Timmi\_35, Tomlarah\_36, Toni\_35, TooFast2Furious\_37, Tooj\_36, True\_35, Trypo\_36, Usavi\_36, Vaishali24\_35, Valjean\_36, Veritas\_35, Virapocalypse\_36, Virgeve\_35, Weher20\_36, Windsor\_35, Zaider\_37, Zelda\_36, Zonia\_36,

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

- Abinghost\_36, Ahwei\_32, Akoma\_36, AksarBAT\_29, AlanGrant\_34, Allegro\_36, AnClar\_30, AnarQue\_31, Antihero\_32, Apex\_33, Arbiter\_36, Ares\_36, Argie\_29, Athena\_37, Audrey\_36, Austelle\_34, Axumite\_29, Badfish\_36, Baloo\_36, Bananafish\_36, Ben11\_35, Bernardo\_36, BiggityBass\_29, Blocker23\_36, BobRoss2024\_28, BobRoss2024\_29, BobbyK\_33, Boyle\_36, Briakila\_37, BrownCNA\_34, BrownCNA\_35, Brownie5\_36, CaiB\_31, Calamitous\_36, Casbah\_35, Causa\_42, Cepens\_28, ChaChing\_36, Chalmers\_36, Chandler\_36,

CharlottesWeb\_29, Chentzyk\_35, ChrisnMich\_32, CloverMinnie\_31, Coffee\_36, Coldpizza\_32, Compostia\_37, Cooper\_33, Corofin\_36, D12\_28, Daisy\_36, Deenasa\_36, Devonte\_36, Dori\_32, Eaglehorse\_36, Epah\_32, Evaa\_29, Evaa\_30, Fanaw\_32, Faze9\_36, Fortunato\_33, Frederick\_33, FrenchFry\_36, Fresco\_29, Gadget\_37, Gervas\_36, GinPorsche\_32, Glass\_36, GlenHope\_37, Glubnar\_36, GodPhather\_29, Godines\_36, Halfpint\_35, Hally898\_32, Hangman\_33, HarveySr\_36, Heath\_32, Heathcliff\_36, Hedgerow\_36, Holeinone\_36, Hydro\_33, ItsyBitsy1\_36, JAMaL\_33, Jackstina\_33, JaguarMi\_33, Jeon\_28, Kaleb\_36, Kamiyu\_36, Kheth\_36, Kolhan\_36, Kronus\_35, Lambano\_32, Lars\_36, Laurie\_36, Lephleur\_36, LestyG\_36, Ligma\_29, LilMcDreamy\_31, LilSmirk\_36, LittleMunchkin\_31, LizLemon\_36, Lolalove\_33, Magpie\_32, MakoManhole\_31, Mao1\_30, Mariokart\_29, Marley1013\_36, Marlia\_36, Mask\_31, MasterPo\_36, Megabear\_28, Mithril\_33, MmasiCarm\_36, Mortcellus\_35, Morty007\_36, MossRose\_31, Mudslide\_33, NHagos\_29, Nanao\_32, Neos5\_36, Nigel\_31, Nozo\_36, Obutu\_36, Olivio\_35, Opia\_36, OrangeOswald\_36, PR\_28, Phaedrus\_34, Phantasmagoria\_36, Phayeta\_37, Philly\_35, Phlyer\_36, Pine5\_31, Pine5\_32, Pipefish\_38, Poster\_32, PrinceCharming\_36, Prince\_33, QueenPie\_32, Quesadilla\_39, Qyrzula\_34, RagingRooster\_36, RawrgerThat\_33, Rhinoforte\_36, Rita1961\_36, RomaT\_36, Rosebush\_36, Sabella\_36, Sejanus\_31, Shatter\_29, Shenandoah\_36, Sisko\_29, SlippinJimmy\_36, Sour\_33, StAugustine\_40, Stinger\_31, SwainyDoc\_36, SynergyX\_36, TA17A\_37, TPA2\_39, Taptic\_28, Thonko\_35, Tinciduntolum\_37, TinyTerror\_36, Tres\_36, Tydolla\_36, Vic9\_00036, Vincenzo\_34, VioletZ\_33, Waleliano\_33, West99\_36, Wooper\_31, Xincheng\_32, Yago84\_29, Yahalom\_36, Yeshua\_31, Yinz\_36, Zemanar\_34,

### Summary by start number:

#### Start 67:

- Found in 37 of 994 ( 3.7% ) of genes in pham
- Manual Annotations of this start: 25 of 852
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ahwei\_32 (B4), AlanGrant\_34 (B4), Antihero\_32 (B4), Apex\_33 (B4), Austelle\_34 (B4), BobbyK\_33 (B4), BrownCNA\_34 (B4), ChrisnMich\_32 (B4), Cooper\_33 (B4), Epah\_32 (B4), Fanaw\_32 (B4), Fortunato\_33 (B4), Frederick\_33 (B4), GinPorsche\_32 (B4), Hally898\_32 (B4), Hangman\_33 (B4), Heath\_32 (B4), Hydro\_33 (B4), JAMaL\_33 (B4), JaguarMi\_33 (B4), Lambano\_32 (B4), Lolalove\_33 (B4), Magpie\_32 (B4), Mithril\_33 (B4), Mudslide\_33 (B4), Nanao\_32 (B4), Nigel\_31 (B4), Poster\_32 (B4), Prince\_33 (B4), QueenPie\_32 (B4), RawrgerThat\_33 (B4), Stinger\_31 (B4), Vincenzo\_34 (B4), VioletZ\_33 (B4), Waleliano\_33 (B4), Xincheng\_32 (B4), Zemanar\_34 (B4),

#### Start 72:

- Found in 3 of 994 ( 0.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Nangang\_36 (B5),

#### Start 75:

- Found in 290 of 994 ( 29.2% ) of genes in pham
- Manual Annotations of this start: 1 of 852
- Called 0.3% of time when present
- Phage (with cluster) where this start called: Thonko\_35 (B8),

#### Start 83:

- Found in 55 of 994 ( 5.5% ) of genes in pham
- Manual Annotations of this start: 45 of 852
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abinghost\_36 (B3), Akoma\_36 (B3), Athena\_37 (B3), Audrey\_36 (B3), Baloo\_36 (B3), Ben11\_35 (B3), Bernardo\_36 (B3), Briakila\_37 (B3), Casbah\_35 (B3), ChaChing\_36 (B3), Chalmers\_36 (B3), Chandler\_36 (B3), Chentzyk\_35 (B3), Compostia\_37 (B3), Corofin\_36 (B3), Daisy\_36 (B3), Deenasa\_36 (B3), Devonte\_36 (B3), Gadjet\_37 (B3), Gervas\_36 (B3), GlenHope\_37 (B3), Glubnar\_36 (B3), Halfpint\_35 (B3), HarveySr\_36 (B3), Heathcliff\_36 (B3), Jackstina\_33 (B3), Kamiyu\_36 (B3), Kronus\_35 (B3), LestyG\_36 (B3), Marley1013\_36 (B3), Marlia\_36 (B3), MmasiCarm\_36 (B3), Mortcellus\_35 (B3), Morty007\_36 (B3), Neos5\_36 (B3), Nozo\_36 (B3), Obutu\_36 (B3), Olivio\_35 (B3), OrangeOswald\_36 (B3), Phaedrus\_34 (B3), Phayeta\_37 (B3), Philly\_35 (B3), Phlyer\_36 (B3), Pipefish\_38 (B3), RagingRooster\_36 (B3), Rita1961\_36 (B3), RomaT\_36 (B3), Shenandoah\_36 (B3), SlippinJimmy\_36 (B3), SwainyDoc\_36 (B3), SynergyX\_36 (B3), TinyTerror\_36 (B3), Tydolla\_36 (B3), Yahalom\_36 (B3), Yinz\_36 (B3),

#### Start 84:

- Found in 50 of 994 ( 5.0% ) of genes in pham
- Manual Annotations of this start: 45 of 852
- Called 98.0% of time when present
- Phage (with cluster) where this start called: Allegro\_36 (B2), Arbiter\_36 (B2), Ares\_36 (B2), Argie\_29 (W), Bananafish\_36 (B2), Blocker23\_36 (B2), Boyle\_36 (B2), Brownie5\_36 (B2), Calamitous\_36 (B2), Cepens\_28 (W), Coffee\_36 (B2), D12\_28 (W), Dori\_32 (AD), Eaglehorse\_36 (B2), Faze9\_36 (B2), FrenchFry\_36 (B2), Glass\_36 (B2), GodPhather\_29 (W), Godines\_36 (B2), Hedgerow\_36 (B2), Holeinone\_36 (B2), ItsyBitsy1\_36 (B2), Jeon\_28 (W), Kaleb\_36 (B2), Kheth\_36 (B2), Kolhan\_36 (B2), Lars\_36 (B2), Laurie\_36 (B2), Lephieur\_36 (B2), LilSmirk\_36 (B2), LizLemon\_36 (B2), Mao1\_30 (AD), Mask\_31 (AD), MasterPo\_36 (B2), Megabear\_28 (W), Opia\_36 (B2), PR\_28 (W), Phantasmagoria\_36 (B2), PrinceCharming\_36 (B2), Qyrzula\_34 (B2), Rhinoforte\_36 (B2), Rosebush\_36 (B2), Sabella\_36 (B2), Sejanus\_31 (AD), TA17A\_37 (B2), Taptic\_28 (W), Tinciduntolum\_37 (B2), Tres\_36 (B2), West99\_36 (B2),

#### Start 85:

- Found in 4 of 994 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 852
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Causa\_42 (AI), Pine5\_32 (singleton), StAugustine\_40 (AI),

#### Start 86:

- Found in 38 of 994 ( 3.8% ) of genes in pham
- Manual Annotations of this start: 1 of 852
- Called 2.6% of time when present
- Phage (with cluster) where this start called: Vic9\_00036 (B2),

#### Start 87:

- Found in 816 of 994 ( 82.1% ) of genes in pham
- Manual Annotations of this start: 531 of 852
- Called 74.8% of time when present

• Phage (with cluster) where this start called: 39HC\_030 (B6), 39HC\_031 (B6), 40BC\_030 (B6), 40BC\_031 (B6), ABU\_36 (B1), ABU\_37 (B1), Abinghost\_37 (B3), AbsoluteMadLad\_35 (B1), AbsoluteMadLad\_36 (B1), Acadian\_35 (B5), Acadian\_36 (B5), Adriana\_37 (B1), Aelin\_36 (B1), Ahwei\_33 (B4), Akoma\_37 (B3), AksarBAT\_30 (DR), AlanGrant\_35 (B4), Allegro\_38 (B2), AltPhacts\_37 (B1), Altwerkus\_35 (B1), Altwerkus\_36 (B1), AnClar\_31 (DR), AnarQue\_32 (DR), Anderson\_37 (B1), Andre\_37 (B1), AngelCake\_36 (B1), Antihero\_33 (B4), Antonia\_35 (B1), Antonia\_36 (B1), Apex\_34 (B4), Apizium\_35 (B1), Apizium\_36 (B1), Arbiter\_37 (B2), Ares\_38 (B2), Argie\_31 (W), Ashraf\_36 (B1), Athena\_38 (B3), Audrey\_37 (B3), Austelle\_35 (B4), Axumite\_30 (DR), Badfish\_37 (B1), Bae\_34 (B5), Bae\_35 (B5), Baloo\_37 (B3), Bananafish\_38 (B2), Banjo\_36 (B1), Basato\_38 (B1), BatteryCK\_36 (B1), Beaglebox\_36 (B1), Ben11\_36 (B3), Bernardo\_37 (B3), BiggityBass\_30 (DR), BirdsNest\_38 (B13), BirdsNest\_39 (B13), Bishoperium\_36 (B1), BlackStallion\_37 (B1), Blocker23\_38 (B2), BlueHusk\_37 (B1), Bluephacebaby\_36 (B1), BobbyK\_34 (B4), Boehler\_37 (B1), Boyle\_38 (B2), Briakila\_38 (B3), Brilliant\_37 (B1), Brownie5\_38 (B2), Buckeye\_37 (B1), Burr\_36 (B1), CRB2\_39 (B9), CaiB\_32 (DR), Calamitous\_38 (B2), CamL\_36 (B1), CamL\_37 (B1), CampRoach\_37 (B1), Cannibal\_37 (B1), Carthage\_34 (B1), Carthage\_35 (B1), Casbah\_36 (B3), Caspiboi\_38 (B1), Causa\_43 (AI), Cepens\_30 (W), ChaChing\_37 (B3), Chaelin\_37 (B1), Chah\_37 (B1), Chah\_38 (B1), Chalmers\_37 (B3), Chandler\_37 (B3), Charles1\_37 (B1), CharlieGBrown\_35 (B1), CharlieGBrown\_36 (B1), CharlottesWeb\_30 (DR), CheetO\_37 (B1), Cher\_36 (B1), Childish\_36 (B1), Chipette\_38 (B1), Chorkpop\_37 (B1), ChrisnMich\_33 (B4), Chunky\_36 (B1), Chunky\_37 (B1), Chute\_36 (B1), CloverMinnie\_32 (DR), Cobra\_36 (B1), Cobra\_37 (B1), Coffee\_38 (B2), Colbert\_36 (B1), Colbert\_37 (B1), Coldpizza\_33 (DR), Coletti\_36 (B1), Compostia\_38 (B3), Cooper\_34 (B4), Cornbread\_37 (B1), Cornobble\_36 (B1), Corofin\_37 (B3), Cosmolli16\_35 (B1), Cosmolli16\_36 (B1), Craff\_36 (B1), Craff\_37 (B1), Crownjwl\_37 (B1), D12\_29 (W), DaddyDaniels\_37 (B1), Daffy\_36 (B1), Daffy\_37 (B1), Daisy\_37 (B3), Daka\_36 (B1), Daka\_37 (B1), Dati\_37 (B1), Deenasa\_37 (B3), DelRivs\_36 (B1), Derpp\_35 (B1), Derpp\_36 (B1), Devonte\_37 (B3), Dice\_36 (B1), DigitDog\_35 (B5), DigitDog\_36 (B5), Dingo\_37 (B1), Dione\_35 (B1), Dione\_36 (B1), DirtJuice\_37 (B1), Doddsville\_37 (B1), DoesntMatter\_37 (B1), DonSanchon\_36 (B1), Donny\_35 (B5), Donny\_36 (B5), Dori\_33 (AD), DuchessDung\_35 (B1), Duggie\_36 (B1), Durga\_37 (B1), Eaglehorse\_38 (B2), EastView9101\_34 (B5), EastView9101\_35 (B5), ElvisPhasley\_37 (B1), Emiris\_37 (B1), EmpTee\_36 (B1), EmpTee\_37 (B1), Epah\_33 (B4), Eremos\_36 (B1), Eremos\_37 (B1), Etaye\_37 (B1), Eugenia\_37 (B1), Fanaw\_33 (B4), Fang\_36 (B1), Fang\_37 (B1), Faze9\_37 (B2), FluffyNinja\_36 (B1), FluffyNinja\_37 (B1), ForDig\_31 (B6), ForDig\_32 (B6), Fortunato\_34 (B4), Fozzie\_36 (B1), Frankicide\_37 (B1), Frederick\_34 (B4), FrenchFry\_38 (B2), Fresco\_30 (DR), Freya\_36 (B1), FriarPreacher\_36 (B1), FriarPreacher\_37 (B1), Fringe\_37 (B1), FugateOSU\_36 (B1), Funsized\_38 (B9), Funsized\_39 (B9), Gadget\_38 (B3), Gareth\_35 (B1), Gareth\_36 (B1), GeneCoco\_36 (B1), GeneCoco\_37 (B1), Gervas\_37 (B3), GinPorsche\_33 (B4), Giraffe\_37 (B1), Glass\_38 (B2), GlenHope\_38 (B3), Glubnar\_37 (B3), GodPhather\_31 (W), Godines\_38 (B2), Gophee\_37 (B1), Grand2040\_35 (B1), Grand2040\_36 (B1), Gwennie1\_37 (B1), Gwilliam\_37 (B1), Gyarad\_0036 (B1), Gyarad\_0037 (B1), HSavage\_37 (B1), Haimas\_36 (B1), Haimas\_37 (B1), Haleema\_36 (B1), Halfpint\_36 (B3), Hally898\_33 (B4), Hamish\_37 (B1), Hangman\_34 (B4), Hartsy\_37 (B1), HarveySr\_37 (B3), Harvey\_36 (B1), Harvey\_37 (B1), Hashim76\_39 (B13), Hashim76\_40 (B13), Heath\_33 (B4), Heathcliff\_37 (B3), Hedgerow\_38 (B2), Held\_36 (B1), Held\_37 (B1), HenryJackson\_36 (B1), Hertubise\_36 (B1), Hertubise\_37 (B1), Hetaeria\_37 (B1), HighStump\_36 (B1), Hocus\_35 (B1), Hocus\_36 (B1), Holeinone\_38 (B2),



Horchata\_37 (B1), Hosp\_028 (B6), Hosp\_029 (B6), Hydro\_34 (B4), ImtiyazSitla\_36 (B1), Imvubu\_29 (B10), Imvubu\_30 (B10), Inchworm\_37 (B1), Indlovu\_35 (B11), Inverness\_37 (B1), Iridessa\_37 (B1), Iridoclysis\_37 (B1), IsaacEli\_36 (B1), IsaacEli\_37 (B1), ItsyBitsy1\_38 (B2), JAMaL\_34 (B4), JDog\_36 (B1), JacAttac\_36 (B1), JacAttac\_37 (B1), Jackstina\_34 (B3), JaguarMi\_34 (B4), JakeO\_35 (B1), JakeO\_36 (B1), JangoPhett\_36 (B1), JangoPhett\_37 (B1), Jeon\_30 (W), Jesabah\_37 (B1), Jillium\_35 (B1), Jillium\_36 (B1), Jiminy\_36 (B1), Jiraiya\_36 (B1), Jolie1\_030 (B6), Jolie1\_031 (B6), KLucky39\_36 (B1), KLucky39\_37 (B1), Kahve\_36 (B1), Kailash\_36 (B1), Kailash\_37 (B1), Kaleb\_38 (B2), Kamiyu\_37 (B3), KarasumaRum\_38 (B5), Katniss\_37 (B1), KayaCho\_30 (B6), KayaCho\_31 (B6), Keitherie\_36 (B1), Keitherie\_37 (B1), Khan1\_37 (B1), Kheth\_38 (B2), Kikipoo\_36 (B1), Kikipoo\_37 (B1), Kimbrough\_37 (B1), KingTut\_28 (B1), KingVeVeVe\_36 (B1), KingVeVeVe\_37 (B1), KlimbOn\_37 (B1), Kloppinator\_37 (B1), Knocker\_37 (B9), Knocker\_38 (B9), Kolhan\_38 (B2), Kronus\_36 (B3), Kwadwo\_35 (B1), Kwadwo\_36 (B1), Kwksand96\_36 (B1), Labeouficaum\_36 (B1), Lambano\_33 (B4), Lars\_38 (B2), LasagnaCat\_37 (B1), Lasso\_36 (B1), Lasso\_37 (B1), Laurie\_37 (B2), LeeLot\_37 (B1), Lego3393\_37 (B1), Legolas\_36 (B1), LeiMonet\_37 (B1), LemonSlice\_37 (B1), Lephleur\_38 (B2), LestyG\_37 (B3), Ligma\_30 (DR), LilMcDreamy\_33 (B12), LilSmirk\_38 (B2), LittleMunchkin\_32 (DR), LizLemon\_38 (B2), Lolalove\_34 (B4), Longacauda\_36 (B1), Lopsy\_36 (B1), LostAndPhound\_36 (B1), LuckyMarjie\_35 (B1), LuckyMarjie\_36 (B1), Lulumae\_36 (B1), Lulwa\_37 (B1), Lumine\_36 (B1), MRabcd\_36 (B1), Mag7\_36 (B1), Magic8\_36 (B1), Magic8\_37 (B1), Magpie\_33 (B4), MakoManhole\_32 (DR), Mana\_35 (B1), Mana\_36 (B1), Manad\_35 (B1), Manad\_36 (B1), Mao1\_31 (AD), Mariokart\_30 (DR), Marley1013\_37 (B3), Marlia\_37 (B3), Maru\_36 (B1), Mask\_32 (AD), Maskar\_36 (B1), MasterPo\_38 (B2), Matalotodo\_37 (B1), Mcshane\_36 (B1), Mecca\_36 (B1), Megabear\_30 (W), Megamind20\_37 (B1), Megatron\_36 (B1), Megatron\_37 (B1), Melc17\_37 (B1), MelsMeow\_36 (B1), Mesh1\_36 (B1), Mesh1\_37 (B1), Mesmerelda\_37 (B1), MichaelPhcott\_35 (B1), MichaelPhcott\_36 (B1), Mikota\_37 (B1), MiniBoss\_37 (B1), MitKao\_36 (B1), MitKao\_37 (B1), Mithril\_34 (B4), MmasiCarm\_37 (B3), Morgushi\_37 (B1), Mortcellus\_36 (B3), Morty007\_37 (B3), Morty\_37 (B1), Mosaic\_35 (B1), Mosaic\_36 (B1), MossRose\_32 (DR), MrPhizzler\_36 (B1), Mudslide\_34 (B4), Mulan\_36 (B1), Murdoc\_36 (B1), Murdoc\_37 (B1), Mutante\_36 (B1), Mysterious\_36 (B5), Mysterious\_38 (B5), NHagos\_30 (DR), Nacho\_0036 (B1), Nacho\_0037 (B1), Nanao\_33 (B4), Nangang\_35 (B5), Nathan\_38 (B1), Nehemiah\_34 (B5), Nehemiah\_36 (B5), Neos5\_37 (B3), Newman\_37 (B1), Nicole21\_36 (B1), Nicole21\_37 (B1), Nigel\_32 (B4), Nozo\_37 (B3), Numberten\_37 (B1), Nyala\_36 (B1), OSmaximus\_36 (B1), OSmaximus\_37 (B1), Obutu\_37 (B3), Olak\_36 (B1), Oline\_36 (B1), Olive\_37 (B1), OliverWalter\_37 (B1), Olivio\_36 (B3), Omniscient\_37 (B1), Oosterbaan\_37 (B1), Opia\_38 (B2), OrangeOswald\_37 (B3), Orfeu\_36 (B1), Orion\_37 (B1), Orwigg\_36 (B1), PG1\_37 (B1), PR\_30 (W), Pacifista\_36 (B1), PenguinLover67\_39 (B9), Phaedrus\_35 (B3), Phamished\_36 (B1), Phamished\_37 (B1), Phantasmagoria\_38 (B2), Phareon\_37 (B1), PhatCats2014\_37 (B1), PhatLouie\_37 (B1), Phayeta\_38 (B3), Phelemich\_35 (B5), Phelemich\_36 (B5), PhenghisKhan\_36 (B1), Pherdinand\_37 (B1), Phergie\_36 (B1), Philly\_36 (B3), Phipps\_37 (B1), Phleuron\_36 (B1), Phlyer\_37 (B3), PhrankReynolds\_36 (B1), PhrodoBaggins\_36 (B1), Phunky\_37 (B1), Piglet\_0035 (B1), Piglet\_0036 (B1), PinheadLarry\_36 (B1), PinheadLarry\_37 (B1), Pinkman\_36 (B1), Pipefish\_39 (B3), Pipsqueak\_37 (B1), Placalicious\_36 (B1), Plata\_37 (B1), Plmatters\_37 (B1), Podrick\_37 (B1), Pops\_37 (B1), Poster\_33 (B4), Potter\_36 (B1), Prickles\_37 (B1), PrinceCharming\_38 (B2), Prince\_34 (B4), ProfessorX\_37 (B1), Puhltonio\_36 (B1), Puhltonio\_37 (B1), QueenBeane\_36 (B1), QueenBeane\_37 (B1), QueenPie\_33 (B4), Quisquiliae\_37 (B1), Qyrzula\_35 (B2), RagingRooster\_37 (B3), RawrgerThat\_34

(B4), RedMaple\_36 (B1), Reprobate\_35 (B5), Reprobate\_36 (B5), Rhinoforte\_38 (B2), Rich\_34 (B5), Rich\_35 (B5), Ricotta\_36 (B1), Riggan\_36 (B1), Riggan\_37 (B1), Rimu\_38 (B1), Rinkes\_37 (B9), Rinkes\_38 (B9), Rita130\_35 (B5), Rita130\_36 (B5), Rita1961\_37 (B3), Riverton\_36 (B1), Robyn\_36 (B1), Roliet\_36 (B1), Roliet\_37 (B1), RomaT\_37 (B3), Roscoe\_38 (B1), Rosebush\_37 (B2), Roy17\_37 (B1), SDcharge11\_36 (B1), SDcharge11\_37 (B1), Sabella\_37 (B2), Saguario\_37 (B7), Saguario\_38 (B7), Samaymay\_37 (B1), SassyCat97\_36 (B1), Schadenfreude\_36 (B1), Schueller\_36 (B1), Scoot17C\_36 (B1), Scoot17C\_37 (B1), Scrick\_37 (B1), Sejanus\_32 (AD), Selr12\_37 (B1), Serendipitous\_34 (B5), Serendipitous\_35 (B5), Serendipity\_36 (B1), Serendipity\_37 (B1), Serpentine\_0036 (B1), Serpentine\_0037 (B1), Shatter\_30 (DR), Sheila\_37 (B1), Shenandoah\_37 (B3), Shenyu\_35 (B5), Shenyu\_36 (B5), ShiVal\_36 (B1), ShiVal\_37 (B1), Sigman\_37 (B1), SilverBell\_37 (B1), Simielle\_36 (B1), SirBeaugard\_37 (B1), SirJeffery\_35 (B5), SirJeffery\_36 (B5), Sisko\_30 (DR), Skippy\_37 (B1), Slatt\_37 (B1), SlippinJimmy\_37 (B3), Soile\_37 (B1), Solosis\_36 (B1), Sophia\_35 (B1), Sophia\_36 (B1), Soto\_37 (B1), Sour\_35 (DR), Spartan300\_36 (B1), Spartan300\_37 (B1), Squid\_36 (B1), Squid\_37 (B1), Squiggle\_37 (B1), StAugustine\_41 (AI), Stinger\_32 (B4), StinkyVeggy\_38 (B5), Struggle\_36 (B1), Suffolk\_37 (B1), Suigeneris\_35 (B5), Suigeneris\_36 (B5), Surely\_36 (B1), Surely\_37 (B1), SwainyDoc\_37 (B3), Swiphy\_38 (B1), Swish\_36 (B1), Swish\_37 (B1), SynergyX\_37 (B3), TA17A\_39 (B2), TPA2\_40 (singleton), TallGrassMM\_36 (B1), TallGrassMM\_37 (B1), Taptic\_30 (W), Telesworld\_35 (B1), Telesworld\_36 (B1), Thonko\_36 (B8), Thora\_37 (B1), ThreeOh3D2\_36 (B1), ThreeOh3D2\_37 (B1), Thunderbird\_36 (B1), Timmi\_36 (B1), Tinciduntolum\_39 (B2), TinyTerror\_37 (B3), TomBombadil\_36 (B1), TomBombadil\_37 (B1), Tomlarah\_37 (B1), Toni\_36 (B1), TooFast2Furius\_38 (B1), Tooj\_37 (B1), Tres\_38 (B2), True\_36 (B1), Trypo\_37 (B1), Tydolla\_37 (B3), TyrionL\_35 (B1), TyrionL\_36 (B1), UAch1\_36 (B1), UAch1\_37 (B1), UncleHowie\_36 (B1), UncleHowie\_37 (B1), Usavi\_37 (B1), Vaishali24\_36 (B1), Valjean\_37 (B1), Vaticameos\_36 (B1), Veritas\_36 (B1), Vic9\_00037 (B2), Vincenzo\_35 (B4), VioletZ\_34 (B4), Virapocalypse\_37 (B1), Virgeve\_36 (B1), Vista\_36 (B1), Vista\_37 (B1), Vivaldi\_36 (B1), Vivaldi\_37 (B1), Vortex\_36 (B1), Vortex\_37 (B1), Waleliano\_34 (B4), Wallhey\_35 (B1), Wallhey\_36 (B1), Waterdiva\_36 (B1), Waterdiva\_37 (B1), Weher20\_37 (B1), West99\_38 (B2), Windsor\_36 (B1), Wooper\_32 (DR), Xavier\_35 (B1), Xavier\_36 (B1), Xincheng\_33 (B4), Yago84\_30 (DR), Yahalom\_37 (B3), Yeshua\_32 (DR), Yinz\_37 (B3), Yoshand\_36 (B1), Yoshand\_37 (B1), YouGoGlencoco\_36 (B1), YouGoGlencoco\_37 (B1), Zaider\_38 (B1), Zelda\_37 (B1), Zemanar\_35 (B4), Zenteno07\_40 (B13), Zenteno07\_41 (B13), Zonia\_37 (B1),

Start 89:

- Found in 290 of 994 ( 29.2% ) of genes in pham
- Manual Annotations of this start: 177 of 852
- Called 69.0% of time when present
- Phage (with cluster) where this start called: Adriana\_36 (B1), Aelin\_35 (B1), AltPhacts\_36 (B1), Anderson\_36 (B1), Andre\_36 (B1), AngelCake\_35 (B1), Ashraf\_35 (B1), Banjo\_35 (B1), Basato\_37 (B1), BatteryCK\_35 (B1), Beaglebox\_35 (B1), Bishoperium\_35 (B1), BlackStallion\_36 (B1), BlueHusk\_36 (B1), Bluephacebaby\_35 (B1), Boehler\_36 (B1), Brilliant\_36 (B1), Buckeye\_36 (B1), Burr\_35 (B1), CampRoach\_36 (B1), Cannibal\_36 (B1), Caspiboi\_37 (B1), Chaelin\_36 (B1), Charles1\_36 (B1), CheetO\_36 (B1), Cher\_35 (B1), Childish\_35 (B1), Chipette\_37 (B1), Chorkpop\_36 (B1), Chute\_35 (B1), Coletti\_35 (B1), Cornbread\_36 (B1), Cornobble\_35 (B1), Crownjwl\_36 (B1), DaddyDaniels\_36 (B1), Dati\_36 (B1), DelRivs\_35 (B1), Dice\_35 (B1), Dingo\_36 (B1), DirtJuice\_36 (B1), Doddsville\_36 (B1), DoesntMatter\_36 (B1), DonSanchon\_35 (B1), DuchessDung\_34 (B1),

Duggie\_35 (B1), Durga\_36 (B1), ElvisPhasley\_36 (B1), Emiris\_36 (B1), Etaye\_36 (B1), Eugenia\_36 (B1), Fozzie\_35 (B1), Frankicide\_36 (B1), Freya\_35 (B1), Fringe\_36 (B1), FugateOSU\_35 (B1), Giraffe\_36 (B1), Gophee\_36 (B1), Gwennie1\_36 (B1), Gwilliam\_36 (B1), HSavage\_36 (B1), Haleema\_35 (B1), Hamish\_36 (B1), Hartsy\_36 (B1), HenryJackson\_35 (B1), Hetaeria\_36 (B1), HighStump\_35 (B1), Horchata\_36 (B1), ImtiyazSitla\_35 (B1), Inchworm\_36 (B1), Inverness\_36 (B1), Iridessa\_36 (B1), Iridoclysis\_36 (B1), JDog\_35 (B1), Jesabah\_36 (B1), Jiminy\_35 (B1), Jiraiya\_35 (B1), Kahve\_35 (B1), Katniss\_36 (B1), Khan1\_36 (B1), Kimbrough\_36 (B1), KingTut\_27 (B1), KlimbOn\_36 (B1), Kloppinator\_36 (B1), Kwksand96\_35 (B1), Labeouficaum\_35 (B1), LasagnaCat\_36 (B1), LeeLot\_36 (B1), Lego3393\_36 (B1), Legolas\_35 (B1), LeiMonet\_36 (B1), LemonSlice\_36 (B1), Longacauda\_35 (B1), Lopsy\_35 (B1), LostAndPhound\_35 (B1), Lulumae\_35 (B1), Lulwa\_36 (B1), Lumine\_35 (B1), MRabcd\_35 (B1), Mag7\_35 (B1), Maru\_35 (B1), Maskar\_35 (B1), Matalotodo\_36 (B1), Mcshane\_35 (B1), Mecca\_35 (B1), Megamind20\_36 (B1), Melc17\_36 (B1), MelsMeow\_35 (B1), Mesmerelda\_36 (B1), Mikota\_36 (B1), MiniBoss\_36 (B1), Morgushi\_36 (B1), Morty\_36 (B1), MrPhizzler\_35 (B1), Mulan\_35 (B1), Mutante\_35 (B1), Nathan\_37 (B1), Newman\_36 (B1), Numberten\_36 (B1), Nyala\_35 (B1), Olak\_35 (B1), Oline\_35 (B1), Olive\_36 (B1), OliverWalter\_36 (B1), Omniscient\_36 (B1), Oosterbaan\_36 (B1), Orfeu\_35 (B1), Orion\_36 (B1), Orwigg\_35 (B1), PG1\_36 (B1), Pacifista\_35 (B1), Phareon\_36 (B1), PhatCats2014\_36 (B1), PhatLouie\_36 (B1), PhenghisKhan\_35 (B1), Pherdinand\_36 (B1), Phergie\_35 (B1), Phipps\_36 (B1), Phleuron\_35 (B1), PhrankReynolds\_35 (B1), PhrodoBaggins\_35 (B1), Phunky\_36 (B1), Pinkman\_35 (B1), Pipsqueak\_36 (B1), Placalicious\_35 (B1), Plata\_36 (B1), Plmatters\_36 (B1), Podrick\_36 (B1), Pops\_36 (B1), Potter\_35 (B1), Prickles\_36 (B1), ProfessorX\_36 (B1), Quesadilla\_39 (B9), Quisquillae\_36 (B1), RedMaple\_35 (B1), Ricotta\_35 (B1), Rimu\_37 (B1), Riverton\_35 (B1), Robyn\_35 (B1), Roscoe\_37 (B1), Roy17\_36 (B1), Samaymay\_36 (B1), SassyCat97\_35 (B1), Schadenfreude\_35 (B1), Schueller\_35 (B1), Scrick\_36 (B1), Selr12\_36 (B1), Sheila\_36 (B1), Sigman\_36 (B1), SilverBell\_36 (B1), Simielle\_35 (B1), SirBeauregard\_36 (B1), Skippy\_36 (B1), Slatt\_36 (B1), Soile\_36 (B1), Solosis\_35 (B1), Soto\_36 (B1), Squiggle\_36 (B1), Struggle\_35 (B1), Suffolk\_36 (B1), Swiphy\_37 (B1), Thora\_36 (B1), Thunderbird\_35 (B1), Timmi\_35 (B1), Tomlarah\_36 (B1), Toni\_35 (B1), TooFast2Furius\_37 (B1), Tooj\_36 (B1), True\_35 (B1), Trypo\_36 (B1), Usavi\_36 (B1), Vaishali24\_35 (B1), Valjean\_36 (B1), Veritas\_35 (B1), Virapocalypse\_36 (B1), Virgeve\_35 (B1), Weher20\_36 (B1), Windsor\_35 (B1), Zaider\_37 (B1), Zelda\_36 (B1), Zonia\_36 (B1),

#### Start 90:

- Found in 1 of 994 ( 0.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pine5\_31 (singleton),

#### Start 92:

- Found in 1 of 994 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 852
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LilMcDreamy\_31 (B12),

#### Start 93:

- Found in 24 of 994 ( 2.4% ) of genes in pham
- Manual Annotations of this start: 16 of 852
- Called 83.3% of time when present

- Phage (with cluster) where this start called: AksarBAT\_29 (DR), AnClar\_30 (DR), AnarQue\_31 (DR), Axumite\_29 (DR), BiggityBass\_29 (DR), CharlottesWeb\_29 (DR), CloverMinnie\_31 (DR), Coldpizza\_32 (DR), Evaa\_29 (DR), Fresco\_29 (DR), Ligma\_29 (DR), LittleMunchkin\_31 (DR), Mariokart\_29 (DR), NHagos\_29 (DR), Shatter\_29 (DR), Sisko\_29 (DR), Sour\_33 (DR), Wooper\_31 (DR), Yago84\_29 (DR), Yeshua\_31 (DR),

#### Start 94:

- Found in 1 of 994 ( 0.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TPA2\_39 (singleton),

#### Start 95:

- Found in 12 of 994 ( 1.2% ) of genes in pham
- Manual Annotations of this start: 3 of 852
- Called 25.0% of time when present
- Phage (with cluster) where this start called: CaiB\_31 (DR), MakoManhole\_31 (DR), MossRose\_31 (DR),

#### Start 97:

- Found in 10 of 994 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 2 of 852
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Indlovu\_34 (B11), Quesadilla\_38 (B9),

#### Start 98:

- Found in 12 of 994 ( 1.2% ) of genes in pham
- No Manual Annotations of this start.
- Called 8.3% of time when present
- Phage (with cluster) where this start called: BobRoss2024\_28 (DR),

#### Start 99:

- Found in 488 of 994 ( 49.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 0.2% of time when present
- Phage (with cluster) where this start called: Chentzyk\_37 (B3),

#### Start 100:

- Found in 6 of 994 ( 0.6% ) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: KarasumaRum\_37 (B5), StinkyVeggy\_37 (B5),

#### Start 101:

- Found in 8 of 994 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 1 of 852
- Called 12.5% of time when present
- Phage (with cluster) where this start called: PenguinLover67\_38 (B9),

#### Start 113:

- Found in 290 of 994 ( 29.2% ) of genes in pham

- Manual Annotations of this start: 1 of 852
- Called 0.3% of time when present
- Phage (with cluster) where this start called: Badfish\_36 (B1),

Start 244:

- Found in 3 of 994 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 2 of 852
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BobRoss2024\_29 (DR), BrownCNA\_35 (B4), Evaa\_30 (DR),

### **Summary by clusters:**

There are 18 clusters represented in this pham: singleton, B2, B10, AI, B8, B11, B4, B5, B6, B7, B12, B13, W, B3, AD, DR, B9, B1,

Info for manual annotations of cluster AD:

- Start number 84 was manually annotated 4 times for cluster AD.
- Start number 87 was manually annotated 4 times for cluster AD.

Info for manual annotations of cluster AI:

- Start number 85 was manually annotated 1 time for cluster AI.
- Start number 87 was manually annotated 1 time for cluster AI.

Info for manual annotations of cluster B1:

- Start number 87 was manually annotated 356 times for cluster B1.
- Start number 89 was manually annotated 176 times for cluster B1.
- Start number 113 was manually annotated 1 time for cluster B1.

Info for manual annotations of cluster B10:

- Start number 87 was manually annotated 2 times for cluster B10.

Info for manual annotations of cluster B11:

- Start number 87 was manually annotated 1 time for cluster B11.
- Start number 97 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B12:

- Start number 87 was manually annotated 1 time for cluster B12.
- Start number 92 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B13:

- Start number 87 was manually annotated 6 times for cluster B13.

Info for manual annotations of cluster B2:

- Start number 84 was manually annotated 33 times for cluster B2.
- Start number 86 was manually annotated 1 time for cluster B2.
- Start number 87 was manually annotated 34 times for cluster B2.

Info for manual annotations of cluster B3:

- Start number 83 was manually annotated 45 times for cluster B3.
- Start number 87 was manually annotated 45 times for cluster B3.

Info for manual annotations of cluster B4:

- Start number 67 was manually annotated 25 times for cluster B4.
- Start number 87 was manually annotated 24 times for cluster B4.
- Start number 244 was manually annotated 1 time for cluster B4.

Info for manual annotations of cluster B5:

- Start number 87 was manually annotated 18 times for cluster B5.

Info for manual annotations of cluster B6:

- Start number 87 was manually annotated 2 times for cluster B6.

Info for manual annotations of cluster B7:

- Start number 87 was manually annotated 2 times for cluster B7.

Info for manual annotations of cluster B8:

- Start number 75 was manually annotated 1 time for cluster B8.
- Start number 87 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:

- Start number 87 was manually annotated 8 times for cluster B9.
- Start number 89 was manually annotated 1 time for cluster B9.
- Start number 97 was manually annotated 1 time for cluster B9.
- Start number 101 was manually annotated 1 time for cluster B9.

Info for manual annotations of cluster DR:

- Start number 87 was manually annotated 18 times for cluster DR.
- Start number 93 was manually annotated 16 times for cluster DR.
- Start number 95 was manually annotated 3 times for cluster DR.
- Start number 244 was manually annotated 1 time for cluster DR.

Info for manual annotations of cluster W:

- Start number 84 was manually annotated 8 times for cluster W.
- Start number 87 was manually annotated 8 times for cluster W.

### **Gene Information:**

Gene: 39HC\_031 Start: 32716, Stop: 33324, Start Num: 87

Candidate Starts for 39HC\_031:

(15, 32362), (27, 32515), (34, 32539), (63, 32662), (Start: 87 @32716 has 531 MA's), (127, 32860), (130, 32866), (144, 32917), (147, 32926), (148, 32929), (156, 32974), (162, 33001), (177, 33037), (181, 33043), (186, 33064), (215, 33172), (224, 33250), (233, 33292), (237, 33310),

Gene: 39HC\_030 Start: 32075, Stop: 32719, Start Num: 87

Candidate Starts for 39HC\_030:

(Start: 87 @32075 has 531 MA's), (112, 32150), (116, 32162), (135, 32252), (147, 32297), (175, 32411), (180, 32423), (186, 32447), (188, 32465), (190, 32480), (202, 32528), (241, 32708),

Gene: 40BC\_030 Start: 32075, Stop: 32719, Start Num: 87

Candidate Starts for 40BC\_030:

(Start: 87 @32075 has 531 MA's), (112, 32150), (116, 32162), (135, 32252), (147, 32297), (175, 32411), (180, 32423), (186, 32447), (188, 32465), (190, 32480), (202, 32528), (241, 32708),

Gene: 40BC\_031 Start: 32716, Stop: 33324, Start Num: 87

Candidate Starts for 40BC\_031:

(15, 32362), (27, 32515), (34, 32539), (63, 32662), (Start: 87 @32716 has 531 MA's), (127, 32860), (130, 32866), (144, 32917), (147, 32926), (148, 32929), (156, 32974), (162, 33001), (177, 33037), (181, 33043), (186, 33064), (215, 33172), (224, 33250), (233, 33292), (237, 33310),

Gene: ABU\_37 Start: 34983, Stop: 35582, Start Num: 87

Candidate Starts for ABU\_37:

(27, 34779), (34, 34803), (42, 34845), (46, 34863), (50, 34878), (Start: 87 @34983 has 531 MA's), (99, 35013), (103, 35025), (115, 35064), (119, 35079), (130, 35133), (142, 35178), (144, 35184), (146, 35190), (148, 35196), (156, 35241), (157, 35244), (163, 35271), (186, 35331), (189, 35352), (213, 35430),

Gene: ABU\_36 Start: 34336, Stop: 34986, Start Num: 87

Candidate Starts for ABU\_36:

(Start: 75 @34300 has 1 MA's), (Start: 87 @34336 has 531 MA's), (Start: 89 @34339 has 177 MA's), (Start: 113 @34420 has 1 MA's), (144, 34555), (163, 34642), (180, 34687), (194, 34765), (212, 34816), (217, 34843), (219, 34861), (230, 34939), (239, 34972), (243, 34978),

Gene: Abinghost\_36 Start: 34276, Stop: 34929, Start Num: 83

Candidate Starts for Abinghost\_36:

(Start: 83 @34276 has 45 MA's), (109, 34357), (115, 34381), (143, 34504), (178, 34630), (185, 34645), (197, 34720), (231, 34885), (232, 34888), (239, 34915),

Gene: Abinghost\_37 Start: 34926, Stop: 35525, Start Num: 87

Candidate Starts for Abinghost\_37:

(Start: 87 @34926 has 531 MA's), (99, 34956), (109, 34983), (127, 35070), (148, 35139), (153, 35163), (156, 35184), (186, 35274), (206, 35358), (211, 35370), (221, 35430), (232, 35490), (237, 35511),

Gene: AbsoluteMadLad\_36 Start: 34992, Stop: 35591, Start Num: 87

Candidate Starts for AbsoluteMadLad\_36:

(27, 34788), (34, 34812), (42, 34854), (46, 34872), (50, 34887), (Start: 87 @34992 has 531 MA's), (99, 35022), (103, 35034), (115, 35073), (119, 35088), (120, 35091), (130, 35142), (142, 35187), (144, 35193), (146, 35199), (148, 35205), (156, 35250), (157, 35253), (163, 35280), (186, 35340), (189, 35361), (213, 35439),

Gene: AbsoluteMadLad\_35 Start: 34345, Stop: 34995, Start Num: 87

Candidate Starts for AbsoluteMadLad\_35:

(40, 34198), (Start: 75 @34309 has 1 MA's), (Start: 87 @34345 has 531 MA's), (Start: 89 @34348 has 177 MA's), (Start: 113 @34429 has 1 MA's), (144, 34564), (163, 34651), (180, 34696), (194, 34774), (212, 34825), (217, 34852), (219, 34870), (230, 34948), (239, 34981), (243, 34987),

Gene: Acadian\_35 Start: 34957, Stop: 35586, Start Num: 87

Candidate Starts for Acadian\_35:

(Start: 87 @34957 has 531 MA's), (112, 35035), (116, 35047), (126, 35107), (143, 35173), (146, 35182), (148, 35188), (156, 35233), (176, 35281), (178, 35287), (219, 35461), (241, 35575),

Gene: Acadian\_36 Start: 35583, Stop: 36191, Start Num: 87

Candidate Starts for Acadian\_36:

(34, 35406), (46, 35463), (Start: 87 @35583 has 531 MA's), (99, 35613), (116, 35667), (124, 35712), (127, 35727), (130, 35733), (135, 35748), (144, 35784), (146, 35790), (148, 35796), (157, 35844), (166, 35877), (206, 36015), (209, 36021), (233, 36159), (237, 36177),

Gene: Adriana\_37 Start: 34981, Stop: 35580, Start Num: 87

Candidate Starts for Adriana\_37:

(27, 34777), (34, 34801), (42, 34843), (46, 34861), (50, 34876), (Start: 87 @34981 has 531 MA's), (99, 35011), (103, 35023), (115, 35062), (119, 35077), (130, 35131), (142, 35176), (144, 35182), (146, 35188), (148, 35194), (156, 35239), (157, 35242), (163, 35269), (186, 35329), (189, 35350), (213, 35428),

Gene: Adriana\_36 Start: 34337, Stop: 34984, Start Num: 89

Candidate Starts for Adriana\_36:

(Start: 75 @34298 has 1 MA's), (Start: 87 @34334 has 531 MA's), (Start: 89 @34337 has 177 MA's), (Start: 113 @34418 has 1 MA's), (144, 34553), (163, 34640), (180, 34685), (194, 34763), (212, 34814), (217, 34841), (219, 34859), (230, 34937), (239, 34970), (243, 34976),

Gene: Aelin\_35 Start: 33903, Stop: 34550, Start Num: 89

Candidate Starts for Aelin\_35:

(40, 33753), (Start: 75 @33864 has 1 MA's), (Start: 87 @33900 has 531 MA's), (Start: 89 @33903 has 177 MA's), (Start: 113 @33984 has 1 MA's), (144, 34119), (163, 34206), (180, 34251), (194, 34329), (212, 34380), (217, 34407), (219, 34425), (230, 34503), (239, 34536), (243, 34542),

Gene: Aelin\_36 Start: 34547, Stop: 35146, Start Num: 87

Candidate Starts for Aelin\_36:

(27, 34343), (34, 34367), (42, 34409), (46, 34427), (50, 34442), (Start: 87 @34547 has 531 MA's), (99, 34577), (103, 34589), (115, 34628), (119, 34643), (130, 34697), (142, 34742), (144, 34748), (146, 34754), (148, 34760), (156, 34805), (157, 34808), (163, 34835), (186, 34895), (189, 34916), (213, 34994),

Gene: Ahwei\_33 Start: 34150, Stop: 34755, Start Num: 87

Candidate Starts for Ahwei\_33:

(Start: 87 @34150 has 531 MA's), (99, 34186), (115, 34237), (116, 34240), (127, 34300), (130, 34306), (142, 34351), (145, 34360), (146, 34363), (147, 34366), (153, 34393), (163, 34444), (187, 34510), (189, 34525), (206, 34588), (219, 34645), (233, 34723), (237, 34741),

Gene: Ahwei\_32 Start: 33506, Stop: 34153, Start Num: 67

Candidate Starts for Ahwei\_32:

(Start: 67 @33506 has 25 MA's), (102, 33584), (104, 33596), (123, 33668), (132, 33692), (137, 33713), (138, 33722), (139, 33725), (142, 33734), (143, 33737), (154, 33782), (165, 33836), (172, 33854), (189, 33914), (193, 33926), (213, 33986), (217, 34010), (219, 34028), (233, 34115), (241, 34142),

Gene: Akoma\_36 Start: 34280, Stop: 34933, Start Num: 83

Candidate Starts for Akoma\_36:

(Start: 83 @34280 has 45 MA's), (109, 34361), (143, 34508), (178, 34634), (185, 34649), (197, 34724), (231, 34889), (239, 34919),

Gene: Akoma\_37 Start: 34930, Stop: 35529, Start Num: 87

Candidate Starts for Akoma\_37:

(26, 34726), (Start: 87 @34930 has 531 MA's), (99, 34960), (109, 34987), (127, 35074), (130, 35080), (148, 35143), (153, 35167), (186, 35278), (206, 35362), (211, 35374), (221, 35434), (237, 35515),

Gene: AksarBAT\_29 Start: 27983, Stop: 28597, Start Num: 93

Candidate Starts for AksarBAT\_29:

(Start: 93 @27983 has 16 MA's), (118, 28073), (119, 28076), (125, 28115), (131, 28136), (143, 28184), (144, 28187), (176, 28292), (178, 28298), (212, 28430), (232, 28556), (241, 28586),



Gene: AksarBAT\_30 Start: 28594, Stop: 29190, Start Num: 87

Candidate Starts for AksarBAT\_30:

(34, 28417), (64, 28540), (Start: 87 @28594 has 531 MA's), (99, 28624), (109, 28651), (116, 28678), (127, 28738), (130, 28744), (143, 28792), (144, 28795), (146, 28801), (157, 28855), (166, 28888), (179, 28918), (189, 28963), (209, 29032), (213, 29041), (215, 29050), (237, 29176),

Gene: AlanGrant\_35 Start: 35904, Stop: 36506, Start Num: 87

Candidate Starts for AlanGrant\_35:

(Start: 87 @35904 has 531 MA's), (99, 35937), (103, 35949), (127, 36051), (130, 36057), (135, 36072), (142, 36102), (144, 36108), (146, 36114), (153, 36144), (156, 36165), (179, 36231), (186, 36255), (187, 36261), (189, 36276), (191, 36288), (211, 36351), (213, 36354), (232, 36471), (233, 36474), (237, 36492),

Gene: AlanGrant\_34 Start: 35254, Stop: 35907, Start Num: 67

Candidate Starts for AlanGrant\_34:

(Start: 67 @35254 has 25 MA's), (107, 35347), (125, 35428), (130, 35443), (137, 35467), (138, 35476), (139, 35479), (142, 35488), (154, 35536), (165, 35590), (167, 35593), (169, 35602), (172, 35608), (174, 35611), (189, 35668), (193, 35680), (213, 35740), (217, 35764), (241, 35896),

Gene: Allegro\_38 Start: 35466, Stop: 36065, Start Num: 87

Candidate Starts for Allegro\_38:

(80, 35445), (Start: 87 @35466 has 531 MA's), (99, 35496), (106, 35517), (115, 35547), (116, 35550), (130, 35616), (144, 35667), (145, 35670), (146, 35673), (153, 35703), (156, 35724), (179, 35790), (187, 35820), (211, 35910), (213, 35913), (216, 35931), (219, 35955), (230, 36024), (237, 36051),

Gene: Allegro\_36 Start: 34676, Stop: 35320, Start Num: 84

Candidate Starts for Allegro\_36:

(34, 34511), (59, 34622), (Start: 84 @34676 has 45 MA's), (Start: 86 @34685 has 1 MA's), (109, 34754), (116, 34781), (118, 34790), (140, 34895), (144, 34907), (148, 34919), (176, 35012), (190, 35078), (194, 35099), (199, 35114), (201, 35120), (208, 35141), (214, 35153), (241, 35309),

Gene: AltPhacts\_37 Start: 34970, Stop: 35569, Start Num: 87

Candidate Starts for AltPhacts\_37:

(27, 34766), (34, 34790), (42, 34832), (46, 34850), (50, 34865), (Start: 87 @34970 has 531 MA's), (99, 35000), (103, 35012), (115, 35051), (119, 35066), (130, 35120), (142, 35165), (144, 35171), (146, 35177), (148, 35183), (156, 35228), (157, 35231), (163, 35258), (186, 35318), (189, 35339), (213, 35417),

Gene: AltPhacts\_36 Start: 34326, Stop: 34973, Start Num: 89

Candidate Starts for AltPhacts\_36:

(40, 34176), (Start: 75 @34287 has 1 MA's), (Start: 87 @34323 has 531 MA's), (Start: 89 @34326 has 177 MA's), (Start: 113 @34407 has 1 MA's), (144, 34542), (163, 34629), (180, 34674), (194, 34752), (212, 34803), (217, 34830), (219, 34848), (230, 34926), (239, 34959), (243, 34965),

Gene: Altwerkus\_36 Start: 34671, Stop: 35270, Start Num: 87

Candidate Starts for Altwerkus\_36:

(27, 34467), (34, 34491), (42, 34533), (46, 34551), (50, 34566), (Start: 87 @34671 has 531 MA's), (99, 34701), (103, 34713), (115, 34752), (119, 34767), (130, 34821), (142, 34866), (144, 34872), (146, 34878), (148, 34884), (156, 34929), (157, 34932), (163, 34959), (186, 35019), (189, 35040), (213, 35118),

Gene: Altwerkus\_35 Start: 34024, Stop: 34674, Start Num: 87

Candidate Starts for Altwerkus\_35:

(40, 33877), (Start: 75 @33988 has 1 MA's), (Start: 87 @34024 has 531 MA's), (Start: 89 @34027 has 177 MA's), (Start: 113 @34108 has 1 MA's), (144, 34243), (163, 34330), (180, 34375), (194, 34453), (212, 34504), (217, 34531), (219, 34549), (230, 34627), (239, 34660), (243, 34666),

Gene: AnClar\_31 Start: 30955, Stop: 31584, Start Num: 87

Candidate Starts for AnClar\_31:

(34, 30778), (Start: 87 @30955 has 531 MA's), (99, 30985), (109, 31012), (127, 31099), (130, 31105), (143, 31153), (146, 31162), (153, 31192), (156, 31213), (168, 31258), (177, 31276), (179, 31279), (213, 31402), (215, 31411), (216, 31420),

Gene: AnClar\_30 Start: 30344, Stop: 30958, Start Num: 93

Candidate Starts for AnClar\_30:

(Start: 93 @30344 has 16 MA's), (98, 30359), (112, 30413), (119, 30437), (125, 30476), (143, 30545), (144, 30548), (154, 30587), (158, 30611), (176, 30653), (182, 30665), (227, 30890), (230, 30911), (232, 30917), (241, 30947),

Gene: AnarQue\_32 Start: 30081, Stop: 30677, Start Num: 87

Candidate Starts for AnarQue\_32:

(34, 29904), (42, 29943), (43, 29952), (60, 30015), (64, 30027), (Start: 87 @30081 has 531 MA's), (99, 30111), (127, 30225), (130, 30231), (144, 30282), (146, 30288), (156, 30339), (157, 30342), (179, 30405), (185, 30417), (186, 30429), (195, 30480), (205, 30510), (213, 30528), (215, 30537), (237, 30663),

Gene: AnarQue\_31 Start: 29470, Stop: 30084, Start Num: 93

Candidate Starts for AnarQue\_31:

(Start: 93 @29470 has 16 MA's), (Start: 95 @29473 has 3 MA's), (112, 29539), (117, 29554), (119, 29563), (125, 29602), (131, 29623), (135, 29638), (143, 29671), (153, 29710), (154, 29713), (156, 29731), (178, 29785), (232, 30043), (241, 30073),

Gene: Anderson\_36 Start: 34332, Stop: 34979, Start Num: 89

Candidate Starts for Anderson\_36:

(40, 34182), (Start: 75 @34293 has 1 MA's), (Start: 87 @34329 has 531 MA's), (Start: 89 @34332 has 177 MA's), (Start: 113 @34413 has 1 MA's), (144, 34548), (163, 34635), (180, 34680), (194, 34758), (212, 34809), (217, 34836), (219, 34854), (230, 34932), (239, 34965), (243, 34971),

Gene: Anderson\_37 Start: 34976, Stop: 35575, Start Num: 87

Candidate Starts for Anderson\_37:

(27, 34772), (34, 34796), (42, 34838), (46, 34856), (50, 34871), (Start: 87 @34976 has 531 MA's), (99, 35006), (103, 35018), (115, 35057), (119, 35072), (130, 35126), (142, 35171), (144, 35177), (146, 35183), (148, 35189), (156, 35234), (157, 35237), (163, 35264), (186, 35324), (189, 35345), (213, 35423),

Gene: Andre\_37 Start: 34975, Stop: 35574, Start Num: 87

Candidate Starts for Andre\_37:

(27, 34771), (34, 34795), (42, 34837), (46, 34855), (50, 34870), (Start: 87 @34975 has 531 MA's), (99, 35005), (103, 35017), (115, 35056), (119, 35071), (130, 35125), (142, 35170), (144, 35176), (146, 35182), (148, 35188), (156, 35233), (157, 35236), (163, 35263), (186, 35323), (189, 35344), (213, 35422),

Gene: Andre\_36 Start: 34331, Stop: 34978, Start Num: 89

Candidate Starts for Andre\_36:

(40, 34181), (Start: 75 @34292 has 1 MA's), (Start: 87 @34328 has 531 MA's), (Start: 89 @34331 has 177 MA's), (Start: 113 @34412 has 1 MA's), (144, 34547), (163, 34634), (180, 34679), (194, 34757),

(212, 34808), (217, 34835), (219, 34853), (230, 34931), (239, 34964), (243, 34970),

Gene: AngelCake\_35 Start: 34351, Stop: 34998, Start Num: 89

Candidate Starts for AngelCake\_35:

(Start: 75 @34312 has 1 MA's), (Start: 87 @34348 has 531 MA's), (Start: 89 @34351 has 177 MA's), (Start: 113 @34432 has 1 MA's), (144, 34567), (163, 34654), (180, 34699), (194, 34777), (212, 34828), (217, 34855), (219, 34873), (230, 34951), (239, 34984), (243, 34990),

Gene: AngelCake\_36 Start: 34995, Stop: 35594, Start Num: 87

Candidate Starts for AngelCake\_36:

(27, 34791), (34, 34815), (42, 34857), (46, 34875), (50, 34890), (Start: 87 @34995 has 531 MA's), (99, 35025), (103, 35037), (115, 35076), (119, 35091), (130, 35145), (142, 35190), (144, 35196), (146, 35202), (148, 35208), (156, 35253), (157, 35256), (163, 35283), (186, 35343), (189, 35364), (206, 35427), (213, 35442),

Gene: Antihero\_32 Start: 33506, Stop: 34153, Start Num: 67

Candidate Starts for Antihero\_32:

(Start: 67 @33506 has 25 MA's), (102, 33584), (104, 33596), (123, 33668), (132, 33692), (137, 33713), (138, 33722), (139, 33725), (142, 33734), (143, 33737), (154, 33782), (165, 33836), (172, 33854), (189, 33914), (193, 33926), (213, 33986), (217, 34010), (219, 34028), (233, 34115), (241, 34142),

Gene: Antihero\_33 Start: 34150, Stop: 34755, Start Num: 87

Candidate Starts for Antihero\_33:

(Start: 87 @34150 has 531 MA's), (99, 34186), (115, 34237), (116, 34240), (127, 34300), (130, 34306), (142, 34351), (145, 34360), (146, 34363), (147, 34366), (153, 34393), (163, 34444), (187, 34510), (189, 34525), (206, 34588), (219, 34645), (233, 34723), (237, 34741),

Gene: Antonia\_36 Start: 34547, Stop: 35146, Start Num: 87

Candidate Starts for Antonia\_36:

(27, 34343), (34, 34367), (42, 34409), (46, 34427), (50, 34442), (Start: 87 @34547 has 531 MA's), (99, 34577), (103, 34589), (115, 34628), (119, 34643), (130, 34697), (142, 34742), (144, 34748), (146, 34754), (148, 34760), (156, 34805), (157, 34808), (163, 34835), (186, 34895), (189, 34916), (213, 34994),

Gene: Antonia\_35 Start: 33900, Stop: 34550, Start Num: 87

Candidate Starts for Antonia\_35:

(40, 33753), (Start: 75 @33864 has 1 MA's), (Start: 87 @33900 has 531 MA's), (Start: 89 @33903 has 177 MA's), (Start: 113 @33984 has 1 MA's), (144, 34119), (163, 34206), (180, 34251), (194, 34329), (212, 34380), (217, 34407), (219, 34425), (230, 34503), (239, 34536), (243, 34542),

Gene: Apex\_33 Start: 34712, Stop: 35359, Start Num: 67

Candidate Starts for Apex\_33:

(Start: 67 @34712 has 25 MA's), (102, 34790), (104, 34802), (123, 34874), (132, 34898), (138, 34928), (139, 34931), (142, 34940), (154, 34988), (165, 35042), (172, 35060), (189, 35120), (193, 35132), (213, 35192), (217, 35216), (219, 35234), (233, 35321), (234, 35324), (241, 35348),

Gene: Apex\_34 Start: 35356, Stop: 35961, Start Num: 87

Candidate Starts for Apex\_34:

(Start: 87 @35356 has 531 MA's), (99, 35392), (109, 35419), (115, 35443), (116, 35446), (127, 35506), (130, 35512), (142, 35557), (145, 35566), (146, 35569), (147, 35572), (153, 35599), (156, 35620), (163, 35650), (187, 35716), (189, 35731), (206, 35794), (219, 35851), (233, 35929), (237, 35947),

Gene: Apizium\_35 Start: 34092, Stop: 34742, Start Num: 87

Candidate Starts for Apizium\_35:

(40, 33945), (Start: 75 @34056 has 1 MA's), (Start: 87 @34092 has 531 MA's), (Start: 89 @34095 has 177 MA's), (Start: 113 @34176 has 1 MA's), (144, 34311), (163, 34398), (180, 34443), (194, 34521), (212, 34572), (217, 34599), (219, 34617), (230, 34695), (239, 34728), (243, 34734),

Gene: Apizium\_36 Start: 34739, Stop: 35338, Start Num: 87

Candidate Starts for Apizium\_36:

(27, 34535), (34, 34559), (42, 34601), (46, 34619), (50, 34634), (Start: 87 @34739 has 531 MA's), (99, 34769), (103, 34781), (115, 34820), (119, 34835), (130, 34889), (142, 34934), (144, 34940), (146, 34946), (148, 34952), (156, 34997), (157, 35000), (163, 35027), (186, 35087), (189, 35108), (213, 35186),

Gene: Arbiter\_36 Start: 34765, Stop: 35409, Start Num: 84

Candidate Starts for Arbiter\_36:

(34, 34600), (59, 34711), (Start: 84 @34765 has 45 MA's), (Start: 86 @34774 has 1 MA's), (109, 34843), (116, 34870), (118, 34879), (121, 34888), (144, 34996), (148, 35008), (176, 35101), (190, 35167), (194, 35188), (199, 35203), (201, 35209), (208, 35230), (214, 35242), (241, 35398),

Gene: Arbiter\_37 Start: 35555, Stop: 36154, Start Num: 87

Candidate Starts for Arbiter\_37:

(80, 35534), (Start: 87 @35555 has 531 MA's), (99, 35585), (106, 35606), (115, 35636), (116, 35639), (130, 35705), (144, 35756), (145, 35759), (146, 35762), (153, 35792), (156, 35813), (179, 35879), (187, 35909), (211, 35999), (213, 36002), (216, 36020), (219, 36044), (230, 36113), (237, 36140),

Gene: Ares\_36 Start: 34749, Stop: 35393, Start Num: 84

Candidate Starts for Ares\_36:

(23, 34548), (Start: 84 @34749 has 45 MA's), (Start: 86 @34758 has 1 MA's), (109, 34827), (116, 34854), (118, 34863), (140, 34968), (144, 34980), (148, 34992), (176, 35085), (190, 35151), (194, 35172), (199, 35187), (201, 35193), (214, 35226), (241, 35382),

Gene: Ares\_38 Start: 35539, Stop: 36138, Start Num: 87

Candidate Starts for Ares\_38:

(80, 35518), (Start: 87 @35539 has 531 MA's), (99, 35569), (100, 35572), (106, 35590), (115, 35620), (116, 35623), (130, 35689), (144, 35740), (145, 35743), (146, 35746), (153, 35776), (156, 35797), (179, 35863), (187, 35893), (211, 35983), (213, 35986), (216, 36004), (219, 36028), (230, 36097), (237, 36124),

Gene: Argie\_31 Start: 32516, Stop: 33115, Start Num: 87

Candidate Starts for Argie\_31:

(Start: 87 @32516 has 531 MA's), (99, 32546), (106, 32567), (109, 32573), (127, 32660), (130, 32666), (144, 32717), (148, 32729), (153, 32753), (156, 32774), (160, 32792), (166, 32810), (177, 32837), (217, 32987), (219, 33005), (232, 33080), (237, 33101),

Gene: Argie\_29 Start: 31722, Stop: 32366, Start Num: 84

Candidate Starts for Argie\_29:

(Start: 84 @31722 has 45 MA's), (91, 31740), (100, 31773), (108, 31797), (118, 31836), (121, 31845), (131, 31902), (144, 31953), (146, 31959), (148, 31965), (163, 32040), (180, 32067), (190, 32124), (193, 32136), (201, 32166), (219, 32241), (229, 32313),

Gene: Ashraf\_36 Start: 34543, Stop: 35142, Start Num: 87

Candidate Starts for Ashraf\_36:

(26, 34336), (27, 34339), (34, 34363), (42, 34405), (46, 34423), (50, 34438), (Start: 87 @34543 has 531 MA's), (99, 34573), (103, 34585), (115, 34624), (119, 34639), (130, 34693), (142, 34738), (144,

34744), (146, 34750), (148, 34756), (156, 34801), (157, 34804), (163, 34831), (186, 34891), (189, 34912), (206, 34975), (213, 34990),

Gene: Ashraf\_35 Start: 33899, Stop: 34546, Start Num: 89

Candidate Starts for Ashraf\_35:

(Start: 75 @33860 has 1 MA's), (Start: 87 @33896 has 531 MA's), (Start: 89 @33899 has 177 MA's), (Start: 113 @33980 has 1 MA's), (144, 34115), (163, 34202), (180, 34247), (193, 34316), (194, 34325), (212, 34376), (219, 34421), (230, 34499), (239, 34532), (243, 34538),

Gene: Athena\_38 Start: 35677, Stop: 36276, Start Num: 87

Candidate Starts for Athena\_38:

(Start: 87 @35677 has 531 MA's), (99, 35707), (109, 35734), (127, 35821), (130, 35827), (148, 35890), (153, 35914), (186, 36025), (206, 36109), (211, 36121), (221, 36181), (237, 36262),

Gene: Athena\_37 Start: 35027, Stop: 35680, Start Num: 83

Candidate Starts for Athena\_37:

(Start: 83 @35027 has 45 MA's), (109, 35108), (115, 35132), (143, 35255), (178, 35381), (185, 35396), (197, 35471), (231, 35636), (232, 35639), (239, 35666),

Gene: Audrey\_36 Start: 34276, Stop: 34929, Start Num: 83

Candidate Starts for Audrey\_36:

(Start: 83 @34276 has 45 MA's), (109, 34357), (115, 34381), (143, 34504), (178, 34630), (185, 34645), (197, 34720), (231, 34885), (232, 34888), (239, 34915),

Gene: Audrey\_37 Start: 34926, Stop: 35525, Start Num: 87

Candidate Starts for Audrey\_37:

(Start: 87 @34926 has 531 MA's), (99, 34956), (109, 34983), (127, 35070), (130, 35076), (148, 35139), (153, 35163), (156, 35184), (186, 35274), (206, 35358), (211, 35370), (221, 35430), (232, 35490), (237, 35511),

Gene: Austelle\_35 Start: 35812, Stop: 36417, Start Num: 87

Candidate Starts for Austelle\_35:

(Start: 87 @35812 has 531 MA's), (99, 35848), (109, 35875), (115, 35899), (116, 35902), (127, 35962), (130, 35968), (142, 36013), (145, 36022), (146, 36025), (147, 36028), (153, 36055), (156, 36076), (163, 36106), (187, 36172), (189, 36187), (206, 36250), (219, 36307), (233, 36385), (237, 36403),

Gene: Austelle\_34 Start: 35168, Stop: 35815, Start Num: 67

Candidate Starts for Austelle\_34:

(Start: 67 @35168 has 25 MA's), (102, 35246), (104, 35258), (123, 35330), (132, 35354), (138, 35384), (139, 35387), (142, 35396), (154, 35444), (165, 35498), (172, 35516), (189, 35576), (193, 35588), (213, 35648), (217, 35672), (219, 35690), (233, 35777), (234, 35780), (241, 35804),

Gene: Axumite\_30 Start: 28099, Stop: 28731, Start Num: 87

Candidate Starts for Axumite\_30:

(34, 27922), (Start: 87 @28099 has 531 MA's), (99, 28132), (109, 28159), (130, 28252), (143, 28300), (146, 28309), (156, 28360), (177, 28423), (179, 28426), (193, 28489), (213, 28549), (215, 28558), (216, 28567), (235, 28705),

Gene: Axumite\_29 Start: 27488, Stop: 28102, Start Num: 93

Candidate Starts for Axumite\_29:

(41, 27338), (Start: 93 @27488 has 16 MA's), (98, 27503), (Start: 101 @27521 has 1 MA's), (112, 27557), (119, 27581), (125, 27620), (143, 27689), (144, 27692), (145, 27695), (176, 27797), (227, 28034), (230, 28055), (232, 28061), (241, 28091),

Gene: Badfish\_36 Start: 34443, Stop: 35009, Start Num: 113

Candidate Starts for Badfish\_36:

(Start: 113 @34443 has 1 MA's), (144, 34578), (163, 34665), (180, 34710), (194, 34788), (212, 34839), (217, 34866), (219, 34884), (230, 34962), (239, 34995), (243, 35001),

Gene: Badfish\_37 Start: 35006, Stop: 35605, Start Num: 87

Candidate Starts for Badfish\_37:

(27, 34802), (34, 34826), (42, 34868), (46, 34886), (50, 34901), (Start: 87 @35006 has 531 MA's), (99, 35036), (103, 35048), (115, 35087), (119, 35102), (130, 35156), (142, 35201), (144, 35207), (146, 35213), (148, 35219), (156, 35264), (157, 35267), (163, 35294), (186, 35354), (189, 35375), (213, 35453),

Gene: Bae\_35 Start: 35510, Stop: 36118, Start Num: 87

Candidate Starts for Bae\_35:

(Start: 87 @35510 has 531 MA's), (99, 35540), (130, 35660), (135, 35675), (144, 35711), (146, 35717), (148, 35723), (157, 35771), (204, 35936), (206, 35942), (224, 36044), (233, 36086), (237, 36104),

Gene: Bae\_34 Start: 34774, Stop: 35403, Start Num: 87

Candidate Starts for Bae\_34:

(Start: 87 @34774 has 531 MA's), (112, 34852), (116, 34864), (126, 34924), (143, 34990), (148, 35005), (156, 35050), (176, 35098), (178, 35104), (219, 35278), (235, 35371), (241, 35392),

Gene: Baloo\_36 Start: 34279, Stop: 34932, Start Num: 83

Candidate Starts for Baloo\_36:

(Start: 83 @34279 has 45 MA's), (109, 34360), (115, 34384), (143, 34507), (178, 34633), (185, 34648), (197, 34723), (231, 34888), (232, 34891), (239, 34918),

Gene: Baloo\_37 Start: 34929, Stop: 35528, Start Num: 87

Candidate Starts for Baloo\_37:

(Start: 87 @34929 has 531 MA's), (99, 34959), (109, 34986), (127, 35073), (130, 35079), (148, 35142), (153, 35166), (156, 35187), (186, 35277), (206, 35361), (211, 35373), (221, 35433), (237, 35514),

Gene: Bananafish\_36 Start: 34685, Stop: 35329, Start Num: 84

Candidate Starts for Bananafish\_36:

(34, 34520), (59, 34631), (Start: 84 @34685 has 45 MA's), (Start: 86 @34694 has 1 MA's), (109, 34763), (116, 34790), (118, 34799), (121, 34808), (144, 34916), (148, 34928), (176, 35021), (190, 35087), (194, 35108), (199, 35123), (201, 35129), (208, 35150), (214, 35162), (241, 35318),

Gene: Bananafish\_38 Start: 35475, Stop: 36074, Start Num: 87

Candidate Starts for Bananafish\_38:

(80, 35454), (Start: 87 @35475 has 531 MA's), (99, 35505), (106, 35526), (115, 35556), (116, 35559), (130, 35625), (144, 35676), (145, 35679), (146, 35682), (153, 35712), (156, 35733), (179, 35799), (187, 35829), (211, 35919), (213, 35922), (216, 35940), (219, 35964), (230, 36033), (237, 36060),

Gene: Banjo\_36 Start: 34681, Stop: 35280, Start Num: 87

Candidate Starts for Banjo\_36:

(27, 34477), (34, 34501), (42, 34543), (46, 34561), (50, 34576), (Start: 87 @34681 has 531 MA's), (99, 34711), (103, 34723), (115, 34762), (119, 34777), (130, 34831), (142, 34876), (144, 34882), (146, 34888), (148, 34894), (156, 34939), (157, 34942), (163, 34969), (186, 35029), (189, 35050), (213, 35128),

Gene: Banjo\_35 Start: 34037, Stop: 34684, Start Num: 89

Candidate Starts for Banjo\_35:

(Start: 75 @33998 has 1 MA's), (Start: 87 @34034 has 531 MA's), (Start: 89 @34037 has 177 MA's), (Start: 113 @34118 has 1 MA's), (144, 34253), (163, 34340), (180, 34385), (194, 34463), (212, 34514), (217, 34541), (219, 34559), (230, 34637), (239, 34670), (243, 34676),

Gene: Basato\_37 Start: 34616, Stop: 35263, Start Num: 89

Candidate Starts for Basato\_37:

(40, 34466), (Start: 75 @34577 has 1 MA's), (Start: 87 @34613 has 531 MA's), (Start: 89 @34616 has 177 MA's), (Start: 113 @34697 has 1 MA's), (144, 34832), (163, 34919), (180, 34964), (194, 35042), (212, 35093), (217, 35120), (219, 35138), (230, 35216), (239, 35249), (243, 35255),

Gene: Basato\_38 Start: 35260, Stop: 35859, Start Num: 87

Candidate Starts for Basato\_38:

(27, 35056), (34, 35080), (42, 35122), (46, 35140), (50, 35155), (Start: 87 @35260 has 531 MA's), (99, 35290), (103, 35302), (115, 35341), (119, 35356), (120, 35359), (130, 35410), (142, 35455), (144, 35461), (146, 35467), (148, 35473), (156, 35518), (157, 35521), (163, 35548), (186, 35608), (189, 35629), (213, 35707),

Gene: BatteryCK\_36 Start: 34600, Stop: 35199, Start Num: 87

Candidate Starts for BatteryCK\_36:

(26, 34393), (27, 34396), (34, 34420), (42, 34462), (46, 34480), (50, 34495), (Start: 87 @34600 has 531 MA's), (99, 34630), (103, 34642), (115, 34681), (119, 34696), (130, 34750), (142, 34795), (144, 34801), (146, 34807), (148, 34813), (156, 34858), (157, 34861), (163, 34888), (186, 34948), (189, 34969), (206, 35032), (213, 35047),

Gene: BatteryCK\_35 Start: 33956, Stop: 34603, Start Num: 89

Candidate Starts for BatteryCK\_35:

(Start: 75 @33917 has 1 MA's), (Start: 87 @33953 has 531 MA's), (Start: 89 @33956 has 177 MA's), (Start: 113 @34037 has 1 MA's), (144, 34172), (163, 34259), (180, 34304), (193, 34373), (194, 34382), (212, 34433), (219, 34478), (230, 34556), (239, 34589), (243, 34595),

Gene: Beaglebox\_35 Start: 34058, Stop: 34705, Start Num: 89

Candidate Starts for Beaglebox\_35:

(40, 33908), (Start: 75 @34019 has 1 MA's), (Start: 87 @34055 has 531 MA's), (Start: 89 @34058 has 177 MA's), (Start: 113 @34139 has 1 MA's), (144, 34274), (163, 34361), (180, 34406), (194, 34484), (212, 34535), (217, 34562), (219, 34580), (230, 34658), (239, 34691), (243, 34697),

Gene: Beaglebox\_36 Start: 34702, Stop: 35301, Start Num: 87

Candidate Starts for Beaglebox\_36:

(27, 34498), (34, 34522), (42, 34564), (46, 34582), (50, 34597), (Start: 87 @34702 has 531 MA's), (99, 34732), (103, 34744), (115, 34783), (119, 34798), (130, 34852), (142, 34897), (144, 34903), (146, 34909), (148, 34915), (156, 34960), (157, 34963), (163, 34990), (186, 35050), (189, 35071), (213, 35149),

Gene: Ben11\_36 Start: 34748, Stop: 35347, Start Num: 87

Candidate Starts for Ben11\_36:

(Start: 87 @34748 has 531 MA's), (99, 34778), (109, 34805), (127, 34892), (130, 34898), (148, 34961), (153, 34985), (156, 35006), (186, 35096), (206, 35180), (211, 35192), (221, 35252), (232, 35312), (237, 35333),

Gene: Ben11\_35 Start: 34098, Stop: 34751, Start Num: 83

Candidate Starts for Ben11\_35:

(Start: 83 @34098 has 45 MA's), (109, 34179), (115, 34203), (143, 34326), (178, 34452), (185, 34467), (197, 34542), (231, 34707), (239, 34737),

Gene: Bernardo\_37 Start: 35016, Stop: 35615, Start Num: 87

Candidate Starts for Bernardo\_37:

(Start: 87 @35016 has 531 MA's), (99, 35046), (109, 35073), (127, 35160), (130, 35166), (148, 35229), (153, 35253), (156, 35274), (186, 35364), (206, 35448), (211, 35460), (221, 35520), (232, 35580), (237, 35601),

Gene: Bernardo\_36 Start: 34366, Stop: 35019, Start Num: 83

Candidate Starts for Bernardo\_36:

(Start: 83 @34366 has 45 MA's), (109, 34447), (115, 34471), (143, 34594), (178, 34720), (185, 34735), (197, 34810), (231, 34975), (232, 34978), (239, 35005),

Gene: BiggityBass\_29 Start: 29751, Stop: 30365, Start Num: 93

Candidate Starts for BiggityBass\_29:

(Start: 93 @29751 has 16 MA's), (98, 29766), (112, 29820), (143, 29952), (144, 29955), (158, 30018), (176, 30060), (182, 30072), (190, 30126), (227, 30297), (230, 30318), (232, 30324), (241, 30354),

Gene: BiggityBass\_30 Start: 30362, Stop: 30991, Start Num: 87

Candidate Starts for BiggityBass\_30:

(34, 30185), (Start: 87 @30362 has 531 MA's), (99, 30392), (109, 30419), (127, 30506), (130, 30512), (143, 30560), (146, 30569), (152, 30596), (153, 30599), (156, 30620), (168, 30665), (177, 30683), (179, 30686), (213, 30809), (215, 30818), (216, 30827), (219, 30851),

Gene: BirdsNest\_39 Start: 33925, Stop: 34533, Start Num: 87

Candidate Starts for BirdsNest\_39:

(3, 33469), (27, 33724), (34, 33748), (Start: 87 @33925 has 531 MA's), (Start: 95 @33931 has 3 MA's), (99, 33955), (127, 34069), (130, 34075), (146, 34132), (213, 34372), (215, 34381), (224, 34459), (233, 34501),

Gene: BirdsNest\_38 Start: 33284, Stop: 33928, Start Num: 87

Candidate Starts for BirdsNest\_38:

(55, 33194), (62, 33218), (68, 33236), (71, 33242), (Start: 87 @33284 has 531 MA's), (117, 33377), (120, 33389), (135, 33464), (153, 33536), (156, 33557), (168, 33608), (190, 33689), (234, 33893), (241, 33917),

Gene: Bishoperium\_35 Start: 34046, Stop: 34693, Start Num: 89

Candidate Starts for Bishoperium\_35:

(Start: 75 @34007 has 1 MA's), (Start: 87 @34043 has 531 MA's), (Start: 89 @34046 has 177 MA's), (Start: 113 @34127 has 1 MA's), (144, 34262), (163, 34349), (180, 34394), (194, 34472), (212, 34523), (217, 34550), (219, 34568), (230, 34646), (239, 34679), (243, 34685),

Gene: Bishoperium\_36 Start: 34690, Stop: 35289, Start Num: 87

Candidate Starts for Bishoperium\_36:

(27, 34486), (34, 34510), (42, 34552), (46, 34570), (50, 34585), (Start: 87 @34690 has 531 MA's), (99, 34720), (103, 34732), (115, 34771), (119, 34786), (130, 34840), (142, 34885), (144, 34891), (146, 34897), (148, 34903), (156, 34948), (157, 34951), (163, 34978), (186, 35038), (189, 35059), (213, 35137),

Gene: BlackStallion\_36 Start: 34348, Stop: 34995, Start Num: 89

Candidate Starts for BlackStallion\_36:



(Start: 75 @34309 has 1 MA's), (Start: 87 @34345 has 531 MA's), (Start: 89 @34348 has 177 MA's), (Start: 113 @34429 has 1 MA's), (144, 34564), (163, 34651), (180, 34696), (194, 34774), (212, 34825), (217, 34852), (219, 34870), (230, 34948), (239, 34981), (243, 34987),

Gene: BlackStallion\_37 Start: 34992, Stop: 35591, Start Num: 87

Candidate Starts for BlackStallion\_37:

(27, 34788), (34, 34812), (42, 34854), (46, 34872), (50, 34887), (Start: 87 @34992 has 531 MA's), (99, 35022), (103, 35034), (115, 35073), (119, 35088), (130, 35142), (142, 35187), (144, 35193), (146, 35199), (148, 35205), (156, 35250), (157, 35253), (163, 35280), (186, 35340), (189, 35361), (213, 35439),

Gene: Blocker23\_36 Start: 34803, Stop: 35447, Start Num: 84

Candidate Starts for Blocker23\_36:

(34, 34638), (59, 34749), (Start: 84 @34803 has 45 MA's), (Start: 86 @34812 has 1 MA's), (109, 34881), (116, 34908), (118, 34917), (121, 34926), (144, 35034), (148, 35046), (176, 35139), (190, 35205), (194, 35226), (199, 35241), (201, 35247), (208, 35268), (214, 35280), (241, 35436),

Gene: Blocker23\_38 Start: 35593, Stop: 36192, Start Num: 87

Candidate Starts for Blocker23\_38:

(80, 35572), (Start: 87 @35593 has 531 MA's), (99, 35623), (106, 35644), (115, 35674), (116, 35677), (130, 35743), (144, 35794), (145, 35797), (146, 35800), (153, 35830), (156, 35851), (179, 35917), (187, 35947), (211, 36037), (213, 36040), (216, 36058), (219, 36082), (230, 36151), (237, 36178),

Gene: BlueHusk\_37 Start: 34489, Stop: 35088, Start Num: 87

Candidate Starts for BlueHusk\_37:

(27, 34285), (34, 34309), (42, 34351), (46, 34369), (50, 34384), (Start: 87 @34489 has 531 MA's), (99, 34519), (103, 34531), (115, 34570), (119, 34585), (120, 34588), (130, 34639), (142, 34684), (144, 34690), (146, 34696), (148, 34702), (156, 34747), (157, 34750), (163, 34777), (186, 34837), (189, 34858), (213, 34936),

Gene: BlueHusk\_36 Start: 33845, Stop: 34492, Start Num: 89

Candidate Starts for BlueHusk\_36:

(40, 33695), (Start: 75 @33806 has 1 MA's), (Start: 87 @33842 has 531 MA's), (Start: 89 @33845 has 177 MA's), (Start: 113 @33926 has 1 MA's), (144, 34061), (163, 34148), (180, 34193), (194, 34271), (212, 34322), (217, 34349), (219, 34367), (230, 34445), (239, 34478), (243, 34484),

Gene: Bluephacebaby\_36 Start: 34687, Stop: 35286, Start Num: 87

Candidate Starts for Bluephacebaby\_36:

(27, 34483), (34, 34507), (42, 34549), (46, 34567), (50, 34582), (Start: 87 @34687 has 531 MA's), (99, 34717), (103, 34729), (115, 34768), (119, 34783), (130, 34837), (142, 34882), (144, 34888), (146, 34894), (148, 34900), (156, 34945), (157, 34948), (163, 34975), (186, 35035), (189, 35056), (213, 35134),

Gene: Bluephacebaby\_35 Start: 34043, Stop: 34690, Start Num: 89

Candidate Starts for Bluephacebaby\_35:

(40, 33893), (Start: 75 @34004 has 1 MA's), (Start: 87 @34040 has 531 MA's), (Start: 89 @34043 has 177 MA's), (Start: 113 @34124 has 1 MA's), (144, 34259), (163, 34346), (180, 34391), (194, 34469), (212, 34520), (217, 34547), (219, 34565), (230, 34643), (239, 34676), (243, 34682),

Gene: BobRoss2024\_28 Start: 27520, Stop: 28119, Start Num: 98

Candidate Starts for BobRoss2024\_28:

(88, 27499), (Start: 93 @27505 has 16 MA's), (98, 27520), (109, 27559), (112, 27574), (125, 27637), (131, 27658), (137, 27682), (143, 27706), (154, 27748), (176, 27814), (180, 27823), (193, 27892),

(219, 27994), (232, 28078), (241, 28108),

Gene: BobRoss2024\_29 Start: 28116, Stop: 28712, Start Num: 244

Candidate Starts for BobRoss2024\_29:

(32, 27312), (35, 27318), (37, 27321), (56, 27414), (59, 27426), (111, 27567), (196, 27906), (206, 27939), (220, 27996), (228, 28062), (Start: 244 @28116 has 2 MA's), (245, 28146), (248, 28173), (253, 28260), (255, 28266), (260, 28323), (261, 28326), (262, 28329), (267, 28404), (270, 28440), (275, 28545), (276, 28554), (277, 28563), (279, 28572), (280, 28581), (282, 28605), (286, 28698),

Gene: BobbyK\_33 Start: 34537, Stop: 35184, Start Num: 67

Candidate Starts for BobbyK\_33:

(Start: 67 @34537 has 25 MA's), (102, 34615), (104, 34627), (123, 34699), (132, 34723), (137, 34744), (138, 34753), (139, 34756), (142, 34765), (154, 34813), (165, 34867), (172, 34885), (189, 34945), (193, 34957), (213, 35017), (216, 35035), (217, 35041), (219, 35059), (233, 35146), (234, 35149), (241, 35173),

Gene: BobbyK\_34 Start: 35181, Stop: 35786, Start Num: 87

Candidate Starts for BobbyK\_34:

(Start: 87 @35181 has 531 MA's), (99, 35217), (115, 35268), (116, 35271), (130, 35337), (142, 35382), (145, 35391), (146, 35394), (147, 35397), (153, 35424), (156, 35445), (157, 35448), (163, 35475), (187, 35541), (189, 35556), (206, 35619), (219, 35676), (233, 35754), (237, 35772),

Gene: Boehler\_36 Start: 34349, Stop: 34996, Start Num: 89

Candidate Starts for Boehler\_36:

(Start: 75 @34310 has 1 MA's), (Start: 87 @34346 has 531 MA's), (Start: 89 @34349 has 177 MA's), (Start: 113 @34430 has 1 MA's), (144, 34565), (163, 34652), (180, 34697), (194, 34775), (212, 34826), (217, 34853), (219, 34871), (230, 34949), (239, 34982), (243, 34988),

Gene: Boehler\_37 Start: 34993, Stop: 35592, Start Num: 87

Candidate Starts for Boehler\_37:

(27, 34789), (34, 34813), (42, 34855), (46, 34873), (50, 34888), (Start: 87 @34993 has 531 MA's), (99, 35023), (103, 35035), (115, 35074), (119, 35089), (130, 35143), (142, 35188), (144, 35194), (146, 35200), (148, 35206), (156, 35251), (157, 35254), (163, 35281), (186, 35341), (189, 35362), (213, 35440),

Gene: Boyle\_38 Start: 35594, Stop: 36193, Start Num: 87

Candidate Starts for Boyle\_38:

(80, 35573), (Start: 87 @35594 has 531 MA's), (99, 35624), (106, 35645), (115, 35675), (116, 35678), (130, 35744), (144, 35795), (145, 35798), (146, 35801), (153, 35831), (156, 35852), (179, 35918), (187, 35948), (211, 36038), (213, 36041), (216, 36059), (219, 36083), (230, 36152), (237, 36179),

Gene: Boyle\_36 Start: 34804, Stop: 35448, Start Num: 84

Candidate Starts for Boyle\_36:

(34, 34639), (59, 34750), (Start: 84 @34804 has 45 MA's), (Start: 86 @34813 has 1 MA's), (109, 34882), (116, 34909), (118, 34918), (121, 34927), (144, 35035), (148, 35047), (176, 35140), (190, 35206), (194, 35227), (199, 35242), (201, 35248), (208, 35269), (214, 35281), (241, 35437),

Gene: Briakila\_38 Start: 35696, Stop: 36295, Start Num: 87

Candidate Starts for Briakila\_38:

(26, 35492), (Start: 87 @35696 has 531 MA's), (99, 35726), (109, 35753), (127, 35840), (130, 35846), (148, 35909), (153, 35933), (186, 36044), (206, 36128), (211, 36140), (221, 36200), (232, 36260), (237, 36281),

Gene: Briakila\_37 Start: 35046, Stop: 35699, Start Num: 83

Candidate Starts for Briakila\_37:

(Start: 83 @35046 has 45 MA's), (109, 35127), (115, 35151), (143, 35274), (178, 35400), (185, 35415), (197, 35490), (231, 35655), (239, 35685),

Gene: Brilliant\_36 Start: 34054, Stop: 34701, Start Num: 89

Candidate Starts for Brilliant\_36:

(Start: 75 @34015 has 1 MA's), (Start: 87 @34051 has 531 MA's), (Start: 89 @34054 has 177 MA's), (Start: 113 @34135 has 1 MA's), (144, 34270), (163, 34357), (180, 34402), (193, 34471), (194, 34480), (212, 34531), (219, 34576), (230, 34654), (239, 34687), (243, 34693),

Gene: Brilliant\_37 Start: 34698, Stop: 35297, Start Num: 87

Candidate Starts for Brilliant\_37:

(26, 34491), (27, 34494), (34, 34518), (42, 34560), (46, 34578), (50, 34593), (Start: 87 @34698 has 531 MA's), (99, 34728), (103, 34740), (115, 34779), (119, 34794), (130, 34848), (142, 34893), (144, 34899), (146, 34905), (148, 34911), (156, 34956), (157, 34959), (163, 34986), (186, 35046), (189, 35067), (206, 35130), (213, 35145),

Gene: BrownCNA\_34 Start: 34798, Stop: 35445, Start Num: 67

Candidate Starts for BrownCNA\_34:

(Start: 67 @34798 has 25 MA's), (102, 34876), (104, 34888), (123, 34960), (132, 34984), (137, 35005), (138, 35014), (139, 35017), (142, 35026), (154, 35074), (172, 35146), (189, 35206), (193, 35218), (213, 35278), (217, 35302), (219, 35320), (233, 35407), (234, 35410), (241, 35434),

Gene: BrownCNA\_35 Start: 35442, Stop: 36047, Start Num: 244

Candidate Starts for BrownCNA\_35:

(99, 34869), (133, 34986), (147, 35040), (149, 35049), (184, 35172), (200, 35241), (207, 35265), (220, 35322), (Start: 244 @35442 has 2 MA's), (247, 35478), (249, 35505), (251, 35529), (252, 35532), (257, 35598), (258, 35643), (261, 35652), (262, 35655), (263, 35658), (264, 35685), (266, 35706), (268, 35736), (272, 35802), (273, 35817), (276, 35880), (278, 35892), (283, 35937), (285, 36015), (287, 36033),

Gene: Brownie5\_38 Start: 35600, Stop: 36199, Start Num: 87

Candidate Starts for Brownie5\_38:

(80, 35579), (Start: 87 @35600 has 531 MA's), (99, 35630), (106, 35651), (115, 35681), (116, 35684), (130, 35750), (144, 35801), (145, 35804), (146, 35807), (153, 35837), (156, 35858), (179, 35924), (187, 35954), (211, 36044), (213, 36047), (216, 36065), (219, 36089), (230, 36158), (237, 36185),

Gene: Brownie5\_36 Start: 34810, Stop: 35454, Start Num: 84

Candidate Starts for Brownie5\_36:

(34, 34645), (59, 34756), (Start: 84 @34810 has 45 MA's), (Start: 86 @34819 has 1 MA's), (109, 34888), (116, 34915), (118, 34924), (121, 34933), (144, 35041), (148, 35053), (176, 35146), (190, 35212), (194, 35233), (199, 35248), (201, 35254), (208, 35275), (214, 35287), (241, 35443),

Gene: Buckeye\_37 Start: 35010, Stop: 35609, Start Num: 87

Candidate Starts for Buckeye\_37:

(27, 34806), (34, 34830), (42, 34872), (46, 34890), (50, 34905), (Start: 87 @35010 has 531 MA's), (99, 35040), (103, 35052), (115, 35091), (119, 35106), (130, 35160), (142, 35205), (144, 35211), (146, 35217), (148, 35223), (156, 35268), (157, 35271), (163, 35298), (186, 35358), (189, 35379), (213, 35457),

Gene: Buckeye\_36 Start: 34366, Stop: 35013, Start Num: 89

Candidate Starts for Buckeye\_36:

(40, 34216), (Start: 75 @34327 has 1 MA's), (Start: 87 @34363 has 531 MA's), (Start: 89 @34366 has 177 MA's), (Start: 113 @34447 has 1 MA's), (144, 34582), (163, 34669), (180, 34714), (194, 34792), (212, 34843), (217, 34870), (219, 34888), (230, 34966), (239, 34999), (243, 35005),

Gene: Burr\_35 Start: 34043, Stop: 34690, Start Num: 89

Candidate Starts for Burr\_35:

(40, 33893), (Start: 75 @34004 has 1 MA's), (Start: 87 @34040 has 531 MA's), (Start: 89 @34043 has 177 MA's), (Start: 113 @34124 has 1 MA's), (144, 34259), (163, 34346), (180, 34391), (194, 34469), (212, 34520), (217, 34547), (219, 34565), (230, 34643), (239, 34676), (243, 34682),

Gene: Burr\_36 Start: 34687, Stop: 35286, Start Num: 87

Candidate Starts for Burr\_36:

(27, 34483), (34, 34507), (42, 34549), (46, 34567), (50, 34582), (Start: 87 @34687 has 531 MA's), (99, 34717), (103, 34729), (115, 34768), (119, 34783), (130, 34837), (142, 34882), (144, 34888), (146, 34894), (148, 34900), (156, 34945), (157, 34948), (163, 34975), (186, 35035), (189, 35056), (213, 35134),

Gene: CRB2\_39 Start: 37622, Stop: 38230, Start Num: 87

Candidate Starts for CRB2\_39:

(Start: 87 @37622 has 531 MA's), (99, 37652), (115, 37703), (127, 37766), (130, 37772), (144, 37823), (156, 37880), (189, 37991), (204, 38048), (211, 38066), (213, 38069), (219, 38111), (223, 38135), (224, 38156),

Gene: CaiB\_32 Start: 30067, Stop: 30663, Start Num: 87

Candidate Starts for CaiB\_32:

(34, 29890), (42, 29929), (43, 29938), (60, 30001), (64, 30013), (Start: 87 @30067 has 531 MA's), (99, 30097), (127, 30211), (130, 30217), (144, 30268), (146, 30274), (156, 30325), (157, 30328), (179, 30391), (185, 30403), (186, 30415), (195, 30466), (205, 30496), (213, 30514), (215, 30523), (237, 30649),

Gene: CaiB\_31 Start: 29459, Stop: 30070, Start Num: 95

Candidate Starts for CaiB\_31:

(Start: 93 @29456 has 16 MA's), (Start: 95 @29459 has 3 MA's), (112, 29525), (117, 29540), (119, 29549), (125, 29588), (131, 29609), (135, 29624), (143, 29657), (153, 29696), (154, 29699), (156, 29717), (178, 29771), (232, 30029), (241, 30059),

Gene: Calamitous\_38 Start: 35480, Stop: 36079, Start Num: 87

Candidate Starts for Calamitous\_38:

(80, 35459), (Start: 87 @35480 has 531 MA's), (99, 35510), (106, 35531), (115, 35561), (116, 35564), (130, 35630), (144, 35681), (145, 35684), (146, 35687), (153, 35717), (156, 35738), (179, 35804), (187, 35834), (211, 35924), (213, 35927), (216, 35945), (219, 35969), (230, 36038), (237, 36065),

Gene: Calamitous\_36 Start: 34690, Stop: 35334, Start Num: 84

Candidate Starts for Calamitous\_36:

(34, 34525), (59, 34636), (Start: 84 @34690 has 45 MA's), (Start: 86 @34699 has 1 MA's), (109, 34768), (116, 34795), (118, 34804), (121, 34813), (144, 34921), (148, 34933), (176, 35026), (190, 35092), (194, 35113), (199, 35128), (201, 35134), (208, 35155), (214, 35167), (241, 35323),

Gene: CamL\_37 Start: 34988, Stop: 35587, Start Num: 87

Candidate Starts for CamL\_37:

(27, 34784), (34, 34808), (42, 34850), (46, 34868), (50, 34883), (Start: 87 @34988 has 531 MA's), (99, 35018), (103, 35030), (115, 35069), (119, 35084), (130, 35138), (142, 35183), (144, 35189), (146, 35195), (148, 35201), (156, 35246), (157, 35249), (163, 35276), (186, 35336), (189, 35357), (213,

35435),

Gene: CamL\_36 Start: 34341, Stop: 34991, Start Num: 87

Candidate Starts for CamL\_36:

(Start: 75 @34305 has 1 MA's), (Start: 87 @34341 has 531 MA's), (Start: 89 @34344 has 177 MA's), (Start: 113 @34425 has 1 MA's), (144, 34560), (163, 34647), (180, 34692), (194, 34770), (212, 34821), (217, 34848), (219, 34866), (230, 34944), (239, 34977), (243, 34983),

Gene: CampRoach\_37 Start: 34978, Stop: 35577, Start Num: 87

Candidate Starts for CampRoach\_37:

(26, 34771), (27, 34774), (34, 34798), (42, 34840), (46, 34858), (50, 34873), (Start: 87 @34978 has 531 MA's), (99, 35008), (103, 35020), (115, 35059), (119, 35074), (130, 35128), (142, 35173), (144, 35179), (146, 35185), (148, 35191), (156, 35236), (157, 35239), (163, 35266), (186, 35326), (189, 35347), (206, 35410), (213, 35425),

Gene: CampRoach\_36 Start: 34334, Stop: 34981, Start Num: 89

Candidate Starts for CampRoach\_36:

(Start: 75 @34295 has 1 MA's), (Start: 87 @34331 has 531 MA's), (Start: 89 @34334 has 177 MA's), (Start: 113 @34415 has 1 MA's), (144, 34550), (163, 34637), (180, 34682), (193, 34751), (194, 34760), (212, 34811), (219, 34856), (230, 34934), (239, 34967), (243, 34973),

Gene: Cannibal\_36 Start: 34327, Stop: 34974, Start Num: 89

Candidate Starts for Cannibal\_36:

(Start: 75 @34288 has 1 MA's), (Start: 87 @34324 has 531 MA's), (Start: 89 @34327 has 177 MA's), (Start: 113 @34408 has 1 MA's), (144, 34543), (163, 34630), (180, 34675), (194, 34753), (212, 34804), (217, 34831), (219, 34849), (230, 34927), (239, 34960), (243, 34966),

Gene: Cannibal\_37 Start: 34971, Stop: 35570, Start Num: 87

Candidate Starts for Cannibal\_37:

(27, 34767), (34, 34791), (42, 34833), (46, 34851), (50, 34866), (Start: 87 @34971 has 531 MA's), (99, 35001), (103, 35013), (115, 35052), (119, 35067), (130, 35121), (142, 35166), (144, 35172), (146, 35178), (148, 35184), (156, 35229), (157, 35232), (163, 35259), (186, 35319), (189, 35340), (213, 35418),

Gene: Carthage\_35 Start: 33900, Stop: 34499, Start Num: 87

Candidate Starts for Carthage\_35:

(27, 33696), (34, 33720), (42, 33762), (46, 33780), (50, 33795), (Start: 87 @33900 has 531 MA's), (99, 33930), (103, 33942), (115, 33981), (119, 33996), (130, 34050), (142, 34095), (144, 34101), (146, 34107), (148, 34113), (156, 34158), (157, 34161), (163, 34188), (186, 34248), (189, 34269), (213, 34347),

Gene: Carthage\_34 Start: 33253, Stop: 33903, Start Num: 87

Candidate Starts for Carthage\_34:

(40, 33106), (Start: 75 @33217 has 1 MA's), (Start: 87 @33253 has 531 MA's), (Start: 89 @33256 has 177 MA's), (Start: 113 @33337 has 1 MA's), (144, 33472), (163, 33559), (180, 33604), (194, 33682), (212, 33733), (217, 33760), (219, 33778), (230, 33856), (239, 33889), (243, 33895),

Gene: Casbah\_35 Start: 34128, Stop: 34781, Start Num: 83

Candidate Starts for Casbah\_35:

(Start: 83 @34128 has 45 MA's), (109, 34209), (115, 34233), (143, 34356), (178, 34482), (185, 34497), (197, 34572), (231, 34737), (239, 34767),

Gene: Casbah\_36 Start: 34778, Stop: 35377, Start Num: 87

Candidate Starts for Casbah\_36:

(Start: 87 @34778 has 531 MA's), (99, 34808), (109, 34835), (127, 34922), (130, 34928), (148, 34991), (153, 35015), (156, 35036), (186, 35126), (206, 35210), (211, 35222), (221, 35282), (232, 35342), (237, 35363),

Gene: Caspiboi\_38 Start: 34697, Stop: 35296, Start Num: 87

Candidate Starts for Caspiboi\_38:

(26, 34490), (27, 34493), (34, 34517), (42, 34559), (46, 34577), (50, 34592), (Start: 87 @34697 has 531 MA's), (99, 34727), (103, 34739), (115, 34778), (119, 34793), (130, 34847), (142, 34892), (144, 34898), (146, 34904), (148, 34910), (156, 34955), (157, 34958), (163, 34985), (186, 35045), (189, 35066), (206, 35129), (213, 35144),

Gene: Caspiboi\_37 Start: 34053, Stop: 34700, Start Num: 89

Candidate Starts for Caspiboi\_37:

(Start: 75 @34014 has 1 MA's), (Start: 87 @34050 has 531 MA's), (Start: 89 @34053 has 177 MA's), (Start: 113 @34134 has 1 MA's), (144, 34269), (163, 34356), (180, 34401), (193, 34470), (194, 34479), (212, 34530), (219, 34575), (230, 34653), (239, 34686), (243, 34692),

Gene: Causa\_43 Start: 38470, Stop: 39078, Start Num: 87

Candidate Starts for Causa\_43:

(63, 38416), (Start: 87 @38470 has 531 MA's), (99, 38500), (109, 38527), (127, 38614), (135, 38635), (146, 38677), (156, 38728), (211, 38914), (213, 38917), (233, 39040), (235, 39046),

Gene: Causa\_42 Start: 37847, Stop: 38473, Start Num: 85

Candidate Starts for Causa\_42:

(Start: 85 @37847 has 1 MA's), (109, 37910), (112, 37925), (114, 37931), (119, 37949), (120, 37952), (124, 37979), (131, 38009), (132, 38012), (135, 38024), (144, 38060), (208, 38294), (226, 38402), (230, 38426), (232, 38432), (241, 38462),

Gene: Cepens\_30 Start: 32231, Stop: 32830, Start Num: 87

Candidate Starts for Cepens\_30:

(Start: 87 @32231 has 531 MA's), (99, 32261), (106, 32282), (109, 32288), (127, 32375), (130, 32381), (144, 32432), (148, 32444), (153, 32468), (156, 32489), (160, 32507), (166, 32525), (177, 32552), (217, 32702), (219, 32720), (232, 32795), (237, 32816),

Gene: Cepens\_28 Start: 31437, Stop: 32081, Start Num: 84

Candidate Starts for Cepens\_28:

(Start: 84 @31437 has 45 MA's), (91, 31455), (108, 31512), (118, 31551), (121, 31560), (131, 31617), (144, 31668), (146, 31674), (148, 31680), (163, 31755), (180, 31782), (190, 31839), (193, 31851), (201, 31881), (219, 31956), (229, 32028),

Gene: ChaChing\_37 Start: 34941, Stop: 35540, Start Num: 87

Candidate Starts for ChaChing\_37:

(Start: 87 @34941 has 531 MA's), (99, 34971), (109, 34998), (127, 35085), (130, 35091), (148, 35154), (153, 35178), (186, 35289), (206, 35373), (211, 35385), (221, 35445), (237, 35526),

Gene: ChaChing\_36 Start: 34291, Stop: 34944, Start Num: 83

Candidate Starts for ChaChing\_36:

(Start: 83 @34291 has 45 MA's), (109, 34372), (143, 34519), (178, 34645), (185, 34660), (197, 34735), (231, 34900), (232, 34903), (239, 34930),

Gene: Chaelin\_37 Start: 34685, Stop: 35284, Start Num: 87

Candidate Starts for Chaelin\_37:

(27, 34481), (34, 34505), (42, 34547), (46, 34565), (50, 34580), (Start: 87 @34685 has 531 MA's), (99, 34715), (103, 34727), (115, 34766), (119, 34781), (130, 34835), (142, 34880), (144, 34886), (146, 34892), (148, 34898), (156, 34943), (157, 34946), (163, 34973), (189, 35054), (206, 35117), (213, 35132),

Gene: Chaelin\_36 Start: 34041, Stop: 34688, Start Num: 89

Candidate Starts for Chaelin\_36:

(40, 33891), (Start: 75 @34002 has 1 MA's), (Start: 87 @34038 has 531 MA's), (Start: 89 @34041 has 177 MA's), (Start: 113 @34122 has 1 MA's), (144, 34257), (163, 34344), (180, 34389), (194, 34467), (212, 34518), (217, 34545), (219, 34563), (230, 34641), (239, 34674), (243, 34680),

Gene: Chah\_38 Start: 35005, Stop: 35604, Start Num: 87

Candidate Starts for Chah\_38:

(27, 34801), (34, 34825), (42, 34867), (46, 34885), (50, 34900), (Start: 87 @35005 has 531 MA's), (99, 35035), (103, 35047), (115, 35086), (119, 35101), (130, 35155), (142, 35200), (144, 35206), (146, 35212), (148, 35218), (156, 35263), (157, 35266), (163, 35293), (186, 35353), (189, 35374), (213, 35452),

Gene: Chah\_37 Start: 34358, Stop: 35008, Start Num: 87

Candidate Starts for Chah\_37:

(Start: 75 @34322 has 1 MA's), (Start: 87 @34358 has 531 MA's), (Start: 89 @34361 has 177 MA's), (Start: 113 @34442 has 1 MA's), (144, 34577), (163, 34664), (180, 34709), (194, 34787), (212, 34838), (217, 34865), (219, 34883), (230, 34961), (239, 34994), (243, 35000),

Gene: Chalmers\_37 Start: 35733, Stop: 36332, Start Num: 87

Candidate Starts for Chalmers\_37:

(Start: 87 @35733 has 531 MA's), (99, 35763), (109, 35790), (127, 35877), (130, 35883), (148, 35946), (153, 35970), (156, 35991), (186, 36081), (206, 36165), (211, 36177), (221, 36237), (232, 36297), (237, 36318),

Gene: Chalmers\_36 Start: 35083, Stop: 35736, Start Num: 83

Candidate Starts for Chalmers\_36:

(Start: 83 @35083 has 45 MA's), (109, 35164), (115, 35188), (143, 35311), (178, 35437), (185, 35452), (197, 35527), (231, 35692), (239, 35722),

Gene: Chandler\_36 Start: 35059, Stop: 35712, Start Num: 83

Candidate Starts for Chandler\_36:

(Start: 83 @35059 has 45 MA's), (109, 35140), (115, 35164), (143, 35287), (178, 35413), (185, 35428), (197, 35503), (231, 35668), (232, 35671), (239, 35698),

Gene: Chandler\_37 Start: 35709, Stop: 36308, Start Num: 87

Candidate Starts for Chandler\_37:

(Start: 87 @35709 has 531 MA's), (99, 35739), (109, 35766), (127, 35853), (148, 35922), (153, 35946), (156, 35967), (186, 36057), (206, 36141), (211, 36153), (221, 36213), (232, 36273), (237, 36294),

Gene: Charles1\_36 Start: 34329, Stop: 34976, Start Num: 89

Candidate Starts for Charles1\_36:

(40, 34179), (Start: 75 @34290 has 1 MA's), (Start: 87 @34326 has 531 MA's), (Start: 89 @34329 has 177 MA's), (Start: 113 @34410 has 1 MA's), (144, 34545), (163, 34632), (180, 34677), (194, 34755), (212, 34806), (217, 34833), (219, 34851), (230, 34929), (239, 34962), (243, 34968),

Gene: Charles1\_37 Start: 34973, Stop: 35572, Start Num: 87

Candidate Starts for Charles1\_37:

(27, 34769), (34, 34793), (42, 34835), (46, 34853), (50, 34868), (Start: 87 @34973 has 531 MA's), (99, 35003), (103, 35015), (115, 35054), (119, 35069), (130, 35123), (142, 35168), (144, 35174), (146, 35180), (148, 35186), (156, 35231), (157, 35234), (163, 35261), (186, 35321), (189, 35342),

Gene: CharlieGBrown\_35 Start: 33916, Stop: 34566, Start Num: 87

Candidate Starts for CharlieGBrown\_35:

(40, 33769), (Start: 75 @33880 has 1 MA's), (Start: 87 @33916 has 531 MA's), (Start: 89 @33919 has 177 MA's), (Start: 113 @34000 has 1 MA's), (144, 34135), (163, 34222), (180, 34267), (194, 34345), (212, 34396), (217, 34423), (219, 34441), (230, 34519), (239, 34552), (243, 34558),

Gene: CharlieGBrown\_36 Start: 34563, Stop: 35162, Start Num: 87

Candidate Starts for CharlieGBrown\_36:

(27, 34359), (34, 34383), (42, 34425), (46, 34443), (50, 34458), (Start: 87 @34563 has 531 MA's), (99, 34593), (103, 34605), (115, 34644), (119, 34659), (130, 34713), (142, 34758), (144, 34764), (146, 34770), (148, 34776), (156, 34821), (157, 34824), (163, 34851), (186, 34911), (189, 34932), (213, 35010),

Gene: CharlottesWeb\_29 Start: 27428, Stop: 28042, Start Num: 93

Candidate Starts for CharlottesWeb\_29:

(Start: 93 @27428 has 16 MA's), (Start: 101 @27461 has 1 MA's), (112, 27497), (119, 27521), (125, 27560), (143, 27629), (144, 27632), (156, 27689), (176, 27737), (180, 27746), (182, 27749), (232, 28001), (241, 28031),

Gene: CharlottesWeb\_30 Start: 28039, Stop: 28671, Start Num: 87

Candidate Starts for CharlottesWeb\_30:

(Start: 87 @28039 has 531 MA's), (99, 28072), (109, 28099), (122, 28165), (127, 28186), (130, 28192), (156, 28300), (179, 28366), (206, 28474), (215, 28498), (216, 28507), (218, 28522), (219, 28531),

Gene: CheetO\_36 Start: 34343, Stop: 34990, Start Num: 89

Candidate Starts for CheetO\_36:

(40, 34193), (Start: 75 @34304 has 1 MA's), (Start: 87 @34340 has 531 MA's), (Start: 89 @34343 has 177 MA's), (Start: 113 @34424 has 1 MA's), (144, 34559), (163, 34646), (180, 34691), (194, 34769), (212, 34820), (217, 34847), (219, 34865), (230, 34943), (239, 34976), (243, 34982),

Gene: CheetO\_37 Start: 34987, Stop: 35586, Start Num: 87

Candidate Starts for CheetO\_37:

(27, 34783), (34, 34807), (42, 34849), (46, 34867), (50, 34882), (Start: 87 @34987 has 531 MA's), (99, 35017), (103, 35029), (115, 35068), (119, 35083), (120, 35086), (130, 35137), (142, 35182), (144, 35188), (146, 35194), (148, 35200), (156, 35245), (157, 35248), (163, 35275), (186, 35335), (189, 35356), (213, 35434),

Gene: Chentzyk\_35 Start: 34149, Stop: 34802, Start Num: 83

Candidate Starts for Chentzyk\_35:

(Start: 83 @34149 has 45 MA's), (109, 34230), (143, 34377), (178, 34503), (185, 34518), (197, 34593), (231, 34758), (232, 34761), (239, 34788),

Gene: Chentzyk\_37 Start: 35320, Stop: 35889, Start Num: 99

Candidate Starts for Chentzyk\_37:

(Start: 87 @35290 has 531 MA's), (99, 35320), (109, 35347), (127, 35434), (130, 35440), (148, 35503), (153, 35527), (186, 35638), (206, 35722), (211, 35734), (221, 35794), (237, 35875),

Gene: Cher\_36 Start: 34710, Stop: 35309, Start Num: 87

Candidate Starts for Cher\_36:



(27, 34506), (34, 34530), (42, 34572), (46, 34590), (50, 34605), (Start: 87 @34710 has 531 MA's), (99, 34740), (103, 34752), (115, 34791), (119, 34806), (130, 34860), (142, 34905), (144, 34911), (146, 34917), (148, 34923), (156, 34968), (157, 34971), (163, 34998), (186, 35058), (189, 35079), (213, 35157),

Gene: Cher\_35 Start: 34066, Stop: 34713, Start Num: 89

Candidate Starts for Cher\_35:

(Start: 75 @34027 has 1 MA's), (Start: 87 @34063 has 531 MA's), (Start: 89 @34066 has 177 MA's), (Start: 113 @34147 has 1 MA's), (144, 34282), (163, 34369), (180, 34414), (194, 34492), (212, 34543), (217, 34570), (219, 34588), (230, 34666), (239, 34699), (243, 34705),

Gene: Childish\_35 Start: 34069, Stop: 34716, Start Num: 89

Candidate Starts for Childish\_35:

(Start: 75 @34030 has 1 MA's), (Start: 87 @34066 has 531 MA's), (Start: 89 @34069 has 177 MA's), (Start: 113 @34150 has 1 MA's), (144, 34285), (163, 34372), (180, 34417), (194, 34495), (212, 34546), (217, 34573), (219, 34591), (230, 34669), (239, 34702), (243, 34708),

Gene: Childish\_36 Start: 34713, Stop: 35312, Start Num: 87

Candidate Starts for Childish\_36:

(27, 34509), (34, 34533), (42, 34575), (46, 34593), (50, 34608), (Start: 87 @34713 has 531 MA's), (99, 34743), (103, 34755), (115, 34794), (119, 34809), (130, 34863), (142, 34908), (144, 34914), (146, 34920), (148, 34926), (156, 34971), (157, 34974), (163, 35001), (186, 35061), (189, 35082), (213, 35160),

Gene: Chipette\_38 Start: 35203, Stop: 35802, Start Num: 87

Candidate Starts for Chipette\_38:

(26, 34996), (27, 34999), (34, 35023), (42, 35065), (46, 35083), (50, 35098), (Start: 87 @35203 has 531 MA's), (99, 35233), (103, 35245), (115, 35284), (119, 35299), (130, 35353), (142, 35398), (144, 35404), (146, 35410), (148, 35416), (156, 35461), (157, 35464), (163, 35491), (186, 35551), (189, 35572), (213, 35650),

Gene: Chipette\_37 Start: 34559, Stop: 35206, Start Num: 89

Candidate Starts for Chipette\_37:

(Start: 75 @34520 has 1 MA's), (Start: 87 @34556 has 531 MA's), (Start: 89 @34559 has 177 MA's), (Start: 113 @34640 has 1 MA's), (144, 34775), (163, 34862), (180, 34907), (194, 34985), (212, 35036), (217, 35063), (219, 35081), (230, 35159), (239, 35192), (243, 35198),

Gene: Chorkpop\_36 Start: 34065, Stop: 34712, Start Num: 89

Candidate Starts for Chorkpop\_36:

(Start: 75 @34026 has 1 MA's), (Start: 87 @34062 has 531 MA's), (Start: 89 @34065 has 177 MA's), (Start: 113 @34146 has 1 MA's), (144, 34281), (163, 34368), (180, 34413), (194, 34491), (212, 34542), (217, 34569), (219, 34587), (230, 34665), (239, 34698), (243, 34704),

Gene: Chorkpop\_37 Start: 34709, Stop: 35308, Start Num: 87

Candidate Starts for Chorkpop\_37:

(26, 34502), (27, 34505), (34, 34529), (42, 34571), (46, 34589), (50, 34604), (Start: 87 @34709 has 531 MA's), (99, 34739), (103, 34751), (115, 34790), (119, 34805), (130, 34859), (142, 34904), (144, 34910), (146, 34916), (148, 34922), (156, 34967), (157, 34970), (163, 34997), (186, 35057), (189, 35078), (213, 35156),

Gene: ChrisnMich\_32 Start: 33498, Stop: 34145, Start Num: 67

Candidate Starts for ChrisnMich\_32:

(Start: 67 @33498 has 25 MA's), (102, 33576), (104, 33588), (123, 33660), (132, 33684), (137, 33705), (138, 33714), (139, 33717), (142, 33726), (143, 33729), (154, 33774), (165, 33828), (172, 33846), (189, 33906), (193, 33918), (213, 33978), (217, 34002), (219, 34020), (233, 34107), (241, 34134),

Gene: ChrisnMich\_33 Start: 34142, Stop: 34747, Start Num: 87

Candidate Starts for ChrisnMich\_33:

(Start: 87 @34142 has 531 MA's), (99, 34178), (115, 34229), (116, 34232), (127, 34292), (130, 34298), (142, 34343), (145, 34352), (146, 34355), (147, 34358), (153, 34385), (156, 34406), (163, 34436), (187, 34502), (189, 34517), (206, 34580), (219, 34637), (233, 34715), (237, 34733),

Gene: Chunky\_36 Start: 34349, Stop: 34999, Start Num: 87

Candidate Starts for Chunky\_36:

(Start: 75 @34313 has 1 MA's), (Start: 87 @34349 has 531 MA's), (Start: 89 @34352 has 177 MA's), (Start: 113 @34433 has 1 MA's), (144, 34568), (163, 34655), (180, 34700), (194, 34778), (212, 34829), (217, 34856), (219, 34874), (230, 34952), (239, 34985), (243, 34991),

Gene: Chunky\_37 Start: 34996, Stop: 35595, Start Num: 87

Candidate Starts for Chunky\_37:

(26, 34789), (27, 34792), (34, 34816), (42, 34858), (46, 34876), (50, 34891), (Start: 87 @34996 has 531 MA's), (99, 35026), (103, 35038), (115, 35077), (119, 35092), (130, 35146), (142, 35191), (144, 35197), (146, 35203), (148, 35209), (156, 35254), (157, 35257), (163, 35284), (186, 35344), (189, 35365), (213, 35443),

Gene: Chute\_35 Start: 34390, Stop: 35037, Start Num: 89

Candidate Starts for Chute\_35:

(40, 34240), (Start: 75 @34351 has 1 MA's), (Start: 87 @34387 has 531 MA's), (Start: 89 @34390 has 177 MA's), (Start: 113 @34471 has 1 MA's), (144, 34606), (163, 34693), (180, 34738), (194, 34816), (212, 34867), (217, 34894), (219, 34912), (230, 34990), (239, 35023), (243, 35029),

Gene: Chute\_36 Start: 35034, Stop: 35633, Start Num: 87

Candidate Starts for Chute\_36:

(27, 34830), (34, 34854), (42, 34896), (46, 34914), (50, 34929), (Start: 87 @35034 has 531 MA's), (99, 35064), (103, 35076), (115, 35115), (119, 35130), (130, 35184), (142, 35229), (144, 35235), (146, 35241), (148, 35247), (156, 35292), (157, 35295), (163, 35322), (189, 35403), (206, 35466), (213, 35481),

Gene: CloverMinnie\_32 Start: 30007, Stop: 30603, Start Num: 87

Candidate Starts for CloverMinnie\_32:

(34, 29830), (42, 29869), (43, 29878), (60, 29941), (64, 29953), (Start: 87 @30007 has 531 MA's), (99, 30037), (127, 30151), (130, 30157), (144, 30208), (146, 30214), (156, 30265), (157, 30268), (179, 30331), (185, 30343), (186, 30355), (195, 30406), (205, 30436), (213, 30454), (215, 30463), (237, 30589),

Gene: CloverMinnie\_31 Start: 29396, Stop: 30010, Start Num: 93

Candidate Starts for CloverMinnie\_31:

(Start: 93 @29396 has 16 MA's), (Start: 95 @29399 has 3 MA's), (112, 29465), (117, 29480), (119, 29489), (125, 29528), (131, 29549), (135, 29564), (143, 29597), (153, 29636), (154, 29639), (156, 29657), (178, 29711), (232, 29969), (241, 29999),

Gene: Cobra\_36 Start: 34347, Stop: 34997, Start Num: 87

Candidate Starts for Cobra\_36:

(Start: 75 @34311 has 1 MA's), (Start: 87 @34347 has 531 MA's), (Start: 89 @34350 has 177 MA's), (Start: 113 @34431 has 1 MA's), (144, 34566), (163, 34653), (180, 34698), (193, 34767), (194, 34776),

(212, 34827), (219, 34872), (230, 34950), (239, 34983), (243, 34989),

Gene: Cobra\_37 Start: 34994, Stop: 35593, Start Num: 87

Candidate Starts for Cobra\_37:

(26, 34787), (27, 34790), (34, 34814), (42, 34856), (46, 34874), (50, 34889), (Start: 87 @34994 has 531 MA's), (99, 35024), (103, 35036), (115, 35075), (119, 35090), (130, 35144), (142, 35189), (144, 35195), (146, 35201), (148, 35207), (156, 35252), (157, 35255), (163, 35282), (186, 35342), (189, 35363), (206, 35426), (213, 35441),

Gene: Coffee\_36 Start: 34793, Stop: 35437, Start Num: 84

Candidate Starts for Coffee\_36:

(34, 34628), (59, 34739), (Start: 84 @34793 has 45 MA's), (Start: 86 @34802 has 1 MA's), (109, 34871), (116, 34898), (118, 34907), (121, 34916), (144, 35024), (148, 35036), (176, 35129), (190, 35195), (194, 35216), (199, 35231), (201, 35237), (208, 35258), (214, 35270), (241, 35426),

Gene: Coffee\_38 Start: 35583, Stop: 36182, Start Num: 87

Candidate Starts for Coffee\_38:

(80, 35562), (Start: 87 @35583 has 531 MA's), (99, 35613), (106, 35634), (115, 35664), (116, 35667), (130, 35733), (144, 35784), (145, 35787), (146, 35790), (153, 35820), (156, 35841), (179, 35907), (187, 35937), (211, 36027), (213, 36030), (216, 36048), (219, 36072), (230, 36141), (237, 36168),

Gene: Colbert\_36 Start: 34402, Stop: 35052, Start Num: 87

Candidate Starts for Colbert\_36:

(Start: 75 @34366 has 1 MA's), (Start: 87 @34402 has 531 MA's), (Start: 89 @34405 has 177 MA's), (Start: 113 @34486 has 1 MA's), (144, 34621), (163, 34708), (180, 34753), (194, 34831), (212, 34882), (217, 34909), (219, 34927), (230, 35005), (239, 35038), (243, 35044),

Gene: Colbert\_37 Start: 35049, Stop: 35648, Start Num: 87

Candidate Starts for Colbert\_37:

(27, 34845), (34, 34869), (42, 34911), (46, 34929), (50, 34944), (Start: 87 @35049 has 531 MA's), (99, 35079), (103, 35091), (115, 35130), (119, 35145), (130, 35199), (142, 35244), (144, 35250), (146, 35256), (148, 35262), (156, 35307), (157, 35310), (163, 35337), (186, 35397), (189, 35418), (213, 35496),

Gene: Coldpizza\_33 Start: 32536, Stop: 33132, Start Num: 87

Candidate Starts for Coldpizza\_33:

(6, 32098), (17, 32203), (34, 32359), (43, 32407), (64, 32482), (Start: 87 @32536 has 531 MA's), (99, 32569), (115, 32620), (116, 32623), (127, 32683), (130, 32689), (144, 32740), (146, 32746), (148, 32752), (156, 32797), (163, 32827), (173, 32851), (192, 32923), (211, 32983), (213, 32986), (215, 32995), (221, 33043),

Gene: Coldpizza\_32 Start: 31925, Stop: 32539, Start Num: 93

Candidate Starts for Coldpizza\_32:

(28, 31706), (30, 31709), (48, 31793), (70, 31868), (Start: 93 @31925 has 16 MA's), (112, 31994), (118, 32015), (126, 32063), (131, 32078), (153, 32165), (178, 32240), (212, 32372), (239, 32525),

Gene: Coletti\_36 Start: 35034, Stop: 35633, Start Num: 87

Candidate Starts for Coletti\_36:

(27, 34830), (34, 34854), (42, 34896), (46, 34914), (50, 34929), (Start: 87 @35034 has 531 MA's), (99, 35064), (103, 35076), (115, 35115), (119, 35130), (130, 35184), (142, 35229), (144, 35235), (146, 35241), (148, 35247), (156, 35292), (157, 35295), (163, 35322), (189, 35403), (206, 35466), (213, 35481),

Gene: Coletti\_35 Start: 34390, Stop: 35037, Start Num: 89

Candidate Starts for Coletti\_35:

(40, 34240), (Start: 75 @34351 has 1 MA's), (Start: 87 @34387 has 531 MA's), (Start: 89 @34390 has 177 MA's), (Start: 113 @34471 has 1 MA's), (144, 34606), (163, 34693), (180, 34738), (194, 34816), (212, 34867), (217, 34894), (219, 34912), (230, 34990), (239, 35023), (243, 35029),

Gene: Compostia\_37 Start: 34707, Stop: 35360, Start Num: 83

Candidate Starts for Compostia\_37:

(Start: 83 @34707 has 45 MA's), (109, 34788), (115, 34812), (143, 34935), (178, 35061), (185, 35076), (197, 35151), (231, 35316), (239, 35346),

Gene: Compostia\_38 Start: 35357, Stop: 35956, Start Num: 87

Candidate Starts for Compostia\_38:

(Start: 87 @35357 has 531 MA's), (99, 35387), (109, 35414), (127, 35501), (130, 35507), (148, 35570), (153, 35594), (156, 35615), (186, 35705), (206, 35789), (211, 35801), (221, 35861), (232, 35921), (237, 35942),

Gene: Cooper\_33 Start: 33716, Stop: 34363, Start Num: 67

Candidate Starts for Cooper\_33:

(Start: 67 @33716 has 25 MA's), (102, 33794), (104, 33806), (123, 33878), (132, 33902), (137, 33923), (138, 33932), (139, 33935), (141, 33941), (142, 33944), (154, 33992), (161, 34031), (172, 34064), (189, 34124), (193, 34136), (213, 34196), (217, 34220), (219, 34238), (233, 34325), (241, 34352),

Gene: Cooper\_34 Start: 34360, Stop: 34965, Start Num: 87

Candidate Starts for Cooper\_34:

(16, 34009), (20, 34090), (29, 34159), (36, 34183), (47, 34240), (Start: 87 @34360 has 531 MA's), (99, 34396), (109, 34423), (115, 34447), (116, 34450), (127, 34510), (130, 34516), (142, 34561), (144, 34567), (145, 34570), (146, 34573), (147, 34576), (148, 34579), (153, 34603), (156, 34624), (187, 34720), (189, 34735), (213, 34813), (233, 34933), (237, 34951),

Gene: Cornbread\_37 Start: 34710, Stop: 35309, Start Num: 87

Candidate Starts for Cornbread\_37:

(26, 34503), (27, 34506), (34, 34530), (42, 34572), (46, 34590), (50, 34605), (Start: 87 @34710 has 531 MA's), (99, 34740), (103, 34752), (115, 34791), (119, 34806), (130, 34860), (142, 34905), (144, 34911), (146, 34917), (148, 34923), (156, 34968), (157, 34971), (163, 34998), (186, 35058), (189, 35079), (206, 35142), (213, 35157),

Gene: Cornbread\_36 Start: 34066, Stop: 34713, Start Num: 89

Candidate Starts for Cornbread\_36:

(Start: 75 @34027 has 1 MA's), (Start: 87 @34063 has 531 MA's), (Start: 89 @34066 has 177 MA's), (Start: 113 @34147 has 1 MA's), (144, 34282), (163, 34369), (180, 34414), (193, 34483), (194, 34492), (212, 34543), (219, 34588), (230, 34666), (239, 34699), (243, 34705),

Gene: Cornobble\_35 Start: 33904, Stop: 34551, Start Num: 89

Candidate Starts for Cornobble\_35:

(40, 33754), (Start: 75 @33865 has 1 MA's), (Start: 87 @33901 has 531 MA's), (Start: 89 @33904 has 177 MA's), (Start: 113 @33985 has 1 MA's), (144, 34120), (163, 34207), (180, 34252), (194, 34330), (212, 34381), (217, 34408), (219, 34426), (230, 34504), (239, 34537), (243, 34543),

Gene: Cornobble\_36 Start: 34548, Stop: 35147, Start Num: 87

Candidate Starts for Cornobble\_36:

(27, 34344), (34, 34368), (42, 34410), (46, 34428), (50, 34443), (Start: 87 @34548 has 531 MA's), (99, 34578), (103, 34590), (115, 34629), (119, 34644), (130, 34698), (142, 34743), (144, 34749), (146,

34755), (148, 34761), (156, 34806), (157, 34809), (163, 34836), (186, 34896), (189, 34917), (213, 34995),

Gene: Corofin\_36 Start: 34302, Stop: 34955, Start Num: 83

Candidate Starts for Corofin\_36:

(Start: 83 @34302 has 45 MA's), (109, 34383), (115, 34407), (143, 34530), (178, 34656), (185, 34671), (197, 34746), (231, 34911), (232, 34914), (239, 34941),

Gene: Corofin\_37 Start: 34952, Stop: 35551, Start Num: 87

Candidate Starts for Corofin\_37:

(Start: 87 @34952 has 531 MA's), (99, 34982), (109, 35009), (127, 35096), (130, 35102), (148, 35165), (153, 35189), (156, 35210), (186, 35300), (206, 35384), (211, 35396), (221, 35456), (232, 35516), (237, 35537),

Gene: Cosmolli16\_35 Start: 34051, Stop: 34701, Start Num: 87

Candidate Starts for Cosmolli16\_35:

(Start: 75 @34015 has 1 MA's), (Start: 87 @34051 has 531 MA's), (Start: 89 @34054 has 177 MA's), (Start: 113 @34135 has 1 MA's), (144, 34270), (163, 34357), (180, 34402), (194, 34480), (212, 34531), (217, 34558), (219, 34576), (230, 34654), (239, 34687), (243, 34693),

Gene: Cosmolli16\_36 Start: 34698, Stop: 35297, Start Num: 87

Candidate Starts for Cosmolli16\_36:

(27, 34494), (34, 34518), (42, 34560), (46, 34578), (50, 34593), (Start: 87 @34698 has 531 MA's), (99, 34728), (103, 34740), (115, 34779), (119, 34794), (130, 34848), (142, 34893), (144, 34899), (146, 34905), (148, 34911), (156, 34956), (157, 34959), (163, 34986), (186, 35046), (189, 35067), (213, 35145),

Gene: Craff\_37 Start: 34991, Stop: 35590, Start Num: 87

Candidate Starts for Craff\_37:

(27, 34787), (34, 34811), (42, 34853), (46, 34871), (50, 34886), (Start: 87 @34991 has 531 MA's), (99, 35021), (103, 35033), (115, 35072), (119, 35087), (130, 35141), (142, 35186), (144, 35192), (146, 35198), (148, 35204), (156, 35249), (157, 35252), (163, 35279), (186, 35339), (189, 35360), (213, 35438),

Gene: Craff\_36 Start: 34344, Stop: 34994, Start Num: 87

Candidate Starts for Craff\_36:

(40, 34197), (Start: 75 @34308 has 1 MA's), (Start: 87 @34344 has 531 MA's), (Start: 89 @34347 has 177 MA's), (Start: 113 @34428 has 1 MA's), (144, 34563), (163, 34650), (180, 34695), (194, 34773), (212, 34824), (217, 34851), (219, 34869), (230, 34947), (239, 34980), (243, 34986),

Gene: Crownjwl\_36 Start: 34120, Stop: 34767, Start Num: 89

Candidate Starts for Crownjwl\_36:

(40, 33970), (Start: 75 @34081 has 1 MA's), (Start: 87 @34117 has 531 MA's), (Start: 89 @34120 has 177 MA's), (Start: 113 @34201 has 1 MA's), (144, 34336), (163, 34423), (180, 34468), (194, 34546), (212, 34597), (217, 34624), (219, 34642), (230, 34720), (239, 34753), (243, 34759),

Gene: Crownjwl\_37 Start: 34764, Stop: 35363, Start Num: 87

Candidate Starts for Crownjwl\_37:

(27, 34560), (34, 34584), (42, 34626), (46, 34644), (50, 34659), (Start: 87 @34764 has 531 MA's), (99, 34794), (103, 34806), (115, 34845), (119, 34860), (130, 34914), (142, 34959), (144, 34965), (146, 34971), (148, 34977), (156, 35022), (157, 35025), (163, 35052), (186, 35112), (189, 35133), (213, 35211),

Gene: D12\_29 Start: 32801, Stop: 33400, Start Num: 87

Candidate Starts for D12\_29:

(Start: 87 @32801 has 531 MA's), (99, 32831), (106, 32852), (109, 32858), (127, 32945), (130, 32951), (144, 33002), (148, 33014), (153, 33038), (156, 33059), (160, 33077), (166, 33095), (177, 33122), (217, 33272), (219, 33290), (232, 33365), (237, 33386),

Gene: D12\_28 Start: 32007, Stop: 32651, Start Num: 84

Candidate Starts for D12\_28:

(Start: 84 @32007 has 45 MA's), (91, 32025), (108, 32082), (118, 32121), (121, 32130), (131, 32187), (144, 32238), (146, 32244), (148, 32250), (163, 32325), (180, 32352), (190, 32409), (193, 32421), (201, 32451), (219, 32526), (229, 32598),

Gene: DaddyDaniels\_36 Start: 34038, Stop: 34685, Start Num: 89

Candidate Starts for DaddyDaniels\_36:

(Start: 75 @33999 has 1 MA's), (Start: 87 @34035 has 531 MA's), (Start: 89 @34038 has 177 MA's), (Start: 113 @34119 has 1 MA's), (144, 34254), (163, 34341), (180, 34386), (193, 34455), (194, 34464), (212, 34515), (219, 34560), (230, 34638), (239, 34671), (243, 34677),

Gene: DaddyDaniels\_37 Start: 34682, Stop: 35281, Start Num: 87

Candidate Starts for DaddyDaniels\_37:

(26, 34475), (27, 34478), (34, 34502), (42, 34544), (46, 34562), (50, 34577), (Start: 87 @34682 has 531 MA's), (99, 34712), (103, 34724), (115, 34763), (119, 34778), (130, 34832), (142, 34877), (144, 34883), (146, 34889), (148, 34895), (156, 34940), (157, 34943), (163, 34970), (186, 35030), (189, 35051), (206, 35114), (213, 35129),

Gene: Daffy\_37 Start: 34713, Stop: 35312, Start Num: 87

Candidate Starts for Daffy\_37:

(27, 34509), (34, 34533), (42, 34575), (46, 34593), (50, 34608), (Start: 87 @34713 has 531 MA's), (99, 34743), (103, 34755), (115, 34794), (119, 34809), (130, 34863), (142, 34908), (144, 34914), (146, 34920), (148, 34926), (156, 34971), (157, 34974), (163, 35001), (186, 35061), (189, 35082), (213, 35160),

Gene: Daffy\_36 Start: 34066, Stop: 34716, Start Num: 87

Candidate Starts for Daffy\_36:

(Start: 75 @34030 has 1 MA's), (Start: 87 @34066 has 531 MA's), (Start: 89 @34069 has 177 MA's), (Start: 113 @34150 has 1 MA's), (144, 34285), (163, 34372), (180, 34417), (194, 34495), (212, 34546), (217, 34573), (219, 34591), (230, 34669), (239, 34702), (243, 34708),

Gene: Daisy\_37 Start: 34953, Stop: 35552, Start Num: 87

Candidate Starts for Daisy\_37:

(Start: 87 @34953 has 531 MA's), (99, 34983), (109, 35010), (127, 35097), (130, 35103), (148, 35166), (153, 35190), (186, 35301), (206, 35385), (211, 35397), (221, 35457), (232, 35517), (237, 35538),

Gene: Daisy\_36 Start: 34303, Stop: 34956, Start Num: 83

Candidate Starts for Daisy\_36:

(Start: 83 @34303 has 45 MA's), (109, 34384), (115, 34408), (143, 34531), (178, 34657), (185, 34672), (197, 34747), (231, 34912),

Gene: Daka\_37 Start: 34987, Stop: 35586, Start Num: 87

Candidate Starts for Daka\_37:

(27, 34783), (34, 34807), (42, 34849), (46, 34867), (50, 34882), (Start: 87 @34987 has 531 MA's), (99, 35017), (103, 35029), (115, 35068), (119, 35083), (130, 35137), (142, 35182), (144, 35188), (146, 35194), (148, 35200), (156, 35245), (157, 35248), (163, 35275), (186, 35335), (189, 35356), (213,

35434),

Gene: Daka\_36 Start: 34340, Stop: 34990, Start Num: 87

Candidate Starts for Daka\_36:

(Start: 75 @34304 has 1 MA's), (Start: 87 @34340 has 531 MA's), (Start: 89 @34343 has 177 MA's), (Start: 113 @34424 has 1 MA's), (144, 34559), (163, 34646), (180, 34691), (194, 34769), (212, 34820), (217, 34847), (219, 34865), (230, 34943), (239, 34976), (243, 34982),

Gene: Dati\_36 Start: 34063, Stop: 34710, Start Num: 89

Candidate Starts for Dati\_36:

(Start: 75 @34024 has 1 MA's), (Start: 87 @34060 has 531 MA's), (Start: 89 @34063 has 177 MA's), (Start: 113 @34144 has 1 MA's), (144, 34279), (163, 34366), (180, 34411), (193, 34480), (194, 34489), (212, 34540), (219, 34585), (230, 34663), (239, 34696), (243, 34702),

Gene: Dati\_37 Start: 34707, Stop: 35306, Start Num: 87

Candidate Starts for Dati\_37:

(26, 34500), (27, 34503), (34, 34527), (42, 34569), (46, 34587), (50, 34602), (Start: 87 @34707 has 531 MA's), (99, 34737), (103, 34749), (115, 34788), (119, 34803), (130, 34857), (142, 34902), (144, 34908), (146, 34914), (148, 34920), (156, 34965), (157, 34968), (163, 34995), (189, 35076), (206, 35139), (213, 35154),

Gene: Deenasa\_36 Start: 35042, Stop: 35695, Start Num: 83

Candidate Starts for Deenasa\_36:

(Start: 83 @35042 has 45 MA's), (109, 35123), (115, 35147), (143, 35270), (178, 35396), (185, 35411), (197, 35486), (231, 35651), (232, 35654), (239, 35681),

Gene: Deenasa\_37 Start: 35692, Stop: 36291, Start Num: 87

Candidate Starts for Deenasa\_37:

(Start: 87 @35692 has 531 MA's), (99, 35722), (109, 35749), (127, 35836), (130, 35842), (148, 35905), (153, 35929), (156, 35950), (186, 36040), (206, 36124), (211, 36136), (221, 36196), (237, 36277),

Gene: DelRivs\_35 Start: 34064, Stop: 34711, Start Num: 89

Candidate Starts for DelRivs\_35:

(Start: 75 @34025 has 1 MA's), (Start: 87 @34061 has 531 MA's), (Start: 89 @34064 has 177 MA's), (Start: 113 @34145 has 1 MA's), (144, 34280), (163, 34367), (180, 34412), (194, 34490), (212, 34541), (217, 34568), (219, 34586), (230, 34664), (239, 34697), (243, 34703),

Gene: DelRivs\_36 Start: 34708, Stop: 35307, Start Num: 87

Candidate Starts for DelRivs\_36:

(26, 34501), (27, 34504), (34, 34528), (42, 34570), (46, 34588), (50, 34603), (Start: 87 @34708 has 531 MA's), (99, 34738), (103, 34750), (115, 34789), (119, 34804), (130, 34858), (142, 34903), (144, 34909), (146, 34915), (148, 34921), (156, 34966), (157, 34969), (163, 34996), (186, 35056), (189, 35077), (206, 35140), (213, 35155),

Gene: Derpp\_35 Start: 33905, Stop: 34555, Start Num: 87

Candidate Starts for Derpp\_35:

(Start: 75 @33869 has 1 MA's), (Start: 87 @33905 has 531 MA's), (Start: 89 @33908 has 177 MA's), (Start: 113 @33989 has 1 MA's), (144, 34124), (163, 34211), (180, 34256), (193, 34325), (194, 34334), (212, 34385), (219, 34430), (230, 34508), (239, 34541), (243, 34547),

Gene: Derpp\_36 Start: 34552, Stop: 35151, Start Num: 87

Candidate Starts for Derpp\_36:

(26, 34345), (27, 34348), (34, 34372), (42, 34414), (46, 34432), (50, 34447), (Start: 87 @34552 has 531 MA's), (99, 34582), (103, 34594), (115, 34633), (119, 34648), (130, 34702), (142, 34747), (144, 34753), (146, 34759), (148, 34765), (156, 34810), (157, 34813), (163, 34840), (186, 34900), (189, 34921), (206, 34984), (213, 34999),

Gene: Devonte\_36 Start: 34267, Stop: 34920, Start Num: 83

Candidate Starts for Devonte\_36:

(Start: 83 @34267 has 45 MA's), (109, 34348), (115, 34372), (143, 34495), (178, 34621), (185, 34636), (197, 34711), (231, 34876), (232, 34879), (239, 34906),

Gene: Devonte\_37 Start: 34917, Stop: 35516, Start Num: 87

Candidate Starts for Devonte\_37:

(Start: 87 @34917 has 531 MA's), (99, 34947), (109, 34974), (127, 35061), (148, 35130), (153, 35154), (156, 35175), (186, 35265), (206, 35349), (211, 35361), (221, 35421), (232, 35481), (237, 35502),

Gene: Dice\_35 Start: 34043, Stop: 34690, Start Num: 89

Candidate Starts for Dice\_35:

(Start: 75 @34004 has 1 MA's), (Start: 87 @34040 has 531 MA's), (Start: 89 @34043 has 177 MA's), (Start: 113 @34124 has 1 MA's), (144, 34259), (163, 34346), (180, 34391), (194, 34469), (212, 34520), (217, 34547), (219, 34565), (230, 34643), (239, 34676), (243, 34682),

Gene: Dice\_36 Start: 34687, Stop: 35286, Start Num: 87

Candidate Starts for Dice\_36:

(27, 34483), (34, 34507), (42, 34549), (46, 34567), (50, 34582), (Start: 87 @34687 has 531 MA's), (99, 34717), (103, 34729), (115, 34768), (119, 34783), (130, 34837), (142, 34882), (144, 34888), (146, 34894), (148, 34900), (156, 34945), (157, 34948), (163, 34975), (186, 35035), (189, 35056), (213, 35134),

Gene: DigitDog\_36 Start: 35292, Stop: 35903, Start Num: 87

Candidate Starts for DigitDog\_36:

(54, 35199), (57, 35205), (65, 35235), (69, 35244), (72, 35250), (Start: 87 @35292 has 531 MA's), (99, 35325), (115, 35376), (127, 35439), (130, 35445), (144, 35496), (146, 35502), (148, 35508), (157, 35556), (204, 35721), (206, 35727), (224, 35829), (233, 35871), (237, 35889),

Gene: DigitDog\_35 Start: 34556, Stop: 35185, Start Num: 87

Candidate Starts for DigitDog\_35:

(Start: 87 @34556 has 531 MA's), (112, 34634), (116, 34646), (143, 34772), (146, 34781), (148, 34787), (156, 34832), (176, 34880), (178, 34886), (219, 35060), (241, 35174),

Gene: Dingo\_36 Start: 34326, Stop: 34973, Start Num: 89

Candidate Starts for Dingo\_36:

(40, 34176), (Start: 75 @34287 has 1 MA's), (Start: 87 @34323 has 531 MA's), (Start: 89 @34326 has 177 MA's), (Start: 113 @34407 has 1 MA's), (144, 34542), (163, 34629), (180, 34674), (194, 34752), (212, 34803), (217, 34830), (219, 34848), (230, 34926), (239, 34959), (243, 34965),

Gene: Dingo\_37 Start: 34970, Stop: 35569, Start Num: 87

Candidate Starts for Dingo\_37:

(27, 34766), (34, 34790), (42, 34832), (46, 34850), (50, 34865), (Start: 87 @34970 has 531 MA's), (99, 35000), (103, 35012), (115, 35051), (119, 35066), (120, 35069), (130, 35120), (142, 35165), (144, 35171), (146, 35177), (148, 35183), (156, 35228), (157, 35231), (163, 35258), (186, 35318), (189, 35339), (213, 35417),

Gene: Dione\_35 Start: 34045, Stop: 34695, Start Num: 87



Candidate Starts for Dione\_35:

(Start: 75 @34009 has 1 MA's), (Start: 87 @34045 has 531 MA's), (Start: 89 @34048 has 177 MA's), (Start: 113 @34129 has 1 MA's), (144, 34264), (163, 34351), (180, 34396), (194, 34474), (212, 34525), (217, 34552), (219, 34570), (230, 34648), (239, 34681), (243, 34687),

Gene: Dione\_36 Start: 34692, Stop: 35291, Start Num: 87

Candidate Starts for Dione\_36:

(27, 34488), (34, 34512), (42, 34554), (46, 34572), (50, 34587), (Start: 87 @34692 has 531 MA's), (99, 34722), (103, 34734), (115, 34773), (119, 34788), (130, 34842), (142, 34887), (144, 34893), (146, 34899), (148, 34905), (156, 34950), (157, 34953), (163, 34980), (186, 35040), (189, 35061), (213, 35139),

Gene: DirtJuice\_36 Start: 34332, Stop: 34979, Start Num: 89

Candidate Starts for DirtJuice\_36:

(40, 34182), (Start: 75 @34293 has 1 MA's), (Start: 87 @34329 has 531 MA's), (Start: 89 @34332 has 177 MA's), (Start: 113 @34413 has 1 MA's), (144, 34548), (163, 34635), (180, 34680), (194, 34758), (212, 34809), (217, 34836), (219, 34854), (230, 34932), (239, 34965), (243, 34971),

Gene: DirtJuice\_37 Start: 34976, Stop: 35575, Start Num: 87

Candidate Starts for DirtJuice\_37:

(27, 34772), (34, 34796), (42, 34838), (46, 34856), (50, 34871), (Start: 87 @34976 has 531 MA's), (99, 35006), (103, 35018), (115, 35057), (119, 35072), (130, 35126), (142, 35171), (144, 35177), (146, 35183), (148, 35189), (156, 35234), (157, 35237), (163, 35264), (186, 35324), (189, 35345), (213, 35423),

Gene: Doddsville\_37 Start: 34706, Stop: 35305, Start Num: 87

Candidate Starts for Doddsville\_37:

(26, 34499), (27, 34502), (34, 34526), (42, 34568), (46, 34586), (50, 34601), (Start: 87 @34706 has 531 MA's), (99, 34736), (103, 34748), (115, 34787), (119, 34802), (130, 34856), (142, 34901), (144, 34907), (146, 34913), (148, 34919), (156, 34964), (157, 34967), (163, 34994), (186, 35054), (189, 35075), (206, 35138), (213, 35153),

Gene: Doddsville\_36 Start: 34062, Stop: 34709, Start Num: 89

Candidate Starts for Doddsville\_36:

(Start: 75 @34023 has 1 MA's), (Start: 87 @34059 has 531 MA's), (Start: 89 @34062 has 177 MA's), (Start: 113 @34143 has 1 MA's), (144, 34278), (163, 34365), (180, 34410), (193, 34479), (194, 34488), (212, 34539), (219, 34584), (230, 34662), (239, 34695), (243, 34701),

Gene: DoesntMatter\_36 Start: 34335, Stop: 34982, Start Num: 89

Candidate Starts for DoesntMatter\_36:

(40, 34185), (Start: 75 @34296 has 1 MA's), (Start: 87 @34332 has 531 MA's), (Start: 89 @34335 has 177 MA's), (Start: 113 @34416 has 1 MA's), (144, 34551), (163, 34638), (180, 34683), (194, 34761), (212, 34812), (217, 34839), (219, 34857), (230, 34935), (239, 34968), (243, 34974),

Gene: DoesntMatter\_37 Start: 34979, Stop: 35578, Start Num: 87

Candidate Starts for DoesntMatter\_37:

(27, 34775), (34, 34799), (42, 34841), (46, 34859), (50, 34874), (Start: 87 @34979 has 531 MA's), (99, 35009), (103, 35021), (115, 35060), (119, 35075), (130, 35129), (142, 35174), (144, 35180), (146, 35186), (148, 35192), (156, 35237), (157, 35240), (163, 35267), (186, 35327), (189, 35348), (213, 35426),

Gene: DonSanchon\_36 Start: 34686, Stop: 35285, Start Num: 87

Candidate Starts for DonSanchon\_36:

(27, 34482), (34, 34506), (42, 34548), (46, 34566), (50, 34581), (Start: 87 @34686 has 531 MA's), (99, 34716), (103, 34728), (115, 34767), (119, 34782), (130, 34836), (142, 34881), (144, 34887), (146, 34893), (148, 34899), (156, 34944), (157, 34947), (163, 34974), (186, 35034), (189, 35055), (213, 35133),

Gene: DonSanchon\_35 Start: 34042, Stop: 34689, Start Num: 89

Candidate Starts for DonSanchon\_35:

(Start: 75 @34003 has 1 MA's), (Start: 87 @34039 has 531 MA's), (Start: 89 @34042 has 177 MA's), (Start: 113 @34123 has 1 MA's), (144, 34258), (163, 34345), (180, 34390), (194, 34468), (212, 34519), (217, 34546), (219, 34564), (230, 34642), (239, 34675), (243, 34681),

Gene: Donny\_36 Start: 35588, Stop: 36196, Start Num: 87

Candidate Starts for Donny\_36:

(34, 35411), (46, 35468), (Start: 87 @35588 has 531 MA's), (99, 35618), (116, 35672), (124, 35717), (127, 35732), (130, 35738), (135, 35753), (144, 35789), (146, 35795), (148, 35801), (157, 35849), (166, 35882), (206, 36020), (209, 36026), (233, 36164), (237, 36182),

Gene: Donny\_35 Start: 34962, Stop: 35591, Start Num: 87

Candidate Starts for Donny\_35:

(Start: 87 @34962 has 531 MA's), (112, 35040), (116, 35052), (126, 35112), (143, 35178), (146, 35187), (148, 35193), (156, 35238), (176, 35286), (178, 35292), (219, 35466), (241, 35580),

Gene: Dori\_32 Start: 30878, Stop: 31522, Start Num: 84

Candidate Starts for Dori\_32:

(22, 30638), (59, 30812), (Start: 84 @30878 has 45 MA's), (118, 30992), (123, 31025), (126, 31043), (131, 31058), (148, 31121), (156, 31166), (158, 31172), (176, 31214), (178, 31220), (193, 31292), (194, 31301), (197, 31310), (208, 31343), (219, 31397), (239, 31508), (241, 31511),

Gene: Dori\_33 Start: 31519, Stop: 32118, Start Num: 87

Candidate Starts for Dori\_33:

(64, 31465), (74, 31483), (Start: 87 @31519 has 531 MA's), (Start: 97 @31531 has 2 MA's), (99, 31549), (109, 31576), (115, 31600), (116, 31603), (127, 31663), (144, 31720), (146, 31726), (192, 31903), (206, 31951), (234, 32089), (237, 32104),

Gene: DuchessDung\_34 Start: 33199, Stop: 33846, Start Num: 89

Candidate Starts for DuchessDung\_34:

(Start: 75 @33160 has 1 MA's), (Start: 87 @33196 has 531 MA's), (Start: 89 @33199 has 177 MA's), (Start: 113 @33280 has 1 MA's), (144, 33415), (163, 33502), (180, 33547), (193, 33616), (194, 33625), (212, 33676), (219, 33721), (230, 33799), (239, 33832), (243, 33838),

Gene: DuchessDung\_35 Start: 33843, Stop: 34442, Start Num: 87

Candidate Starts for DuchessDung\_35:

(26, 33636), (27, 33639), (34, 33663), (42, 33705), (46, 33723), (50, 33738), (Start: 87 @33843 has 531 MA's), (99, 33873), (103, 33885), (115, 33924), (119, 33939), (130, 33993), (142, 34038), (144, 34044), (146, 34050), (148, 34056), (156, 34101), (157, 34104), (163, 34131), (186, 34191), (189, 34212), (206, 34275), (213, 34290),

Gene: Duggie\_35 Start: 34064, Stop: 34711, Start Num: 89

Candidate Starts for Duggie\_35:

(Start: 75 @34025 has 1 MA's), (Start: 87 @34061 has 531 MA's), (Start: 89 @34064 has 177 MA's), (Start: 113 @34145 has 1 MA's), (144, 34280), (163, 34367), (180, 34412), (193, 34481), (194, 34490), (212, 34541), (219, 34586), (230, 34664), (239, 34697), (243, 34703),

Gene: Duggie\_36 Start: 34708, Stop: 35307, Start Num: 87

Candidate Starts for Duggie\_36:

(26, 34501), (27, 34504), (34, 34528), (42, 34570), (46, 34588), (50, 34603), (Start: 87 @34708 has 531 MA's), (99, 34738), (103, 34750), (115, 34789), (119, 34804), (130, 34858), (142, 34903), (144, 34909), (146, 34915), (148, 34921), (156, 34966), (157, 34969), (163, 34996), (186, 35056), (189, 35077), (206, 35140), (213, 35155),

Gene: Durga\_36 Start: 34362, Stop: 35009, Start Num: 89

Candidate Starts for Durga\_36:

(Start: 75 @34323 has 1 MA's), (Start: 87 @34359 has 531 MA's), (Start: 89 @34362 has 177 MA's), (Start: 113 @34443 has 1 MA's), (144, 34578), (163, 34665), (180, 34710), (193, 34779), (194, 34788), (212, 34839), (219, 34884), (230, 34962), (239, 34995), (243, 35001),

Gene: Durga\_37 Start: 35006, Stop: 35605, Start Num: 87

Candidate Starts for Durga\_37:

(26, 34799), (27, 34802), (34, 34826), (42, 34868), (46, 34886), (50, 34901), (Start: 87 @35006 has 531 MA's), (99, 35036), (103, 35048), (115, 35087), (119, 35102), (130, 35156), (142, 35201), (144, 35207), (146, 35213), (148, 35219), (156, 35264), (157, 35267), (163, 35294), (186, 35354), (189, 35375), (206, 35438), (213, 35453),

Gene: Eaglehorse\_38 Start: 35507, Stop: 36106, Start Num: 87

Candidate Starts for Eaglehorse\_38:

(80, 35486), (Start: 87 @35507 has 531 MA's), (99, 35537), (106, 35558), (115, 35588), (116, 35591), (130, 35657), (144, 35708), (145, 35711), (146, 35714), (153, 35744), (156, 35765), (179, 35831), (187, 35861), (211, 35951), (213, 35954), (216, 35972), (219, 35996), (230, 36065), (237, 36092),

Gene: Eaglehorse\_36 Start: 34717, Stop: 35361, Start Num: 84

Candidate Starts for Eaglehorse\_36:

(34, 34552), (59, 34663), (Start: 84 @34717 has 45 MA's), (Start: 86 @34726 has 1 MA's), (109, 34795), (116, 34822), (118, 34831), (140, 34936), (144, 34948), (148, 34960), (176, 35053), (190, 35119), (194, 35140), (199, 35155), (201, 35161), (208, 35182), (214, 35194), (241, 35350),

Gene: EastView9101\_35 Start: 35238, Stop: 35846, Start Num: 87

Candidate Starts for EastView9101\_35:

(34, 35061), (46, 35118), (Start: 87 @35238 has 531 MA's), (99, 35268), (116, 35322), (124, 35367), (127, 35382), (130, 35388), (135, 35403), (144, 35439), (146, 35445), (148, 35451), (157, 35499), (166, 35532), (206, 35670), (209, 35676), (233, 35814), (237, 35832),

Gene: EastView9101\_34 Start: 34612, Stop: 35241, Start Num: 87

Candidate Starts for EastView9101\_34:

(Start: 87 @34612 has 531 MA's), (112, 34690), (116, 34702), (126, 34762), (143, 34828), (146, 34837), (148, 34843), (156, 34888), (176, 34936), (178, 34942), (219, 35116), (241, 35230),

Gene: ElvisPhasley\_37 Start: 35028, Stop: 35627, Start Num: 87

Candidate Starts for ElvisPhasley\_37:

(26, 34821), (27, 34824), (34, 34848), (42, 34890), (46, 34908), (50, 34923), (Start: 87 @35028 has 531 MA's), (99, 35058), (103, 35070), (115, 35109), (119, 35124), (130, 35178), (142, 35223), (144, 35229), (146, 35235), (148, 35241), (156, 35286), (157, 35289), (163, 35316), (189, 35397), (206, 35460), (213, 35475),

Gene: ElvisPhasley\_36 Start: 34384, Stop: 35031, Start Num: 89

Candidate Starts for ElvisPhasley\_36:

(Start: 75 @34345 has 1 MA's), (Start: 87 @34381 has 531 MA's), (Start: 89 @34384 has 177 MA's), (Start: 113 @34465 has 1 MA's), (144, 34600), (163, 34687), (180, 34732), (194, 34810), (212, 34861), (219, 34906), (230, 34984), (239, 35017), (243, 35023),

Gene: Emiris\_37 Start: 34977, Stop: 35576, Start Num: 87

Candidate Starts for Emiris\_37:

(26, 34770), (27, 34773), (34, 34797), (42, 34839), (46, 34857), (50, 34872), (Start: 87 @34977 has 531 MA's), (99, 35007), (103, 35019), (115, 35058), (119, 35073), (130, 35127), (142, 35172), (144, 35178), (146, 35184), (148, 35190), (156, 35235), (157, 35238), (163, 35265), (186, 35325), (189, 35346), (206, 35409), (213, 35424),

Gene: Emiris\_36 Start: 34333, Stop: 34980, Start Num: 89

Candidate Starts for Emiris\_36:

(Start: 75 @34294 has 1 MA's), (Start: 87 @34330 has 531 MA's), (Start: 89 @34333 has 177 MA's), (Start: 113 @34414 has 1 MA's), (144, 34549), (163, 34636), (180, 34681), (193, 34750), (194, 34759), (212, 34810), (219, 34855), (230, 34933), (239, 34966), (243, 34972),

Gene: EmpTee\_36 Start: 34339, Stop: 34989, Start Num: 87

Candidate Starts for EmpTee\_36:

(40, 34192), (Start: 75 @34303 has 1 MA's), (Start: 87 @34339 has 531 MA's), (Start: 89 @34342 has 177 MA's), (Start: 113 @34423 has 1 MA's), (144, 34558), (163, 34645), (180, 34690), (194, 34768), (212, 34819), (217, 34846), (219, 34864), (230, 34942), (239, 34975), (243, 34981),

Gene: EmpTee\_37 Start: 34986, Stop: 35585, Start Num: 87

Candidate Starts for EmpTee\_37:

(27, 34782), (34, 34806), (42, 34848), (46, 34866), (50, 34881), (Start: 87 @34986 has 531 MA's), (99, 35016), (103, 35028), (115, 35067), (119, 35082), (130, 35136), (142, 35181), (144, 35187), (146, 35193), (148, 35199), (156, 35244), (157, 35247), (163, 35274), (186, 35334), (189, 35355),

Gene: Epah\_32 Start: 33506, Stop: 34153, Start Num: 67

Candidate Starts for Epah\_32:

(Start: 67 @33506 has 25 MA's), (102, 33584), (104, 33596), (123, 33668), (132, 33692), (137, 33713), (138, 33722), (139, 33725), (142, 33734), (143, 33737), (154, 33782), (165, 33836), (172, 33854), (189, 33914), (193, 33926), (213, 33986), (217, 34010), (219, 34028), (233, 34115), (241, 34142),

Gene: Epah\_33 Start: 34150, Stop: 34755, Start Num: 87

Candidate Starts for Epah\_33:

(Start: 87 @34150 has 531 MA's), (99, 34186), (115, 34237), (116, 34240), (127, 34300), (130, 34306), (142, 34351), (145, 34360), (146, 34363), (147, 34366), (153, 34393), (163, 34444), (187, 34510), (189, 34525), (206, 34588), (219, 34645), (233, 34723), (237, 34741),

Gene: Eremos\_37 Start: 34985, Stop: 35584, Start Num: 87

Candidate Starts for Eremos\_37:

(27, 34781), (34, 34805), (42, 34847), (46, 34865), (50, 34880), (Start: 87 @34985 has 531 MA's), (99, 35015), (103, 35027), (115, 35066), (119, 35081), (130, 35135), (142, 35180), (144, 35186), (146, 35192), (148, 35198), (156, 35243), (157, 35246), (163, 35273), (186, 35333), (189, 35354), (213, 35432),

Gene: Eremos\_36 Start: 34338, Stop: 34988, Start Num: 87

Candidate Starts for Eremos\_36:

(Start: 75 @34302 has 1 MA's), (Start: 87 @34338 has 531 MA's), (Start: 89 @34341 has 177 MA's), (Start: 113 @34422 has 1 MA's), (144, 34557), (163, 34644), (180, 34689), (194, 34767), (212, 34818), (217, 34845), (219, 34863), (230, 34941), (239, 34974), (243, 34980),

Gene: Etaye\_37 Start: 34976, Stop: 35575, Start Num: 87

Candidate Starts for Etaye\_37:

(26, 34769), (27, 34772), (34, 34796), (42, 34838), (46, 34856), (50, 34871), (Start: 87 @34976 has 531 MA's), (99, 35006), (103, 35018), (115, 35057), (119, 35072), (130, 35126), (142, 35171), (144, 35177), (146, 35183), (148, 35189), (156, 35234), (157, 35237), (163, 35264), (186, 35324), (189, 35345), (206, 35408), (213, 35423),

Gene: Etaye\_36 Start: 34332, Stop: 34979, Start Num: 89

Candidate Starts for Etaye\_36:

(Start: 75 @34293 has 1 MA's), (Start: 87 @34329 has 531 MA's), (Start: 89 @34332 has 177 MA's), (Start: 113 @34413 has 1 MA's), (144, 34548), (163, 34635), (180, 34680), (193, 34749), (194, 34758), (212, 34809), (219, 34854), (230, 34932), (239, 34965), (243, 34971),

Gene: Eugenia\_36 Start: 34351, Stop: 34998, Start Num: 89

Candidate Starts for Eugenia\_36:

(Start: 75 @34312 has 1 MA's), (Start: 87 @34348 has 531 MA's), (Start: 89 @34351 has 177 MA's), (Start: 113 @34432 has 1 MA's), (144, 34567), (163, 34654), (180, 34699), (194, 34777), (212, 34828), (217, 34855), (219, 34873), (230, 34951), (239, 34984), (243, 34990),

Gene: Eugenia\_37 Start: 34995, Stop: 35594, Start Num: 87

Candidate Starts for Eugenia\_37:

(27, 34791), (34, 34815), (42, 34857), (46, 34875), (50, 34890), (Start: 87 @34995 has 531 MA's), (99, 35025), (103, 35037), (115, 35076), (119, 35091), (130, 35145), (142, 35190), (144, 35196), (146, 35202), (148, 35208), (156, 35253), (157, 35256), (163, 35283), (186, 35343), (189, 35364), (213, 35442),

Gene: Evaa\_30 Start: 28903, Stop: 29499, Start Num: 244

Candidate Starts for Evaa\_30:

(111, 28354), (136, 28465), (206, 28726), (228, 28849), (Start: 244 @28903 has 2 MA's), (246, 28936), (250, 28987), (251, 28990), (254, 29050), (256, 29056), (259, 29107), (261, 29113), (265, 29164), (269, 29218), (271, 29260), (274, 29305), (281, 29371), (284, 29410), (287, 29494),

Gene: Evaa\_29 Start: 28292, Stop: 28906, Start Num: 93

Candidate Starts for Evaa\_29:

(Start: 93 @28292 has 16 MA's), (112, 28361), (123, 28412), (131, 28445), (144, 28496), (145, 28499), (148, 28508), (153, 28532), (176, 28601), (178, 28607), (183, 28619), (197, 28697), (239, 28892), (241, 28895),

Gene: Fanaw\_32 Start: 34203, Stop: 34850, Start Num: 67

Candidate Starts for Fanaw\_32:

(Start: 67 @34203 has 25 MA's), (102, 34281), (104, 34293), (123, 34365), (138, 34419), (139, 34422), (142, 34431), (154, 34479), (165, 34533), (172, 34551), (189, 34611), (193, 34623), (213, 34683), (216, 34701), (217, 34707), (219, 34725), (233, 34812), (234, 34815), (241, 34839),

Gene: Fanaw\_33 Start: 34847, Stop: 35452, Start Num: 87

Candidate Starts for Fanaw\_33:

(Start: 87 @34847 has 531 MA's), (99, 34883), (115, 34934), (116, 34937), (127, 34997), (130, 35003), (142, 35048), (145, 35057), (146, 35060), (147, 35063), (153, 35090), (156, 35111), (163, 35141), (187, 35207), (189, 35222), (206, 35285), (219, 35342), (233, 35420), (237, 35438),

Gene: Fang\_36 Start: 34352, Stop: 35002, Start Num: 87

Candidate Starts for Fang\_36:

(Start: 75 @34316 has 1 MA's), (Start: 87 @34352 has 531 MA's), (Start: 89 @34355 has 177 MA's), (Start: 113 @34436 has 1 MA's), (144, 34571), (163, 34658), (180, 34703), (194, 34781), (212, 34832), (217, 34859), (219, 34877), (230, 34955), (239, 34988), (243, 34994),

Gene: Fang\_37 Start: 34999, Stop: 35598, Start Num: 87

Candidate Starts for Fang\_37:

(27, 34795), (34, 34819), (42, 34861), (46, 34879), (50, 34894), (Start: 87 @34999 has 531 MA's), (99, 35029), (103, 35041), (115, 35080), (119, 35095), (130, 35149), (142, 35194), (144, 35200), (146, 35206), (148, 35212), (156, 35257), (157, 35260), (163, 35287), (186, 35347), (189, 35368), (213, 35446),

Gene: Faze9\_36 Start: 34813, Stop: 35457, Start Num: 84

Candidate Starts for Faze9\_36:

(12, 34444), (14, 34456), (19, 34555), (34, 34648), (59, 34759), (Start: 84 @34813 has 45 MA's), (Start: 86 @34822 has 1 MA's), (109, 34891), (116, 34918), (118, 34927), (144, 35044), (148, 35056), (176, 35149), (190, 35215), (194, 35236), (199, 35251), (201, 35257), (208, 35278), (214, 35290), (241, 35446),

Gene: Faze9\_37 Start: 35603, Stop: 36202, Start Num: 87

Candidate Starts for Faze9\_37:

(80, 35582), (Start: 87 @35603 has 531 MA's), (99, 35633), (106, 35654), (115, 35684), (116, 35687), (130, 35753), (144, 35804), (145, 35807), (146, 35810), (153, 35840), (156, 35861), (179, 35927), (187, 35957), (211, 36047), (213, 36050), (216, 36068), (219, 36092), (230, 36161), (237, 36188),

Gene: FluffyNinja\_37 Start: 34992, Stop: 35591, Start Num: 87

Candidate Starts for FluffyNinja\_37:

(27, 34788), (34, 34812), (42, 34854), (46, 34872), (50, 34887), (Start: 87 @34992 has 531 MA's), (99, 35022), (103, 35034), (115, 35073), (119, 35088), (130, 35142), (142, 35187), (144, 35193), (146, 35199), (148, 35205), (156, 35250), (157, 35253), (163, 35280), (186, 35340), (189, 35361), (213, 35439),

Gene: FluffyNinja\_36 Start: 34345, Stop: 34995, Start Num: 87

Candidate Starts for FluffyNinja\_36:

(Start: 75 @34309 has 1 MA's), (Start: 87 @34345 has 531 MA's), (Start: 89 @34348 has 177 MA's), (Start: 113 @34429 has 1 MA's), (144, 34564), (163, 34651), (180, 34696), (194, 34774), (212, 34825), (217, 34852), (219, 34870), (230, 34948), (239, 34981), (243, 34987),

Gene: ForDig\_31 Start: 32064, Stop: 32708, Start Num: 87

Candidate Starts for ForDig\_31:

(Start: 87 @32064 has 531 MA's), (112, 32139), (116, 32151), (135, 32241), (147, 32286), (175, 32400), (180, 32412), (186, 32436), (188, 32454), (190, 32469), (202, 32517), (241, 32697),

Gene: ForDig\_32 Start: 32705, Stop: 33313, Start Num: 87

Candidate Starts for ForDig\_32:

(15, 32351), (27, 32504), (34, 32528), (63, 32651), (Start: 87 @32705 has 531 MA's), (127, 32849), (130, 32855), (144, 32906), (147, 32915), (148, 32918), (156, 32963), (162, 32990), (177, 33026), (181, 33032), (186, 33053), (215, 33161), (224, 33239), (233, 33281), (237, 33299),

Gene: Fortunato\_34 Start: 35175, Stop: 35780, Start Num: 87

Candidate Starts for Fortunato\_34:

(Start: 87 @35175 has 531 MA's), (99, 35211), (109, 35238), (115, 35262), (116, 35265), (127, 35325), (130, 35331), (142, 35376), (145, 35385), (146, 35388), (147, 35391), (153, 35418), (156, 35439), (163, 35469), (187, 35535), (189, 35550), (206, 35613), (219, 35670), (233, 35748), (237, 35766),

Gene: Fortunato\_33 Start: 34531, Stop: 35178, Start Num: 67

Candidate Starts for Fortunato\_33:

(Start: 67 @34531 has 25 MA's), (102, 34609), (104, 34621), (123, 34693), (138, 34747), (139, 34750), (142, 34759), (154, 34807), (165, 34861), (172, 34879), (189, 34939), (193, 34951), (217, 35035), (219, 35053), (233, 35140), (234, 35143), (241, 35167),

Gene: Fozzie\_35 Start: 34364, Stop: 35011, Start Num: 89

Candidate Starts for Fozzie\_35:

(Start: 75 @34325 has 1 MA's), (Start: 87 @34361 has 531 MA's), (Start: 89 @34364 has 177 MA's), (Start: 113 @34445 has 1 MA's), (144, 34580), (163, 34667), (180, 34712), (194, 34790), (212, 34841), (217, 34868), (219, 34886), (230, 34964), (239, 34997), (243, 35003),

Gene: Fozzie\_36 Start: 35008, Stop: 35607, Start Num: 87

Candidate Starts for Fozzie\_36:

(27, 34804), (34, 34828), (42, 34870), (46, 34888), (50, 34903), (Start: 87 @35008 has 531 MA's), (99, 35038), (103, 35050), (115, 35089), (119, 35104), (130, 35158), (142, 35203), (144, 35209), (146, 35215), (148, 35221), (156, 35266), (157, 35269), (163, 35296), (186, 35356), (189, 35377), (213, 35455),

Gene: Frankicide\_36 Start: 34360, Stop: 35007, Start Num: 89

Candidate Starts for Frankicide\_36:

(40, 34210), (Start: 75 @34321 has 1 MA's), (Start: 87 @34357 has 531 MA's), (Start: 89 @34360 has 177 MA's), (Start: 113 @34441 has 1 MA's), (144, 34576), (163, 34663), (180, 34708), (194, 34786), (212, 34837), (217, 34864), (219, 34882), (230, 34960), (239, 34993), (243, 34999),

Gene: Frankicide\_37 Start: 35004, Stop: 35603, Start Num: 87

Candidate Starts for Frankicide\_37:

(27, 34800), (34, 34824), (42, 34866), (46, 34884), (50, 34899), (Start: 87 @35004 has 531 MA's), (99, 35034), (103, 35046), (115, 35085), (119, 35100), (130, 35154), (142, 35199), (144, 35205), (146, 35211), (148, 35217), (156, 35262), (157, 35265), (163, 35292), (186, 35352), (189, 35373), (213, 35451),

Gene: Frederick\_33 Start: 34537, Stop: 35184, Start Num: 67

Candidate Starts for Frederick\_33:

(Start: 67 @34537 has 25 MA's), (102, 34615), (104, 34627), (123, 34699), (132, 34723), (138, 34753), (139, 34756), (142, 34765), (154, 34813), (165, 34867), (172, 34885), (189, 34945), (193, 34957), (213, 35017), (217, 35041), (219, 35059), (233, 35146), (234, 35149), (241, 35173),

Gene: Frederick\_34 Start: 35181, Stop: 35786, Start Num: 87

Candidate Starts for Frederick\_34:

(Start: 87 @35181 has 531 MA's), (99, 35217), (109, 35244), (115, 35268), (116, 35271), (127, 35331), (130, 35337), (142, 35382), (145, 35391), (146, 35394), (147, 35397), (153, 35424), (156, 35445), (163, 35475), (187, 35541), (189, 35556), (206, 35619), (219, 35676), (233, 35754), (237, 35772),

Gene: FrenchFry\_38 Start: 35597, Stop: 36196, Start Num: 87

Candidate Starts for FrenchFry\_38:

(80, 35576), (Start: 87 @35597 has 531 MA's), (99, 35627), (106, 35648), (115, 35678), (116, 35681), (130, 35747), (144, 35798), (145, 35801), (146, 35804), (153, 35834), (156, 35855), (179, 35921), (187, 35951), (211, 36041), (213, 36044), (216, 36062), (219, 36086), (230, 36155), (237, 36182),

Gene: FrenchFry\_36 Start: 34807, Stop: 35451, Start Num: 84

Candidate Starts for FrenchFry\_36:

(34, 34642), (59, 34753), (Start: 84 @34807 has 45 MA's), (Start: 86 @34816 has 1 MA's), (109, 34885), (116, 34912), (118, 34921), (121, 34930), (144, 35038), (148, 35050), (176, 35143), (190, 35209), (194, 35230), (199, 35245), (201, 35251), (208, 35272), (214, 35284), (241, 35440),

Gene: Fresco\_29 Start: 27488, Stop: 28102, Start Num: 93

Candidate Starts for Fresco\_29:

(41, 27338), (Start: 93 @27488 has 16 MA's), (98, 27503), (Start: 101 @27521 has 1 MA's), (112, 27557), (119, 27581), (125, 27620), (143, 27689), (144, 27692), (145, 27695), (176, 27797), (227, 28034), (230, 28055), (232, 28061), (241, 28091),

Gene: Fresco\_30 Start: 28099, Stop: 28731, Start Num: 87

Candidate Starts for Fresco\_30:

(34, 27922), (Start: 87 @28099 has 531 MA's), (99, 28132), (109, 28159), (130, 28252), (143, 28300), (146, 28309), (156, 28360), (177, 28423), (179, 28426), (193, 28489), (213, 28549), (215, 28558), (216, 28567), (235, 28705),

Gene: Freya\_35 Start: 34039, Stop: 34686, Start Num: 89

Candidate Starts for Freya\_35:

(Start: 75 @34000 has 1 MA's), (Start: 87 @34036 has 531 MA's), (Start: 89 @34039 has 177 MA's), (Start: 113 @34120 has 1 MA's), (144, 34255), (163, 34342), (180, 34387), (194, 34465), (212, 34516), (217, 34543), (219, 34561), (230, 34639), (239, 34672), (243, 34678),

Gene: Freya\_36 Start: 34683, Stop: 35282, Start Num: 87

Candidate Starts for Freya\_36:

(27, 34479), (34, 34503), (42, 34545), (46, 34563), (50, 34578), (Start: 87 @34683 has 531 MA's), (99, 34713), (103, 34725), (115, 34764), (119, 34779), (130, 34833), (142, 34878), (144, 34884), (146, 34890), (148, 34896), (156, 34941), (157, 34944), (163, 34971), (186, 35031), (189, 35052), (213, 35130),

Gene: FriarPreacher\_37 Start: 35010, Stop: 35609, Start Num: 87

Candidate Starts for FriarPreacher\_37:

(27, 34806), (34, 34830), (42, 34872), (46, 34890), (50, 34905), (Start: 87 @35010 has 531 MA's), (99, 35040), (103, 35052), (115, 35091), (119, 35106), (130, 35160), (142, 35205), (144, 35211), (146, 35217), (148, 35223), (156, 35268), (157, 35271), (163, 35298), (186, 35358), (189, 35379), (213, 35457),

Gene: FriarPreacher\_36 Start: 34363, Stop: 35013, Start Num: 87

Candidate Starts for FriarPreacher\_36:

(Start: 75 @34327 has 1 MA's), (Start: 87 @34363 has 531 MA's), (Start: 89 @34366 has 177 MA's), (Start: 113 @34447 has 1 MA's), (144, 34582), (163, 34669), (180, 34714), (194, 34792), (212, 34843), (217, 34870), (219, 34888), (230, 34966), (239, 34999), (243, 35005),

Gene: Fringe\_37 Start: 34975, Stop: 35574, Start Num: 87

Candidate Starts for Fringe\_37:

(27, 34771), (34, 34795), (42, 34837), (46, 34855), (50, 34870), (Start: 87 @34975 has 531 MA's), (99, 35005), (103, 35017), (115, 35056), (119, 35071), (130, 35125), (142, 35170), (144, 35176), (146, 35182), (148, 35188), (156, 35233), (157, 35236), (163, 35263), (186, 35323), (189, 35344), (213, 35422),

Gene: Fringe\_36 Start: 34331, Stop: 34978, Start Num: 89

Candidate Starts for Fringe\_36:

(40, 34181), (Start: 75 @34292 has 1 MA's), (Start: 87 @34328 has 531 MA's), (Start: 89 @34331 has 177 MA's), (Start: 113 @34412 has 1 MA's), (144, 34547), (163, 34634), (180, 34679), (194, 34757),



(212, 34808), (217, 34835), (219, 34853), (230, 34931), (239, 34964), (243, 34970),

Gene: FugateOSU\_36 Start: 34688, Stop: 35287, Start Num: 87

Candidate Starts for FugateOSU\_36:

(27, 34484), (34, 34508), (42, 34550), (46, 34568), (50, 34583), (Start: 87 @34688 has 531 MA's), (99, 34718), (103, 34730), (115, 34769), (119, 34784), (130, 34838), (142, 34883), (144, 34889), (146, 34895), (148, 34901), (156, 34946), (157, 34949), (163, 34976), (186, 35036), (189, 35057), (213, 35135),

Gene: FugateOSU\_35 Start: 34044, Stop: 34691, Start Num: 89

Candidate Starts for FugateOSU\_35:

(Start: 75 @34005 has 1 MA's), (Start: 87 @34041 has 531 MA's), (Start: 89 @34044 has 177 MA's), (Start: 113 @34125 has 1 MA's), (144, 34260), (163, 34347), (180, 34392), (194, 34470), (212, 34521), (217, 34548), (219, 34566), (230, 34644), (239, 34677), (243, 34683),

Gene: Funsized\_38 Start: 37106, Stop: 37753, Start Num: 87

Candidate Starts for Funsized\_38:

(7, 36659), (18, 36773), (21, 36830), (27, 36893), (32, 36914), (74, 37067), (81, 37085), (Start: 87 @37106 has 531 MA's), (112, 37181), (117, 37199), (118, 37205), (135, 37286), (140, 37310), (144, 37322), (146, 37328), (180, 37457), (212, 37586), (216, 37604), (219, 37628), (234, 37718), (239, 37739), (241, 37742),

Gene: Funsized\_39 Start: 37750, Stop: 38358, Start Num: 87

Candidate Starts for Funsized\_39:

(63, 37696), (Start: 87 @37750 has 531 MA's), (Start: 97 @37765 has 2 MA's), (99, 37783), (109, 37810), (115, 37834), (127, 37897), (130, 37903), (144, 37954), (146, 37960), (148, 37966), (150, 37984), (153, 37990), (156, 38011), (166, 38047), (211, 38197), (213, 38200), (219, 38242), (224, 38287), (233, 38329), (237, 38347),

Gene: Gadget\_38 Start: 34940, Stop: 35539, Start Num: 87

Candidate Starts for Gadget\_38:

(26, 34736), (Start: 87 @34940 has 531 MA's), (99, 34970), (109, 34997), (127, 35084), (130, 35090), (148, 35153), (153, 35177), (186, 35288), (206, 35372), (211, 35384), (221, 35444), (237, 35525),

Gene: Gadget\_37 Start: 34290, Stop: 34943, Start Num: 83

Candidate Starts for Gadget\_37:

(Start: 83 @34290 has 45 MA's), (109, 34371), (143, 34518), (178, 34644), (185, 34659), (197, 34734), (231, 34899), (239, 34929),

Gene: Gareth\_36 Start: 34691, Stop: 35290, Start Num: 87

Candidate Starts for Gareth\_36:

(27, 34487), (34, 34511), (42, 34553), (46, 34571), (50, 34586), (Start: 87 @34691 has 531 MA's), (99, 34721), (103, 34733), (115, 34772), (119, 34787), (130, 34841), (142, 34886), (144, 34892), (146, 34898), (148, 34904), (156, 34949), (157, 34952), (163, 34979), (186, 35039), (189, 35060), (213, 35138),

Gene: Gareth\_35 Start: 34044, Stop: 34694, Start Num: 87

Candidate Starts for Gareth\_35:

(Start: 75 @34008 has 1 MA's), (Start: 87 @34044 has 531 MA's), (Start: 89 @34047 has 177 MA's), (Start: 113 @34128 has 1 MA's), (144, 34263), (163, 34350), (180, 34395), (194, 34473), (212, 34524), (217, 34551), (219, 34569), (230, 34647), (239, 34680), (243, 34686),

Gene: GeneCoco\_37 Start: 35000, Stop: 35599, Start Num: 87

Candidate Starts for GeneCoco\_37:

(26, 34793), (27, 34796), (34, 34820), (42, 34862), (46, 34880), (50, 34895), (Start: 87 @35000 has 531 MA's), (99, 35030), (103, 35042), (115, 35081), (119, 35096), (130, 35150), (142, 35195), (144, 35201), (146, 35207), (148, 35213), (156, 35258), (157, 35261), (163, 35288), (186, 35348), (189, 35369), (206, 35432), (213, 35447),

Gene: GeneCoco\_36 Start: 34353, Stop: 35003, Start Num: 87

Candidate Starts for GeneCoco\_36:

(Start: 75 @34317 has 1 MA's), (Start: 87 @34353 has 531 MA's), (Start: 89 @34356 has 177 MA's), (Start: 113 @34437 has 1 MA's), (144, 34572), (163, 34659), (180, 34704), (193, 34773), (194, 34782), (212, 34833), (219, 34878), (230, 34956), (239, 34989), (243, 34995),

Gene: Gervas\_36 Start: 34257, Stop: 34910, Start Num: 83

Candidate Starts for Gervas\_36:

(Start: 83 @34257 has 45 MA's), (109, 34338), (115, 34362), (143, 34485), (178, 34611), (185, 34626), (197, 34701), (231, 34866), (232, 34869), (239, 34896),

Gene: Gervas\_37 Start: 34907, Stop: 35506, Start Num: 87

Candidate Starts for Gervas\_37:

(Start: 87 @34907 has 531 MA's), (99, 34937), (109, 34964), (127, 35051), (130, 35057), (148, 35120), (153, 35144), (156, 35165), (186, 35255), (206, 35339), (211, 35351), (221, 35411), (232, 35471), (237, 35492),

Gene: GinPorsche\_32 Start: 33506, Stop: 34153, Start Num: 67

Candidate Starts for GinPorsche\_32:

(Start: 67 @33506 has 25 MA's), (102, 33584), (104, 33596), (123, 33668), (132, 33692), (137, 33713), (138, 33722), (139, 33725), (142, 33734), (143, 33737), (154, 33782), (165, 33836), (172, 33854), (189, 33914), (193, 33926), (213, 33986), (217, 34010), (219, 34028), (233, 34115), (241, 34142),

Gene: GinPorsche\_33 Start: 34150, Stop: 34755, Start Num: 87

Candidate Starts for GinPorsche\_33:

(Start: 87 @34150 has 531 MA's), (99, 34186), (115, 34237), (116, 34240), (127, 34300), (130, 34306), (142, 34351), (145, 34360), (146, 34363), (147, 34366), (153, 34393), (163, 34444), (187, 34510), (189, 34525), (206, 34588), (219, 34645), (233, 34723), (237, 34741),

Gene: Giraffe\_37 Start: 34694, Stop: 35293, Start Num: 87

Candidate Starts for Giraffe\_37:

(27, 34490), (34, 34514), (42, 34556), (46, 34574), (50, 34589), (Start: 87 @34694 has 531 MA's), (99, 34724), (103, 34736), (115, 34775), (119, 34790), (130, 34844), (142, 34889), (144, 34895), (146, 34901), (148, 34907), (156, 34952), (157, 34955), (163, 34982), (186, 35042), (189, 35063), (213, 35141),

Gene: Giraffe\_36 Start: 34050, Stop: 34697, Start Num: 89

Candidate Starts for Giraffe\_36:

(Start: 75 @34011 has 1 MA's), (Start: 87 @34047 has 531 MA's), (Start: 89 @34050 has 177 MA's), (Start: 113 @34131 has 1 MA's), (144, 34266), (163, 34353), (180, 34398), (194, 34476), (212, 34527), (217, 34554), (219, 34572), (230, 34650), (239, 34683), (243, 34689),

Gene: Glass\_38 Start: 35597, Stop: 36196, Start Num: 87

Candidate Starts for Glass\_38:

(80, 35576), (Start: 87 @35597 has 531 MA's), (99, 35627), (106, 35648), (115, 35678), (116, 35681), (130, 35747), (144, 35798), (145, 35801), (146, 35804), (153, 35834), (156, 35855), (179, 35921), (187, 35951), (211, 36041), (213, 36044), (216, 36062), (219, 36086), (230, 36155), (237, 36182),

Gene: Glass\_36 Start: 34807, Stop: 35451, Start Num: 84

Candidate Starts for Glass\_36:

(34, 34642), (59, 34753), (Start: 84 @34807 has 45 MA's), (Start: 86 @34816 has 1 MA's), (109, 34885), (116, 34912), (118, 34921), (121, 34930), (144, 35038), (148, 35050), (176, 35143), (190, 35209), (194, 35230), (199, 35245), (201, 35251), (208, 35272), (214, 35284), (241, 35440),

Gene: GlenHope\_38 Start: 34920, Stop: 35519, Start Num: 87

Candidate Starts for GlenHope\_38:

(Start: 87 @34920 has 531 MA's), (99, 34950), (109, 34977), (127, 35064), (130, 35070), (148, 35133), (153, 35157), (156, 35178), (186, 35268), (206, 35352), (211, 35364), (221, 35424), (237, 35505),

Gene: GlenHope\_37 Start: 34270, Stop: 34923, Start Num: 83

Candidate Starts for GlenHope\_37:

(Start: 83 @34270 has 45 MA's), (109, 34351), (115, 34375), (143, 34498), (178, 34624), (185, 34639), (197, 34714), (231, 34879), (239, 34909),

Gene: Glubnar\_36 Start: 34269, Stop: 34922, Start Num: 83

Candidate Starts for Glubnar\_36:

(Start: 83 @34269 has 45 MA's), (109, 34350), (143, 34497), (178, 34623), (185, 34638), (197, 34713), (231, 34878), (239, 34908),

Gene: Glubnar\_37 Start: 34919, Stop: 35518, Start Num: 87

Candidate Starts for Glubnar\_37:

(Start: 87 @34919 has 531 MA's), (99, 34949), (109, 34976), (127, 35063), (130, 35069), (148, 35132), (153, 35156), (156, 35177), (186, 35267), (206, 35351), (211, 35363), (221, 35423), (237, 35504),

Gene: GodPhather\_31 Start: 32995, Stop: 33594, Start Num: 87

Candidate Starts for GodPhather\_31:

(Start: 87 @32995 has 531 MA's), (99, 33025), (106, 33046), (109, 33052), (127, 33139), (130, 33145), (144, 33196), (148, 33208), (153, 33232), (156, 33253), (160, 33271), (166, 33289), (177, 33316), (217, 33466), (219, 33484), (232, 33559), (237, 33580),

Gene: GodPhather\_29 Start: 32201, Stop: 32845, Start Num: 84

Candidate Starts for GodPhather\_29:

(Start: 84 @32201 has 45 MA's), (91, 32219), (100, 32252), (108, 32276), (118, 32315), (121, 32324), (131, 32381), (144, 32432), (146, 32438), (148, 32444), (163, 32519), (180, 32546), (190, 32603), (201, 32645), (219, 32720), (229, 32792),

Gene: Godines\_36 Start: 34749, Stop: 35393, Start Num: 84

Candidate Starts for Godines\_36:

(23, 34548), (Start: 84 @34749 has 45 MA's), (Start: 86 @34758 has 1 MA's), (109, 34827), (116, 34854), (118, 34863), (121, 34872), (144, 34980), (148, 34992), (176, 35085), (190, 35151), (194, 35172), (199, 35187), (201, 35193), (208, 35214), (214, 35226), (241, 35382),

Gene: Godines\_38 Start: 35539, Stop: 36138, Start Num: 87

Candidate Starts for Godines\_38:

(80, 35518), (Start: 87 @35539 has 531 MA's), (99, 35569), (106, 35590), (115, 35620), (116, 35623), (130, 35689), (144, 35740), (145, 35743), (146, 35746), (153, 35776), (156, 35797), (179, 35863), (187, 35893), (211, 35983), (213, 35986), (216, 36004), (219, 36028), (230, 36097), (237, 36124),

Gene: Gophee\_37 Start: 34977, Stop: 35576, Start Num: 87

Candidate Starts for Gophee\_37:

(27, 34773), (34, 34797), (42, 34839), (46, 34857), (50, 34872), (Start: 87 @34977 has 531 MA's), (99, 35007), (103, 35019), (115, 35058), (119, 35073), (130, 35127), (142, 35172), (144, 35178), (146, 35184), (148, 35190), (156, 35235), (157, 35238), (163, 35265), (186, 35325), (189, 35346), (213, 35424),

Gene: Gophee\_36 Start: 34333, Stop: 34980, Start Num: 89

Candidate Starts for Gophee\_36:

(40, 34183), (Start: 75 @34294 has 1 MA's), (Start: 87 @34330 has 531 MA's), (Start: 89 @34333 has 177 MA's), (Start: 113 @34414 has 1 MA's), (144, 34549), (163, 34636), (180, 34681), (194, 34759), (212, 34810), (217, 34837), (219, 34855), (230, 34933), (239, 34966), (243, 34972),

Gene: Grand2040\_35 Start: 34062, Stop: 34712, Start Num: 87

Candidate Starts for Grand2040\_35:

(Start: 75 @34026 has 1 MA's), (Start: 87 @34062 has 531 MA's), (Start: 89 @34065 has 177 MA's), (Start: 113 @34146 has 1 MA's), (144, 34281), (163, 34368), (180, 34413), (194, 34491), (212, 34542), (217, 34569), (219, 34587), (230, 34665), (239, 34698), (243, 34704),

Gene: Grand2040\_36 Start: 34709, Stop: 35308, Start Num: 87

Candidate Starts for Grand2040\_36:

(27, 34505), (34, 34529), (42, 34571), (46, 34589), (50, 34604), (Start: 87 @34709 has 531 MA's), (99, 34739), (103, 34751), (115, 34790), (119, 34805), (130, 34859), (142, 34904), (144, 34910), (146, 34916), (148, 34922), (156, 34967), (157, 34970), (163, 34997), (186, 35057), (189, 35078), (213, 35156),

Gene: Gwennie1\_36 Start: 34414, Stop: 35061, Start Num: 89

Candidate Starts for Gwennie1\_36:

(Start: 75 @34375 has 1 MA's), (Start: 87 @34411 has 531 MA's), (Start: 89 @34414 has 177 MA's), (Start: 113 @34495 has 1 MA's), (144, 34630), (163, 34717), (180, 34762), (194, 34840), (212, 34891), (217, 34918), (219, 34936), (230, 35014), (239, 35047), (243, 35053),

Gene: Gwennie1\_37 Start: 35058, Stop: 35657, Start Num: 87

Candidate Starts for Gwennie1\_37:

(26, 34851), (27, 34854), (34, 34878), (42, 34920), (46, 34938), (50, 34953), (Start: 87 @35058 has 531 MA's), (99, 35088), (103, 35100), (115, 35139), (119, 35154), (130, 35208), (142, 35253), (144, 35259), (146, 35265), (148, 35271), (156, 35316), (157, 35319), (163, 35346), (186, 35406), (189, 35427), (206, 35490), (213, 35505),

Gene: Gwilliam\_36 Start: 34345, Stop: 34992, Start Num: 89

Candidate Starts for Gwilliam\_36:

(Start: 75 @34306 has 1 MA's), (Start: 87 @34342 has 531 MA's), (Start: 89 @34345 has 177 MA's), (Start: 113 @34426 has 1 MA's), (144, 34561), (163, 34648), (180, 34693), (194, 34771), (212, 34822), (217, 34849), (219, 34867), (230, 34945), (239, 34978), (243, 34984),

Gene: Gwilliam\_37 Start: 34989, Stop: 35588, Start Num: 87

Candidate Starts for Gwilliam\_37:

(26, 34782), (27, 34785), (34, 34809), (42, 34851), (46, 34869), (50, 34884), (Start: 87 @34989 has 531 MA's), (99, 35019), (103, 35031), (115, 35070), (119, 35085), (130, 35139), (142, 35184), (144, 35190), (146, 35196), (148, 35202), (156, 35247), (157, 35250), (163, 35277), (186, 35337), (189, 35358), (213, 35436),

Gene: Gyarad\_0036 Start: 34344, Stop: 34994, Start Num: 87

Candidate Starts for Gyarad\_0036:

(Start: 75 @34308 has 1 MA's), (Start: 87 @34344 has 531 MA's), (Start: 89 @34347 has 177 MA's), (Start: 113 @34428 has 1 MA's), (144, 34563), (163, 34650), (180, 34695), (194, 34773), (212, 34824), (217, 34851), (219, 34869), (230, 34947), (239, 34980), (243, 34986),

Gene: Gyarad\_0037 Start: 34991, Stop: 35590, Start Num: 87

Candidate Starts for Gyarad\_0037:

(26, 34784), (27, 34787), (34, 34811), (42, 34853), (46, 34871), (50, 34886), (Start: 87 @34991 has 531 MA's), (99, 35021), (103, 35033), (115, 35072), (119, 35087), (130, 35141), (142, 35186), (144, 35192), (146, 35198), (148, 35204), (156, 35249), (157, 35252), (163, 35279), (186, 35339), (189, 35360), (213, 35438),

Gene: HSavage\_36 Start: 34351, Stop: 34998, Start Num: 89

Candidate Starts for HSavage\_36:

(40, 34201), (Start: 75 @34312 has 1 MA's), (Start: 87 @34348 has 531 MA's), (Start: 89 @34351 has 177 MA's), (Start: 113 @34432 has 1 MA's), (144, 34567), (163, 34654), (180, 34699), (194, 34777), (212, 34828), (217, 34855), (219, 34873), (230, 34951), (239, 34984), (243, 34990),

Gene: HSavage\_37 Start: 34995, Stop: 35594, Start Num: 87

Candidate Starts for HSavage\_37:

(27, 34791), (34, 34815), (42, 34857), (46, 34875), (50, 34890), (Start: 87 @34995 has 531 MA's), (99, 35025), (103, 35037), (115, 35076), (119, 35091), (130, 35145), (142, 35190), (144, 35196), (146, 35202), (148, 35208), (156, 35253), (157, 35256), (163, 35283), (186, 35343), (189, 35364), (213, 35442),

Gene: Haimas\_37 Start: 34986, Stop: 35585, Start Num: 87

Candidate Starts for Haimas\_37:

(27, 34782), (34, 34806), (42, 34848), (46, 34866), (50, 34881), (Start: 87 @34986 has 531 MA's), (99, 35016), (103, 35028), (115, 35067), (119, 35082), (130, 35136), (142, 35181), (144, 35187), (146, 35193), (148, 35199), (156, 35244), (157, 35247), (163, 35274), (186, 35334), (189, 35355), (213, 35433),

Gene: Haimas\_36 Start: 34339, Stop: 34989, Start Num: 87

Candidate Starts for Haimas\_36:

(Start: 75 @34303 has 1 MA's), (Start: 87 @34339 has 531 MA's), (Start: 89 @34342 has 177 MA's), (Start: 113 @34423 has 1 MA's), (144, 34558), (163, 34645), (180, 34690), (194, 34768), (212, 34819), (217, 34846), (219, 34864), (230, 34942), (239, 34975), (243, 34981),

Gene: Haleema\_36 Start: 34709, Stop: 35308, Start Num: 87

Candidate Starts for Haleema\_36:

(27, 34505), (34, 34529), (42, 34571), (46, 34589), (50, 34604), (Start: 87 @34709 has 531 MA's), (99, 34739), (103, 34751), (115, 34790), (119, 34805), (130, 34859), (142, 34904), (144, 34910), (146, 34916), (148, 34922), (156, 34967), (157, 34970), (163, 34997), (186, 35057), (189, 35078), (213, 35156),

Gene: Haleema\_35 Start: 34065, Stop: 34712, Start Num: 89

Candidate Starts for Haleema\_35:

(Start: 75 @34026 has 1 MA's), (Start: 87 @34062 has 531 MA's), (Start: 89 @34065 has 177 MA's), (Start: 113 @34146 has 1 MA's), (144, 34281), (163, 34368), (180, 34413), (194, 34491), (212, 34542), (217, 34569), (219, 34587), (230, 34665), (239, 34698), (243, 34704),

Gene: Halfpint\_35 Start: 34096, Stop: 34749, Start Num: 83

Candidate Starts for Halfpint\_35:

(Start: 83 @34096 has 45 MA's), (109, 34177), (143, 34324), (178, 34450), (185, 34465), (197, 34540), (231, 34705), (232, 34708), (239, 34735),

Gene: Halfpint\_36 Start: 34746, Stop: 35345, Start Num: 87

Candidate Starts for Halfpint\_36:

(Start: 87 @34746 has 531 MA's), (99, 34776), (109, 34803), (127, 34890), (130, 34896), (148, 34959), (153, 34983), (186, 35094), (206, 35178), (211, 35190), (221, 35250), (237, 35331),

Gene: Hally898\_33 Start: 34162, Stop: 34767, Start Num: 87

Candidate Starts for Hally898\_33:

(Start: 87 @34162 has 531 MA's), (99, 34198), (115, 34249), (116, 34252), (127, 34312), (130, 34318), (142, 34363), (145, 34372), (146, 34375), (147, 34378), (153, 34405), (163, 34456), (187, 34522), (189, 34537), (206, 34600), (219, 34657), (233, 34735), (237, 34753),

Gene: Hally898\_32 Start: 33518, Stop: 34165, Start Num: 67

Candidate Starts for Hally898\_32:

(Start: 67 @33518 has 25 MA's), (102, 33596), (104, 33608), (123, 33680), (132, 33704), (137, 33725), (138, 33734), (139, 33737), (142, 33746), (143, 33749), (154, 33794), (165, 33848), (172, 33866), (189, 33926), (193, 33938), (213, 33998), (217, 34022), (219, 34040), (233, 34127), (241, 34154),

Gene: Hamish\_37 Start: 34978, Stop: 35577, Start Num: 87

Candidate Starts for Hamish\_37:

(27, 34774), (34, 34798), (42, 34840), (46, 34858), (50, 34873), (Start: 87 @34978 has 531 MA's), (99, 35008), (103, 35020), (115, 35059), (119, 35074), (130, 35128), (142, 35173), (144, 35179), (146, 35185), (148, 35191), (156, 35236), (157, 35239), (163, 35266), (186, 35326), (189, 35347), (213, 35425),

Gene: Hamish\_36 Start: 34334, Stop: 34981, Start Num: 89

Candidate Starts for Hamish\_36:

(Start: 75 @34295 has 1 MA's), (Start: 87 @34331 has 531 MA's), (Start: 89 @34334 has 177 MA's), (Start: 113 @34415 has 1 MA's), (144, 34550), (163, 34637), (180, 34682), (194, 34760), (212, 34811), (217, 34838), (219, 34856), (230, 34934), (239, 34967), (243, 34973),

Gene: Hangman\_33 Start: 34529, Stop: 35176, Start Num: 67

Candidate Starts for Hangman\_33:

(Start: 67 @34529 has 25 MA's), (102, 34607), (104, 34619), (123, 34691), (132, 34715), (137, 34736), (138, 34745), (139, 34748), (142, 34757), (154, 34805), (172, 34877), (189, 34937), (193, 34949), (213, 35009), (217, 35033), (219, 35051), (233, 35138), (234, 35141), (241, 35165),

Gene: Hangman\_34 Start: 35173, Stop: 35778, Start Num: 87

Candidate Starts for Hangman\_34:

(1, 34600), (5, 34717), (8, 34771), (10, 34780), (20, 34903), (29, 34972), (36, 34996), (47, 35053), (Start: 87 @35173 has 531 MA's), (99, 35209), (109, 35236), (115, 35260), (116, 35263), (127, 35323), (130, 35329), (142, 35374), (145, 35383), (146, 35386), (147, 35389), (153, 35416), (156, 35437), (163, 35467), (189, 35548), (206, 35611), (219, 35668), (233, 35746), (237, 35764),

Gene: Hartsy\_36 Start: 34385, Stop: 35032, Start Num: 89

Candidate Starts for Hartsy\_36:

(Start: 75 @34346 has 1 MA's), (Start: 87 @34382 has 531 MA's), (Start: 89 @34385 has 177 MA's), (Start: 113 @34466 has 1 MA's), (144, 34601), (163, 34688), (180, 34733), (193, 34802), (194, 34811), (212, 34862), (219, 34907), (230, 34985), (239, 35018), (243, 35024),

Gene: Hartsy\_37 Start: 35029, Stop: 35628, Start Num: 87

Candidate Starts for Hartsy\_37:

(26, 34822), (27, 34825), (34, 34849), (42, 34891), (46, 34909), (50, 34924), (Start: 87 @35029 has 531 MA's), (99, 35059), (103, 35071), (115, 35110), (119, 35125), (130, 35179), (142, 35224), (144, 35230), (146, 35236), (148, 35242), (156, 35287), (157, 35290), (163, 35317), (186, 35377), (189, 35398), (206, 35461), (213, 35476),

Gene: Harvey\_37 Start: 35004, Stop: 35603, Start Num: 87

Candidate Starts for Harvey\_37:

(27, 34800), (34, 34824), (42, 34866), (46, 34884), (50, 34899), (Start: 87 @35004 has 531 MA's), (99, 35034), (103, 35046), (115, 35085), (119, 35100), (130, 35154), (142, 35199), (144, 35205), (146, 35211), (148, 35217), (156, 35262), (157, 35265), (163, 35292), (186, 35352), (189, 35373), (213, 35451),

Gene: Harvey\_36 Start: 34357, Stop: 35007, Start Num: 87

Candidate Starts for Harvey\_36:

(Start: 75 @34321 has 1 MA's), (Start: 87 @34357 has 531 MA's), (Start: 89 @34360 has 177 MA's), (Start: 113 @34441 has 1 MA's), (144, 34576), (163, 34663), (180, 34708), (194, 34786), (212, 34837), (217, 34864), (219, 34882), (230, 34960), (239, 34993), (243, 34999),

Gene: HarveySr\_36 Start: 34263, Stop: 34916, Start Num: 83

Candidate Starts for HarveySr\_36:

(Start: 83 @34263 has 45 MA's), (109, 34344), (143, 34491), (178, 34617), (185, 34632), (197, 34707), (231, 34872), (239, 34902),

Gene: HarveySr\_37 Start: 34913, Stop: 35512, Start Num: 87

Candidate Starts for HarveySr\_37:

(26, 34709), (Start: 87 @34913 has 531 MA's), (99, 34943), (109, 34970), (127, 35057), (130, 35063), (148, 35126), (153, 35150), (186, 35261), (206, 35345), (211, 35357), (221, 35417), (237, 35498),

Gene: Hashim76\_39 Start: 33766, Stop: 34410, Start Num: 87

Candidate Starts for Hashim76\_39:

(55, 33676), (62, 33700), (68, 33718), (71, 33724), (Start: 87 @33766 has 531 MA's), (117, 33859), (120, 33871), (135, 33946), (153, 34018), (156, 34039), (168, 34090), (190, 34171), (234, 34375), (241, 34399),

Gene: Hashim76\_40 Start: 34407, Stop: 35015, Start Num: 87

Candidate Starts for Hashim76\_40:

(3, 33951), (27, 34206), (34, 34230), (63, 34353), (Start: 87 @34407 has 531 MA's), (Start: 95 @34413 has 3 MA's), (99, 34437), (127, 34551), (130, 34557), (146, 34614), (189, 34776), (211, 34851), (215, 34863), (224, 34941), (233, 34983),

Gene: Heath\_33 Start: 34780, Stop: 35385, Start Num: 87

Candidate Starts for Heath\_33:

(Start: 87 @34780 has 531 MA's), (99, 34816), (115, 34867), (116, 34870), (127, 34930), (130, 34936), (142, 34981), (145, 34990), (146, 34993), (147, 34996), (153, 35023), (156, 35044), (163, 35074), (187, 35140), (189, 35155), (206, 35218), (219, 35275), (233, 35353), (237, 35371),

Gene: Heath\_32 Start: 34136, Stop: 34783, Start Num: 67

Candidate Starts for Heath\_32:

(Start: 67 @34136 has 25 MA's), (102, 34214), (104, 34226), (123, 34298), (137, 34343), (138, 34352), (139, 34355), (142, 34364), (143, 34367), (154, 34412), (172, 34484), (189, 34544), (193, 34556), (213, 34616), (217, 34640), (219, 34658), (233, 34745), (234, 34748), (241, 34772),

Gene: Heathcliff\_36 Start: 34241, Stop: 34894, Start Num: 83

Candidate Starts for Heathcliff\_36:

(Start: 83 @34241 has 45 MA's), (109, 34322), (115, 34346), (143, 34469), (178, 34595), (185, 34610), (197, 34685), (231, 34850), (232, 34853), (239, 34880),

Gene: Heathcliff\_37 Start: 34891, Stop: 35490, Start Num: 87

Candidate Starts for Heathcliff\_37:

(Start: 87 @34891 has 531 MA's), (99, 34921), (109, 34948), (127, 35035), (130, 35041), (148, 35104), (153, 35128), (156, 35149), (186, 35239), (206, 35323), (211, 35335), (221, 35395), (237, 35476),

Gene: Hedgerow\_36 Start: 34789, Stop: 35433, Start Num: 84

Candidate Starts for Hedgerow\_36:

(34, 34624), (59, 34735), (Start: 84 @34789 has 45 MA's), (Start: 86 @34798 has 1 MA's), (109, 34867), (116, 34894), (118, 34903), (121, 34912), (144, 35020), (148, 35032), (176, 35125), (190, 35191), (194, 35212), (199, 35227), (201, 35233), (208, 35254), (214, 35266), (241, 35422),

Gene: Hedgerow\_38 Start: 35579, Stop: 36178, Start Num: 87

Candidate Starts for Hedgerow\_38:

(80, 35558), (Start: 87 @35579 has 531 MA's), (99, 35609), (106, 35630), (115, 35660), (116, 35663), (130, 35729), (144, 35780), (145, 35783), (146, 35786), (153, 35816), (156, 35837), (179, 35903), (187, 35933), (211, 36023), (213, 36026), (216, 36044), (219, 36068), (230, 36137), (237, 36164),

Gene: Held\_37 Start: 34693, Stop: 35292, Start Num: 87

Candidate Starts for Held\_37:

(26, 34486), (27, 34489), (34, 34513), (42, 34555), (46, 34573), (50, 34588), (Start: 87 @34693 has 531 MA's), (99, 34723), (103, 34735), (115, 34774), (119, 34789), (130, 34843), (142, 34888), (144, 34894), (146, 34900), (148, 34906), (156, 34951), (157, 34954), (163, 34981), (186, 35041), (189, 35062), (213, 35140),

Gene: Held\_36 Start: 34046, Stop: 34696, Start Num: 87

Candidate Starts for Held\_36:

(Start: 75 @34010 has 1 MA's), (Start: 87 @34046 has 531 MA's), (Start: 89 @34049 has 177 MA's), (Start: 113 @34130 has 1 MA's), (144, 34265), (163, 34352), (180, 34397), (194, 34475), (212, 34526), (217, 34553), (219, 34571), (230, 34649), (239, 34682), (243, 34688),

Gene: HenryJackson\_35 Start: 34065, Stop: 34712, Start Num: 89

Candidate Starts for HenryJackson\_35:

(40, 33915), (Start: 75 @34026 has 1 MA's), (Start: 87 @34062 has 531 MA's), (Start: 89 @34065 has 177 MA's), (Start: 113 @34146 has 1 MA's), (144, 34281), (163, 34368), (180, 34413), (194, 34491), (212, 34542), (217, 34569), (219, 34587), (230, 34665), (239, 34698), (243, 34704),

Gene: HenryJackson\_36 Start: 34709, Stop: 35308, Start Num: 87

Candidate Starts for HenryJackson\_36:

(27, 34505), (34, 34529), (42, 34571), (46, 34589), (50, 34604), (Start: 87 @34709 has 531 MA's), (99, 34739), (103, 34751), (115, 34790), (119, 34805), (130, 34859), (142, 34904), (144, 34910), (146, 34916), (148, 34922), (156, 34967), (157, 34970), (163, 34997), (186, 35057), (189, 35078), (213, 35156),

Gene: Hertubise\_36 Start: 34353, Stop: 35003, Start Num: 87

Candidate Starts for Hertubise\_36:

(Start: 75 @34317 has 1 MA's), (Start: 87 @34353 has 531 MA's), (Start: 89 @34356 has 177 MA's), (Start: 113 @34437 has 1 MA's), (144, 34572), (163, 34659), (180, 34704), (194, 34782), (212, 34833), (217, 34860), (219, 34878), (230, 34956), (239, 34989), (243, 34995),



Gene: Hertubise\_37 Start: 35000, Stop: 35599, Start Num: 87

Candidate Starts for Hertubise\_37:

(27, 34796), (34, 34820), (42, 34862), (46, 34880), (50, 34895), (Start: 87 @35000 has 531 MA's), (99, 35030), (103, 35042), (115, 35081), (119, 35096), (130, 35150), (142, 35195), (144, 35201), (146, 35207), (148, 35213), (156, 35258), (157, 35261), (163, 35288), (186, 35348), (189, 35369), (213, 35447),

Gene: Hetaeria\_36 Start: 34358, Stop: 35005, Start Num: 89

Candidate Starts for Hetaeria\_36:

(Start: 75 @34319 has 1 MA's), (Start: 87 @34355 has 531 MA's), (Start: 89 @34358 has 177 MA's), (Start: 113 @34439 has 1 MA's), (144, 34574), (163, 34661), (180, 34706), (194, 34784), (212, 34835), (217, 34862), (219, 34880), (230, 34958), (239, 34991), (243, 34997),

Gene: Hetaeria\_37 Start: 35002, Stop: 35601, Start Num: 87

Candidate Starts for Hetaeria\_37:

(27, 34798), (34, 34822), (42, 34864), (46, 34882), (50, 34897), (Start: 87 @35002 has 531 MA's), (99, 35032), (103, 35044), (115, 35083), (119, 35098), (130, 35152), (142, 35197), (144, 35203), (146, 35209), (148, 35215), (156, 35260), (157, 35263), (163, 35290), (186, 35350), (189, 35371), (213, 35449),

Gene: HighStump\_35 Start: 34048, Stop: 34695, Start Num: 89

Candidate Starts for HighStump\_35:

(Start: 75 @34009 has 1 MA's), (Start: 87 @34045 has 531 MA's), (Start: 89 @34048 has 177 MA's), (Start: 113 @34129 has 1 MA's), (144, 34264), (163, 34351), (180, 34396), (194, 34474), (212, 34525), (217, 34552), (219, 34570), (230, 34648), (239, 34681), (243, 34687),

Gene: HighStump\_36 Start: 34692, Stop: 35291, Start Num: 87

Candidate Starts for HighStump\_36:

(27, 34488), (34, 34512), (42, 34554), (46, 34572), (50, 34587), (Start: 87 @34692 has 531 MA's), (99, 34722), (103, 34734), (115, 34773), (119, 34788), (130, 34842), (142, 34887), (144, 34893), (146, 34899), (148, 34905), (156, 34950), (157, 34953), (163, 34980), (186, 35040), (189, 35061), (213, 35139),

Gene: Hocus\_36 Start: 34701, Stop: 35300, Start Num: 87

Candidate Starts for Hocus\_36:

(26, 34494), (27, 34497), (34, 34521), (42, 34563), (46, 34581), (50, 34596), (Start: 87 @34701 has 531 MA's), (99, 34731), (103, 34743), (115, 34782), (119, 34797), (130, 34851), (142, 34896), (144, 34902), (146, 34908), (148, 34914), (156, 34959), (157, 34962), (163, 34989), (186, 35049), (189, 35070), (206, 35133), (213, 35148),

Gene: Hocus\_35 Start: 34054, Stop: 34704, Start Num: 87

Candidate Starts for Hocus\_35:

(Start: 75 @34018 has 1 MA's), (Start: 87 @34054 has 531 MA's), (Start: 89 @34057 has 177 MA's), (Start: 113 @34138 has 1 MA's), (144, 34273), (163, 34360), (180, 34405), (193, 34474), (194, 34483), (212, 34534), (219, 34579), (230, 34657), (239, 34690), (243, 34696),

Gene: Holeinone\_38 Start: 35459, Stop: 36058, Start Num: 87

Candidate Starts for Holeinone\_38:

(80, 35438), (Start: 87 @35459 has 531 MA's), (99, 35489), (106, 35510), (115, 35540), (116, 35543), (130, 35609), (144, 35660), (145, 35663), (146, 35666), (153, 35696), (156, 35717), (179, 35783), (187, 35813), (211, 35903), (213, 35906), (216, 35924), (219, 35948), (230, 36017), (237, 36044),

Gene: Holeinone\_36 Start: 34669, Stop: 35313, Start Num: 84

Candidate Starts for Holeinone\_36:

(34, 34504), (59, 34615), (Start: 84 @34669 has 45 MA's), (Start: 86 @34678 has 1 MA's), (109, 34747), (116, 34774), (118, 34783), (121, 34792), (140, 34888), (144, 34900), (148, 34912), (176, 35005), (190, 35071), (194, 35092), (199, 35107), (201, 35113), (208, 35134), (214, 35146), (241, 35302),

Gene: Horchata\_37 Start: 34980, Stop: 35579, Start Num: 87

Candidate Starts for Horchata\_37:

(27, 34776), (34, 34800), (42, 34842), (46, 34860), (50, 34875), (Start: 87 @34980 has 531 MA's), (99, 35010), (103, 35022), (115, 35061), (119, 35076), (130, 35130), (142, 35175), (144, 35181), (146, 35187), (148, 35193), (156, 35238), (157, 35241), (163, 35268), (186, 35328), (189, 35349), (213, 35427),

Gene: Horchata\_36 Start: 34336, Stop: 34983, Start Num: 89

Candidate Starts for Horchata\_36:

(40, 34186), (Start: 75 @34297 has 1 MA's), (Start: 87 @34333 has 531 MA's), (Start: 89 @34336 has 177 MA's), (Start: 113 @34417 has 1 MA's), (144, 34552), (163, 34639), (180, 34684), (194, 34762), (212, 34813), (217, 34840), (219, 34858), (230, 34936), (239, 34969), (243, 34975),

Gene: Hosp\_029 Start: 30909, Stop: 31517, Start Num: 87

Candidate Starts for Hosp\_029:

(15, 30555), (27, 30708), (34, 30732), (63, 30855), (Start: 87 @30909 has 531 MA's), (127, 31053), (130, 31059), (144, 31110), (147, 31119), (148, 31122), (156, 31167), (162, 31194), (177, 31230), (181, 31236), (186, 31257), (215, 31365), (224, 31443), (233, 31485), (237, 31503),

Gene: Hosp\_028 Start: 30268, Stop: 30912, Start Num: 87

Candidate Starts for Hosp\_028:

(Start: 87 @30268 has 531 MA's), (112, 30343), (116, 30355), (135, 30445), (147, 30490), (175, 30604), (180, 30616), (186, 30640), (188, 30658), (190, 30673), (202, 30721), (241, 30901),

Gene: Hydro\_33 Start: 34546, Stop: 35193, Start Num: 67

Candidate Starts for Hydro\_33:

(Start: 67 @34546 has 25 MA's), (102, 34624), (104, 34636), (123, 34708), (138, 34762), (139, 34765), (142, 34774), (154, 34822), (165, 34876), (172, 34894), (189, 34954), (193, 34966), (217, 35050), (219, 35068), (233, 35155), (234, 35158), (241, 35182),

Gene: Hydro\_34 Start: 35190, Stop: 35795, Start Num: 87

Candidate Starts for Hydro\_34:

(Start: 87 @35190 has 531 MA's), (99, 35226), (109, 35253), (115, 35277), (116, 35280), (127, 35340), (130, 35346), (142, 35391), (145, 35400), (146, 35403), (147, 35406), (153, 35433), (156, 35454), (163, 35484), (187, 35550), (189, 35565), (206, 35628), (219, 35685), (233, 35763), (237, 35781),

Gene: ImtiyazSitla\_36 Start: 34543, Stop: 35142, Start Num: 87

Candidate Starts for ImtiyazSitla\_36:

(26, 34336), (27, 34339), (34, 34363), (42, 34405), (46, 34423), (50, 34438), (Start: 87 @34543 has 531 MA's), (99, 34573), (103, 34585), (115, 34624), (119, 34639), (130, 34693), (142, 34738), (144, 34744), (146, 34750), (148, 34756), (156, 34801), (157, 34804), (163, 34831), (186, 34891), (189, 34912), (206, 34975), (213, 34990),

Gene: ImtiyazSitla\_35 Start: 33899, Stop: 34546, Start Num: 89

Candidate Starts for ImtiyazSitla\_35:

(Start: 75 @33860 has 1 MA's), (Start: 87 @33896 has 531 MA's), (Start: 89 @33899 has 177 MA's), (Start: 113 @33980 has 1 MA's), (144, 34115), (163, 34202), (180, 34247), (193, 34316), (194, 34325), (212, 34376), (219, 34421), (230, 34499), (239, 34532), (243, 34538),

Gene: Imvubu\_29 Start: 31242, Stop: 31886, Start Num: 87

Candidate Starts for Imvubu\_29:

(Start: 87 @31242 has 531 MA's), (117, 31332), (118, 31338), (135, 31419), (137, 31428), (140, 31443), (143, 31452), (144, 31455), (146, 31461), (180, 31590), (190, 31647), (219, 31761), (233, 31848), (241, 31875),

Gene: Imvubu\_30 Start: 31883, Stop: 32482, Start Num: 87

Candidate Starts for Imvubu\_30:

(63, 31829), (Start: 87 @31883 has 531 MA's), (Start: 95 @31889 has 3 MA's), (99, 31913), (103, 31925), (109, 31940), (127, 32027), (130, 32033), (150, 32114), (153, 32120), (156, 32141), (206, 32315), (211, 32327), (213, 32330), (219, 32372), (224, 32417), (225, 32420), (235, 32465), (237, 32471),

Gene: Inchworm\_37 Start: 34978, Stop: 35577, Start Num: 87

Candidate Starts for Inchworm\_37:

(27, 34774), (34, 34798), (42, 34840), (46, 34858), (50, 34873), (Start: 87 @34978 has 531 MA's), (99, 35008), (103, 35020), (115, 35059), (119, 35074), (130, 35128), (142, 35173), (144, 35179), (146, 35185), (148, 35191), (156, 35236), (157, 35239), (163, 35266), (186, 35326), (189, 35347), (206, 35410), (213, 35425),

Gene: Inchworm\_36 Start: 34334, Stop: 34981, Start Num: 89

Candidate Starts for Inchworm\_36:

(Start: 75 @34295 has 1 MA's), (Start: 87 @34331 has 531 MA's), (Start: 89 @34334 has 177 MA's), (Start: 113 @34415 has 1 MA's), (144, 34550), (163, 34637), (180, 34682), (194, 34760), (212, 34811), (217, 34838), (219, 34856), (230, 34934), (239, 34967), (243, 34973),

Gene: Indlovu\_34 Start: 33760, Stop: 34392, Start Num: 97

Candidate Starts for Indlovu\_34:

(79, 33715), (Start: 87 @33745 has 531 MA's), (Start: 97 @33760 has 2 MA's), (112, 33823), (115, 33832), (117, 33838), (119, 33847), (128, 33904), (144, 33961), (156, 34018), (190, 34153), (216, 34243), (232, 34351),

Gene: Indlovu\_35 Start: 34389, Stop: 35000, Start Num: 87

Candidate Starts for Indlovu\_35:

(74, 34353), (Start: 87 @34389 has 531 MA's), (99, 34419), (115, 34470), (127, 34533), (130, 34539), (146, 34596), (168, 34692), (177, 34710), (206, 34821), (213, 34836), (223, 34902), (237, 34983), (240, 34989),

Gene: Inverness\_36 Start: 34348, Stop: 34995, Start Num: 89

Candidate Starts for Inverness\_36:

(Start: 75 @34309 has 1 MA's), (Start: 87 @34345 has 531 MA's), (Start: 89 @34348 has 177 MA's), (Start: 113 @34429 has 1 MA's), (144, 34564), (163, 34651), (180, 34696), (194, 34774), (212, 34825), (217, 34852), (219, 34870), (230, 34948), (239, 34981), (243, 34987),

Gene: Inverness\_37 Start: 34992, Stop: 35591, Start Num: 87

Candidate Starts for Inverness\_37:

(26, 34785), (27, 34788), (34, 34812), (42, 34854), (46, 34872), (50, 34887), (Start: 87 @34992 has 531 MA's), (99, 35022), (103, 35034), (115, 35073), (119, 35088), (130, 35142), (142, 35187), (144, 35193), (146, 35199), (148, 35205), (156, 35250), (157, 35253), (163, 35280), (186, 35340), (189,

35361), (213, 35439),

Gene: Iridessa\_37 Start: 34694, Stop: 35293, Start Num: 87

Candidate Starts for Iridessa\_37:

(26, 34487), (27, 34490), (34, 34514), (42, 34556), (46, 34574), (50, 34589), (Start: 87 @34694 has 531 MA's), (99, 34724), (103, 34736), (115, 34775), (119, 34790), (130, 34844), (142, 34889), (144, 34895), (146, 34901), (148, 34907), (156, 34952), (157, 34955), (163, 34982), (186, 35042), (189, 35063), (206, 35126), (213, 35141),

Gene: Iridessa\_36 Start: 34050, Stop: 34697, Start Num: 89

Candidate Starts for Iridessa\_36:

(40, 33900), (Start: 75 @34011 has 1 MA's), (Start: 87 @34047 has 531 MA's), (Start: 89 @34050 has 177 MA's), (Start: 113 @34131 has 1 MA's), (144, 34266), (163, 34353), (180, 34398), (193, 34467), (194, 34476), (212, 34527), (219, 34572), (230, 34650), (239, 34683), (243, 34689),

Gene: Iridoclysis\_37 Start: 34972, Stop: 35571, Start Num: 87

Candidate Starts for Iridoclysis\_37:

(27, 34768), (34, 34792), (42, 34834), (46, 34852), (50, 34867), (Start: 87 @34972 has 531 MA's), (99, 35002), (103, 35014), (115, 35053), (119, 35068), (130, 35122), (142, 35167), (144, 35173), (146, 35179), (148, 35185), (156, 35230), (157, 35233), (163, 35260), (186, 35320), (189, 35341), (213, 35419),

Gene: Iridoclysis\_36 Start: 34328, Stop: 34975, Start Num: 89

Candidate Starts for Iridoclysis\_36:

(Start: 75 @34289 has 1 MA's), (Start: 87 @34325 has 531 MA's), (Start: 89 @34328 has 177 MA's), (Start: 113 @34409 has 1 MA's), (144, 34544), (163, 34631), (180, 34676), (194, 34754), (212, 34805), (217, 34832), (219, 34850), (230, 34928), (239, 34961), (243, 34967),

Gene: IsaacEli\_37 Start: 34996, Stop: 35595, Start Num: 87

Candidate Starts for IsaacEli\_37:

(27, 34792), (34, 34816), (42, 34858), (46, 34876), (50, 34891), (Start: 87 @34996 has 531 MA's), (99, 35026), (103, 35038), (115, 35077), (119, 35092), (130, 35146), (142, 35191), (144, 35197), (146, 35203), (148, 35209), (156, 35254), (157, 35257), (163, 35284), (186, 35344), (189, 35365), (213, 35443),

Gene: IsaacEli\_36 Start: 34349, Stop: 34999, Start Num: 87

Candidate Starts for IsaacEli\_36:

(Start: 75 @34313 has 1 MA's), (Start: 87 @34349 has 531 MA's), (Start: 89 @34352 has 177 MA's), (Start: 113 @34433 has 1 MA's), (144, 34568), (163, 34655), (180, 34700), (194, 34778), (212, 34829), (217, 34856), (219, 34874), (230, 34952), (239, 34985), (243, 34991),

Gene: ItsyBitsy1\_38 Start: 35461, Stop: 36060, Start Num: 87

Candidate Starts for ItsyBitsy1\_38:

(80, 35440), (Start: 87 @35461 has 531 MA's), (99, 35491), (106, 35512), (115, 35542), (116, 35545), (130, 35611), (144, 35662), (145, 35665), (146, 35668), (153, 35698), (156, 35719), (179, 35785), (187, 35815), (211, 35905), (213, 35908), (216, 35926), (219, 35950), (230, 36019), (237, 36046),

Gene: ItsyBitsy1\_36 Start: 34671, Stop: 35315, Start Num: 84

Candidate Starts for ItsyBitsy1\_36:

(34, 34506), (59, 34617), (Start: 84 @34671 has 45 MA's), (Start: 86 @34680 has 1 MA's), (109, 34749), (116, 34776), (118, 34785), (121, 34794), (144, 34902), (148, 34914), (176, 35007), (190, 35073), (194, 35094), (199, 35109), (201, 35115), (208, 35136), (214, 35148), (241, 35304),

Gene: JAMaL\_33 Start: 34717, Stop: 35364, Start Num: 67

Candidate Starts for JAMaL\_33:

(Start: 67 @34717 has 25 MA's), (102, 34795), (104, 34807), (123, 34879), (132, 34903), (137, 34924), (138, 34933), (139, 34936), (142, 34945), (143, 34948), (154, 34993), (165, 35047), (172, 35065), (189, 35125), (193, 35137), (213, 35197), (216, 35215), (217, 35221), (219, 35239), (233, 35326), (241, 35353),

Gene: JAMaL\_34 Start: 35361, Stop: 35966, Start Num: 87

Candidate Starts for JAMaL\_34:

(Start: 87 @35361 has 531 MA's), (99, 35397), (109, 35424), (115, 35448), (116, 35451), (127, 35511), (130, 35517), (142, 35562), (145, 35571), (146, 35574), (147, 35577), (153, 35604), (156, 35625), (163, 35655), (187, 35721), (189, 35736), (219, 35856), (233, 35934), (237, 35952),

Gene: JDog\_36 Start: 34709, Stop: 35308, Start Num: 87

Candidate Starts for JDog\_36:

(26, 34502), (27, 34505), (34, 34529), (42, 34571), (46, 34589), (50, 34604), (Start: 87 @34709 has 531 MA's), (99, 34739), (103, 34751), (115, 34790), (119, 34805), (130, 34859), (142, 34904), (144, 34910), (146, 34916), (148, 34922), (156, 34967), (157, 34970), (163, 34997), (186, 35057), (189, 35078), (206, 35141), (213, 35156),

Gene: JDog\_35 Start: 34065, Stop: 34712, Start Num: 89

Candidate Starts for JDog\_35:

(Start: 75 @34026 has 1 MA's), (Start: 87 @34062 has 531 MA's), (Start: 89 @34065 has 177 MA's), (Start: 113 @34146 has 1 MA's), (144, 34281), (163, 34368), (180, 34413), (193, 34482), (194, 34491), (212, 34542), (219, 34587), (230, 34665), (239, 34698), (243, 34704),

Gene: JacAttac\_37 Start: 34978, Stop: 35577, Start Num: 87

Candidate Starts for JacAttac\_37:

(27, 34774), (34, 34798), (42, 34840), (46, 34858), (50, 34873), (Start: 87 @34978 has 531 MA's), (99, 35008), (103, 35020), (115, 35059), (119, 35074), (130, 35128), (142, 35173), (144, 35179), (146, 35185), (148, 35191), (156, 35236), (157, 35239), (163, 35266), (186, 35326), (189, 35347), (213, 35425),

Gene: JacAttac\_36 Start: 34331, Stop: 34981, Start Num: 87

Candidate Starts for JacAttac\_36:

(Start: 75 @34295 has 1 MA's), (Start: 87 @34331 has 531 MA's), (Start: 89 @34334 has 177 MA's), (Start: 113 @34415 has 1 MA's), (144, 34550), (163, 34637), (180, 34682), (194, 34760), (212, 34811), (217, 34838), (219, 34856), (230, 34934), (239, 34967), (243, 34973),

Gene: Jackstina\_34 Start: 34850, Stop: 35449, Start Num: 87

Candidate Starts for Jackstina\_34:

(Start: 87 @34850 has 531 MA's), (99, 34880), (109, 34907), (127, 34994), (130, 35000), (148, 35063), (153, 35087), (156, 35108), (186, 35198), (206, 35282), (211, 35294), (221, 35354), (232, 35414), (237, 35435),

Gene: Jackstina\_33 Start: 34200, Stop: 34853, Start Num: 83

Candidate Starts for Jackstina\_33:

(Start: 83 @34200 has 45 MA's), (109, 34281), (115, 34305), (143, 34428), (178, 34554), (185, 34569), (197, 34644), (231, 34809), (239, 34839),

Gene: JaguarMi\_33 Start: 34011, Stop: 34658, Start Num: 67

Candidate Starts for JaguarMi\_33:

(Start: 67 @34011 has 25 MA's), (102, 34089), (104, 34101), (123, 34173), (137, 34218), (138, 34227), (139, 34230), (142, 34239), (154, 34287), (172, 34359), (189, 34419), (193, 34431), (213, 34491), (217, 34515), (219, 34533), (233, 34620), (241, 34647),

Gene: JaguarMi\_34 Start: 34655, Stop: 35260, Start Num: 87

Candidate Starts for JaguarMi\_34:

(Start: 87 @34655 has 531 MA's), (99, 34691), (103, 34703), (109, 34718), (115, 34742), (116, 34745), (130, 34811), (142, 34856), (145, 34865), (146, 34868), (147, 34871), (148, 34874), (153, 34898), (156, 34919), (163, 34949), (186, 35009), (189, 35030), (206, 35093), (211, 35105), (219, 35150), (233, 35228), (237, 35246),

Gene: JakeO\_36 Start: 34711, Stop: 35310, Start Num: 87

Candidate Starts for JakeO\_36:

(26, 34504), (27, 34507), (34, 34531), (42, 34573), (46, 34591), (50, 34606), (Start: 87 @34711 has 531 MA's), (99, 34741), (103, 34753), (115, 34792), (119, 34807), (130, 34861), (142, 34906), (144, 34912), (146, 34918), (148, 34924), (156, 34969), (157, 34972), (163, 34999), (186, 35059), (189, 35080), (206, 35143), (213, 35158),

Gene: JakeO\_35 Start: 34064, Stop: 34714, Start Num: 87

Candidate Starts for JakeO\_35:

(40, 33917), (Start: 75 @34028 has 1 MA's), (Start: 87 @34064 has 531 MA's), (Start: 89 @34067 has 177 MA's), (Start: 113 @34148 has 1 MA's), (144, 34283), (163, 34370), (180, 34415), (194, 34493), (212, 34544), (217, 34571), (219, 34589), (230, 34667), (239, 34700), (243, 34706),

Gene: JangoPhett\_36 Start: 34333, Stop: 34983, Start Num: 87

Candidate Starts for JangoPhett\_36:

(40, 34186), (Start: 75 @34297 has 1 MA's), (Start: 87 @34333 has 531 MA's), (Start: 89 @34336 has 177 MA's), (Start: 113 @34417 has 1 MA's), (144, 34552), (163, 34639), (180, 34684), (194, 34762), (212, 34813), (217, 34840), (219, 34858), (230, 34936), (239, 34969), (243, 34975),

Gene: JangoPhett\_37 Start: 34980, Stop: 35579, Start Num: 87

Candidate Starts for JangoPhett\_37:

(27, 34776), (34, 34800), (42, 34842), (46, 34860), (50, 34875), (Start: 87 @34980 has 531 MA's), (99, 35010), (103, 35022), (115, 35061), (119, 35076), (130, 35130), (142, 35175), (144, 35181), (146, 35187), (148, 35193), (156, 35238), (157, 35241), (163, 35268), (186, 35328), (189, 35349), (213, 35427),

Gene: Jeon\_30 Start: 32737, Stop: 33336, Start Num: 87

Candidate Starts for Jeon\_30:

(Start: 87 @32737 has 531 MA's), (99, 32767), (106, 32788), (109, 32794), (127, 32881), (130, 32887), (144, 32938), (148, 32950), (153, 32974), (156, 32995), (160, 33013), (166, 33031), (177, 33058), (217, 33208), (219, 33226), (232, 33301), (237, 33322),

Gene: Jeon\_28 Start: 31943, Stop: 32587, Start Num: 84

Candidate Starts for Jeon\_28:

(Start: 84 @31943 has 45 MA's), (91, 31961), (100, 31994), (108, 32018), (118, 32057), (121, 32066), (131, 32123), (144, 32174), (146, 32180), (148, 32186), (163, 32261), (180, 32288), (190, 32345), (201, 32387), (219, 32462), (229, 32534),

Gene: Jesabah\_36 Start: 34067, Stop: 34714, Start Num: 89

Candidate Starts for Jesabah\_36:

(Start: 75 @34028 has 1 MA's), (Start: 87 @34064 has 531 MA's), (Start: 89 @34067 has 177 MA's), (Start: 113 @34148 has 1 MA's), (144, 34283), (163, 34370), (180, 34415), (194, 34493), (212, 34544),

(217, 34571), (219, 34589), (230, 34667), (239, 34700), (243, 34706),

Gene: Jesabah\_37 Start: 34711, Stop: 35310, Start Num: 87

Candidate Starts for Jesabah\_37:

(27, 34507), (34, 34531), (42, 34573), (46, 34591), (50, 34606), (Start: 87 @34711 has 531 MA's), (99, 34741), (103, 34753), (115, 34792), (119, 34807), (130, 34861), (142, 34906), (144, 34912), (146, 34918), (148, 34924), (156, 34969), (157, 34972), (163, 34999), (186, 35059), (189, 35080), (213, 35158),

Gene: Jillium\_35 Start: 34055, Stop: 34705, Start Num: 87

Candidate Starts for Jillium\_35:

(40, 33908), (Start: 75 @34019 has 1 MA's), (Start: 87 @34055 has 531 MA's), (Start: 89 @34058 has 177 MA's), (Start: 113 @34139 has 1 MA's), (144, 34274), (163, 34361), (180, 34406), (194, 34484), (212, 34535), (217, 34562), (219, 34580), (230, 34658), (239, 34691), (243, 34697),

Gene: Jillium\_36 Start: 34702, Stop: 35301, Start Num: 87

Candidate Starts for Jillium\_36:

(27, 34498), (34, 34522), (42, 34564), (46, 34582), (50, 34597), (Start: 87 @34702 has 531 MA's), (99, 34732), (103, 34744), (115, 34783), (119, 34798), (130, 34852), (142, 34897), (144, 34903), (146, 34909), (148, 34915), (156, 34960), (157, 34963), (163, 34990), (186, 35050), (189, 35071), (213, 35149),

Gene: Jiminy\_36 Start: 34546, Stop: 35145, Start Num: 87

Candidate Starts for Jiminy\_36:

(26, 34339), (27, 34342), (34, 34366), (42, 34408), (46, 34426), (50, 34441), (Start: 87 @34546 has 531 MA's), (99, 34576), (103, 34588), (115, 34627), (119, 34642), (130, 34696), (142, 34741), (144, 34747), (146, 34753), (148, 34759), (156, 34804), (157, 34807), (163, 34834), (186, 34894), (189, 34915), (206, 34978), (213, 34993),

Gene: Jiminy\_35 Start: 33902, Stop: 34549, Start Num: 89

Candidate Starts for Jiminy\_35:

(Start: 75 @33863 has 1 MA's), (Start: 87 @33899 has 531 MA's), (Start: 89 @33902 has 177 MA's), (Start: 113 @33983 has 1 MA's), (144, 34118), (163, 34205), (180, 34250), (193, 34319), (194, 34328), (212, 34379), (219, 34424), (230, 34502), (239, 34535), (243, 34541),

Gene: Jiraiya\_36 Start: 34699, Stop: 35298, Start Num: 87

Candidate Starts for Jiraiya\_36:

(26, 34492), (27, 34495), (34, 34519), (42, 34561), (46, 34579), (50, 34594), (Start: 87 @34699 has 531 MA's), (99, 34729), (103, 34741), (115, 34780), (119, 34795), (130, 34849), (142, 34894), (144, 34900), (146, 34906), (148, 34912), (156, 34957), (157, 34960), (163, 34987), (186, 35047), (189, 35068), (206, 35131), (213, 35146),

Gene: Jiraiya\_35 Start: 34055, Stop: 34702, Start Num: 89

Candidate Starts for Jiraiya\_35:

(Start: 75 @34016 has 1 MA's), (Start: 87 @34052 has 531 MA's), (Start: 89 @34055 has 177 MA's), (Start: 113 @34136 has 1 MA's), (144, 34271), (163, 34358), (180, 34403), (193, 34472), (194, 34481), (212, 34532), (219, 34577), (230, 34655), (239, 34688), (243, 34694),

Gene: Jolie1\_030 Start: 32055, Stop: 32699, Start Num: 87

Candidate Starts for Jolie1\_030:

(Start: 87 @32055 has 531 MA's), (112, 32130), (116, 32142), (135, 32232), (147, 32277), (175, 32391), (180, 32403), (188, 32445), (190, 32460), (202, 32508), (241, 32688),

Gene: Jolie1\_031 Start: 32696, Stop: 33304, Start Num: 87

Candidate Starts for Jolie1\_031:

(15, 32342), (27, 32495), (34, 32519), (63, 32642), (Start: 87 @32696 has 531 MA's), (127, 32840), (130, 32846), (144, 32897), (147, 32906), (148, 32909), (156, 32954), (162, 32981), (177, 33017), (181, 33023), (186, 33044), (215, 33152), (224, 33230), (233, 33272), (237, 33290),

Gene: KLucky39\_37 Start: 34990, Stop: 35589, Start Num: 87

Candidate Starts for KLucky39\_37:

(27, 34786), (34, 34810), (42, 34852), (46, 34870), (50, 34885), (Start: 87 @34990 has 531 MA's), (99, 35020), (103, 35032), (115, 35071), (119, 35086), (130, 35140), (142, 35185), (144, 35191), (146, 35197), (148, 35203), (156, 35248), (157, 35251), (163, 35278), (186, 35338), (189, 35359), (213, 35437),

Gene: KLucky39\_36 Start: 34343, Stop: 34993, Start Num: 87

Candidate Starts for KLucky39\_36:

(40, 34196), (Start: 75 @34307 has 1 MA's), (Start: 87 @34343 has 531 MA's), (Start: 89 @34346 has 177 MA's), (Start: 113 @34427 has 1 MA's), (144, 34562), (163, 34649), (180, 34694), (194, 34772), (212, 34823), (217, 34850), (219, 34868), (230, 34946), (239, 34979), (243, 34985),

Gene: Kahve\_36 Start: 34706, Stop: 35305, Start Num: 87

Candidate Starts for Kahve\_36:

(27, 34502), (34, 34526), (42, 34568), (46, 34586), (50, 34601), (Start: 87 @34706 has 531 MA's), (99, 34736), (103, 34748), (115, 34787), (119, 34802), (130, 34856), (142, 34901), (144, 34907), (146, 34913), (148, 34919), (156, 34964), (157, 34967), (163, 34994), (186, 35054), (189, 35075), (213, 35153),

Gene: Kahve\_35 Start: 34062, Stop: 34709, Start Num: 89

Candidate Starts for Kahve\_35:

(40, 33912), (Start: 75 @34023 has 1 MA's), (Start: 87 @34059 has 531 MA's), (Start: 89 @34062 has 177 MA's), (Start: 113 @34143 has 1 MA's), (144, 34278), (163, 34365), (180, 34410), (194, 34488), (212, 34539), (217, 34566), (219, 34584), (230, 34662), (239, 34695), (243, 34701),

Gene: Kailash\_36 Start: 34397, Stop: 35047, Start Num: 87

Candidate Starts for Kailash\_36:

(Start: 75 @34361 has 1 MA's), (Start: 87 @34397 has 531 MA's), (Start: 89 @34400 has 177 MA's), (Start: 113 @34481 has 1 MA's), (144, 34616), (163, 34703), (180, 34748), (193, 34817), (194, 34826), (212, 34877), (219, 34922), (230, 35000), (239, 35033), (243, 35039),

Gene: Kailash\_37 Start: 35044, Stop: 35643, Start Num: 87

Candidate Starts for Kailash\_37:

(26, 34837), (27, 34840), (34, 34864), (42, 34906), (46, 34924), (50, 34939), (Start: 87 @35044 has 531 MA's), (99, 35074), (103, 35086), (115, 35125), (119, 35140), (130, 35194), (142, 35239), (144, 35245), (146, 35251), (148, 35257), (156, 35302), (157, 35305), (163, 35332), (186, 35392), (189, 35413), (206, 35476), (213, 35491),

Gene: Kaleb\_36 Start: 34804, Stop: 35448, Start Num: 84

Candidate Starts for Kaleb\_36:

(34, 34639), (59, 34750), (Start: 84 @34804 has 45 MA's), (Start: 86 @34813 has 1 MA's), (109, 34882), (116, 34909), (118, 34918), (121, 34927), (144, 35035), (148, 35047), (176, 35140), (190, 35206), (194, 35227), (199, 35242), (201, 35248), (208, 35269), (214, 35281), (241, 35437),

Gene: Kaleb\_38 Start: 35594, Stop: 36193, Start Num: 87

Candidate Starts for Kaleb\_38:



(80, 35573), (Start: 87 @35594 has 531 MA's), (99, 35624), (106, 35645), (115, 35675), (116, 35678), (130, 35744), (144, 35795), (145, 35798), (146, 35801), (153, 35831), (156, 35852), (179, 35918), (187, 35948), (211, 36038), (213, 36041), (216, 36059), (219, 36083), (230, 36152), (237, 36179),

Gene: Kamiyu\_36 Start: 34249, Stop: 34902, Start Num: 83

Candidate Starts for Kamiyu\_36:

(Start: 83 @34249 has 45 MA's), (109, 34330), (143, 34477), (178, 34603), (185, 34618), (197, 34693), (231, 34858), (239, 34888),

Gene: Kamiyu\_37 Start: 34899, Stop: 35498, Start Num: 87

Candidate Starts for Kamiyu\_37:

(26, 34695), (Start: 87 @34899 has 531 MA's), (99, 34929), (109, 34956), (127, 35043), (130, 35049), (148, 35112), (153, 35136), (186, 35247), (206, 35331), (211, 35343), (221, 35403), (237, 35484),

Gene: KarasumaRum\_37 Start: 35147, Stop: 35740, Start Num: 100

Candidate Starts for KarasumaRum\_37:

(Start: 87 @35111 has 531 MA's), (100, 35147), (112, 35189), (116, 35201), (143, 35327), (146, 35336), (148, 35342), (156, 35387), (176, 35435), (178, 35441), (219, 35615), (241, 35729),

Gene: KarasumaRum\_38 Start: 35737, Stop: 36345, Start Num: 87

Candidate Starts for KarasumaRum\_38:

(Start: 87 @35737 has 531 MA's), (99, 35767), (115, 35818), (127, 35881), (130, 35887), (144, 35938), (146, 35944), (148, 35950), (157, 35998), (204, 36163), (206, 36169), (224, 36271), (233, 36313), (237, 36331),

Gene: Katniss\_36 Start: 34361, Stop: 35008, Start Num: 89

Candidate Starts for Katniss\_36:

(Start: 75 @34322 has 1 MA's), (Start: 87 @34358 has 531 MA's), (Start: 89 @34361 has 177 MA's), (Start: 113 @34442 has 1 MA's), (144, 34577), (163, 34664), (180, 34709), (194, 34787), (212, 34838), (217, 34865), (219, 34883), (230, 34961), (239, 34994), (243, 35000),

Gene: Katniss\_37 Start: 35005, Stop: 35604, Start Num: 87

Candidate Starts for Katniss\_37:

(27, 34801), (34, 34825), (42, 34867), (46, 34885), (50, 34900), (Start: 87 @35005 has 531 MA's), (99, 35035), (103, 35047), (115, 35086), (119, 35101), (130, 35155), (142, 35200), (144, 35206), (146, 35212), (148, 35218), (156, 35263), (157, 35266), (163, 35293), (186, 35353), (189, 35374), (213, 35452),

Gene: KayaCho\_30 Start: 32051, Stop: 32695, Start Num: 87

Candidate Starts for KayaCho\_30:

(Start: 87 @32051 has 531 MA's), (112, 32126), (116, 32138), (134, 32225), (135, 32228), (147, 32273), (175, 32387), (180, 32399), (186, 32423), (188, 32441), (190, 32456), (202, 32504), (241, 32684),

Gene: KayaCho\_31 Start: 32692, Stop: 33300, Start Num: 87

Candidate Starts for KayaCho\_31:

(15, 32338), (27, 32491), (34, 32515), (63, 32638), (Start: 87 @32692 has 531 MA's), (127, 32836), (130, 32842), (144, 32893), (146, 32899), (147, 32902), (156, 32950), (162, 32977), (177, 33013), (186, 33040), (204, 33118), (211, 33136), (215, 33148), (224, 33226), (233, 33268), (237, 33286),

Gene: Keitherie\_37 Start: 35043, Stop: 35642, Start Num: 87

Candidate Starts for Keitherie\_37:

(27, 34839), (34, 34863), (42, 34905), (46, 34923), (50, 34938), (Start: 87 @35043 has 531 MA's), (99, 35073), (103, 35085), (115, 35124), (119, 35139), (130, 35193), (142, 35238), (144, 35244), (146, 35250), (148, 35256), (156, 35301), (157, 35304), (163, 35331), (189, 35412), (206, 35475), (213, 35490),

Gene: Keitherie\_36 Start: 34396, Stop: 35046, Start Num: 87

Candidate Starts for Keitherie\_36:

(40, 34249), (Start: 75 @34360 has 1 MA's), (Start: 87 @34396 has 531 MA's), (Start: 89 @34399 has 177 MA's), (Start: 113 @34480 has 1 MA's), (144, 34615), (163, 34702), (180, 34747), (194, 34825), (212, 34876), (217, 34903), (219, 34921), (230, 34999), (239, 35032), (243, 35038),

Gene: Khan1\_37 Start: 34727, Stop: 35326, Start Num: 87

Candidate Starts for Khan1\_37:

(26, 34520), (27, 34523), (34, 34547), (42, 34589), (46, 34607), (50, 34622), (Start: 87 @34727 has 531 MA's), (99, 34757), (103, 34769), (115, 34808), (119, 34823), (130, 34877), (142, 34922), (144, 34928), (146, 34934), (148, 34940), (156, 34985), (157, 34988), (163, 35015), (186, 35075), (189, 35096), (206, 35159), (213, 35174),

Gene: Khan1\_36 Start: 34083, Stop: 34730, Start Num: 89

Candidate Starts for Khan1\_36:

(Start: 75 @34044 has 1 MA's), (Start: 87 @34080 has 531 MA's), (Start: 89 @34083 has 177 MA's), (Start: 113 @34164 has 1 MA's), (144, 34299), (163, 34386), (180, 34431), (193, 34500), (194, 34509), (212, 34560), (219, 34605), (230, 34683), (239, 34716), (243, 34722),

Gene: Kheth\_36 Start: 34692, Stop: 35336, Start Num: 84

Candidate Starts for Kheth\_36:

(34, 34527), (59, 34638), (Start: 84 @34692 has 45 MA's), (Start: 86 @34701 has 1 MA's), (109, 34770), (116, 34797), (118, 34806), (121, 34815), (144, 34923), (148, 34935), (176, 35028), (190, 35094), (194, 35115), (199, 35130), (201, 35136), (208, 35157), (214, 35169), (241, 35325),

Gene: Kheth\_38 Start: 35482, Stop: 36081, Start Num: 87

Candidate Starts for Kheth\_38:

(80, 35461), (Start: 87 @35482 has 531 MA's), (99, 35512), (106, 35533), (115, 35563), (116, 35566), (130, 35632), (144, 35683), (145, 35686), (146, 35689), (153, 35719), (156, 35740), (179, 35806), (187, 35836), (211, 35926), (213, 35929), (216, 35947), (219, 35971), (230, 36040), (237, 36067),

Gene: Kikipoo\_37 Start: 34996, Stop: 35595, Start Num: 87

Candidate Starts for Kikipoo\_37:

(27, 34792), (34, 34816), (42, 34858), (46, 34876), (50, 34891), (Start: 87 @34996 has 531 MA's), (99, 35026), (103, 35038), (115, 35077), (119, 35092), (130, 35146), (142, 35191), (144, 35197), (146, 35203), (148, 35209), (156, 35254), (157, 35257), (163, 35284), (186, 35344), (189, 35365), (213, 35443),

Gene: Kikipoo\_36 Start: 34349, Stop: 34999, Start Num: 87

Candidate Starts for Kikipoo\_36:

(Start: 75 @34313 has 1 MA's), (Start: 87 @34349 has 531 MA's), (Start: 89 @34352 has 177 MA's), (Start: 113 @34433 has 1 MA's), (144, 34568), (163, 34655), (180, 34700), (194, 34778), (212, 34829), (217, 34856), (219, 34874), (230, 34952), (239, 34985), (243, 34991),

Gene: Kimbrough\_37 Start: 34698, Stop: 35297, Start Num: 87

Candidate Starts for Kimbrough\_37:

(27, 34494), (34, 34518), (42, 34560), (46, 34578), (50, 34593), (Start: 87 @34698 has 531 MA's), (99, 34728), (103, 34740), (115, 34779), (119, 34794), (130, 34848), (142, 34893), (144, 34899), (146,

34905), (148, 34911), (156, 34956), (157, 34959), (163, 34986), (186, 35046), (189, 35067), (213, 35145),

Gene: Kimbrough\_36 Start: 34054, Stop: 34701, Start Num: 89

Candidate Starts for Kimbrough\_36:

(Start: 75 @34015 has 1 MA's), (Start: 87 @34051 has 531 MA's), (Start: 89 @34054 has 177 MA's), (Start: 113 @34135 has 1 MA's), (144, 34270), (163, 34357), (180, 34402), (194, 34480), (212, 34531), (217, 34558), (219, 34576), (230, 34654), (239, 34687), (243, 34693),

Gene: KingTut\_28 Start: 30367, Stop: 30966, Start Num: 87

Candidate Starts for KingTut\_28:

(27, 30163), (34, 30187), (42, 30229), (46, 30247), (50, 30262), (Start: 87 @30367 has 531 MA's), (99, 30397), (103, 30409), (115, 30448), (119, 30463), (130, 30517), (142, 30562), (144, 30568), (146, 30574), (148, 30580), (156, 30625), (157, 30628), (163, 30655), (186, 30715), (189, 30736), (213, 30814),

Gene: KingTut\_27 Start: 29723, Stop: 30370, Start Num: 89

Candidate Starts for KingTut\_27:

(40, 29573), (Start: 75 @29684 has 1 MA's), (Start: 87 @29720 has 531 MA's), (Start: 89 @29723 has 177 MA's), (Start: 113 @29804 has 1 MA's), (144, 29939), (163, 30026), (180, 30071), (194, 30149), (212, 30200), (217, 30227), (219, 30245), (230, 30323), (239, 30356), (243, 30362),

Gene: KingVeVeVe\_36 Start: 34324, Stop: 34974, Start Num: 87

Candidate Starts for KingVeVeVe\_36:

(Start: 75 @34288 has 1 MA's), (Start: 87 @34324 has 531 MA's), (Start: 89 @34327 has 177 MA's), (Start: 113 @34408 has 1 MA's), (144, 34543), (163, 34630), (180, 34675), (194, 34753), (212, 34804), (217, 34831), (219, 34849), (230, 34927), (239, 34960), (243, 34966),

Gene: KingVeVeVe\_37 Start: 34971, Stop: 35570, Start Num: 87

Candidate Starts for KingVeVeVe\_37:

(27, 34767), (34, 34791), (42, 34833), (46, 34851), (50, 34866), (Start: 87 @34971 has 531 MA's), (99, 35001), (103, 35013), (115, 35052), (119, 35067), (130, 35121), (142, 35166), (144, 35172), (146, 35178), (148, 35184), (156, 35229), (157, 35232), (163, 35259), (186, 35319), (189, 35340), (213, 35418),

Gene: KlimbOn\_36 Start: 34340, Stop: 34987, Start Num: 89

Candidate Starts for KlimbOn\_36:

(40, 34190), (Start: 75 @34301 has 1 MA's), (Start: 87 @34337 has 531 MA's), (Start: 89 @34340 has 177 MA's), (Start: 113 @34421 has 1 MA's), (144, 34556), (163, 34643), (180, 34688), (194, 34766), (212, 34817), (217, 34844), (219, 34862), (230, 34940), (239, 34973), (243, 34979),

Gene: KlimbOn\_37 Start: 34984, Stop: 35583, Start Num: 87

Candidate Starts for KlimbOn\_37:

(27, 34780), (34, 34804), (42, 34846), (46, 34864), (50, 34879), (Start: 87 @34984 has 531 MA's), (99, 35014), (103, 35026), (115, 35065), (119, 35080), (130, 35134), (142, 35179), (144, 35185), (146, 35191), (148, 35197), (156, 35242), (157, 35245), (163, 35272), (186, 35332), (189, 35353), (213, 35431),

Gene: Kloppinator\_37 Start: 35007, Stop: 35606, Start Num: 87

Candidate Starts for Kloppinator\_37:

(27, 34803), (34, 34827), (42, 34869), (46, 34887), (50, 34902), (Start: 87 @35007 has 531 MA's), (99, 35037), (103, 35049), (115, 35088), (119, 35103), (130, 35157), (142, 35202), (144, 35208), (146, 35214), (148, 35220), (156, 35265), (157, 35268), (163, 35295), (186, 35355), (189, 35376), (213,

35454),

Gene: Kloppinator\_36 Start: 34363, Stop: 35010, Start Num: 89

Candidate Starts for Kloppinator\_36:

(40, 34213), (Start: 75 @34324 has 1 MA's), (Start: 87 @34360 has 531 MA's), (Start: 89 @34363 has 177 MA's), (Start: 113 @34444 has 1 MA's), (144, 34579), (163, 34666), (180, 34711), (194, 34789), (212, 34840), (217, 34867), (219, 34885), (230, 34963), (239, 34996), (243, 35002),

Gene: Knocker\_38 Start: 36842, Stop: 37450, Start Num: 87

Candidate Starts for Knocker\_38:

(63, 36788), (Start: 87 @36842 has 531 MA's), (99, 36875), (116, 36929), (127, 36989), (130, 36995), (135, 37010), (144, 37046), (146, 37052), (147, 37055), (150, 37076), (153, 37082), (188, 37211), (213, 37292), (219, 37334), (224, 37379), (232, 37418), (235, 37427), (237, 37439),

Gene: Knocker\_37 Start: 36198, Stop: 36845, Start Num: 87

Candidate Starts for Knocker\_37:

(Start: 87 @36198 has 531 MA's), (112, 36273), (117, 36291), (118, 36297), (129, 36360), (135, 36378), (140, 36402), (144, 36414), (146, 36420), (178, 36546), (180, 36549), (219, 36720), (234, 36810), (241, 36834),

Gene: Kolhan\_36 Start: 34683, Stop: 35327, Start Num: 84

Candidate Starts for Kolhan\_36:

(34, 34518), (59, 34629), (Start: 84 @34683 has 45 MA's), (Start: 86 @34692 has 1 MA's), (109, 34761), (116, 34788), (118, 34797), (144, 34914), (148, 34926), (176, 35019), (190, 35085), (194, 35106), (199, 35121), (201, 35127), (208, 35148), (214, 35160), (241, 35316),

Gene: Kolhan\_38 Start: 35473, Stop: 36072, Start Num: 87

Candidate Starts for Kolhan\_38:

(80, 35452), (Start: 87 @35473 has 531 MA's), (99, 35503), (106, 35524), (115, 35554), (116, 35557), (130, 35623), (144, 35674), (145, 35677), (146, 35680), (153, 35710), (156, 35731), (179, 35797), (187, 35827), (211, 35917), (213, 35920), (216, 35938), (219, 35962), (230, 36031), (237, 36058),

Gene: Kronus\_36 Start: 35509, Stop: 36108, Start Num: 87

Candidate Starts for Kronus\_36:

(Start: 87 @35509 has 531 MA's), (99, 35539), (109, 35566), (127, 35653), (130, 35659), (148, 35722), (153, 35746), (156, 35767), (186, 35857), (206, 35941), (211, 35953), (221, 36013), (232, 36073), (237, 36094),

Gene: Kronus\_35 Start: 34859, Stop: 35512, Start Num: 83

Candidate Starts for Kronus\_35:

(Start: 83 @34859 has 45 MA's), (109, 34940), (115, 34964), (143, 35087), (178, 35213), (185, 35228), (197, 35303), (231, 35468), (239, 35498),

Gene: Kwadwo\_35 Start: 34041, Stop: 34691, Start Num: 87

Candidate Starts for Kwadwo\_35:

(Start: 75 @34005 has 1 MA's), (Start: 87 @34041 has 531 MA's), (Start: 89 @34044 has 177 MA's), (Start: 113 @34125 has 1 MA's), (144, 34260), (163, 34347), (180, 34392), (194, 34470), (212, 34521), (217, 34548), (219, 34566), (230, 34644), (239, 34677), (243, 34683),

Gene: Kwadwo\_36 Start: 34688, Stop: 35287, Start Num: 87

Candidate Starts for Kwadwo\_36:

(27, 34484), (34, 34508), (42, 34550), (46, 34568), (50, 34583), (Start: 87 @34688 has 531 MA's), (99, 34718), (103, 34730), (115, 34769), (119, 34784), (130, 34838), (142, 34883), (144, 34889), (146,

34895), (148, 34901), (156, 34946), (157, 34949), (163, 34976), (186, 35036), (189, 35057), (213, 35135),

Gene: Kwksand96\_36 Start: 34557, Stop: 35156, Start Num: 87

Candidate Starts for Kwksand96\_36:

(26, 34350), (27, 34353), (34, 34377), (42, 34419), (46, 34437), (50, 34452), (Start: 87 @34557 has 531 MA's), (99, 34587), (103, 34599), (115, 34638), (119, 34653), (130, 34707), (142, 34752), (144, 34758), (146, 34764), (148, 34770), (156, 34815), (157, 34818), (163, 34845), (186, 34905), (189, 34926), (206, 34989), (213, 35004),

Gene: Kwksand96\_35 Start: 33913, Stop: 34560, Start Num: 89

Candidate Starts for Kwksand96\_35:

(Start: 75 @33874 has 1 MA's), (Start: 87 @33910 has 531 MA's), (Start: 89 @33913 has 177 MA's), (Start: 113 @33994 has 1 MA's), (144, 34129), (163, 34216), (180, 34261), (193, 34330), (194, 34339), (212, 34390), (219, 34435), (230, 34513), (239, 34546), (243, 34552),

Gene: Labeouficaum\_36 Start: 34552, Stop: 35151, Start Num: 87

Candidate Starts for Labeouficaum\_36:

(26, 34345), (27, 34348), (34, 34372), (42, 34414), (46, 34432), (50, 34447), (Start: 87 @34552 has 531 MA's), (99, 34582), (103, 34594), (115, 34633), (119, 34648), (130, 34702), (142, 34747), (144, 34753), (146, 34759), (148, 34765), (156, 34810), (157, 34813), (163, 34840), (186, 34900), (189, 34921), (206, 34984), (213, 34999),

Gene: Labeouficaum\_35 Start: 33908, Stop: 34555, Start Num: 89

Candidate Starts for Labeouficaum\_35:

(Start: 75 @33869 has 1 MA's), (Start: 87 @33905 has 531 MA's), (Start: 89 @33908 has 177 MA's), (Start: 113 @33989 has 1 MA's), (144, 34124), (163, 34211), (180, 34256), (193, 34325), (194, 34334), (212, 34385), (219, 34430), (230, 34508), (239, 34541), (243, 34547),

Gene: Lambano\_33 Start: 34162, Stop: 34767, Start Num: 87

Candidate Starts for Lambano\_33:

(Start: 87 @34162 has 531 MA's), (99, 34198), (115, 34249), (116, 34252), (127, 34312), (130, 34318), (142, 34363), (145, 34372), (146, 34375), (147, 34378), (153, 34405), (163, 34456), (187, 34522), (189, 34537), (206, 34600), (219, 34657), (233, 34735), (237, 34753),

Gene: Lambano\_32 Start: 33518, Stop: 34165, Start Num: 67

Candidate Starts for Lambano\_32:

(Start: 67 @33518 has 25 MA's), (102, 33596), (104, 33608), (123, 33680), (132, 33704), (137, 33725), (138, 33734), (139, 33737), (142, 33746), (143, 33749), (154, 33794), (165, 33848), (172, 33866), (189, 33926), (193, 33938), (213, 33998), (217, 34022), (219, 34040), (233, 34127), (241, 34154),

Gene: Lars\_36 Start: 34794, Stop: 35438, Start Num: 84

Candidate Starts for Lars\_36:

(34, 34629), (59, 34740), (Start: 84 @34794 has 45 MA's), (Start: 86 @34803 has 1 MA's), (109, 34872), (116, 34899), (118, 34908), (121, 34917), (144, 35025), (148, 35037), (176, 35130), (190, 35196), (194, 35217), (199, 35232), (201, 35238), (208, 35259), (214, 35271), (241, 35427),

Gene: Lars\_38 Start: 35584, Stop: 36183, Start Num: 87

Candidate Starts for Lars\_38:

(80, 35563), (Start: 87 @35584 has 531 MA's), (99, 35614), (106, 35635), (115, 35665), (116, 35668), (130, 35734), (144, 35785), (145, 35788), (146, 35791), (153, 35821), (156, 35842), (179, 35908), (187, 35938), (211, 36028), (213, 36031), (216, 36049), (218, 36064), (219, 36073), (230, 36142), (237, 36169),

Gene: LasagnaCat\_36 Start: 34346, Stop: 34993, Start Num: 89

Candidate Starts for LasagnaCat\_36:

(Start: 75 @34307 has 1 MA's), (Start: 87 @34343 has 531 MA's), (Start: 89 @34346 has 177 MA's), (Start: 113 @34427 has 1 MA's), (144, 34562), (163, 34649), (180, 34694), (193, 34763), (194, 34772), (212, 34823), (219, 34868), (230, 34946), (239, 34979), (243, 34985),

Gene: LasagnaCat\_37 Start: 34990, Stop: 35589, Start Num: 87

Candidate Starts for LasagnaCat\_37:

(26, 34783), (27, 34786), (34, 34810), (42, 34852), (46, 34870), (50, 34885), (Start: 87 @34990 has 531 MA's), (99, 35020), (103, 35032), (115, 35071), (119, 35086), (130, 35140), (142, 35185), (144, 35191), (146, 35197), (148, 35203), (156, 35248), (157, 35251), (163, 35278), (186, 35338), (189, 35359), (206, 35422), (213, 35437),

Gene: Lasso\_37 Start: 34963, Stop: 35562, Start Num: 87

Candidate Starts for Lasso\_37:

(27, 34759), (34, 34783), (42, 34825), (46, 34843), (50, 34858), (Start: 87 @34963 has 531 MA's), (99, 34993), (103, 35005), (115, 35044), (119, 35059), (130, 35113), (142, 35158), (144, 35164), (146, 35170), (148, 35176), (156, 35221), (157, 35224), (163, 35251), (186, 35311), (189, 35332), (213, 35410),

Gene: Lasso\_36 Start: 34316, Stop: 34966, Start Num: 87

Candidate Starts for Lasso\_36:

(Start: 75 @34280 has 1 MA's), (Start: 87 @34316 has 531 MA's), (Start: 89 @34319 has 177 MA's), (Start: 113 @34400 has 1 MA's), (144, 34535), (163, 34622), (180, 34667), (194, 34745), (212, 34796), (217, 34823), (219, 34841), (230, 34919), (239, 34952), (243, 34958),

Gene: Laurie\_37 Start: 34980, Stop: 35579, Start Num: 87

Candidate Starts for Laurie\_37:

(80, 34959), (Start: 87 @34980 has 531 MA's), (99, 35010), (106, 35031), (115, 35061), (116, 35064), (130, 35130), (144, 35181), (145, 35184), (146, 35187), (153, 35217), (156, 35238), (179, 35304), (187, 35334), (211, 35424), (213, 35427), (216, 35445), (219, 35469), (230, 35538), (237, 35565),

Gene: Laurie\_36 Start: 34190, Stop: 34834, Start Num: 84

Candidate Starts for Laurie\_36:

(23, 33989), (Start: 84 @34190 has 45 MA's), (Start: 86 @34199 has 1 MA's), (109, 34268), (116, 34295), (118, 34304), (140, 34409), (144, 34421), (148, 34433), (176, 34526), (190, 34592), (194, 34613), (199, 34628), (201, 34634), (208, 34655), (214, 34667), (241, 34823),

Gene: LeeLot\_37 Start: 34994, Stop: 35593, Start Num: 87

Candidate Starts for LeeLot\_37:

(27, 34790), (34, 34814), (42, 34856), (46, 34874), (50, 34889), (Start: 87 @34994 has 531 MA's), (99, 35024), (103, 35036), (115, 35075), (119, 35090), (130, 35144), (142, 35189), (144, 35195), (146, 35201), (148, 35207), (156, 35252), (157, 35255), (163, 35282), (186, 35342), (189, 35363), (213, 35441),

Gene: LeeLot\_36 Start: 34350, Stop: 34997, Start Num: 89

Candidate Starts for LeeLot\_36:

(Start: 75 @34311 has 1 MA's), (Start: 87 @34347 has 531 MA's), (Start: 89 @34350 has 177 MA's), (Start: 113 @34431 has 1 MA's), (144, 34566), (163, 34653), (180, 34698), (194, 34776), (212, 34827), (217, 34854), (219, 34872), (230, 34950), (239, 34983), (243, 34989),

Gene: Lego3393\_37 Start: 34999, Stop: 35598, Start Num: 87

Candidate Starts for Lego3393\_37:

(27, 34795), (34, 34819), (42, 34861), (46, 34879), (50, 34894), (Start: 87 @34999 has 531 MA's), (99, 35029), (103, 35041), (115, 35080), (119, 35095), (130, 35149), (142, 35194), (144, 35200), (146, 35206), (148, 35212), (156, 35257), (157, 35260), (163, 35287), (186, 35347), (189, 35368), (213, 35446),

Gene: Lego3393\_36 Start: 34355, Stop: 35002, Start Num: 89

Candidate Starts for Lego3393\_36:

(Start: 75 @34316 has 1 MA's), (Start: 87 @34352 has 531 MA's), (Start: 89 @34355 has 177 MA's), (Start: 113 @34436 has 1 MA's), (144, 34571), (163, 34658), (180, 34703), (194, 34781), (212, 34832), (217, 34859), (219, 34877), (230, 34955), (239, 34988), (243, 34994),

Gene: Legolas\_36 Start: 34704, Stop: 35303, Start Num: 87

Candidate Starts for Legolas\_36:

(27, 34500), (34, 34524), (42, 34566), (46, 34584), (50, 34599), (Start: 87 @34704 has 531 MA's), (99, 34734), (103, 34746), (115, 34785), (119, 34800), (130, 34854), (142, 34899), (144, 34905), (146, 34911), (148, 34917), (156, 34962), (157, 34965), (163, 34992), (186, 35052), (189, 35073), (213, 35151),

Gene: Legolas\_35 Start: 34060, Stop: 34707, Start Num: 89

Candidate Starts for Legolas\_35:

(Start: 75 @34021 has 1 MA's), (Start: 87 @34057 has 531 MA's), (Start: 89 @34060 has 177 MA's), (Start: 113 @34141 has 1 MA's), (144, 34276), (163, 34363), (180, 34408), (194, 34486), (212, 34537), (217, 34564), (219, 34582), (230, 34660), (239, 34693), (243, 34699),

Gene: LeiMonet\_37 Start: 34695, Stop: 35294, Start Num: 87

Candidate Starts for LeiMonet\_37:

(26, 34488), (27, 34491), (34, 34515), (42, 34557), (46, 34575), (50, 34590), (Start: 87 @34695 has 531 MA's), (99, 34725), (103, 34737), (115, 34776), (119, 34791), (130, 34845), (142, 34890), (144, 34896), (146, 34902), (148, 34908), (156, 34953), (157, 34956), (163, 34983), (186, 35043), (189, 35064), (213, 35142),

Gene: LeiMonet\_36 Start: 34051, Stop: 34698, Start Num: 89

Candidate Starts for LeiMonet\_36:

(Start: 75 @34012 has 1 MA's), (Start: 87 @34048 has 531 MA's), (Start: 89 @34051 has 177 MA's), (Start: 113 @34132 has 1 MA's), (144, 34267), (163, 34354), (180, 34399), (194, 34477), (212, 34528), (217, 34555), (219, 34573), (230, 34651), (239, 34684), (243, 34690),

Gene: LemonSlice\_37 Start: 34691, Stop: 35290, Start Num: 87

Candidate Starts for LemonSlice\_37:

(27, 34487), (34, 34511), (42, 34553), (46, 34571), (50, 34586), (Start: 87 @34691 has 531 MA's), (99, 34721), (103, 34733), (115, 34772), (119, 34787), (130, 34841), (142, 34886), (144, 34892), (146, 34898), (148, 34904), (156, 34949), (157, 34952), (163, 34979), (186, 35039), (189, 35060), (213, 35138),

Gene: LemonSlice\_36 Start: 34047, Stop: 34694, Start Num: 89

Candidate Starts for LemonSlice\_36:

(Start: 75 @34008 has 1 MA's), (Start: 87 @34044 has 531 MA's), (Start: 89 @34047 has 177 MA's), (Start: 113 @34128 has 1 MA's), (144, 34263), (163, 34350), (180, 34395), (194, 34473), (212, 34524), (217, 34551), (219, 34569), (230, 34647), (239, 34680), (243, 34686),

Gene: Lephleur\_36 Start: 34687, Stop: 35331, Start Num: 84

Candidate Starts for Lephleur\_36:

(34, 34522), (59, 34633), (Start: 84 @34687 has 45 MA's), (Start: 86 @34696 has 1 MA's), (109, 34765), (116, 34792), (118, 34801), (121, 34810), (144, 34918), (148, 34930), (176, 35023), (190, 35089), (194, 35110), (199, 35125), (201, 35131), (208, 35152), (214, 35164), (241, 35320),

Gene: Lephleur\_38 Start: 35477, Stop: 36076, Start Num: 87

Candidate Starts for Lephleur\_38:

(80, 35456), (Start: 87 @35477 has 531 MA's), (99, 35507), (106, 35528), (115, 35558), (116, 35561), (130, 35627), (144, 35678), (145, 35681), (146, 35684), (153, 35714), (156, 35735), (179, 35801), (187, 35831), (211, 35921), (213, 35924), (216, 35942), (219, 35966), (230, 36035), (237, 36062),

Gene: LestyG\_36 Start: 34280, Stop: 34933, Start Num: 83

Candidate Starts for LestyG\_36:

(Start: 83 @34280 has 45 MA's), (109, 34361), (115, 34385), (143, 34508), (178, 34634), (185, 34649), (197, 34724), (231, 34889), (232, 34892), (239, 34919),

Gene: LestyG\_37 Start: 34930, Stop: 35529, Start Num: 87

Candidate Starts for LestyG\_37:

(Start: 87 @34930 has 531 MA's), (99, 34960), (109, 34987), (127, 35074), (130, 35080), (148, 35143), (153, 35167), (156, 35188), (186, 35278), (206, 35362), (211, 35374), (221, 35434), (232, 35494), (237, 35515),

Gene: Ligma\_30 Start: 28099, Stop: 28731, Start Num: 87

Candidate Starts for Ligma\_30:

(34, 27922), (Start: 87 @28099 has 531 MA's), (99, 28132), (109, 28159), (130, 28252), (143, 28300), (146, 28309), (156, 28360), (177, 28423), (179, 28426), (193, 28489), (213, 28549), (215, 28558), (216, 28567), (235, 28705),

Gene: Ligma\_29 Start: 27488, Stop: 28102, Start Num: 93

Candidate Starts for Ligma\_29:

(41, 27338), (Start: 93 @27488 has 16 MA's), (98, 27503), (Start: 101 @27521 has 1 MA's), (112, 27557), (119, 27581), (125, 27620), (143, 27689), (144, 27692), (145, 27695), (176, 27797), (227, 28034), (230, 28055), (232, 28061), (241, 28091),

Gene: LilMcDreamy\_33 Start: 34699, Stop: 35310, Start Num: 87

Candidate Starts for LilMcDreamy\_33:

(Start: 87 @34699 has 531 MA's), (99, 34732), (109, 34759), (115, 34783), (127, 34846), (130, 34852), (144, 34903), (146, 34909), (156, 34960), (157, 34963), (189, 35071), (198, 35107), (204, 35128), (206, 35134), (213, 35149), (222, 35212), (237, 35296),

Gene: LilMcDreamy\_31 Start: 33700, Stop: 34323, Start Num: 92

Candidate Starts for LilMcDreamy\_31:

(Start: 92 @33700 has 1 MA's), (109, 33760), (112, 33775), (116, 33787), (140, 33904), (143, 33913), (146, 33922), (153, 33952), (176, 34021), (180, 34030), (203, 34138), (212, 34159), (234, 34291),

Gene: LilSmirk\_36 Start: 34681, Stop: 35325, Start Num: 84

Candidate Starts for LilSmirk\_36:

(34, 34516), (59, 34627), (Start: 84 @34681 has 45 MA's), (Start: 86 @34690 has 1 MA's), (109, 34759), (116, 34786), (118, 34795), (121, 34804), (144, 34912), (148, 34924), (176, 35017), (190, 35083), (194, 35104), (199, 35119), (201, 35125), (208, 35146), (214, 35158), (241, 35314),

Gene: LilSmirk\_38 Start: 35471, Stop: 36070, Start Num: 87

Candidate Starts for LilSmirk\_38:



(80, 35450), (Start: 87 @35471 has 531 MA's), (99, 35501), (106, 35522), (115, 35552), (116, 35555), (130, 35621), (144, 35672), (145, 35675), (146, 35678), (153, 35708), (156, 35729), (179, 35795), (187, 35825), (211, 35915), (213, 35918), (216, 35936), (219, 35960), (230, 36029), (237, 36056),

Gene: LittleMunchkin\_31 Start: 30916, Stop: 31530, Start Num: 93

Candidate Starts for LittleMunchkin\_31:

(Start: 93 @30916 has 16 MA's), (98, 30931), (Start: 101 @30949 has 1 MA's), (109, 30970), (112, 30985), (116, 30997), (135, 31084), (143, 31117), (144, 31120), (176, 31225), (180, 31234), (182, 31237), (186, 31258), (227, 31462), (230, 31483), (232, 31489), (241, 31519),

Gene: LittleMunchkin\_32 Start: 31527, Stop: 32156, Start Num: 87

Candidate Starts for LittleMunchkin\_32:

(Start: 87 @31527 has 531 MA's), (99, 31557), (109, 31584), (127, 31671), (130, 31677), (143, 31725), (156, 31785), (168, 31830), (177, 31848), (179, 31851), (195, 31926), (206, 31959), (215, 31983), (219, 32016), (235, 32130),

Gene: LizLemon\_36 Start: 34803, Stop: 35447, Start Num: 84

Candidate Starts for LizLemon\_36:

(34, 34638), (59, 34749), (Start: 84 @34803 has 45 MA's), (Start: 86 @34812 has 1 MA's), (109, 34881), (116, 34908), (118, 34917), (121, 34926), (140, 35022), (144, 35034), (148, 35046), (176, 35139), (190, 35205), (194, 35226), (199, 35241), (201, 35247), (208, 35268), (214, 35280), (241, 35436),

Gene: LizLemon\_38 Start: 35593, Stop: 36192, Start Num: 87

Candidate Starts for LizLemon\_38:

(80, 35572), (Start: 87 @35593 has 531 MA's), (99, 35623), (106, 35644), (115, 35674), (116, 35677), (130, 35743), (144, 35794), (145, 35797), (146, 35800), (153, 35830), (156, 35851), (179, 35917), (187, 35947), (211, 36037), (213, 36040), (216, 36058), (218, 36073), (219, 36082), (230, 36151), (237, 36178),

Gene: Lolalove\_34 Start: 35187, Stop: 35792, Start Num: 87

Candidate Starts for Lolalove\_34:

(Start: 87 @35187 has 531 MA's), (99, 35223), (115, 35274), (116, 35277), (127, 35337), (130, 35343), (142, 35388), (145, 35397), (146, 35400), (147, 35403), (153, 35430), (156, 35451), (163, 35481), (187, 35547), (189, 35562), (206, 35625), (219, 35682), (233, 35760), (237, 35778),

Gene: Lolalove\_33 Start: 34543, Stop: 35190, Start Num: 67

Candidate Starts for Lolalove\_33:

(Start: 67 @34543 has 25 MA's), (102, 34621), (104, 34633), (123, 34705), (132, 34729), (137, 34750), (138, 34759), (139, 34762), (142, 34771), (154, 34819), (165, 34873), (172, 34891), (189, 34951), (193, 34963), (213, 35023), (217, 35047), (219, 35065), (233, 35152), (241, 35179),

Gene: Longacauda\_36 Start: 34696, Stop: 35295, Start Num: 87

Candidate Starts for Longacauda\_36:

(26, 34489), (27, 34492), (34, 34516), (42, 34558), (46, 34576), (50, 34591), (Start: 87 @34696 has 531 MA's), (99, 34726), (103, 34738), (115, 34777), (119, 34792), (130, 34846), (142, 34891), (144, 34897), (146, 34903), (148, 34909), (156, 34954), (157, 34957), (163, 34984), (186, 35044), (189, 35065), (206, 35128), (213, 35143),

Gene: Longacauda\_35 Start: 34052, Stop: 34699, Start Num: 89

Candidate Starts for Longacauda\_35:

(Start: 75 @34013 has 1 MA's), (Start: 87 @34049 has 531 MA's), (Start: 89 @34052 has 177 MA's), (Start: 113 @34133 has 1 MA's), (144, 34268), (163, 34355), (180, 34400), (193, 34469), (194, 34478),

(212, 34529), (219, 34574), (230, 34652), (239, 34685), (243, 34691),

Gene: Lopsy\_36 Start: 34546, Stop: 35145, Start Num: 87

Candidate Starts for Lopsy\_36:

(27, 34342), (34, 34366), (42, 34408), (46, 34426), (50, 34441), (Start: 87 @34546 has 531 MA's), (99, 34576), (103, 34588), (115, 34627), (119, 34642), (130, 34696), (142, 34741), (144, 34747), (146, 34753), (148, 34759), (156, 34804), (157, 34807), (163, 34834), (186, 34894), (189, 34915), (213, 34993),

Gene: Lopsy\_35 Start: 33902, Stop: 34549, Start Num: 89

Candidate Starts for Lopsy\_35:

(Start: 75 @33863 has 1 MA's), (Start: 87 @33899 has 531 MA's), (Start: 89 @33902 has 177 MA's), (Start: 113 @33983 has 1 MA's), (144, 34118), (163, 34205), (180, 34250), (194, 34328), (212, 34379), (217, 34406), (219, 34424), (230, 34502), (239, 34535), (243, 34541),

Gene: LostAndPhound\_35 Start: 34053, Stop: 34700, Start Num: 89

Candidate Starts for LostAndPhound\_35:

(Start: 75 @34014 has 1 MA's), (Start: 87 @34050 has 531 MA's), (Start: 89 @34053 has 177 MA's), (Start: 113 @34134 has 1 MA's), (144, 34269), (163, 34356), (180, 34401), (194, 34479), (212, 34530), (217, 34557), (219, 34575), (230, 34653), (239, 34686), (243, 34692),

Gene: LostAndPhound\_36 Start: 34697, Stop: 35296, Start Num: 87

Candidate Starts for LostAndPhound\_36:

(26, 34490), (27, 34493), (34, 34517), (42, 34559), (46, 34577), (50, 34592), (Start: 87 @34697 has 531 MA's), (99, 34727), (103, 34739), (115, 34778), (119, 34793), (130, 34847), (142, 34892), (144, 34898), (146, 34904), (148, 34910), (156, 34955), (157, 34958), (163, 34985), (186, 35045), (189, 35066), (213, 35144),

Gene: LuckyMarjie\_36 Start: 34706, Stop: 35305, Start Num: 87

Candidate Starts for LuckyMarjie\_36:

(27, 34502), (34, 34526), (42, 34568), (46, 34586), (50, 34601), (Start: 87 @34706 has 531 MA's), (99, 34736), (103, 34748), (115, 34787), (119, 34802), (130, 34856), (142, 34901), (144, 34907), (146, 34913), (148, 34919), (156, 34964), (157, 34967), (163, 34994), (186, 35054), (189, 35075), (213, 35153),

Gene: LuckyMarjie\_35 Start: 34059, Stop: 34709, Start Num: 87

Candidate Starts for LuckyMarjie\_35:

(Start: 75 @34023 has 1 MA's), (Start: 87 @34059 has 531 MA's), (Start: 89 @34062 has 177 MA's), (Start: 113 @34143 has 1 MA's), (144, 34278), (163, 34365), (180, 34410), (194, 34488), (212, 34539), (217, 34566), (219, 34584), (230, 34662), (239, 34695), (243, 34701),

Gene: Lulumae\_35 Start: 34044, Stop: 34691, Start Num: 89

Candidate Starts for Lulumae\_35:

(40, 33894), (Start: 75 @34005 has 1 MA's), (Start: 87 @34041 has 531 MA's), (Start: 89 @34044 has 177 MA's), (Start: 113 @34125 has 1 MA's), (144, 34260), (163, 34347), (180, 34392), (194, 34470), (212, 34521), (217, 34548), (219, 34566), (230, 34644), (239, 34677), (243, 34683),

Gene: Lulumae\_36 Start: 34688, Stop: 35287, Start Num: 87

Candidate Starts for Lulumae\_36:

(27, 34484), (34, 34508), (42, 34550), (46, 34568), (50, 34583), (Start: 87 @34688 has 531 MA's), (99, 34718), (103, 34730), (115, 34769), (119, 34784), (130, 34838), (142, 34883), (144, 34889), (146, 34895), (148, 34901), (156, 34946), (157, 34949), (163, 34976), (186, 35036), (189, 35057),

Gene: Lulwa\_36 Start: 34331, Stop: 34978, Start Num: 89

Candidate Starts for Lulwa\_36:

(40, 34181), (Start: 75 @34292 has 1 MA's), (Start: 87 @34328 has 531 MA's), (Start: 89 @34331 has 177 MA's), (Start: 113 @34412 has 1 MA's), (144, 34547), (163, 34634), (180, 34679), (194, 34757), (212, 34808), (217, 34835), (219, 34853), (230, 34931), (239, 34964), (243, 34970),

Gene: Lulwa\_37 Start: 34975, Stop: 35574, Start Num: 87

Candidate Starts for Lulwa\_37:

(27, 34771), (34, 34795), (42, 34837), (46, 34855), (50, 34870), (Start: 87 @34975 has 531 MA's), (99, 35005), (103, 35017), (115, 35056), (119, 35071), (130, 35125), (142, 35170), (144, 35176), (146, 35182), (148, 35188), (156, 35233), (157, 35236), (163, 35263), (186, 35323), (189, 35344), (213, 35422),

Gene: Lumine\_36 Start: 34684, Stop: 35283, Start Num: 87

Candidate Starts for Lumine\_36:

(27, 34480), (34, 34504), (42, 34546), (46, 34564), (50, 34579), (Start: 87 @34684 has 531 MA's), (99, 34714), (103, 34726), (115, 34765), (119, 34780), (130, 34834), (142, 34879), (144, 34885), (146, 34891), (148, 34897), (156, 34942), (157, 34945), (163, 34972), (186, 35032), (189, 35053), (213, 35131),

Gene: Lumine\_35 Start: 34040, Stop: 34687, Start Num: 89

Candidate Starts for Lumine\_35:

(Start: 75 @34001 has 1 MA's), (Start: 87 @34037 has 531 MA's), (Start: 89 @34040 has 177 MA's), (Start: 113 @34121 has 1 MA's), (144, 34256), (163, 34343), (180, 34388), (194, 34466), (212, 34517), (217, 34544), (219, 34562), (230, 34640), (239, 34673), (243, 34679),

Gene: MRabcd\_36 Start: 34688, Stop: 35287, Start Num: 87

Candidate Starts for MRabcd\_36:

(26, 34481), (27, 34484), (34, 34508), (42, 34550), (46, 34568), (50, 34583), (Start: 87 @34688 has 531 MA's), (99, 34718), (103, 34730), (115, 34769), (119, 34784), (130, 34838), (142, 34883), (144, 34889), (146, 34895), (148, 34901), (156, 34946), (157, 34949), (163, 34976), (186, 35036), (189, 35057), (213, 35135),

Gene: MRabcd\_35 Start: 34044, Stop: 34691, Start Num: 89

Candidate Starts for MRabcd\_35:

(Start: 75 @34005 has 1 MA's), (Start: 87 @34041 has 531 MA's), (Start: 89 @34044 has 177 MA's), (Start: 113 @34125 has 1 MA's), (144, 34260), (163, 34347), (180, 34392), (194, 34470), (212, 34521), (217, 34548), (219, 34566), (230, 34644), (239, 34677), (243, 34683),

Gene: Mag7\_35 Start: 33950, Stop: 34597, Start Num: 89

Candidate Starts for Mag7\_35:

(Start: 75 @33911 has 1 MA's), (Start: 87 @33947 has 531 MA's), (Start: 89 @33950 has 177 MA's), (Start: 113 @34031 has 1 MA's), (144, 34166), (163, 34253), (180, 34298), (193, 34367), (194, 34376), (212, 34427), (219, 34472), (230, 34550), (239, 34583), (243, 34589),

Gene: Mag7\_36 Start: 34594, Stop: 35193, Start Num: 87

Candidate Starts for Mag7\_36:

(26, 34387), (27, 34390), (34, 34414), (42, 34456), (46, 34474), (50, 34489), (Start: 87 @34594 has 531 MA's), (99, 34624), (103, 34636), (115, 34675), (119, 34690), (130, 34744), (142, 34789), (144, 34795), (146, 34801), (148, 34807), (156, 34852), (157, 34855), (163, 34882), (186, 34942), (189, 34963), (206, 35026), (213, 35041),

Gene: Magic8\_37 Start: 35029, Stop: 35628, Start Num: 87

Candidate Starts for Magic8\_37:

(27, 34825), (34, 34849), (42, 34891), (46, 34909), (50, 34924), (Start: 87 @35029 has 531 MA's), (99, 35059), (103, 35071), (115, 35110), (119, 35125), (130, 35179), (142, 35224), (144, 35230), (146, 35236), (148, 35242), (156, 35287), (157, 35290), (163, 35317), (186, 35377), (189, 35398), (206, 35461), (213, 35476),

Gene: Magic8\_36 Start: 34382, Stop: 35032, Start Num: 87

Candidate Starts for Magic8\_36:

(Start: 75 @34346 has 1 MA's), (Start: 87 @34382 has 531 MA's), (Start: 89 @34385 has 177 MA's), (Start: 113 @34466 has 1 MA's), (144, 34601), (163, 34688), (180, 34733), (194, 34811), (212, 34862), (217, 34889), (219, 34907), (230, 34985), (239, 35018), (243, 35024),

Gene: Magpie\_32 Start: 34379, Stop: 35026, Start Num: 67

Candidate Starts for Magpie\_32:

(Start: 67 @34379 has 25 MA's), (102, 34457), (104, 34469), (123, 34541), (132, 34565), (138, 34595), (139, 34598), (142, 34607), (154, 34655), (165, 34709), (172, 34727), (189, 34787), (193, 34799), (213, 34859), (217, 34883), (219, 34901), (233, 34988), (234, 34991), (241, 35015),

Gene: Magpie\_33 Start: 35023, Stop: 35628, Start Num: 87

Candidate Starts for Magpie\_33:

(Start: 87 @35023 has 531 MA's), (99, 35059), (109, 35086), (115, 35110), (116, 35113), (127, 35173), (130, 35179), (142, 35224), (145, 35233), (146, 35236), (147, 35239), (153, 35266), (156, 35287), (163, 35317), (187, 35383), (189, 35398), (206, 35461), (219, 35518), (233, 35596), (237, 35614),

Gene: MakoManhole\_31 Start: 29477, Stop: 30088, Start Num: 95

Candidate Starts for MakoManhole\_31:

(Start: 93 @29474 has 16 MA's), (Start: 95 @29477 has 3 MA's), (109, 29528), (112, 29543), (117, 29558), (119, 29567), (125, 29606), (131, 29627), (135, 29642), (143, 29675), (153, 29714), (154, 29717), (156, 29735), (178, 29789), (232, 30047), (241, 30077),

Gene: MakoManhole\_32 Start: 30085, Stop: 30681, Start Num: 87

Candidate Starts for MakoManhole\_32:

(34, 29908), (42, 29947), (43, 29956), (60, 30019), (64, 30031), (Start: 87 @30085 has 531 MA's), (99, 30115), (127, 30229), (130, 30235), (144, 30286), (146, 30292), (156, 30343), (157, 30346), (179, 30409), (185, 30421), (186, 30433), (195, 30484), (205, 30514), (213, 30532), (215, 30541), (237, 30667),

Gene: Mana\_35 Start: 34056, Stop: 34706, Start Num: 87

Candidate Starts for Mana\_35:

(Start: 75 @34020 has 1 MA's), (Start: 87 @34056 has 531 MA's), (Start: 89 @34059 has 177 MA's), (Start: 113 @34140 has 1 MA's), (144, 34275), (163, 34362), (180, 34407), (194, 34485), (212, 34536), (217, 34563), (219, 34581), (230, 34659), (239, 34692), (243, 34698),

Gene: Mana\_36 Start: 34703, Stop: 35302, Start Num: 87

Candidate Starts for Mana\_36:

(27, 34499), (34, 34523), (42, 34565), (46, 34583), (50, 34598), (Start: 87 @34703 has 531 MA's), (99, 34733), (103, 34745), (115, 34784), (119, 34799), (130, 34853), (142, 34898), (144, 34904), (146, 34910), (148, 34916), (156, 34961), (157, 34964), (163, 34991), (186, 35051), (189, 35072), (213, 35150),

Gene: Manad\_35 Start: 33898, Stop: 34548, Start Num: 87

Candidate Starts for Manad\_35:

(40, 33751), (Start: 75 @33862 has 1 MA's), (Start: 87 @33898 has 531 MA's), (Start: 89 @33901 has 177 MA's), (Start: 113 @33982 has 1 MA's), (144, 34117), (163, 34204), (180, 34249), (194, 34327), (212, 34378), (217, 34405), (219, 34423), (230, 34501), (239, 34534), (243, 34540),

Gene: Manad\_36 Start: 34545, Stop: 35144, Start Num: 87

Candidate Starts for Manad\_36:

(27, 34341), (34, 34365), (42, 34407), (46, 34425), (50, 34440), (Start: 87 @34545 has 531 MA's), (99, 34575), (103, 34587), (115, 34626), (119, 34641), (130, 34695), (142, 34740), (144, 34746), (146, 34752), (148, 34758), (156, 34803), (157, 34806), (163, 34833), (186, 34893), (189, 34914), (213, 34992),

Gene: Mao1\_30 Start: 30794, Stop: 31438, Start Num: 84

Candidate Starts for Mao1\_30:

(22, 30554), (59, 30728), (Start: 84 @30794 has 45 MA's), (106, 30866), (116, 30899), (118, 30908), (123, 30941), (126, 30959), (131, 30974), (140, 31013), (148, 31037), (156, 31082), (176, 31130), (178, 31136), (193, 31208), (194, 31217), (197, 31226), (208, 31259), (219, 31313), (239, 31424), (241, 31427),

Gene: Mao1\_31 Start: 31435, Stop: 32034, Start Num: 87

Candidate Starts for Mao1\_31:

(42, 31297), (46, 31315), (74, 31399), (Start: 87 @31435 has 531 MA's), (Start: 97 @31447 has 2 MA's), (99, 31465), (109, 31492), (127, 31579), (144, 31636), (146, 31642), (192, 31819), (206, 31867), (234, 32005), (237, 32020),

Gene: Mariokart\_30 Start: 28038, Stop: 28670, Start Num: 87

Candidate Starts for Mariokart\_30:

(2, 27489), (24, 27828), (34, 27861), (Start: 87 @28038 has 531 MA's), (99, 28071), (109, 28098), (122, 28164), (127, 28185), (130, 28191), (156, 28299), (179, 28365), (206, 28473), (215, 28497), (216, 28506), (218, 28521), (219, 28530),

Gene: Mariokart\_29 Start: 27427, Stop: 28041, Start Num: 93

Candidate Starts for Mariokart\_29:

(Start: 93 @27427 has 16 MA's), (Start: 101 @27460 has 1 MA's), (112, 27496), (119, 27520), (125, 27559), (143, 27628), (144, 27631), (154, 27670), (156, 27688), (163, 27718), (176, 27736), (182, 27748), (232, 28000), (241, 28030),

Gene: Marley1013\_37 Start: 35708, Stop: 36307, Start Num: 87

Candidate Starts for Marley1013\_37:

(Start: 87 @35708 has 531 MA's), (99, 35738), (109, 35765), (127, 35852), (130, 35858), (148, 35921), (153, 35945), (156, 35966), (186, 36056), (206, 36140), (211, 36152), (221, 36212), (232, 36272), (237, 36293),

Gene: Marley1013\_36 Start: 35058, Stop: 35711, Start Num: 83

Candidate Starts for Marley1013\_36:

(Start: 83 @35058 has 45 MA's), (109, 35139), (143, 35286), (178, 35412), (185, 35427), (197, 35502), (231, 35667), (239, 35697),

Gene: Marlia\_36 Start: 34261, Stop: 34914, Start Num: 83

Candidate Starts for Marlia\_36:

(Start: 83 @34261 has 45 MA's), (109, 34342), (115, 34366), (143, 34489), (178, 34615), (185, 34630), (197, 34705), (231, 34870), (239, 34900),

Gene: Marlia\_37 Start: 34911, Stop: 35510, Start Num: 87

Candidate Starts for Marlia\_37:

(Start: 87 @34911 has 531 MA's), (99, 34941), (109, 34968), (127, 35055), (130, 35061), (148, 35124), (153, 35148), (186, 35259), (206, 35343), (211, 35355), (221, 35415), (237, 35496),

Gene: Maru\_35 Start: 34002, Stop: 34649, Start Num: 89

Candidate Starts for Maru\_35:

(Start: 75 @33963 has 1 MA's), (Start: 87 @33999 has 531 MA's), (Start: 89 @34002 has 177 MA's), (Start: 113 @34083 has 1 MA's), (144, 34218), (163, 34305), (180, 34350), (194, 34428), (212, 34479), (217, 34506), (219, 34524), (230, 34602), (239, 34635), (243, 34641),

Gene: Maru\_36 Start: 34646, Stop: 35245, Start Num: 87

Candidate Starts for Maru\_36:

(27, 34442), (34, 34466), (42, 34508), (46, 34526), (50, 34541), (Start: 87 @34646 has 531 MA's), (99, 34676), (103, 34688), (115, 34727), (119, 34742), (130, 34796), (142, 34841), (144, 34847), (146, 34853), (148, 34859), (156, 34904), (157, 34907), (163, 34934), (186, 34994), (189, 35015), (213, 35093),

Gene: Mask\_32 Start: 31428, Stop: 32027, Start Num: 87

Candidate Starts for Mask\_32:

(64, 31374), (74, 31392), (Start: 87 @31428 has 531 MA's), (Start: 97 @31440 has 2 MA's), (99, 31458), (109, 31485), (115, 31509), (116, 31512), (127, 31572), (144, 31629), (146, 31635), (192, 31812), (206, 31860), (234, 31998), (237, 32013),

Gene: Mask\_31 Start: 30787, Stop: 31431, Start Num: 84

Candidate Starts for Mask\_31:

(22, 30547), (59, 30721), (Start: 84 @30787 has 45 MA's), (118, 30901), (123, 30934), (126, 30952), (131, 30967), (140, 31006), (148, 31030), (156, 31075), (158, 31081), (176, 31123), (178, 31129), (193, 31201), (194, 31210), (197, 31219), (208, 31252), (219, 31306), (239, 31417), (241, 31420),

Gene: Maskar\_36 Start: 34543, Stop: 35142, Start Num: 87

Candidate Starts for Maskar\_36:

(26, 34336), (27, 34339), (34, 34363), (42, 34405), (46, 34423), (50, 34438), (Start: 87 @34543 has 531 MA's), (99, 34573), (103, 34585), (115, 34624), (119, 34639), (130, 34693), (142, 34738), (144, 34744), (146, 34750), (148, 34756), (156, 34801), (157, 34804), (163, 34831), (186, 34891), (189, 34912), (206, 34975), (213, 34990),

Gene: Maskar\_35 Start: 33899, Stop: 34546, Start Num: 89

Candidate Starts for Maskar\_35:

(Start: 75 @33860 has 1 MA's), (Start: 87 @33896 has 531 MA's), (Start: 89 @33899 has 177 MA's), (Start: 113 @33980 has 1 MA's), (144, 34115), (163, 34202), (180, 34247), (193, 34316), (194, 34325), (212, 34376), (219, 34421), (230, 34499), (239, 34532), (243, 34538),

Gene: MasterPo\_36 Start: 34690, Stop: 35334, Start Num: 84

Candidate Starts for MasterPo\_36:

(34, 34525), (59, 34636), (Start: 84 @34690 has 45 MA's), (Start: 86 @34699 has 1 MA's), (109, 34768), (116, 34795), (118, 34804), (144, 34921), (148, 34933), (176, 35026), (190, 35092), (194, 35113), (199, 35128), (201, 35134), (208, 35155), (214, 35167), (241, 35323),

Gene: MasterPo\_38 Start: 35480, Stop: 36079, Start Num: 87

Candidate Starts for MasterPo\_38:

(80, 35459), (Start: 87 @35480 has 531 MA's), (99, 35510), (106, 35531), (115, 35561), (116, 35564), (130, 35630), (144, 35681), (145, 35684), (146, 35687), (153, 35717), (156, 35738), (179, 35804), (187, 35834), (211, 35924), (213, 35927), (216, 35945), (219, 35969), (230, 36038), (237, 36065),

Gene: Matalotodo\_36 Start: 34345, Stop: 34992, Start Num: 89

Candidate Starts for Matalotodo\_36:

(Start: 75 @34306 has 1 MA's), (Start: 87 @34342 has 531 MA's), (Start: 89 @34345 has 177 MA's), (Start: 113 @34426 has 1 MA's), (144, 34561), (163, 34648), (180, 34693), (194, 34771), (212, 34822), (217, 34849), (219, 34867), (230, 34945), (239, 34978), (243, 34984),

Gene: Matalotodo\_37 Start: 34989, Stop: 35588, Start Num: 87

Candidate Starts for Matalotodo\_37:

(27, 34785), (34, 34809), (42, 34851), (46, 34869), (50, 34884), (Start: 87 @34989 has 531 MA's), (99, 35019), (103, 35031), (115, 35070), (119, 35085), (130, 35139), (142, 35184), (144, 35190), (146, 35196), (148, 35202), (156, 35247), (157, 35250), (163, 35277), (186, 35337), (189, 35358), (213, 35436),

Gene: Mcshane\_35 Start: 34042, Stop: 34689, Start Num: 89

Candidate Starts for Mcshane\_35:

(Start: 75 @34003 has 1 MA's), (Start: 87 @34039 has 531 MA's), (Start: 89 @34042 has 177 MA's), (Start: 113 @34123 has 1 MA's), (144, 34258), (163, 34345), (180, 34390), (194, 34468), (212, 34519), (217, 34546), (219, 34564), (230, 34642), (239, 34675), (243, 34681),

Gene: Mcshane\_36 Start: 34686, Stop: 35285, Start Num: 87

Candidate Starts for Mcshane\_36:

(27, 34482), (34, 34506), (42, 34548), (46, 34566), (50, 34581), (Start: 87 @34686 has 531 MA's), (99, 34716), (103, 34728), (115, 34767), (119, 34782), (130, 34836), (142, 34881), (144, 34887), (146, 34893), (148, 34899), (156, 34944), (157, 34947), (163, 34974), (186, 35034), (189, 35055), (213, 35133),

Gene: Mecca\_36 Start: 34689, Stop: 35288, Start Num: 87

Candidate Starts for Mecca\_36:

(27, 34485), (34, 34509), (42, 34551), (46, 34569), (50, 34584), (Start: 87 @34689 has 531 MA's), (99, 34719), (103, 34731), (115, 34770), (119, 34785), (130, 34839), (142, 34884), (144, 34890), (146, 34896), (148, 34902), (156, 34947), (157, 34950), (163, 34977), (186, 35037), (189, 35058), (213, 35136),

Gene: Mecca\_35 Start: 34045, Stop: 34692, Start Num: 89

Candidate Starts for Mecca\_35:

(Start: 75 @34006 has 1 MA's), (Start: 87 @34042 has 531 MA's), (Start: 89 @34045 has 177 MA's), (Start: 113 @34126 has 1 MA's), (144, 34261), (163, 34348), (180, 34393), (194, 34471), (212, 34522), (217, 34549), (219, 34567), (230, 34645), (239, 34678), (243, 34684),

Gene: Megabear\_28 Start: 31380, Stop: 32024, Start Num: 84

Candidate Starts for Megabear\_28:

(Start: 84 @31380 has 45 MA's), (91, 31398), (108, 31455), (118, 31494), (121, 31503), (131, 31560), (144, 31611), (146, 31617), (148, 31623), (163, 31698), (180, 31725), (190, 31782), (193, 31794), (201, 31824), (219, 31899), (229, 31971),

Gene: Megabear\_30 Start: 32174, Stop: 32773, Start Num: 87

Candidate Starts for Megabear\_30:

(Start: 87 @32174 has 531 MA's), (99, 32204), (106, 32225), (109, 32231), (127, 32318), (130, 32324), (144, 32375), (148, 32387), (153, 32411), (156, 32432), (160, 32450), (166, 32468), (177, 32495), (217, 32645), (219, 32663), (232, 32738), (237, 32759),

Gene: Megamind20\_37 Start: 34711, Stop: 35310, Start Num: 87

Candidate Starts for Megamind20\_37:

(27, 34507), (34, 34531), (42, 34573), (46, 34591), (50, 34606), (Start: 87 @34711 has 531 MA's), (99, 34741), (103, 34753), (115, 34792), (119, 34807), (130, 34861), (142, 34906), (144, 34912), (146, 34918), (148, 34924), (156, 34969), (157, 34972), (163, 34999), (186, 35059), (189, 35080),

Gene: Megamind20\_36 Start: 34067, Stop: 34714, Start Num: 89

Candidate Starts for Megamind20\_36:

(40, 33917), (Start: 75 @34028 has 1 MA's), (Start: 87 @34064 has 531 MA's), (Start: 89 @34067 has 177 MA's), (Start: 113 @34148 has 1 MA's), (144, 34283), (163, 34370), (180, 34415), (194, 34493), (212, 34544), (217, 34571), (219, 34589), (230, 34667), (239, 34700), (243, 34706),

Gene: Megatron\_37 Start: 34987, Stop: 35586, Start Num: 87

Candidate Starts for Megatron\_37:

(27, 34783), (34, 34807), (42, 34849), (46, 34867), (50, 34882), (Start: 87 @34987 has 531 MA's), (99, 35017), (103, 35029), (115, 35068), (119, 35083), (130, 35137), (142, 35182), (144, 35188), (146, 35194), (148, 35200), (156, 35245), (157, 35248), (163, 35275), (186, 35335), (189, 35356), (213, 35434),

Gene: Megatron\_36 Start: 34340, Stop: 34990, Start Num: 87

Candidate Starts for Megatron\_36:

(Start: 75 @34304 has 1 MA's), (Start: 87 @34340 has 531 MA's), (Start: 89 @34343 has 177 MA's), (Start: 113 @34424 has 1 MA's), (144, 34559), (163, 34646), (180, 34691), (194, 34769), (212, 34820), (217, 34847), (219, 34865), (230, 34943), (239, 34976), (243, 34982),

Gene: Melc17\_36 Start: 34340, Stop: 34987, Start Num: 89

Candidate Starts for Melc17\_36:

(Start: 75 @34301 has 1 MA's), (Start: 87 @34337 has 531 MA's), (Start: 89 @34340 has 177 MA's), (Start: 113 @34421 has 1 MA's), (144, 34556), (163, 34643), (180, 34688), (193, 34757), (194, 34766), (212, 34817), (219, 34862), (230, 34940), (239, 34973), (243, 34979),

Gene: Melc17\_37 Start: 34984, Stop: 35583, Start Num: 87

Candidate Starts for Melc17\_37:

(26, 34777), (27, 34780), (34, 34804), (42, 34846), (46, 34864), (50, 34879), (Start: 87 @34984 has 531 MA's), (99, 35014), (103, 35026), (115, 35065), (119, 35080), (130, 35134), (142, 35179), (144, 35185), (146, 35191), (148, 35197), (156, 35242), (157, 35245), (163, 35272), (189, 35353), (206, 35416), (213, 35431),

Gene: MelsMeow\_35 Start: 33948, Stop: 34595, Start Num: 89

Candidate Starts for MelsMeow\_35:

(Start: 75 @33909 has 1 MA's), (Start: 87 @33945 has 531 MA's), (Start: 89 @33948 has 177 MA's), (Start: 113 @34029 has 1 MA's), (144, 34164), (163, 34251), (180, 34296), (193, 34365), (194, 34374), (212, 34425), (219, 34470), (230, 34548), (239, 34581), (243, 34587),

Gene: MelsMeow\_36 Start: 34592, Stop: 35191, Start Num: 87

Candidate Starts for MelsMeow\_36:

(26, 34385), (27, 34388), (34, 34412), (42, 34454), (46, 34472), (50, 34487), (Start: 87 @34592 has 531 MA's), (99, 34622), (103, 34634), (115, 34673), (119, 34688), (130, 34742), (142, 34787), (144, 34793), (146, 34799), (148, 34805), (156, 34850), (157, 34853), (163, 34880), (189, 34961), (206, 35024), (213, 35039),

Gene: Mesh1\_36 Start: 34354, Stop: 35004, Start Num: 87

Candidate Starts for Mesh1\_36:



(Start: 75 @34318 has 1 MA's), (Start: 87 @34354 has 531 MA's), (Start: 89 @34357 has 177 MA's), (Start: 113 @34438 has 1 MA's), (144, 34573), (163, 34660), (180, 34705), (194, 34783), (212, 34834), (217, 34861), (219, 34879), (230, 34957), (239, 34990), (243, 34996),

Gene: Mesh1\_37 Start: 35001, Stop: 35600, Start Num: 87

Candidate Starts for Mesh1\_37:

(27, 34797), (34, 34821), (42, 34863), (46, 34881), (50, 34896), (Start: 87 @35001 has 531 MA's), (99, 35031), (103, 35043), (115, 35082), (119, 35097), (130, 35151), (142, 35196), (144, 35202), (146, 35208), (148, 35214), (156, 35259), (157, 35262), (163, 35289), (186, 35349), (189, 35370), (213, 35448),

Gene: Mesmerelda\_37 Start: 34699, Stop: 35298, Start Num: 87

Candidate Starts for Mesmerelda\_37:

(27, 34495), (34, 34519), (42, 34561), (46, 34579), (50, 34594), (Start: 87 @34699 has 531 MA's), (99, 34729), (103, 34741), (115, 34780), (119, 34795), (130, 34849), (142, 34894), (144, 34900), (146, 34906), (148, 34912), (156, 34957), (157, 34960), (163, 34987), (186, 35047), (189, 35068), (213, 35146),

Gene: Mesmerelda\_36 Start: 34055, Stop: 34702, Start Num: 89

Candidate Starts for Mesmerelda\_36:

(Start: 75 @34016 has 1 MA's), (Start: 87 @34052 has 531 MA's), (Start: 89 @34055 has 177 MA's), (Start: 113 @34136 has 1 MA's), (144, 34271), (163, 34358), (180, 34403), (194, 34481), (212, 34532), (217, 34559), (219, 34577), (230, 34655), (239, 34688), (243, 34694),

Gene: MichaelPhcott\_36 Start: 34591, Stop: 35190, Start Num: 87

Candidate Starts for MichaelPhcott\_36:

(26, 34384), (27, 34387), (34, 34411), (42, 34453), (46, 34471), (50, 34486), (Start: 87 @34591 has 531 MA's), (99, 34621), (103, 34633), (115, 34672), (119, 34687), (130, 34741), (142, 34786), (144, 34792), (146, 34798), (148, 34804), (156, 34849), (157, 34852), (163, 34879), (186, 34939), (189, 34960), (206, 35023), (213, 35038),

Gene: MichaelPhcott\_35 Start: 33944, Stop: 34594, Start Num: 87

Candidate Starts for MichaelPhcott\_35:

(Start: 75 @33908 has 1 MA's), (Start: 87 @33944 has 531 MA's), (Start: 89 @33947 has 177 MA's), (Start: 113 @34028 has 1 MA's), (144, 34163), (163, 34250), (180, 34295), (193, 34364), (194, 34373), (212, 34424), (219, 34469), (230, 34547), (239, 34580), (243, 34586),

Gene: Mikota\_37 Start: 34974, Stop: 35573, Start Num: 87

Candidate Starts for Mikota\_37:

(27, 34770), (34, 34794), (42, 34836), (46, 34854), (50, 34869), (Start: 87 @34974 has 531 MA's), (99, 35004), (103, 35016), (115, 35055), (119, 35070), (120, 35073), (130, 35124), (142, 35169), (144, 35175), (146, 35181), (148, 35187), (156, 35232), (157, 35235), (163, 35262), (186, 35322), (189, 35343), (213, 35421),

Gene: Mikota\_36 Start: 34330, Stop: 34977, Start Num: 89

Candidate Starts for Mikota\_36:

(40, 34180), (Start: 75 @34291 has 1 MA's), (Start: 87 @34327 has 531 MA's), (Start: 89 @34330 has 177 MA's), (Start: 113 @34411 has 1 MA's), (144, 34546), (163, 34633), (180, 34678), (194, 34756), (212, 34807), (217, 34834), (219, 34852), (230, 34930), (239, 34963), (243, 34969),

Gene: MiniBoss\_36 Start: 34336, Stop: 34983, Start Num: 89

Candidate Starts for MiniBoss\_36:

(40, 34186), (Start: 75 @34297 has 1 MA's), (Start: 87 @34333 has 531 MA's), (Start: 89 @34336 has 177 MA's), (Start: 113 @34417 has 1 MA's), (144, 34552), (163, 34639), (180, 34684), (194, 34762), (212, 34813), (217, 34840), (219, 34858), (230, 34936), (239, 34969), (243, 34975),

Gene: MiniBoss\_37 Start: 34980, Stop: 35579, Start Num: 87

Candidate Starts for MiniBoss\_37:

(27, 34776), (34, 34800), (42, 34842), (46, 34860), (50, 34875), (Start: 87 @34980 has 531 MA's), (99, 35010), (103, 35022), (115, 35061), (119, 35076), (120, 35079), (130, 35130), (142, 35175), (144, 35181), (146, 35187), (148, 35193), (156, 35238), (157, 35241), (163, 35268), (186, 35328), (189, 35349), (213, 35427),

Gene: MitKao\_36 Start: 34048, Stop: 34698, Start Num: 87

Candidate Starts for MitKao\_36:

(Start: 75 @34012 has 1 MA's), (Start: 87 @34048 has 531 MA's), (Start: 89 @34051 has 177 MA's), (Start: 113 @34132 has 1 MA's), (144, 34267), (163, 34354), (180, 34399), (194, 34477), (212, 34528), (217, 34555), (219, 34573), (230, 34651), (239, 34684), (243, 34690),

Gene: MitKao\_37 Start: 34695, Stop: 35294, Start Num: 87

Candidate Starts for MitKao\_37:

(26, 34488), (27, 34491), (34, 34515), (42, 34557), (46, 34575), (50, 34590), (Start: 87 @34695 has 531 MA's), (99, 34725), (103, 34737), (115, 34776), (119, 34791), (130, 34845), (142, 34890), (144, 34896), (146, 34902), (148, 34908), (156, 34953), (157, 34956), (163, 34983), (186, 35043), (189, 35064), (213, 35142),

Gene: Mithril\_33 Start: 34547, Stop: 35194, Start Num: 67

Candidate Starts for Mithril\_33:

(Start: 67 @34547 has 25 MA's), (102, 34625), (104, 34637), (123, 34709), (138, 34763), (139, 34766), (142, 34775), (154, 34823), (165, 34877), (172, 34895), (189, 34955), (193, 34967), (217, 35051), (219, 35069), (233, 35156), (234, 35159), (241, 35183),

Gene: Mithril\_34 Start: 35191, Stop: 35796, Start Num: 87

Candidate Starts for Mithril\_34:

(Start: 87 @35191 has 531 MA's), (99, 35227), (109, 35254), (115, 35278), (116, 35281), (127, 35341), (130, 35347), (142, 35392), (145, 35401), (146, 35404), (147, 35407), (153, 35434), (156, 35455), (163, 35485), (187, 35551), (189, 35566), (206, 35629), (219, 35686), (233, 35764), (237, 35782),

Gene: MmasiCarm\_37 Start: 34912, Stop: 35511, Start Num: 87

Candidate Starts for MmasiCarm\_37:

(Start: 87 @34912 has 531 MA's), (99, 34942), (109, 34969), (127, 35056), (130, 35062), (148, 35125), (153, 35149), (156, 35170), (186, 35260), (206, 35344), (211, 35356), (221, 35416), (232, 35476), (237, 35497),

Gene: MmasiCarm\_36 Start: 34262, Stop: 34915, Start Num: 83

Candidate Starts for MmasiCarm\_36:

(Start: 83 @34262 has 45 MA's), (109, 34343), (143, 34490), (178, 34616), (185, 34631), (197, 34706), (231, 34871), (232, 34874), (239, 34901),

Gene: Morgushi\_36 Start: 34052, Stop: 34699, Start Num: 89

Candidate Starts for Morgushi\_36:

(Start: 75 @34013 has 1 MA's), (Start: 87 @34049 has 531 MA's), (Start: 89 @34052 has 177 MA's), (Start: 113 @34133 has 1 MA's), (144, 34268), (163, 34355), (180, 34400), (194, 34478), (212, 34529), (217, 34556), (219, 34574), (230, 34652), (239, 34685), (243, 34691),

Gene: Morgushi\_37 Start: 34696, Stop: 35295, Start Num: 87

Candidate Starts for Morgushi\_37:

(27, 34492), (34, 34516), (42, 34558), (46, 34576), (50, 34591), (Start: 87 @34696 has 531 MA's), (99, 34726), (103, 34738), (115, 34777), (119, 34792), (130, 34846), (142, 34891), (144, 34897), (146, 34903), (148, 34909), (156, 34954), (157, 34957), (163, 34984), (186, 35044), (189, 35065), (213, 35143),

Gene: Mortcellus\_36 Start: 35564, Stop: 36163, Start Num: 87

Candidate Starts for Mortcellus\_36:

(Start: 87 @35564 has 531 MA's), (99, 35594), (109, 35621), (127, 35708), (130, 35714), (148, 35777), (153, 35801), (156, 35822), (186, 35912), (206, 35996), (211, 36008), (221, 36068), (232, 36128), (237, 36149),

Gene: Mortcellus\_35 Start: 34914, Stop: 35567, Start Num: 83

Candidate Starts for Mortcellus\_35:

(Start: 83 @34914 has 45 MA's), (109, 34995), (115, 35019), (143, 35142), (178, 35268), (185, 35283), (197, 35358), (231, 35523), (239, 35553),

Gene: Morty\_36 Start: 34352, Stop: 34999, Start Num: 89

Candidate Starts for Morty\_36:

(Start: 75 @34313 has 1 MA's), (Start: 87 @34349 has 531 MA's), (Start: 89 @34352 has 177 MA's), (Start: 113 @34433 has 1 MA's), (144, 34568), (163, 34655), (180, 34700), (194, 34778), (212, 34829), (217, 34856), (219, 34874), (230, 34952), (239, 34985), (243, 34991),

Gene: Morty\_37 Start: 34996, Stop: 35595, Start Num: 87

Candidate Starts for Morty\_37:

(27, 34792), (34, 34816), (42, 34858), (46, 34876), (50, 34891), (Start: 87 @34996 has 531 MA's), (99, 35026), (103, 35038), (115, 35077), (119, 35092), (130, 35146), (142, 35191), (144, 35197), (146, 35203), (148, 35209), (156, 35254), (157, 35257), (163, 35284), (186, 35344), (189, 35365), (213, 35443),

Gene: Morty007\_36 Start: 35058, Stop: 35711, Start Num: 83

Candidate Starts for Morty007\_36:

(Start: 83 @35058 has 45 MA's), (109, 35139), (143, 35286), (178, 35412), (185, 35427), (197, 35502), (231, 35667), (239, 35697),

Gene: Morty007\_37 Start: 35708, Stop: 36307, Start Num: 87

Candidate Starts for Morty007\_37:

(Start: 87 @35708 has 531 MA's), (99, 35738), (109, 35765), (127, 35852), (130, 35858), (148, 35921), (153, 35945), (156, 35966), (186, 36056), (206, 36140), (211, 36152), (221, 36212), (232, 36272), (237, 36293),

Gene: Mosaic\_35 Start: 34054, Stop: 34704, Start Num: 87

Candidate Starts for Mosaic\_35:

(Start: 75 @34018 has 1 MA's), (Start: 87 @34054 has 531 MA's), (Start: 89 @34057 has 177 MA's), (Start: 113 @34138 has 1 MA's), (144, 34273), (163, 34360), (180, 34405), (194, 34483), (212, 34534), (217, 34561), (219, 34579), (230, 34657), (239, 34690), (243, 34696),

Gene: Mosaic\_36 Start: 34701, Stop: 35300, Start Num: 87

Candidate Starts for Mosaic\_36:

(26, 34494), (27, 34497), (34, 34521), (42, 34563), (46, 34581), (50, 34596), (Start: 87 @34701 has 531 MA's), (99, 34731), (103, 34743), (115, 34782), (119, 34797), (130, 34851), (142, 34896), (144, 34902), (146, 34908), (148, 34914), (156, 34959), (157, 34962), (163, 34989), (186, 35049), (189,

35070), (213, 35148),

Gene: MossRose\_32 Start: 30064, Stop: 30660, Start Num: 87

Candidate Starts for MossRose\_32:

(34, 29887), (42, 29926), (43, 29935), (60, 29998), (64, 30010), (Start: 87 @30064 has 531 MA's), (99, 30094), (127, 30208), (130, 30214), (144, 30265), (146, 30271), (156, 30322), (157, 30325), (179, 30388), (185, 30400), (186, 30412), (195, 30463), (205, 30493), (213, 30511), (215, 30520), (237, 30646),

Gene: MossRose\_31 Start: 29456, Stop: 30067, Start Num: 95

Candidate Starts for MossRose\_31:

(Start: 93 @29453 has 16 MA's), (Start: 95 @29456 has 3 MA's), (112, 29522), (117, 29537), (119, 29546), (125, 29585), (131, 29606), (135, 29621), (143, 29654), (153, 29693), (154, 29696), (156, 29714), (178, 29768), (232, 30026), (241, 30056),

Gene: MrPhizzler\_35 Start: 34060, Stop: 34707, Start Num: 89

Candidate Starts for MrPhizzler\_35:

(Start: 75 @34021 has 1 MA's), (Start: 87 @34057 has 531 MA's), (Start: 89 @34060 has 177 MA's), (Start: 113 @34141 has 1 MA's), (144, 34276), (163, 34363), (180, 34408), (193, 34477), (194, 34486), (212, 34537), (219, 34582), (230, 34660), (239, 34693), (243, 34699),

Gene: MrPhizzler\_36 Start: 34704, Stop: 35303, Start Num: 87

Candidate Starts for MrPhizzler\_36:

(26, 34497), (27, 34500), (34, 34524), (42, 34566), (46, 34584), (50, 34599), (Start: 87 @34704 has 531 MA's), (99, 34734), (103, 34746), (115, 34785), (119, 34800), (130, 34854), (142, 34899), (144, 34905), (146, 34911), (148, 34917), (156, 34962), (157, 34965), (163, 34992), (186, 35052), (189, 35073), (206, 35136), (213, 35151),

Gene: Mudslide\_34 Start: 35423, Stop: 36028, Start Num: 87

Candidate Starts for Mudslide\_34:

(Start: 87 @35423 has 531 MA's), (99, 35459), (109, 35486), (115, 35510), (116, 35513), (127, 35573), (130, 35579), (142, 35624), (145, 35633), (146, 35636), (147, 35639), (153, 35666), (156, 35687), (163, 35717), (187, 35783), (189, 35798), (206, 35861), (219, 35918), (233, 35996), (237, 36014),

Gene: Mudslide\_33 Start: 34779, Stop: 35426, Start Num: 67

Candidate Starts for Mudslide\_33:

(Start: 67 @34779 has 25 MA's), (102, 34857), (104, 34869), (123, 34941), (132, 34965), (138, 34995), (139, 34998), (142, 35007), (154, 35055), (165, 35109), (172, 35127), (189, 35187), (193, 35199), (213, 35259), (217, 35283), (219, 35301), (233, 35388), (234, 35391), (241, 35415),

Gene: Mulan\_35 Start: 34069, Stop: 34716, Start Num: 89

Candidate Starts for Mulan\_35:

(Start: 75 @34030 has 1 MA's), (Start: 87 @34066 has 531 MA's), (Start: 89 @34069 has 177 MA's), (Start: 113 @34150 has 1 MA's), (144, 34285), (163, 34372), (180, 34417), (194, 34495), (212, 34546), (217, 34573), (219, 34591), (230, 34669), (239, 34702), (243, 34708),

Gene: Mulan\_36 Start: 34713, Stop: 35312, Start Num: 87

Candidate Starts for Mulan\_36:

(26, 34506), (27, 34509), (34, 34533), (42, 34575), (46, 34593), (50, 34608), (Start: 87 @34713 has 531 MA's), (99, 34743), (103, 34755), (115, 34794), (119, 34809), (130, 34863), (142, 34908), (144, 34914), (146, 34920), (148, 34926), (156, 34971), (157, 34974), (163, 35001), (186, 35061), (189, 35082), (213, 35160),

Gene: Murdoc\_37 Start: 34988, Stop: 35587, Start Num: 87

Candidate Starts for Murdoc\_37:

(27, 34784), (34, 34808), (42, 34850), (46, 34868), (50, 34883), (Start: 87 @34988 has 531 MA's), (99, 35018), (103, 35030), (115, 35069), (119, 35084), (130, 35138), (142, 35183), (144, 35189), (146, 35195), (148, 35201), (156, 35246), (157, 35249), (163, 35276), (186, 35336), (189, 35357), (213, 35435),

Gene: Murdoc\_36 Start: 34341, Stop: 34991, Start Num: 87

Candidate Starts for Murdoc\_36:

(Start: 75 @34305 has 1 MA's), (Start: 87 @34341 has 531 MA's), (Start: 89 @34344 has 177 MA's), (Start: 113 @34425 has 1 MA's), (144, 34560), (163, 34647), (180, 34692), (194, 34770), (212, 34821), (217, 34848), (219, 34866), (230, 34944), (239, 34977), (243, 34983),

Gene: Mutante\_35 Start: 34051, Stop: 34698, Start Num: 89

Candidate Starts for Mutante\_35:

(Start: 75 @34012 has 1 MA's), (Start: 87 @34048 has 531 MA's), (Start: 89 @34051 has 177 MA's), (Start: 113 @34132 has 1 MA's), (144, 34267), (163, 34354), (180, 34399), (194, 34477), (212, 34528), (217, 34555), (219, 34573), (230, 34651), (239, 34684), (243, 34690),

Gene: Mutante\_36 Start: 34695, Stop: 35294, Start Num: 87

Candidate Starts for Mutante\_36:

(27, 34491), (34, 34515), (42, 34557), (46, 34575), (50, 34590), (Start: 87 @34695 has 531 MA's), (99, 34725), (103, 34737), (115, 34776), (119, 34791), (130, 34845), (142, 34890), (144, 34896), (146, 34902), (148, 34908), (156, 34953), (157, 34956), (163, 34983), (186, 35043), (189, 35064), (213, 35142),

Gene: Mysterious\_36 Start: 35234, Stop: 35863, Start Num: 87

Candidate Starts for Mysterious\_36:

(Start: 87 @35234 has 531 MA's), (105, 35288), (116, 35324), (126, 35384), (132, 35405), (140, 35441), (143, 35450), (144, 35453), (146, 35459), (156, 35510), (176, 35558), (178, 35564), (219, 35738), (235, 35831), (241, 35852),

Gene: Mysterious\_38 Start: 35860, Stop: 36471, Start Num: 87

Candidate Starts for Mysterious\_38:

(34, 35683), (46, 35740), (50, 35755), (Start: 87 @35860 has 531 MA's), (99, 35893), (115, 35944), (127, 36007), (130, 36013), (144, 36064), (146, 36070), (148, 36076), (157, 36124), (204, 36289), (206, 36295), (213, 36310), (233, 36439), (237, 36457),

Gene: NHagos\_29 Start: 27986, Stop: 28600, Start Num: 93

Candidate Starts for NHagos\_29:

(Start: 93 @27986 has 16 MA's), (118, 28076), (119, 28079), (125, 28118), (131, 28139), (143, 28187), (144, 28190), (176, 28295), (212, 28433), (232, 28559), (241, 28589),

Gene: NHagos\_30 Start: 28597, Stop: 29193, Start Num: 87

Candidate Starts for NHagos\_30:

(34, 28420), (64, 28543), (Start: 87 @28597 has 531 MA's), (99, 28627), (109, 28654), (116, 28681), (127, 28741), (130, 28747), (143, 28795), (144, 28798), (146, 28804), (157, 28858), (166, 28891), (179, 28921), (189, 28966), (206, 29029), (209, 29035), (213, 29044), (215, 29053), (237, 29179),

Gene: Nacho\_0036 Start: 34343, Stop: 34993, Start Num: 87

Candidate Starts for Nacho\_0036:

(40, 34196), (Start: 75 @34307 has 1 MA's), (Start: 87 @34343 has 531 MA's), (Start: 89 @34346 has 177 MA's), (Start: 113 @34427 has 1 MA's), (144, 34562), (163, 34649), (180, 34694), (194, 34772),

(212, 34823), (217, 34850), (219, 34868), (230, 34946), (239, 34979), (243, 34985),

Gene: Nacho\_0037 Start: 34990, Stop: 35589, Start Num: 87

Candidate Starts for Nacho\_0037:

(27, 34786), (34, 34810), (42, 34852), (46, 34870), (50, 34885), (Start: 87 @34990 has 531 MA's), (99, 35020), (103, 35032), (115, 35071), (119, 35086), (130, 35140), (142, 35185), (144, 35191), (146, 35197), (148, 35203), (156, 35248), (157, 35251), (163, 35278), (186, 35338), (189, 35359), (213, 35437),

Gene: Nanao\_32 Start: 33505, Stop: 34152, Start Num: 67

Candidate Starts for Nanao\_32:

(Start: 67 @33505 has 25 MA's), (102, 33583), (104, 33595), (123, 33667), (132, 33691), (137, 33712), (138, 33721), (139, 33724), (142, 33733), (143, 33736), (154, 33781), (165, 33835), (172, 33853), (189, 33913), (193, 33925), (213, 33985), (217, 34009), (219, 34027), (233, 34114), (241, 34141),

Gene: Nanao\_33 Start: 34149, Stop: 34754, Start Num: 87

Candidate Starts for Nanao\_33:

(Start: 87 @34149 has 531 MA's), (99, 34185), (115, 34236), (116, 34239), (127, 34299), (130, 34305), (142, 34350), (145, 34359), (146, 34362), (147, 34365), (153, 34392), (163, 34443), (187, 34509), (189, 34524), (206, 34587), (219, 34644), (233, 34722), (237, 34740),

Gene: Nangang\_35 Start: 34921, Stop: 35550, Start Num: 87

Candidate Starts for Nangang\_35:

(Start: 87 @34921 has 531 MA's), (112, 34999), (116, 35011), (143, 35137), (146, 35146), (148, 35152), (156, 35197), (176, 35245), (178, 35251), (219, 35425), (241, 35539),

Gene: Nangang\_36 Start: 35615, Stop: 36268, Start Num: 72

Candidate Starts for Nangang\_36:

(54, 35564), (57, 35570), (65, 35600), (69, 35609), (72, 35615), (Start: 87 @35657 has 531 MA's), (99, 35690), (115, 35741), (127, 35804), (130, 35810), (144, 35861), (146, 35867), (148, 35873), (157, 35921), (204, 36086), (206, 36092), (224, 36194), (233, 36236), (237, 36254),

Gene: Nathan\_37 Start: 34382, Stop: 35029, Start Num: 89

Candidate Starts for Nathan\_37:

(Start: 75 @34343 has 1 MA's), (Start: 87 @34379 has 531 MA's), (Start: 89 @34382 has 177 MA's), (Start: 113 @34463 has 1 MA's), (144, 34598), (163, 34685), (180, 34730), (194, 34808), (212, 34859), (217, 34886), (219, 34904), (230, 34982), (239, 35015), (243, 35021),

Gene: Nathan\_38 Start: 35026, Stop: 35625, Start Num: 87

Candidate Starts for Nathan\_38:

(27, 34822), (34, 34846), (42, 34888), (46, 34906), (50, 34921), (Start: 87 @35026 has 531 MA's), (99, 35056), (103, 35068), (115, 35107), (119, 35122), (130, 35176), (142, 35221), (144, 35227), (146, 35233), (148, 35239), (156, 35284), (157, 35287), (163, 35314), (186, 35374), (189, 35395), (213, 35473),

Gene: Nehemiah\_34 Start: 35234, Stop: 35863, Start Num: 87

Candidate Starts for Nehemiah\_34:

(Start: 87 @35234 has 531 MA's), (105, 35288), (116, 35324), (126, 35384), (132, 35405), (140, 35441), (143, 35450), (144, 35453), (146, 35459), (156, 35510), (176, 35558), (178, 35564), (219, 35738), (235, 35831), (241, 35852),

Gene: Nehemiah\_36 Start: 35860, Stop: 36471, Start Num: 87

Candidate Starts for Nehemiah\_36:

(34, 35683), (46, 35740), (50, 35755), (Start: 87 @35860 has 531 MA's), (99, 35893), (115, 35944), (127, 36007), (130, 36013), (144, 36064), (146, 36070), (148, 36076), (157, 36124), (204, 36289), (206, 36295), (213, 36310), (233, 36439), (237, 36457),

Gene: Neos5\_37 Start: 35727, Stop: 36326, Start Num: 87

Candidate Starts for Neos5\_37:

(Start: 87 @35727 has 531 MA's), (99, 35757), (109, 35784), (127, 35871), (130, 35877), (148, 35940), (153, 35964), (156, 35985), (186, 36075), (206, 36159), (211, 36171), (221, 36231), (237, 36312),

Gene: Neos5\_36 Start: 35077, Stop: 35730, Start Num: 83

Candidate Starts for Neos5\_36:

(Start: 83 @35077 has 45 MA's), (109, 35158), (115, 35182), (143, 35305), (178, 35431), (185, 35446), (197, 35521), (231, 35686), (232, 35689), (239, 35716),

Gene: Newman\_36 Start: 34343, Stop: 34990, Start Num: 89

Candidate Starts for Newman\_36:

(Start: 75 @34304 has 1 MA's), (Start: 87 @34340 has 531 MA's), (Start: 89 @34343 has 177 MA's), (Start: 113 @34424 has 1 MA's), (144, 34559), (163, 34646), (180, 34691), (194, 34769), (212, 34820), (217, 34847), (219, 34865), (230, 34943), (239, 34976), (243, 34982),

Gene: Newman\_37 Start: 34987, Stop: 35586, Start Num: 87

Candidate Starts for Newman\_37:

(26, 34780), (27, 34783), (34, 34807), (42, 34849), (46, 34867), (50, 34882), (Start: 87 @34987 has 531 MA's), (99, 35017), (103, 35029), (115, 35068), (119, 35083), (130, 35137), (142, 35182), (144, 35188), (146, 35194), (148, 35200), (156, 35245), (157, 35248), (163, 35275), (186, 35335), (189, 35356), (213, 35434),

Gene: Nicole21\_37 Start: 34985, Stop: 35584, Start Num: 87

Candidate Starts for Nicole21\_37:

(27, 34781), (34, 34805), (42, 34847), (46, 34865), (50, 34880), (Start: 87 @34985 has 531 MA's), (99, 35015), (103, 35027), (115, 35066), (119, 35081), (130, 35135), (142, 35180), (144, 35186), (146, 35192), (148, 35198), (156, 35243), (157, 35246), (163, 35273), (186, 35333), (189, 35354), (206, 35417), (213, 35432),

Gene: Nicole21\_36 Start: 34338, Stop: 34988, Start Num: 87

Candidate Starts for Nicole21\_36:

(Start: 75 @34302 has 1 MA's), (Start: 87 @34338 has 531 MA's), (Start: 89 @34341 has 177 MA's), (Start: 113 @34422 has 1 MA's), (144, 34557), (163, 34644), (180, 34689), (194, 34767), (212, 34818), (217, 34845), (219, 34863), (230, 34941), (239, 34974), (243, 34980),

Gene: Nigel\_32 Start: 34065, Stop: 34670, Start Num: 87

Candidate Starts for Nigel\_32:

(Start: 87 @34065 has 531 MA's), (99, 34101), (109, 34128), (112, 34143), (115, 34152), (130, 34221), (142, 34266), (144, 34272), (146, 34278), (153, 34308), (156, 34329), (186, 34419), (187, 34425), (189, 34440), (233, 34638), (237, 34656), (242, 34665),

Gene: Nigel\_31 Start: 33421, Stop: 34068, Start Num: 67

Candidate Starts for Nigel\_31:

(Start: 67 @33421 has 25 MA's), (102, 33499), (104, 33511), (123, 33583), (132, 33607), (137, 33628), (138, 33637), (139, 33640), (141, 33646), (142, 33649), (154, 33697), (165, 33751), (172, 33769), (189, 33829), (193, 33841), (217, 33925), (219, 33943), (233, 34030), (241, 34057),

Gene: Nozo\_37 Start: 35688, Stop: 36287, Start Num: 87

Candidate Starts for Nozo\_37:

(Start: 87 @35688 has 531 MA's), (99, 35718), (109, 35745), (127, 35832), (130, 35838), (148, 35901), (153, 35925), (156, 35946), (186, 36036), (206, 36120), (211, 36132), (221, 36192), (237, 36273),

Gene: Nozo\_36 Start: 35038, Stop: 35691, Start Num: 83

Candidate Starts for Nozo\_36:

(Start: 83 @35038 has 45 MA's), (109, 35119), (115, 35143), (143, 35266), (178, 35392), (185, 35407), (197, 35482), (231, 35647), (232, 35650), (239, 35677),

Gene: Numberten\_37 Start: 34994, Stop: 35593, Start Num: 87

Candidate Starts for Numberten\_37:

(27, 34790), (34, 34814), (42, 34856), (46, 34874), (50, 34889), (Start: 87 @34994 has 531 MA's), (99, 35024), (103, 35036), (115, 35075), (119, 35090), (130, 35144), (142, 35189), (144, 35195), (146, 35201), (148, 35207), (156, 35252), (157, 35255), (163, 35282), (186, 35342), (189, 35363), (213, 35441),

Gene: Numberten\_36 Start: 34350, Stop: 34997, Start Num: 89

Candidate Starts for Numberten\_36:

(40, 34200), (Start: 75 @34311 has 1 MA's), (Start: 87 @34347 has 531 MA's), (Start: 89 @34350 has 177 MA's), (Start: 113 @34431 has 1 MA's), (144, 34566), (163, 34653), (180, 34698), (194, 34776), (212, 34827), (217, 34854), (219, 34872), (230, 34950), (239, 34983), (243, 34989),

Gene: Nyala\_36 Start: 34687, Stop: 35286, Start Num: 87

Candidate Starts for Nyala\_36:

(27, 34483), (34, 34507), (42, 34549), (46, 34567), (50, 34582), (Start: 87 @34687 has 531 MA's), (99, 34717), (103, 34729), (115, 34768), (119, 34783), (130, 34837), (142, 34882), (144, 34888), (146, 34894), (148, 34900), (156, 34945), (157, 34948), (163, 34975), (186, 35035), (189, 35056), (213, 35134),

Gene: Nyala\_35 Start: 34043, Stop: 34690, Start Num: 89

Candidate Starts for Nyala\_35:

(40, 33893), (Start: 75 @34004 has 1 MA's), (Start: 87 @34040 has 531 MA's), (Start: 89 @34043 has 177 MA's), (Start: 113 @34124 has 1 MA's), (144, 34259), (163, 34346), (180, 34391), (194, 34469), (212, 34520), (217, 34547), (219, 34565), (230, 34643), (239, 34676), (243, 34682),

Gene: OSmaximus\_37 Start: 35029, Stop: 35628, Start Num: 87

Candidate Starts for OSmaximus\_37:

(27, 34825), (34, 34849), (42, 34891), (46, 34909), (50, 34924), (Start: 87 @35029 has 531 MA's), (99, 35059), (103, 35071), (115, 35110), (119, 35125), (130, 35179), (142, 35224), (144, 35230), (146, 35236), (148, 35242), (156, 35287), (157, 35290), (163, 35317), (186, 35377), (189, 35398), (213, 35476),

Gene: OSmaximus\_36 Start: 34382, Stop: 35032, Start Num: 87

Candidate Starts for OSmaximus\_36:

(Start: 75 @34346 has 1 MA's), (Start: 87 @34382 has 531 MA's), (Start: 89 @34385 has 177 MA's), (Start: 113 @34466 has 1 MA's), (144, 34601), (163, 34688), (180, 34733), (194, 34811), (212, 34862), (217, 34889), (219, 34907), (230, 34985), (239, 35018), (243, 35024),

Gene: Obutu\_36 Start: 34262, Stop: 34915, Start Num: 83

Candidate Starts for Obutu\_36:

(Start: 83 @34262 has 45 MA's), (109, 34343), (115, 34367), (143, 34490), (178, 34616), (185, 34631), (197, 34706), (231, 34871), (239, 34901),



Gene: Obutu\_37 Start: 34912, Stop: 35511, Start Num: 87

Candidate Starts for Obutu\_37:

(26, 34708), (Start: 87 @34912 has 531 MA's), (99, 34942), (109, 34969), (127, 35056), (130, 35062), (148, 35125), (153, 35149), (186, 35260), (206, 35344), (211, 35356), (221, 35416), (232, 35476), (237, 35497),

Gene: Olak\_35 Start: 34046, Stop: 34693, Start Num: 89

Candidate Starts for Olak\_35:

(Start: 75 @34007 has 1 MA's), (Start: 87 @34043 has 531 MA's), (Start: 89 @34046 has 177 MA's), (Start: 113 @34127 has 1 MA's), (144, 34262), (163, 34349), (180, 34394), (194, 34472), (212, 34523), (217, 34550), (219, 34568), (230, 34646), (239, 34679), (243, 34685),

Gene: Olak\_36 Start: 34690, Stop: 35289, Start Num: 87

Candidate Starts for Olak\_36:

(27, 34486), (34, 34510), (42, 34552), (46, 34570), (50, 34585), (Start: 87 @34690 has 531 MA's), (99, 34720), (103, 34732), (115, 34771), (119, 34786), (130, 34840), (142, 34885), (144, 34891), (146, 34897), (148, 34903), (156, 34948), (157, 34951), (163, 34978), (186, 35038), (189, 35059), (213, 35137),

Gene: Oline\_36 Start: 34556, Stop: 35155, Start Num: 87

Candidate Starts for Oline\_36:

(26, 34349), (27, 34352), (34, 34376), (42, 34418), (46, 34436), (50, 34451), (Start: 87 @34556 has 531 MA's), (99, 34586), (103, 34598), (115, 34637), (119, 34652), (130, 34706), (142, 34751), (144, 34757), (146, 34763), (148, 34769), (156, 34814), (157, 34817), (163, 34844), (189, 34925), (206, 34988), (213, 35003),

Gene: Oline\_35 Start: 33912, Stop: 34559, Start Num: 89

Candidate Starts for Oline\_35:

(Start: 75 @33873 has 1 MA's), (Start: 87 @33909 has 531 MA's), (Start: 89 @33912 has 177 MA's), (Start: 113 @33993 has 1 MA's), (144, 34128), (163, 34215), (180, 34260), (193, 34329), (194, 34338), (212, 34389), (219, 34434), (230, 34512), (239, 34545), (243, 34551),

Gene: Olive\_36 Start: 34333, Stop: 34980, Start Num: 89

Candidate Starts for Olive\_36:

(40, 34183), (Start: 75 @34294 has 1 MA's), (Start: 87 @34330 has 531 MA's), (Start: 89 @34333 has 177 MA's), (Start: 113 @34414 has 1 MA's), (144, 34549), (163, 34636), (180, 34681), (194, 34759), (212, 34810), (217, 34837), (219, 34855), (230, 34933), (239, 34966), (243, 34972),

Gene: Olive\_37 Start: 34977, Stop: 35576, Start Num: 87

Candidate Starts for Olive\_37:

(27, 34773), (34, 34797), (42, 34839), (46, 34857), (50, 34872), (Start: 87 @34977 has 531 MA's), (99, 35007), (103, 35019), (115, 35058), (119, 35073), (130, 35127), (142, 35172), (144, 35178), (146, 35184), (148, 35190), (156, 35235), (157, 35238), (163, 35265), (186, 35325), (189, 35346),

Gene: OliverWalter\_36 Start: 34355, Stop: 35002, Start Num: 89

Candidate Starts for OliverWalter\_36:

(40, 34205), (Start: 75 @34316 has 1 MA's), (Start: 87 @34352 has 531 MA's), (Start: 89 @34355 has 177 MA's), (Start: 113 @34436 has 1 MA's), (144, 34571), (163, 34658), (180, 34703), (194, 34781), (212, 34832), (217, 34859), (219, 34877), (230, 34955), (239, 34988), (243, 34994),

Gene: OliverWalter\_37 Start: 34999, Stop: 35598, Start Num: 87

Candidate Starts for OliverWalter\_37:

(27, 34795), (34, 34819), (42, 34861), (46, 34879), (50, 34894), (Start: 87 @34999 has 531 MA's), (99, 35029), (103, 35041), (115, 35080), (119, 35095), (120, 35098), (130, 35149), (142, 35194), (144, 35200), (146, 35206), (148, 35212), (156, 35257), (157, 35260), (163, 35287), (186, 35347), (189, 35368), (213, 35446),

Gene: Olivio\_35 Start: 34131, Stop: 34784, Start Num: 83

Candidate Starts for Olivio\_35:

(Start: 83 @34131 has 45 MA's), (109, 34212), (143, 34359), (178, 34485), (185, 34500), (197, 34575), (231, 34740), (232, 34743), (239, 34770),

Gene: Olivio\_36 Start: 34781, Stop: 35380, Start Num: 87

Candidate Starts for Olivio\_36:

(Start: 87 @34781 has 531 MA's), (99, 34811), (109, 34838), (127, 34925), (130, 34931), (148, 34994), (153, 35018), (186, 35129), (206, 35213), (211, 35225), (221, 35285), (237, 35366),

Gene: Omniscient\_36 Start: 34352, Stop: 34999, Start Num: 89

Candidate Starts for Omniscient\_36:

(Start: 75 @34313 has 1 MA's), (Start: 87 @34349 has 531 MA's), (Start: 89 @34352 has 177 MA's), (Start: 113 @34433 has 1 MA's), (144, 34568), (163, 34655), (180, 34700), (194, 34778), (212, 34829), (217, 34856), (219, 34874), (230, 34952), (239, 34985), (243, 34991),

Gene: Omniscient\_37 Start: 34996, Stop: 35595, Start Num: 87

Candidate Starts for Omniscient\_37:

(27, 34792), (34, 34816), (42, 34858), (46, 34876), (50, 34891), (Start: 87 @34996 has 531 MA's), (99, 35026), (103, 35038), (115, 35077), (119, 35092), (130, 35146), (142, 35191), (144, 35197), (146, 35203), (148, 35209), (156, 35254), (157, 35257), (163, 35284), (186, 35344), (189, 35365), (213, 35443),

Gene: Oosterbaan\_36 Start: 34343, Stop: 34990, Start Num: 89

Candidate Starts for Oosterbaan\_36:

(Start: 75 @34304 has 1 MA's), (Start: 87 @34340 has 531 MA's), (Start: 89 @34343 has 177 MA's), (Start: 113 @34424 has 1 MA's), (144, 34559), (163, 34646), (180, 34691), (194, 34769), (212, 34820), (217, 34847), (219, 34865), (230, 34943), (239, 34976), (243, 34982),

Gene: Oosterbaan\_37 Start: 34987, Stop: 35586, Start Num: 87

Candidate Starts for Oosterbaan\_37:

(27, 34783), (34, 34807), (42, 34849), (46, 34867), (50, 34882), (Start: 87 @34987 has 531 MA's), (99, 35017), (103, 35029), (115, 35068), (119, 35083), (130, 35137), (142, 35182), (144, 35188), (146, 35194), (148, 35200), (156, 35245), (157, 35248), (163, 35275), (186, 35335), (189, 35356), (213, 35434),

Gene: Opia\_38 Start: 35466, Stop: 36065, Start Num: 87

Candidate Starts for Opia\_38:

(80, 35445), (Start: 87 @35466 has 531 MA's), (99, 35496), (106, 35517), (115, 35547), (116, 35550), (130, 35616), (144, 35667), (145, 35670), (146, 35673), (153, 35703), (156, 35724), (179, 35790), (187, 35820), (211, 35910), (213, 35913), (216, 35931), (219, 35955), (230, 36024), (237, 36051),

Gene: Opia\_36 Start: 34676, Stop: 35320, Start Num: 84

Candidate Starts for Opia\_36:

(34, 34511), (59, 34622), (Start: 84 @34676 has 45 MA's), (Start: 86 @34685 has 1 MA's), (109, 34754), (116, 34781), (118, 34790), (121, 34799), (144, 34907), (148, 34919), (176, 35012), (190, 35078), (194, 35099), (199, 35114), (201, 35120), (208, 35141), (214, 35153), (241, 35309),

Gene: OrangeOswald\_36 Start: 34279, Stop: 34932, Start Num: 83

Candidate Starts for OrangeOswald\_36:

(Start: 83 @34279 has 45 MA's), (109, 34360), (115, 34384), (143, 34507), (178, 34633), (185, 34648), (197, 34723), (231, 34888), (232, 34891), (239, 34918),

Gene: OrangeOswald\_37 Start: 34929, Stop: 35528, Start Num: 87

Candidate Starts for OrangeOswald\_37:

(Start: 87 @34929 has 531 MA's), (99, 34959), (109, 34986), (127, 35073), (130, 35079), (148, 35142), (153, 35166), (156, 35187), (186, 35277), (206, 35361), (211, 35373), (221, 35433), (237, 35514),

Gene: Orfeu\_36 Start: 34695, Stop: 35294, Start Num: 87

Candidate Starts for Orfeu\_36:

(27, 34491), (34, 34515), (42, 34557), (46, 34575), (50, 34590), (Start: 87 @34695 has 531 MA's), (99, 34725), (103, 34737), (115, 34776), (119, 34791), (130, 34845), (142, 34890), (144, 34896), (146, 34902), (148, 34908), (156, 34953), (157, 34956), (163, 34983), (186, 35043), (189, 35064), (213, 35142),

Gene: Orfeu\_35 Start: 34051, Stop: 34698, Start Num: 89

Candidate Starts for Orfeu\_35:

(Start: 75 @34012 has 1 MA's), (Start: 87 @34048 has 531 MA's), (Start: 89 @34051 has 177 MA's), (Start: 113 @34132 has 1 MA's), (144, 34267), (163, 34354), (180, 34399), (194, 34477), (212, 34528), (217, 34555), (219, 34573), (230, 34651), (239, 34684), (243, 34690),

Gene: Orion\_36 Start: 34341, Stop: 34988, Start Num: 89

Candidate Starts for Orion\_36:

(Start: 75 @34302 has 1 MA's), (Start: 87 @34338 has 531 MA's), (Start: 89 @34341 has 177 MA's), (Start: 113 @34422 has 1 MA's), (144, 34557), (163, 34644), (180, 34689), (194, 34767), (212, 34818), (217, 34845), (219, 34863), (230, 34941), (239, 34974), (243, 34980),

Gene: Orion\_37 Start: 34985, Stop: 35584, Start Num: 87

Candidate Starts for Orion\_37:

(27, 34781), (34, 34805), (42, 34847), (46, 34865), (50, 34880), (Start: 87 @34985 has 531 MA's), (99, 35015), (103, 35027), (115, 35066), (119, 35081), (130, 35135), (142, 35180), (144, 35186), (146, 35192), (148, 35198), (156, 35243), (157, 35246), (163, 35273), (186, 35333), (189, 35354), (213, 35432),

Gene: Orwigg\_36 Start: 34683, Stop: 35282, Start Num: 87

Candidate Starts for Orwigg\_36:

(27, 34479), (34, 34503), (42, 34545), (46, 34563), (50, 34578), (Start: 87 @34683 has 531 MA's), (99, 34713), (103, 34725), (115, 34764), (119, 34779), (130, 34833), (142, 34878), (144, 34884), (146, 34890), (148, 34896), (156, 34941), (157, 34944), (163, 34971), (186, 35031), (189, 35052),

Gene: Orwigg\_35 Start: 34039, Stop: 34686, Start Num: 89

Candidate Starts for Orwigg\_35:

(40, 33889), (Start: 75 @34000 has 1 MA's), (Start: 87 @34036 has 531 MA's), (Start: 89 @34039 has 177 MA's), (Start: 113 @34120 has 1 MA's), (144, 34255), (163, 34342), (180, 34387), (194, 34465), (212, 34516), (217, 34543), (219, 34561), (230, 34639), (239, 34672), (243, 34678),

Gene: PG1\_37 Start: 34998, Stop: 35597, Start Num: 87

Candidate Starts for PG1\_37:

(27, 34794), (34, 34818), (42, 34860), (46, 34878), (50, 34893), (Start: 87 @34998 has 531 MA's), (99, 35028), (103, 35040), (115, 35079), (119, 35094), (130, 35148), (142, 35193), (144, 35199), (146, 35205), (148, 35211), (156, 35256), (157, 35259), (163, 35286), (186, 35346), (189, 35367), (213,

35445),

Gene: PG1\_36 Start: 34354, Stop: 35001, Start Num: 89

Candidate Starts for PG1\_36:

(Start: 75 @34315 has 1 MA's), (Start: 87 @34351 has 531 MA's), (Start: 89 @34354 has 177 MA's),  
(Start: 113 @34435 has 1 MA's), (144, 34570), (163, 34657), (180, 34702), (194, 34780), (212, 34831),  
(217, 34858), (219, 34876), (230, 34954), (239, 34987), (243, 34993),

Gene: PR\_30 Start: 32778, Stop: 33377, Start Num: 87

Candidate Starts for PR\_30:

(Start: 87 @32778 has 531 MA's), (99, 32808), (106, 32829), (109, 32835), (127, 32922), (130, 32928),  
(144, 32979), (148, 32991), (153, 33015), (156, 33036), (160, 33054), (166, 33072), (177, 33099),  
(217, 33249), (219, 33267), (232, 33342), (237, 33363),

Gene: PR\_28 Start: 31984, Stop: 32628, Start Num: 84

Candidate Starts for PR\_28:

(Start: 84 @31984 has 45 MA's), (91, 32002), (108, 32059), (118, 32098), (121, 32107), (131, 32164),  
(144, 32215), (146, 32221), (148, 32227), (163, 32302), (180, 32329), (190, 32386), (193, 32398),  
(201, 32428), (219, 32503), (229, 32575),

Gene: Pacifista\_35 Start: 34045, Stop: 34692, Start Num: 89

Candidate Starts for Pacifista\_35:

(Start: 75 @34006 has 1 MA's), (Start: 87 @34042 has 531 MA's), (Start: 89 @34045 has 177 MA's),  
(Start: 113 @34126 has 1 MA's), (144, 34261), (163, 34348), (180, 34393), (194, 34471), (212, 34522),  
(217, 34549), (219, 34567), (230, 34645), (239, 34678), (243, 34684),

Gene: Pacifista\_36 Start: 34689, Stop: 35288, Start Num: 87

Candidate Starts for Pacifista\_36:

(27, 34485), (34, 34509), (42, 34551), (46, 34569), (50, 34584), (Start: 87 @34689 has 531 MA's), (99,  
34719), (103, 34731), (115, 34770), (119, 34785), (130, 34839), (142, 34884), (144, 34890), (146,  
34896), (148, 34902), (156, 34947), (157, 34950), (163, 34977), (186, 35037), (189, 35058), (213,  
35136),

Gene: PenguinLover67\_39 Start: 36861, Stop: 37469, Start Num: 87

Candidate Starts for PenguinLover67\_39:

(Start: 87 @36861 has 531 MA's), (99, 36891), (115, 36942), (127, 37005), (130, 37011), (156, 37119),  
(211, 37305), (213, 37308), (219, 37350), (223, 37374), (224, 37395), (233, 37437),

Gene: PenguinLover67\_38 Start: 36256, Stop: 36864, Start Num: 101

Candidate Starts for PenguinLover67\_38:

(31, 36019), (38, 36064), (45, 36088), (51, 36106), (55, 36127), (58, 36133), (62, 36151), (73, 36178),  
(76, 36184), (78, 36187), (Start: 87 @36217 has 531 MA's), (Start: 101 @36256 has 1 MA's), (109,  
36280), (116, 36307), (131, 36382), (144, 36433), (156, 36490), (163, 36520), (178, 36562), (190,  
36622), (208, 36685), (212, 36694), (241, 36853),

Gene: Phaedrus\_34 Start: 34199, Stop: 34852, Start Num: 83

Candidate Starts for Phaedrus\_34:

(Start: 83 @34199 has 45 MA's), (109, 34280), (143, 34427), (178, 34553), (185, 34568), (197, 34643),  
(231, 34808), (239, 34838),

Gene: Phaedrus\_35 Start: 34849, Stop: 35448, Start Num: 87

Candidate Starts for Phaedrus\_35:

(26, 34645), (Start: 87 @34849 has 531 MA's), (99, 34879), (109, 34906), (127, 34993), (130, 34999), (148, 35062), (153, 35086), (186, 35197), (206, 35281), (211, 35293), (221, 35353), (237, 35434),

Gene: Phamished\_36 Start: 34346, Stop: 34996, Start Num: 87

Candidate Starts for Phamished\_36:

(Start: 75 @34310 has 1 MA's), (Start: 87 @34346 has 531 MA's), (Start: 89 @34349 has 177 MA's), (Start: 113 @34430 has 1 MA's), (144, 34565), (163, 34652), (180, 34697), (194, 34775), (212, 34826), (217, 34853), (219, 34871), (230, 34949), (239, 34982), (243, 34988),

Gene: Phamished\_37 Start: 34993, Stop: 35592, Start Num: 87

Candidate Starts for Phamished\_37:

(27, 34789), (34, 34813), (42, 34855), (46, 34873), (50, 34888), (Start: 87 @34993 has 531 MA's), (99, 35023), (103, 35035), (115, 35074), (119, 35089), (130, 35143), (142, 35188), (144, 35194), (146, 35200), (148, 35206), (156, 35251), (157, 35254), (163, 35281), (186, 35341), (189, 35362), (213, 35440),

Gene: Phantasmagoria\_36 Start: 34688, Stop: 35332, Start Num: 84

Candidate Starts for Phantasmagoria\_36:

(12, 34319), (14, 34331), (19, 34430), (34, 34523), (59, 34634), (Start: 84 @34688 has 45 MA's), (Start: 86 @34697 has 1 MA's), (109, 34766), (116, 34793), (118, 34802), (144, 34919), (148, 34931), (176, 35024), (190, 35090), (194, 35111), (199, 35126), (201, 35132), (208, 35153), (214, 35165), (241, 35321),

Gene: Phantasmagoria\_38 Start: 35478, Stop: 36077, Start Num: 87

Candidate Starts for Phantasmagoria\_38:

(80, 35457), (Start: 87 @35478 has 531 MA's), (99, 35508), (106, 35529), (115, 35559), (116, 35562), (130, 35628), (144, 35679), (145, 35682), (146, 35685), (153, 35715), (156, 35736), (179, 35802), (187, 35832), (211, 35922), (213, 35925), (216, 35943), (219, 35967), (230, 36036), (237, 36063),

Gene: Phareon\_36 Start: 34053, Stop: 34700, Start Num: 89

Candidate Starts for Phareon\_36:

(Start: 75 @34014 has 1 MA's), (Start: 87 @34050 has 531 MA's), (Start: 89 @34053 has 177 MA's), (Start: 113 @34134 has 1 MA's), (144, 34269), (163, 34356), (180, 34401), (194, 34479), (212, 34530), (217, 34557), (219, 34575), (230, 34653), (239, 34686), (243, 34692),

Gene: Phareon\_37 Start: 34697, Stop: 35296, Start Num: 87

Candidate Starts for Phareon\_37:

(27, 34493), (34, 34517), (42, 34559), (46, 34577), (50, 34592), (Start: 87 @34697 has 531 MA's), (99, 34727), (103, 34739), (115, 34778), (119, 34793), (130, 34847), (142, 34892), (144, 34898), (146, 34904), (148, 34910), (156, 34955), (157, 34958), (163, 34985), (186, 35045), (189, 35066), (213, 35144),

Gene: PhatCats2014\_37 Start: 35002, Stop: 35601, Start Num: 87

Candidate Starts for PhatCats2014\_37:

(27, 34798), (34, 34822), (42, 34864), (46, 34882), (50, 34897), (Start: 87 @35002 has 531 MA's), (99, 35032), (103, 35044), (115, 35083), (119, 35098), (130, 35152), (142, 35197), (144, 35203), (146, 35209), (148, 35215), (156, 35260), (157, 35263), (163, 35290), (186, 35350), (189, 35371), (213, 35449),

Gene: PhatCats2014\_36 Start: 34358, Stop: 35005, Start Num: 89

Candidate Starts for PhatCats2014\_36:

(Start: 75 @34319 has 1 MA's), (Start: 87 @34355 has 531 MA's), (Start: 89 @34358 has 177 MA's), (Start: 113 @34439 has 1 MA's), (144, 34574), (163, 34661), (180, 34706), (194, 34784), (212, 34835),

(217, 34862), (219, 34880), (230, 34958), (239, 34991), (243, 34997),

Gene: PhatLouie\_37 Start: 34991, Stop: 35590, Start Num: 87

Candidate Starts for PhatLouie\_37:

(26, 34784), (27, 34787), (34, 34811), (42, 34853), (46, 34871), (50, 34886), (Start: 87 @34991 has 531 MA's), (99, 35021), (103, 35033), (115, 35072), (119, 35087), (130, 35141), (142, 35186), (144, 35192), (146, 35198), (148, 35204), (156, 35249), (157, 35252), (163, 35279), (186, 35339), (189, 35360), (206, 35423), (213, 35438),

Gene: PhatLouie\_36 Start: 34347, Stop: 34994, Start Num: 89

Candidate Starts for PhatLouie\_36:

(Start: 75 @34308 has 1 MA's), (Start: 87 @34344 has 531 MA's), (Start: 89 @34347 has 177 MA's), (Start: 113 @34428 has 1 MA's), (144, 34563), (163, 34650), (180, 34695), (193, 34764), (194, 34773), (212, 34824), (219, 34869), (230, 34947), (239, 34980), (243, 34986),

Gene: Phayeta\_38 Start: 34794, Stop: 35393, Start Num: 87

Candidate Starts for Phayeta\_38:

(Start: 87 @34794 has 531 MA's), (99, 34824), (109, 34851), (127, 34938), (130, 34944), (148, 35007), (153, 35031), (156, 35052), (186, 35142), (206, 35226), (211, 35238), (221, 35298), (237, 35379),

Gene: Phayeta\_37 Start: 34144, Stop: 34797, Start Num: 83

Candidate Starts for Phayeta\_37:

(Start: 83 @34144 has 45 MA's), (109, 34225), (143, 34372), (178, 34498), (185, 34513), (197, 34588), (231, 34753), (239, 34783),

Gene: Phelemich\_35 Start: 35233, Stop: 35862, Start Num: 87

Candidate Starts for Phelemich\_35:

(Start: 87 @35233 has 531 MA's), (105, 35287), (116, 35323), (126, 35383), (132, 35404), (140, 35440), (143, 35449), (144, 35452), (146, 35458), (156, 35509), (176, 35557), (178, 35563), (219, 35737), (235, 35830), (241, 35851),

Gene: Phelemich\_36 Start: 35859, Stop: 36470, Start Num: 87

Candidate Starts for Phelemich\_36:

(34, 35682), (46, 35739), (50, 35754), (Start: 87 @35859 has 531 MA's), (99, 35892), (115, 35943), (127, 36006), (130, 36012), (144, 36063), (146, 36069), (148, 36075), (157, 36123), (204, 36288), (206, 36294), (213, 36309), (233, 36438), (237, 36456),

Gene: PhenghisKhan\_36 Start: 34597, Stop: 35196, Start Num: 87

Candidate Starts for PhenghisKhan\_36:

(26, 34390), (27, 34393), (34, 34417), (42, 34459), (46, 34477), (50, 34492), (Start: 87 @34597 has 531 MA's), (99, 34627), (103, 34639), (115, 34678), (119, 34693), (130, 34747), (142, 34792), (144, 34798), (146, 34804), (148, 34810), (156, 34855), (157, 34858), (163, 34885), (186, 34945), (189, 34966), (206, 35029), (213, 35044),

Gene: PhenghisKhan\_35 Start: 33953, Stop: 34600, Start Num: 89

Candidate Starts for PhenghisKhan\_35:

(Start: 75 @33914 has 1 MA's), (Start: 87 @33950 has 531 MA's), (Start: 89 @33953 has 177 MA's), (Start: 113 @34034 has 1 MA's), (144, 34169), (163, 34256), (180, 34301), (193, 34370), (194, 34379), (212, 34430), (219, 34475), (230, 34553), (239, 34586), (243, 34592),

Gene: Pherdinand\_36 Start: 34349, Stop: 34996, Start Num: 89

Candidate Starts for Pherdinand\_36:

(Start: 75 @34310 has 1 MA's), (Start: 87 @34346 has 531 MA's), (Start: 89 @34349 has 177 MA's), (Start: 113 @34430 has 1 MA's), (144, 34565), (163, 34652), (180, 34697), (194, 34775), (212, 34826), (217, 34853), (219, 34871), (230, 34949), (239, 34982), (243, 34988),

Gene: Pherdinand\_37 Start: 34993, Stop: 35592, Start Num: 87

Candidate Starts for Pherdinand\_37:

(27, 34789), (34, 34813), (42, 34855), (46, 34873), (50, 34888), (Start: 87 @34993 has 531 MA's), (99, 35023), (103, 35035), (115, 35074), (119, 35089), (130, 35143), (142, 35188), (144, 35194), (146, 35200), (148, 35206), (156, 35251), (157, 35254), (163, 35281), (186, 35341), (189, 35362), (213, 35440),

Gene: Phergie\_35 Start: 33944, Stop: 34591, Start Num: 89

Candidate Starts for Phergie\_35:

(Start: 75 @33905 has 1 MA's), (Start: 87 @33941 has 531 MA's), (Start: 89 @33944 has 177 MA's), (Start: 113 @34025 has 1 MA's), (144, 34160), (163, 34247), (180, 34292), (193, 34361), (194, 34370), (212, 34421), (219, 34466), (230, 34544), (239, 34577), (243, 34583),

Gene: Phergie\_36 Start: 34588, Stop: 35187, Start Num: 87

Candidate Starts for Phergie\_36:

(26, 34381), (27, 34384), (34, 34408), (42, 34450), (46, 34468), (50, 34483), (Start: 87 @34588 has 531 MA's), (99, 34618), (103, 34630), (115, 34669), (119, 34684), (130, 34738), (142, 34783), (144, 34789), (146, 34795), (148, 34801), (156, 34846), (157, 34849), (163, 34876), (186, 34936), (189, 34957), (206, 35020), (213, 35035),

Gene: Philly\_36 Start: 34780, Stop: 35379, Start Num: 87

Candidate Starts for Philly\_36:

(Start: 87 @34780 has 531 MA's), (99, 34810), (109, 34837), (127, 34924), (130, 34930), (148, 34993), (153, 35017), (156, 35038), (186, 35128), (206, 35212), (211, 35224), (221, 35284), (232, 35344), (237, 35365),

Gene: Philly\_35 Start: 34130, Stop: 34783, Start Num: 83

Candidate Starts for Philly\_35:

(Start: 83 @34130 has 45 MA's), (109, 34211), (115, 34235), (143, 34358), (178, 34484), (185, 34499), (197, 34574), (231, 34739), (239, 34769),

Gene: Phipps\_36 Start: 34320, Stop: 34967, Start Num: 89

Candidate Starts for Phipps\_36:

(40, 34170), (Start: 75 @34281 has 1 MA's), (Start: 87 @34317 has 531 MA's), (Start: 89 @34320 has 177 MA's), (Start: 113 @34401 has 1 MA's), (144, 34536), (163, 34623), (180, 34668), (194, 34746), (212, 34797), (217, 34824), (219, 34842), (230, 34920), (239, 34953), (243, 34959),

Gene: Phipps\_37 Start: 34964, Stop: 35563, Start Num: 87

Candidate Starts for Phipps\_37:

(27, 34760), (34, 34784), (42, 34826), (46, 34844), (50, 34859), (Start: 87 @34964 has 531 MA's), (99, 34994), (103, 35006), (115, 35045), (119, 35060), (130, 35114), (142, 35159), (144, 35165), (146, 35171), (148, 35177), (156, 35222), (157, 35225), (163, 35252), (186, 35312), (189, 35333), (213, 35411),

Gene: Phleuron\_36 Start: 34594, Stop: 35193, Start Num: 87

Candidate Starts for Phleuron\_36:

(26, 34387), (27, 34390), (34, 34414), (42, 34456), (46, 34474), (50, 34489), (Start: 87 @34594 has 531 MA's), (99, 34624), (103, 34636), (115, 34675), (119, 34690), (130, 34744), (142, 34789), (144, 34795), (146, 34801), (148, 34807), (156, 34852), (157, 34855), (163, 34882), (186, 34942), (189,

34963), (206, 35026), (213, 35041),

Gene: Phleuron\_35 Start: 33950, Stop: 34597, Start Num: 89

Candidate Starts for Phleuron\_35:

(Start: 75 @33911 has 1 MA's), (Start: 87 @33947 has 531 MA's), (Start: 89 @33950 has 177 MA's), (Start: 113 @34031 has 1 MA's), (144, 34166), (163, 34253), (180, 34298), (193, 34367), (194, 34376), (212, 34427), (219, 34472), (230, 34550), (239, 34583), (243, 34589),

Gene: Phlyer\_37 Start: 35668, Stop: 36267, Start Num: 87

Candidate Starts for Phlyer\_37:

(Start: 87 @35668 has 531 MA's), (99, 35698), (109, 35725), (127, 35812), (130, 35818), (148, 35881), (153, 35905), (156, 35926), (186, 36016), (206, 36100), (211, 36112), (221, 36172), (232, 36232), (237, 36253),

Gene: Phlyer\_36 Start: 35018, Stop: 35671, Start Num: 83

Candidate Starts for Phlyer\_36:

(Start: 83 @35018 has 45 MA's), (109, 35099), (115, 35123), (143, 35246), (178, 35372), (185, 35387), (197, 35462), (231, 35627), (239, 35657),

Gene: PhrankReynolds\_36 Start: 34594, Stop: 35193, Start Num: 87

Candidate Starts for PhrankReynolds\_36:

(26, 34387), (27, 34390), (34, 34414), (42, 34456), (46, 34474), (50, 34489), (Start: 87 @34594 has 531 MA's), (99, 34624), (103, 34636), (115, 34675), (119, 34690), (130, 34744), (142, 34789), (144, 34795), (146, 34801), (148, 34807), (156, 34852), (157, 34855), (163, 34882), (186, 34942), (189, 34963), (206, 35026), (213, 35041),

Gene: PhrankReynolds\_35 Start: 33950, Stop: 34597, Start Num: 89

Candidate Starts for PhrankReynolds\_35:

(Start: 75 @33911 has 1 MA's), (Start: 87 @33947 has 531 MA's), (Start: 89 @33950 has 177 MA's), (Start: 113 @34031 has 1 MA's), (144, 34166), (163, 34253), (180, 34298), (193, 34367), (194, 34376), (212, 34427), (219, 34472), (230, 34550), (239, 34583), (243, 34589),

Gene: PhrodoBaggins\_35 Start: 34337, Stop: 34984, Start Num: 89

Candidate Starts for PhrodoBaggins\_35:

(Start: 75 @34298 has 1 MA's), (Start: 87 @34334 has 531 MA's), (Start: 89 @34337 has 177 MA's), (Start: 113 @34418 has 1 MA's), (144, 34553), (163, 34640), (180, 34685), (194, 34763), (212, 34814), (217, 34841), (219, 34859), (230, 34937), (239, 34970), (243, 34976),

Gene: PhrodoBaggins\_36 Start: 34981, Stop: 35580, Start Num: 87

Candidate Starts for PhrodoBaggins\_36:

(27, 34777), (34, 34801), (42, 34843), (46, 34861), (50, 34876), (Start: 87 @34981 has 531 MA's), (99, 35011), (103, 35023), (115, 35062), (119, 35077), (130, 35131), (142, 35176), (144, 35182), (146, 35188), (148, 35194), (156, 35239), (157, 35242), (163, 35269), (186, 35329), (189, 35350), (213, 35428),

Gene: Phunky\_37 Start: 34994, Stop: 35593, Start Num: 87

Candidate Starts for Phunky\_37:

(27, 34790), (34, 34814), (42, 34856), (46, 34874), (50, 34889), (Start: 87 @34994 has 531 MA's), (99, 35024), (103, 35036), (115, 35075), (119, 35090), (130, 35144), (142, 35189), (144, 35195), (146, 35201), (148, 35207), (156, 35252), (157, 35255), (163, 35282), (186, 35342), (189, 35363), (213, 35441),

Gene: Phunky\_36 Start: 34350, Stop: 34997, Start Num: 89



Candidate Starts for Phunky\_36:

(Start: 75 @34311 has 1 MA's), (Start: 87 @34347 has 531 MA's), (Start: 89 @34350 has 177 MA's), (Start: 113 @34431 has 1 MA's), (144, 34566), (163, 34653), (180, 34698), (194, 34776), (212, 34827), (217, 34854), (219, 34872), (230, 34950), (239, 34983), (243, 34989),

Gene: Piglet\_0035 Start: 34454, Stop: 35104, Start Num: 87

Candidate Starts for Piglet\_0035:

(Start: 75 @34418 has 1 MA's), (Start: 87 @34454 has 531 MA's), (Start: 89 @34457 has 177 MA's), (Start: 113 @34538 has 1 MA's), (144, 34673), (163, 34760), (180, 34805), (194, 34883), (212, 34934), (217, 34961), (219, 34979), (230, 35057), (239, 35090), (243, 35096),

Gene: Piglet\_0036 Start: 35101, Stop: 35700, Start Num: 87

Candidate Starts for Piglet\_0036:

(26, 34894), (27, 34897), (34, 34921), (42, 34963), (46, 34981), (50, 34996), (Start: 87 @35101 has 531 MA's), (99, 35131), (103, 35143), (115, 35182), (119, 35197), (130, 35251), (142, 35296), (144, 35302), (146, 35308), (148, 35314), (156, 35359), (157, 35362), (163, 35389), (186, 35449), (189, 35470), (213, 35548),

Gene: Pine5\_31 Start: 28838, Stop: 29461, Start Num: 90

Candidate Starts for Pine5\_31:

(90, 28838), (110, 28904), (128, 29003), (147, 29069), (151, 29093), (194, 29252), (195, 29255), (216, 29321), (231, 29426),

Gene: Pine5\_32 Start: 29465, Stop: 30058, Start Num: 85

Candidate Starts for Pine5\_32:

(Start: 85 @29465 has 1 MA's), (109, 29531), (122, 29597), (147, 29684), (153, 29711), (155, 29729), (159, 29741), (160, 29750), (166, 29768), (168, 29777), (210, 29906), (211, 29909), (213, 29912), (219, 29954), (234, 30029), (238, 30047),

Gene: PinheadLarry\_37 Start: 34707, Stop: 35306, Start Num: 87

Candidate Starts for PinheadLarry\_37:

(27, 34503), (34, 34527), (42, 34569), (46, 34587), (50, 34602), (Start: 87 @34707 has 531 MA's), (99, 34737), (103, 34749), (115, 34788), (119, 34803), (130, 34857), (142, 34902), (144, 34908), (146, 34914), (148, 34920), (156, 34965), (157, 34968), (163, 34995), (186, 35055), (189, 35076), (206, 35139), (213, 35154),

Gene: PinheadLarry\_36 Start: 34060, Stop: 34710, Start Num: 87

Candidate Starts for PinheadLarry\_36:

(Start: 75 @34024 has 1 MA's), (Start: 87 @34060 has 531 MA's), (Start: 89 @34063 has 177 MA's), (Start: 113 @34144 has 1 MA's), (144, 34279), (163, 34366), (180, 34411), (194, 34489), (212, 34540), (217, 34567), (219, 34585), (230, 34663), (239, 34696), (243, 34702),

Gene: Pinkman\_36 Start: 34550, Stop: 35149, Start Num: 87

Candidate Starts for Pinkman\_36:

(26, 34343), (27, 34346), (34, 34370), (42, 34412), (46, 34430), (50, 34445), (Start: 87 @34550 has 531 MA's), (99, 34580), (103, 34592), (115, 34631), (119, 34646), (130, 34700), (142, 34745), (144, 34751), (146, 34757), (148, 34763), (156, 34808), (157, 34811), (163, 34838), (186, 34898), (189, 34919), (206, 34982), (213, 34997),

Gene: Pinkman\_35 Start: 33906, Stop: 34553, Start Num: 89

Candidate Starts for Pinkman\_35:

(Start: 75 @33867 has 1 MA's), (Start: 87 @33903 has 531 MA's), (Start: 89 @33906 has 177 MA's), (Start: 113 @33987 has 1 MA's), (144, 34122), (163, 34209), (180, 34254), (193, 34323), (194, 34332),

(212, 34383), (219, 34428), (230, 34506), (239, 34539), (243, 34545),

Gene: Pipefish\_38 Start: 35671, Stop: 36324, Start Num: 83

Candidate Starts for Pipefish\_38:

(Start: 83 @35671 has 45 MA's), (109, 35752), (115, 35776), (143, 35899), (178, 36025), (185, 36040), (197, 36115), (231, 36280), (239, 36310),

Gene: Pipefish\_39 Start: 36321, Stop: 36920, Start Num: 87

Candidate Starts for Pipefish\_39:

(Start: 87 @36321 has 531 MA's), (99, 36351), (109, 36378), (127, 36465), (130, 36471), (148, 36534), (153, 36558), (156, 36579), (186, 36669), (206, 36753), (211, 36765), (221, 36825), (232, 36885), (237, 36906),

Gene: Pipsqueak\_36 Start: 34348, Stop: 34995, Start Num: 89

Candidate Starts for Pipsqueak\_36:

(40, 34198), (Start: 75 @34309 has 1 MA's), (Start: 87 @34345 has 531 MA's), (Start: 89 @34348 has 177 MA's), (Start: 113 @34429 has 1 MA's), (144, 34564), (163, 34651), (180, 34696), (194, 34774), (212, 34825), (217, 34852), (219, 34870), (230, 34948), (239, 34981), (243, 34987),

Gene: Pipsqueak\_37 Start: 34992, Stop: 35591, Start Num: 87

Candidate Starts for Pipsqueak\_37:

(27, 34788), (34, 34812), (42, 34854), (46, 34872), (50, 34887), (Start: 87 @34992 has 531 MA's), (99, 35022), (103, 35034), (115, 35073), (119, 35088), (130, 35142), (142, 35187), (144, 35193), (146, 35199), (148, 35205), (156, 35250), (157, 35253), (163, 35280), (186, 35340), (189, 35361), (213, 35439),

Gene: Placalicious\_36 Start: 34685, Stop: 35284, Start Num: 87

Candidate Starts for Placalicious\_36:

(27, 34481), (34, 34505), (42, 34547), (46, 34565), (50, 34580), (Start: 87 @34685 has 531 MA's), (99, 34715), (103, 34727), (115, 34766), (119, 34781), (130, 34835), (142, 34880), (144, 34886), (146, 34892), (148, 34898), (156, 34943), (157, 34946), (163, 34973), (186, 35033), (189, 35054), (213, 35132),

Gene: Placalicious\_35 Start: 34041, Stop: 34688, Start Num: 89

Candidate Starts for Placalicious\_35:

(Start: 75 @34002 has 1 MA's), (Start: 87 @34038 has 531 MA's), (Start: 89 @34041 has 177 MA's), (Start: 113 @34122 has 1 MA's), (144, 34257), (163, 34344), (180, 34389), (194, 34467), (212, 34518), (217, 34545), (219, 34563), (230, 34641), (239, 34674), (243, 34680),

Gene: Plata\_37 Start: 34706, Stop: 35305, Start Num: 87

Candidate Starts for Plata\_37:

(27, 34502), (34, 34526), (42, 34568), (46, 34586), (50, 34601), (Start: 87 @34706 has 531 MA's), (99, 34736), (103, 34748), (115, 34787), (119, 34802), (130, 34856), (142, 34901), (144, 34907), (146, 34913), (148, 34919), (156, 34964), (157, 34967), (163, 34994), (186, 35054), (189, 35075), (206, 35138), (213, 35153),

Gene: Plata\_36 Start: 34062, Stop: 34709, Start Num: 89

Candidate Starts for Plata\_36:

(40, 33912), (Start: 75 @34023 has 1 MA's), (Start: 87 @34059 has 531 MA's), (Start: 89 @34062 has 177 MA's), (Start: 113 @34143 has 1 MA's), (144, 34278), (163, 34365), (180, 34410), (194, 34488), (212, 34539), (219, 34584), (230, 34662), (239, 34695), (243, 34701),

Gene: Plmatters\_37 Start: 34991, Stop: 35590, Start Num: 87

Candidate Starts for Plmatters\_37:

(27, 34787), (34, 34811), (42, 34853), (46, 34871), (50, 34886), (Start: 87 @34991 has 531 MA's), (99, 35021), (103, 35033), (115, 35072), (119, 35087), (130, 35141), (142, 35186), (144, 35192), (146, 35198), (148, 35204), (156, 35249), (157, 35252), (163, 35279), (186, 35339), (189, 35360), (213, 35438),

Gene: Plmatters\_36 Start: 34347, Stop: 34994, Start Num: 89

Candidate Starts for Plmatters\_36:

(40, 34197), (Start: 75 @34308 has 1 MA's), (Start: 87 @34344 has 531 MA's), (Start: 89 @34347 has 177 MA's), (Start: 113 @34428 has 1 MA's), (144, 34563), (163, 34650), (180, 34695), (194, 34773), (212, 34824), (217, 34851), (219, 34869), (230, 34947), (239, 34980), (243, 34986),

Gene: Podrick\_37 Start: 34982, Stop: 35581, Start Num: 87

Candidate Starts for Podrick\_37:

(27, 34778), (34, 34802), (42, 34844), (46, 34862), (50, 34877), (Start: 87 @34982 has 531 MA's), (99, 35012), (103, 35024), (115, 35063), (119, 35078), (130, 35132), (142, 35177), (144, 35183), (146, 35189), (148, 35195), (156, 35240), (157, 35243), (163, 35270), (186, 35330), (189, 35351), (213, 35429),

Gene: Podrick\_36 Start: 34338, Stop: 34985, Start Num: 89

Candidate Starts for Podrick\_36:

(40, 34188), (Start: 75 @34299 has 1 MA's), (Start: 87 @34335 has 531 MA's), (Start: 89 @34338 has 177 MA's), (Start: 113 @34419 has 1 MA's), (144, 34554), (163, 34641), (180, 34686), (194, 34764), (212, 34815), (217, 34842), (219, 34860), (230, 34938), (239, 34971), (243, 34977),

Gene: Pops\_36 Start: 34362, Stop: 35009, Start Num: 89

Candidate Starts for Pops\_36:

(40, 34212), (Start: 75 @34323 has 1 MA's), (Start: 87 @34359 has 531 MA's), (Start: 89 @34362 has 177 MA's), (Start: 113 @34443 has 1 MA's), (144, 34578), (163, 34665), (180, 34710), (194, 34788), (212, 34839), (217, 34866), (219, 34884), (230, 34962), (239, 34995), (243, 35001),

Gene: Pops\_37 Start: 35006, Stop: 35605, Start Num: 87

Candidate Starts for Pops\_37:

(27, 34802), (34, 34826), (42, 34868), (46, 34886), (50, 34901), (Start: 87 @35006 has 531 MA's), (99, 35036), (103, 35048), (115, 35087), (119, 35102), (130, 35156), (142, 35201), (144, 35207), (146, 35213), (148, 35219), (156, 35264), (157, 35267), (163, 35294), (186, 35354), (189, 35375), (213, 35453),

Gene: Poster\_33 Start: 34150, Stop: 34755, Start Num: 87

Candidate Starts for Poster\_33:

(Start: 87 @34150 has 531 MA's), (99, 34186), (115, 34237), (116, 34240), (127, 34300), (130, 34306), (142, 34351), (145, 34360), (146, 34363), (147, 34366), (153, 34393), (163, 34444), (187, 34510), (189, 34525), (206, 34588), (219, 34645), (233, 34723), (237, 34741),

Gene: Poster\_32 Start: 33506, Stop: 34153, Start Num: 67

Candidate Starts for Poster\_32:

(Start: 67 @33506 has 25 MA's), (102, 33584), (104, 33596), (123, 33668), (132, 33692), (137, 33713), (138, 33722), (139, 33725), (142, 33734), (143, 33737), (154, 33782), (165, 33836), (172, 33854), (189, 33914), (193, 33926), (213, 33986), (217, 34010), (219, 34028), (233, 34115), (241, 34142),

Gene: Potter\_36 Start: 34706, Stop: 35305, Start Num: 87

Candidate Starts for Potter\_36:

(26, 34499), (27, 34502), (34, 34526), (42, 34568), (46, 34586), (50, 34601), (Start: 87 @34706 has 531 MA's), (99, 34736), (103, 34748), (115, 34787), (119, 34802), (130, 34856), (142, 34901), (144, 34907), (146, 34913), (148, 34919), (156, 34964), (157, 34967), (163, 34994), (186, 35054), (189, 35075), (213, 35153),

Gene: Potter\_35 Start: 34062, Stop: 34709, Start Num: 89

Candidate Starts for Potter\_35:

(Start: 75 @34023 has 1 MA's), (Start: 87 @34059 has 531 MA's), (Start: 89 @34062 has 177 MA's), (Start: 113 @34143 has 1 MA's), (144, 34278), (163, 34365), (180, 34410), (194, 34488), (212, 34539), (217, 34566), (219, 34584), (230, 34662), (239, 34695), (243, 34701),

Gene: Prickles\_37 Start: 34982, Stop: 35581, Start Num: 87

Candidate Starts for Prickles\_37:

(27, 34778), (34, 34802), (42, 34844), (46, 34862), (50, 34877), (Start: 87 @34982 has 531 MA's), (99, 35012), (103, 35024), (115, 35063), (119, 35078), (130, 35132), (142, 35177), (144, 35183), (146, 35189), (148, 35195), (156, 35240), (157, 35243), (163, 35270), (186, 35330), (189, 35351), (213, 35429),

Gene: Prickles\_36 Start: 34338, Stop: 34985, Start Num: 89

Candidate Starts for Prickles\_36:

(40, 34188), (Start: 75 @34299 has 1 MA's), (Start: 87 @34335 has 531 MA's), (Start: 89 @34338 has 177 MA's), (Start: 113 @34419 has 1 MA's), (144, 34554), (163, 34641), (180, 34686), (194, 34764), (212, 34815), (217, 34842), (219, 34860), (230, 34938), (239, 34971), (243, 34977),

Gene: Prince\_33 Start: 34689, Stop: 35336, Start Num: 67

Candidate Starts for Prince\_33:

(Start: 67 @34689 has 25 MA's), (102, 34767), (104, 34779), (123, 34851), (132, 34875), (137, 34896), (138, 34905), (139, 34908), (142, 34917), (143, 34920), (154, 34965), (165, 35019), (172, 35037), (189, 35097), (193, 35109), (213, 35169), (217, 35193), (219, 35211), (233, 35298), (241, 35325),

Gene: Prince\_34 Start: 35333, Stop: 35938, Start Num: 87

Candidate Starts for Prince\_34:

(Start: 87 @35333 has 531 MA's), (99, 35369), (109, 35396), (115, 35420), (116, 35423), (127, 35483), (130, 35489), (142, 35534), (145, 35543), (146, 35546), (147, 35549), (153, 35576), (156, 35597), (187, 35693), (189, 35708), (206, 35771), (219, 35828), (233, 35906), (237, 35924),

Gene: PrinceCharming\_36 Start: 34795, Stop: 35439, Start Num: 84

Candidate Starts for PrinceCharming\_36:

(34, 34630), (59, 34741), (Start: 84 @34795 has 45 MA's), (Start: 86 @34804 has 1 MA's), (109, 34873), (116, 34900), (118, 34909), (121, 34918), (144, 35026), (148, 35038), (176, 35131), (190, 35197), (194, 35218), (199, 35233), (201, 35239), (208, 35260), (214, 35272), (241, 35428),

Gene: PrinceCharming\_38 Start: 35585, Stop: 36184, Start Num: 87

Candidate Starts for PrinceCharming\_38:

(80, 35564), (Start: 87 @35585 has 531 MA's), (99, 35615), (106, 35636), (115, 35666), (116, 35669), (130, 35735), (144, 35786), (145, 35789), (146, 35792), (153, 35822), (156, 35843), (179, 35909), (187, 35939), (211, 36029), (213, 36032), (216, 36050), (219, 36074), (230, 36143), (237, 36170),

Gene: ProfessorX\_37 Start: 34977, Stop: 35576, Start Num: 87

Candidate Starts for ProfessorX\_37:

(27, 34773), (34, 34797), (42, 34839), (46, 34857), (50, 34872), (Start: 87 @34977 has 531 MA's), (99, 35007), (103, 35019), (115, 35058), (119, 35073), (130, 35127), (142, 35172), (144, 35178), (146, 35184), (148, 35190), (156, 35235), (157, 35238), (163, 35265), (186, 35325), (189, 35346),

Gene: ProfessorX\_36 Start: 34333, Stop: 34980, Start Num: 89

Candidate Starts for ProfessorX\_36:

(40, 34183), (Start: 75 @34294 has 1 MA's), (Start: 87 @34330 has 531 MA's), (Start: 89 @34333 has 177 MA's), (Start: 113 @34414 has 1 MA's), (144, 34549), (163, 34636), (180, 34681), (194, 34759), (212, 34810), (217, 34837), (219, 34855), (230, 34933), (239, 34966), (243, 34972),

Gene: Puhltonio\_37 Start: 34998, Stop: 35597, Start Num: 87

Candidate Starts for Puhltonio\_37:

(27, 34794), (34, 34818), (42, 34860), (46, 34878), (50, 34893), (Start: 87 @34998 has 531 MA's), (99, 35028), (103, 35040), (115, 35079), (119, 35094), (130, 35148), (142, 35193), (144, 35199), (146, 35205), (148, 35211), (156, 35256), (157, 35259), (163, 35286), (186, 35346), (189, 35367), (213, 35445),

Gene: Puhltonio\_36 Start: 34351, Stop: 35001, Start Num: 87

Candidate Starts for Puhltonio\_36:

(Start: 75 @34315 has 1 MA's), (Start: 87 @34351 has 531 MA's), (Start: 89 @34354 has 177 MA's), (Start: 113 @34435 has 1 MA's), (144, 34570), (163, 34657), (180, 34702), (194, 34780), (212, 34831), (217, 34858), (219, 34876), (230, 34954), (239, 34987), (243, 34993),

Gene: QueenBeane\_37 Start: 34988, Stop: 35587, Start Num: 87

Candidate Starts for QueenBeane\_37:

(27, 34784), (34, 34808), (42, 34850), (46, 34868), (50, 34883), (Start: 87 @34988 has 531 MA's), (99, 35018), (103, 35030), (115, 35069), (119, 35084), (130, 35138), (142, 35183), (144, 35189), (146, 35195), (148, 35201), (156, 35246), (157, 35249), (163, 35276), (186, 35336), (189, 35357), (213, 35435),

Gene: QueenBeane\_36 Start: 34341, Stop: 34991, Start Num: 87

Candidate Starts for QueenBeane\_36:

(Start: 75 @34305 has 1 MA's), (Start: 87 @34341 has 531 MA's), (Start: 89 @34344 has 177 MA's), (Start: 113 @34425 has 1 MA's), (144, 34560), (163, 34647), (180, 34692), (194, 34770), (212, 34821), (217, 34848), (219, 34866), (230, 34944), (239, 34977), (243, 34983),

Gene: QueenPie\_32 Start: 34630, Stop: 35277, Start Num: 67

Candidate Starts for QueenPie\_32:

(Start: 67 @34630 has 25 MA's), (102, 34708), (104, 34720), (123, 34792), (137, 34837), (138, 34846), (139, 34849), (142, 34858), (143, 34861), (154, 34906), (172, 34978), (189, 35038), (193, 35050), (213, 35110), (217, 35134), (219, 35152), (233, 35239), (234, 35242), (241, 35266),

Gene: QueenPie\_33 Start: 35274, Stop: 35879, Start Num: 87

Candidate Starts for QueenPie\_33:

(Start: 87 @35274 has 531 MA's), (99, 35310), (115, 35361), (116, 35364), (127, 35424), (130, 35430), (142, 35475), (145, 35484), (146, 35487), (147, 35490), (153, 35517), (156, 35538), (163, 35568), (187, 35634), (189, 35649), (206, 35712), (219, 35769), (233, 35847), (237, 35865),

Gene: Quesadilla\_39 Start: 36872, Stop: 37483, Start Num: 89

Candidate Starts for Quesadilla\_39:

(52, 36764), (Start: 89 @36872 has 177 MA's), (99, 36905), (109, 36932), (115, 36956), (127, 37019), (130, 37025), (146, 37082), (156, 37133), (157, 37136), (177, 37196), (189, 37244), (198, 37280), (206, 37307), (213, 37322), (219, 37364), (224, 37409),

Gene: Quesadilla\_38 Start: 36243, Stop: 36872, Start Num: 97

Candidate Starts for Quesadilla\_38:

(31, 36030), (38, 36075), (39, 36078), (45, 36099), (49, 36108), (55, 36138), (62, 36162), (71, 36186), (76, 36195), (Start: 87 @36228 has 531 MA's), (Start: 97 @36243 has 2 MA's), (98, 36249), (117, 36321), (118, 36327), (119, 36330), (146, 36450), (153, 36480), (156, 36501), (186, 36600), (241, 36861),

Gene: Quisquilliae\_36 Start: 34372, Stop: 35019, Start Num: 89

Candidate Starts for Quisquilliae\_36:

(40, 34222), (Start: 75 @34333 has 1 MA's), (Start: 87 @34369 has 531 MA's), (Start: 89 @34372 has 177 MA's), (Start: 113 @34453 has 1 MA's), (144, 34588), (163, 34675), (180, 34720), (194, 34798), (212, 34849), (217, 34876), (219, 34894), (230, 34972), (239, 35005), (243, 35011),

Gene: Quisquilliae\_37 Start: 35016, Stop: 35615, Start Num: 87

Candidate Starts for Quisquilliae\_37:

(27, 34812), (34, 34836), (42, 34878), (46, 34896), (50, 34911), (Start: 87 @35016 has 531 MA's), (99, 35046), (103, 35058), (115, 35097), (119, 35112), (130, 35166), (142, 35211), (144, 35217), (146, 35223), (148, 35229), (156, 35274), (157, 35277), (163, 35304), (186, 35364), (189, 35385), (213, 35463),

Gene: Qyrzula\_35 Start: 35624, Stop: 36223, Start Num: 87

Candidate Starts for Qyrzula\_35:

(80, 35603), (Start: 87 @35624 has 531 MA's), (99, 35654), (106, 35675), (115, 35705), (116, 35708), (130, 35774), (144, 35825), (145, 35828), (146, 35831), (153, 35861), (156, 35882), (179, 35948), (187, 35978), (211, 36068), (213, 36071), (216, 36089), (219, 36113), (230, 36182), (237, 36209),

Gene: Qyrzula\_34 Start: 34834, Stop: 35478, Start Num: 84

Candidate Starts for Qyrzula\_34:

(23, 34633), (Start: 84 @34834 has 45 MA's), (Start: 86 @34843 has 1 MA's), (109, 34912), (116, 34939), (118, 34948), (140, 35053), (144, 35065), (148, 35077), (176, 35170), (190, 35236), (194, 35257), (199, 35272), (201, 35278), (208, 35299), (214, 35311), (241, 35467),

Gene: RagingRooster\_37 Start: 34930, Stop: 35529, Start Num: 87

Candidate Starts for RagingRooster\_37:

(Start: 87 @34930 has 531 MA's), (99, 34960), (109, 34987), (127, 35074), (148, 35143), (153, 35167), (156, 35188), (186, 35278), (206, 35362), (211, 35374), (221, 35434), (232, 35494), (237, 35515),

Gene: RagingRooster\_36 Start: 34280, Stop: 34933, Start Num: 83

Candidate Starts for RagingRooster\_36:

(Start: 83 @34280 has 45 MA's), (109, 34361), (115, 34385), (143, 34508), (178, 34634), (185, 34649), (197, 34724), (231, 34889), (232, 34892), (239, 34919),

Gene: RawrgerThat\_34 Start: 35178, Stop: 35783, Start Num: 87

Candidate Starts for RawrgerThat\_34:

(Start: 87 @35178 has 531 MA's), (99, 35214), (109, 35241), (115, 35265), (116, 35268), (127, 35328), (130, 35334), (142, 35379), (145, 35388), (146, 35391), (147, 35394), (153, 35421), (156, 35442), (163, 35472), (187, 35538), (189, 35553), (206, 35616), (219, 35673), (233, 35751), (237, 35769),

Gene: RawrgerThat\_33 Start: 34534, Stop: 35181, Start Num: 67

Candidate Starts for RawrgerThat\_33:

(Start: 67 @34534 has 25 MA's), (102, 34612), (104, 34624), (123, 34696), (138, 34750), (139, 34753), (142, 34762), (154, 34810), (165, 34864), (172, 34882), (189, 34942), (193, 34954), (217, 35038), (219, 35056), (233, 35143), (234, 35146), (241, 35170),

Gene: RedMaple\_36 Start: 34995, Stop: 35594, Start Num: 87

Candidate Starts for RedMaple\_36:

(27, 34791), (34, 34815), (42, 34857), (46, 34875), (50, 34890), (Start: 87 @34995 has 531 MA's), (99, 35025), (103, 35037), (115, 35076), (119, 35091), (130, 35145), (142, 35190), (144, 35196), (146, 35202), (148, 35208), (156, 35253), (157, 35256), (163, 35283), (186, 35343), (189, 35364), (213, 35442),

Gene: RedMaple\_35 Start: 34351, Stop: 34998, Start Num: 89

Candidate Starts for RedMaple\_35:

(40, 34201), (Start: 75 @34312 has 1 MA's), (Start: 87 @34348 has 531 MA's), (Start: 89 @34351 has 177 MA's), (Start: 113 @34432 has 1 MA's), (144, 34567), (163, 34654), (180, 34699), (194, 34777), (212, 34828), (217, 34855), (219, 34873), (230, 34951), (239, 34984), (243, 34990),

Gene: Reprobate\_36 Start: 35864, Stop: 36475, Start Num: 87

Candidate Starts for Reprobate\_36:

(34, 35687), (46, 35744), (50, 35759), (Start: 87 @35864 has 531 MA's), (99, 35897), (115, 35948), (127, 36011), (130, 36017), (144, 36068), (146, 36074), (148, 36080), (157, 36128), (204, 36293), (206, 36299), (213, 36314), (233, 36443), (237, 36461),

Gene: Reprobate\_35 Start: 35238, Stop: 35867, Start Num: 87

Candidate Starts for Reprobate\_35:

(Start: 87 @35238 has 531 MA's), (105, 35292), (116, 35328), (126, 35388), (132, 35409), (140, 35445), (143, 35454), (144, 35457), (146, 35463), (156, 35514), (176, 35562), (178, 35568), (219, 35742), (235, 35835), (241, 35856),

Gene: Rhinoforte\_38 Start: 35587, Stop: 36186, Start Num: 87

Candidate Starts for Rhinoforte\_38:

(80, 35566), (Start: 87 @35587 has 531 MA's), (99, 35617), (106, 35638), (115, 35668), (116, 35671), (130, 35737), (144, 35788), (145, 35791), (146, 35794), (153, 35824), (156, 35845), (179, 35911), (187, 35941), (211, 36031), (213, 36034), (216, 36052), (219, 36076), (230, 36145), (237, 36172),

Gene: Rhinoforte\_36 Start: 34797, Stop: 35441, Start Num: 84

Candidate Starts for Rhinoforte\_36:

(34, 34632), (59, 34743), (Start: 84 @34797 has 45 MA's), (Start: 86 @34806 has 1 MA's), (109, 34875), (116, 34902), (118, 34911), (121, 34920), (144, 35028), (148, 35040), (176, 35133), (190, 35199), (194, 35220), (199, 35235), (201, 35241), (208, 35262), (214, 35274), (241, 35430),

Gene: Rich\_34 Start: 34744, Stop: 35373, Start Num: 87

Candidate Starts for Rich\_34:

(Start: 87 @34744 has 531 MA's), (112, 34822), (116, 34834), (126, 34894), (143, 34960), (146, 34969), (148, 34975), (156, 35020), (176, 35068), (178, 35074), (219, 35248), (235, 35341), (241, 35362),

Gene: Rich\_35 Start: 35480, Stop: 36088, Start Num: 87

Candidate Starts for Rich\_35:

(Start: 87 @35480 has 531 MA's), (99, 35510), (130, 35630), (135, 35645), (144, 35681), (146, 35687), (148, 35693), (157, 35741), (204, 35906), (206, 35912), (224, 36014), (233, 36056), (237, 36074),

Gene: Ricotta\_35 Start: 34070, Stop: 34717, Start Num: 89

Candidate Starts for Ricotta\_35:

(Start: 75 @34031 has 1 MA's), (Start: 87 @34067 has 531 MA's), (Start: 89 @34070 has 177 MA's), (Start: 113 @34151 has 1 MA's), (144, 34286), (163, 34373), (180, 34418), (194, 34496), (212, 34547), (217, 34574), (219, 34592), (230, 34670), (239, 34703), (243, 34709),

Gene: Ricotta\_36 Start: 34714, Stop: 35313, Start Num: 87

Candidate Starts for Ricotta\_36:

(27, 34510), (34, 34534), (42, 34576), (46, 34594), (50, 34609), (Start: 87 @34714 has 531 MA's), (99, 34744), (103, 34756), (115, 34795), (119, 34810), (130, 34864), (142, 34909), (144, 34915), (146, 34921), (148, 34927), (156, 34972), (157, 34975), (163, 35002), (186, 35062), (189, 35083), (213, 35161),

Gene: Riggan\_36 Start: 34328, Stop: 34978, Start Num: 87

Candidate Starts for Riggan\_36:

(40, 34181), (Start: 75 @34292 has 1 MA's), (Start: 87 @34328 has 531 MA's), (Start: 89 @34331 has 177 MA's), (Start: 113 @34412 has 1 MA's), (144, 34547), (163, 34634), (180, 34679), (194, 34757), (212, 34808), (217, 34835), (219, 34853), (230, 34931), (239, 34964), (243, 34970),

Gene: Riggan\_37 Start: 34975, Stop: 35574, Start Num: 87

Candidate Starts for Riggan\_37:

(27, 34771), (34, 34795), (42, 34837), (46, 34855), (50, 34870), (Start: 87 @34975 has 531 MA's), (99, 35005), (115, 35056), (119, 35071), (130, 35125), (142, 35170), (144, 35176), (146, 35182), (148, 35188), (156, 35233), (157, 35236), (163, 35263), (186, 35323), (189, 35344), (213, 35422),

Gene: Rimu\_37 Start: 34080, Stop: 34727, Start Num: 89

Candidate Starts for Rimu\_37:

(Start: 75 @34041 has 1 MA's), (Start: 87 @34077 has 531 MA's), (Start: 89 @34080 has 177 MA's), (Start: 113 @34161 has 1 MA's), (144, 34296), (163, 34383), (180, 34428), (193, 34497), (194, 34506), (212, 34557), (219, 34602), (230, 34680), (239, 34713), (243, 34719),

Gene: Rimu\_38 Start: 34724, Stop: 35323, Start Num: 87

Candidate Starts for Rimu\_38:

(26, 34517), (27, 34520), (34, 34544), (42, 34586), (46, 34604), (50, 34619), (Start: 87 @34724 has 531 MA's), (99, 34754), (103, 34766), (115, 34805), (119, 34820), (130, 34874), (142, 34919), (144, 34925), (146, 34931), (148, 34937), (156, 34982), (157, 34985), (163, 35012), (186, 35072), (189, 35093), (206, 35156), (213, 35171),

Gene: Rinke\_37 Start: 35800, Stop: 36447, Start Num: 87

Candidate Starts for Rinke\_37:

(81, 35779), (Start: 87 @35800 has 531 MA's), (112, 35875), (117, 35893), (118, 35899), (129, 35962), (140, 36004), (143, 36013), (144, 36016), (146, 36022), (171, 36133), (190, 36208), (212, 36280), (219, 36322), (234, 36412), (239, 36433), (241, 36436),

Gene: Rinke\_38 Start: 36444, Stop: 37049, Start Num: 87

Candidate Starts for Rinke\_38:

(63, 36390), (Start: 87 @36444 has 531 MA's), (Start: 95 @36450 has 3 MA's), (99, 36474), (103, 36486), (109, 36501), (112, 36516), (115, 36525), (127, 36588), (130, 36594), (142, 36639), (144, 36645), (146, 36651), (150, 36675), (153, 36681), (156, 36702), (177, 36765), (211, 36888), (213, 36891), (219, 36933), (223, 36957), (224, 36978), (232, 37017), (233, 37020), (235, 37026), (237, 37038),

Gene: Rita130\_36 Start: 35586, Stop: 36194, Start Num: 87

Candidate Starts for Rita130\_36:

(17, 35253), (27, 35385), (34, 35409), (46, 35466), (Start: 87 @35586 has 531 MA's), (99, 35616), (124, 35715), (127, 35730), (130, 35736), (135, 35751), (144, 35787), (146, 35793), (148, 35799), (157, 35847), (206, 36018), (209, 36024), (233, 36162), (237, 36180),

Gene: Rita130\_35 Start: 34960, Stop: 35589, Start Num: 87



Candidate Starts for Rita130\_35:

(Start: 87 @34960 has 531 MA's), (112, 35038), (116, 35050), (126, 35110), (143, 35176), (146, 35185), (148, 35191), (156, 35236), (176, 35284), (178, 35290), (219, 35464), (241, 35578),

Gene: Rita1961\_37 Start: 34913, Stop: 35512, Start Num: 87

Candidate Starts for Rita1961\_37:

(26, 34709), (Start: 87 @34913 has 531 MA's), (99, 34943), (109, 34970), (127, 35057), (130, 35063), (148, 35126), (153, 35150), (186, 35261), (206, 35345), (211, 35357), (221, 35417), (237, 35498),

Gene: Rita1961\_36 Start: 34263, Stop: 34916, Start Num: 83

Candidate Starts for Rita1961\_36:

(Start: 83 @34263 has 45 MA's), (109, 34344), (115, 34368), (143, 34491), (178, 34617), (185, 34632), (197, 34707), (231, 34872), (239, 34902),

Gene: Riverton\_35 Start: 34352, Stop: 34999, Start Num: 89

Candidate Starts for Riverton\_35:

(40, 34202), (Start: 75 @34313 has 1 MA's), (Start: 87 @34349 has 531 MA's), (Start: 89 @34352 has 177 MA's), (Start: 113 @34433 has 1 MA's), (144, 34568), (163, 34655), (180, 34700), (194, 34778), (212, 34829), (217, 34856), (219, 34874), (230, 34952), (239, 34985), (243, 34991),

Gene: Riverton\_36 Start: 34996, Stop: 35595, Start Num: 87

Candidate Starts for Riverton\_36:

(27, 34792), (34, 34816), (42, 34858), (46, 34876), (50, 34891), (Start: 87 @34996 has 531 MA's), (99, 35026), (103, 35038), (115, 35077), (119, 35092), (130, 35146), (142, 35191), (144, 35197), (146, 35203), (148, 35209), (156, 35254), (157, 35257), (163, 35284), (186, 35344), (189, 35365), (213, 35443),

Gene: Robyn\_35 Start: 33915, Stop: 34562, Start Num: 89

Candidate Starts for Robyn\_35:

(40, 33765), (Start: 75 @33876 has 1 MA's), (Start: 87 @33912 has 531 MA's), (Start: 89 @33915 has 177 MA's), (Start: 113 @33996 has 1 MA's), (144, 34131), (163, 34218), (180, 34263), (194, 34341), (212, 34392), (217, 34419), (219, 34437), (230, 34515), (239, 34548), (243, 34554),

Gene: Robyn\_36 Start: 34559, Stop: 35158, Start Num: 87

Candidate Starts for Robyn\_36:

(27, 34355), (34, 34379), (42, 34421), (46, 34439), (50, 34454), (Start: 87 @34559 has 531 MA's), (99, 34589), (103, 34601), (115, 34640), (119, 34655), (130, 34709), (142, 34754), (144, 34760), (146, 34766), (148, 34772), (156, 34817), (157, 34820), (163, 34847), (186, 34907), (189, 34928), (213, 35006),

Gene: Roliet\_37 Start: 34984, Stop: 35583, Start Num: 87

Candidate Starts for Roliet\_37:

(27, 34780), (34, 34804), (42, 34846), (46, 34864), (50, 34879), (Start: 87 @34984 has 531 MA's), (99, 35014), (103, 35026), (115, 35065), (119, 35080), (130, 35134), (142, 35179), (144, 35185), (146, 35191), (148, 35197), (156, 35242), (157, 35245), (163, 35272), (186, 35332), (189, 35353), (213, 35431),

Gene: Roliet\_36 Start: 34337, Stop: 34987, Start Num: 87

Candidate Starts for Roliet\_36:

(40, 34190), (Start: 75 @34301 has 1 MA's), (Start: 87 @34337 has 531 MA's), (Start: 89 @34340 has 177 MA's), (Start: 113 @34421 has 1 MA's), (144, 34556), (163, 34643), (180, 34688), (194, 34766), (212, 34817), (217, 34844), (219, 34862), (230, 34940), (239, 34973), (243, 34979),

Gene: RomaT\_36 Start: 35053, Stop: 35706, Start Num: 83

Candidate Starts for RomaT\_36:

(Start: 83 @35053 has 45 MA's), (109, 35134), (115, 35158), (143, 35281), (178, 35407), (185, 35422), (197, 35497), (231, 35662),

Gene: RomaT\_37 Start: 35703, Stop: 36302, Start Num: 87

Candidate Starts for RomaT\_37:

(Start: 87 @35703 has 531 MA's), (99, 35733), (109, 35760), (127, 35847), (130, 35853), (148, 35916), (153, 35940), (156, 35961), (186, 36051), (206, 36135), (211, 36147), (221, 36207), (232, 36267), (237, 36288),

Gene: Roscoe\_37 Start: 34578, Stop: 35225, Start Num: 89

Candidate Starts for Roscoe\_37:

(40, 34428), (Start: 75 @34539 has 1 MA's), (Start: 87 @34575 has 531 MA's), (Start: 89 @34578 has 177 MA's), (Start: 113 @34659 has 1 MA's), (144, 34794), (163, 34881), (180, 34926), (194, 35004), (212, 35055), (217, 35082), (219, 35100), (230, 35178), (239, 35211), (243, 35217),

Gene: Roscoe\_38 Start: 35222, Stop: 35821, Start Num: 87

Candidate Starts for Roscoe\_38:

(27, 35018), (34, 35042), (42, 35084), (46, 35102), (50, 35117), (Start: 87 @35222 has 531 MA's), (99, 35252), (103, 35264), (115, 35303), (119, 35318), (130, 35372), (142, 35417), (144, 35423), (146, 35429), (148, 35435), (156, 35480), (157, 35483), (163, 35510), (186, 35570), (189, 35591),

Gene: Rosebush\_37 Start: 35594, Stop: 36193, Start Num: 87

Candidate Starts for Rosebush\_37:

(80, 35573), (Start: 87 @35594 has 531 MA's), (99, 35624), (106, 35645), (115, 35675), (116, 35678), (130, 35744), (144, 35795), (145, 35798), (146, 35801), (153, 35831), (156, 35852), (179, 35918), (187, 35948), (211, 36038), (213, 36041), (216, 36059), (219, 36083), (230, 36152), (237, 36179),

Gene: Rosebush\_36 Start: 34804, Stop: 35448, Start Num: 84

Candidate Starts for Rosebush\_36:

(34, 34639), (59, 34750), (Start: 84 @34804 has 45 MA's), (Start: 86 @34813 has 1 MA's), (109, 34882), (116, 34909), (118, 34918), (121, 34927), (144, 35035), (148, 35047), (176, 35140), (190, 35206), (194, 35227), (199, 35242), (201, 35248), (208, 35269), (214, 35281), (241, 35437),

Gene: Roy17\_37 Start: 34688, Stop: 35287, Start Num: 87

Candidate Starts for Roy17\_37:

(27, 34484), (34, 34508), (42, 34550), (46, 34568), (50, 34583), (Start: 87 @34688 has 531 MA's), (99, 34718), (103, 34730), (115, 34769), (119, 34784), (130, 34838), (142, 34883), (144, 34889), (146, 34895), (148, 34901), (156, 34946), (157, 34949), (163, 34976), (186, 35036), (189, 35057),

Gene: Roy17\_36 Start: 34044, Stop: 34691, Start Num: 89

Candidate Starts for Roy17\_36:

(40, 33894), (Start: 75 @34005 has 1 MA's), (Start: 87 @34041 has 531 MA's), (Start: 89 @34044 has 177 MA's), (Start: 113 @34125 has 1 MA's), (144, 34260), (163, 34347), (180, 34392), (194, 34470), (212, 34521), (217, 34548), (219, 34566), (230, 34644), (239, 34677), (243, 34683),

Gene: SDcharge11\_37 Start: 34962, Stop: 35561, Start Num: 87

Candidate Starts for SDcharge11\_37:

(27, 34758), (34, 34782), (42, 34824), (46, 34842), (50, 34857), (Start: 87 @34962 has 531 MA's), (99, 34992), (103, 35004), (115, 35043), (119, 35058), (130, 35112), (142, 35157), (144, 35163), (146, 35169), (148, 35175), (156, 35220), (157, 35223), (163, 35250), (186, 35310), (189, 35331), (213, 35409),

Gene: SDcharge11\_36 Start: 34315, Stop: 34965, Start Num: 87

Candidate Starts for SDcharge11\_36:

(40, 34168), (Start: 75 @34279 has 1 MA's), (Start: 87 @34315 has 531 MA's), (Start: 89 @34318 has 177 MA's), (Start: 113 @34399 has 1 MA's), (144, 34534), (163, 34621), (180, 34666), (194, 34744), (212, 34795), (217, 34822), (219, 34840), (230, 34918), (239, 34951), (243, 34957),

Gene: Sabella\_37 Start: 35471, Stop: 36070, Start Num: 87

Candidate Starts for Sabella\_37:

(80, 35450), (Start: 87 @35471 has 531 MA's), (99, 35501), (106, 35522), (115, 35552), (116, 35555), (130, 35621), (144, 35672), (145, 35675), (146, 35678), (153, 35708), (156, 35729), (179, 35795), (187, 35825), (211, 35915), (213, 35918), (216, 35936), (219, 35960), (230, 36029), (237, 36056),

Gene: Sabella\_36 Start: 34681, Stop: 35325, Start Num: 84

Candidate Starts for Sabella\_36:

(34, 34516), (59, 34627), (Start: 84 @34681 has 45 MA's), (Start: 86 @34690 has 1 MA's), (109, 34759), (116, 34786), (118, 34795), (121, 34804), (144, 34912), (148, 34924), (176, 35017), (190, 35083), (194, 35104), (199, 35119), (201, 35125), (208, 35146), (214, 35158), (241, 35314),

Gene: Saguaro\_37 Start: 35881, Stop: 36525, Start Num: 87

Candidate Starts for Saguaro\_37:

(82, 35872), (Start: 87 @35881 has 531 MA's), (Start: 97 @35896 has 2 MA's), (99, 35914), (112, 35959), (118, 35980), (135, 36061), (144, 36097), (156, 36154), (176, 36220), (178, 36226), (190, 36286), (236, 36499), (241, 36514),

Gene: Saguaro\_38 Start: 36522, Stop: 37121, Start Num: 87

Candidate Starts for Saguaro\_38:

(9, 36129), (27, 36321), (34, 36345), (63, 36468), (Start: 87 @36522 has 531 MA's), (99, 36552), (112, 36594), (127, 36666), (130, 36672), (144, 36723), (146, 36729), (148, 36735), (156, 36780), (157, 36783), (206, 36954), (211, 36966), (213, 36969),

Gene: Samaymay\_36 Start: 34344, Stop: 34991, Start Num: 89

Candidate Starts for Samaymay\_36:

(Start: 75 @34305 has 1 MA's), (Start: 87 @34341 has 531 MA's), (Start: 89 @34344 has 177 MA's), (Start: 113 @34425 has 1 MA's), (144, 34560), (163, 34647), (180, 34692), (194, 34770), (212, 34821), (217, 34848), (219, 34866), (230, 34944), (239, 34977), (243, 34983),

Gene: Samaymay\_37 Start: 34988, Stop: 35587, Start Num: 87

Candidate Starts for Samaymay\_37:

(27, 34784), (34, 34808), (42, 34850), (46, 34868), (50, 34883), (Start: 87 @34988 has 531 MA's), (99, 35018), (103, 35030), (115, 35069), (119, 35084), (130, 35138), (142, 35183), (144, 35189), (146, 35195), (148, 35201), (156, 35246), (157, 35249), (163, 35276), (186, 35336), (189, 35357), (213, 35435),

Gene: SassyCat97\_36 Start: 34694, Stop: 35293, Start Num: 87

Candidate Starts for SassyCat97\_36:

(27, 34490), (34, 34514), (42, 34556), (46, 34574), (50, 34589), (Start: 87 @34694 has 531 MA's), (99, 34724), (103, 34736), (115, 34775), (119, 34790), (130, 34844), (142, 34889), (144, 34895), (146, 34901), (148, 34907), (156, 34952), (157, 34955), (163, 34982), (186, 35042), (189, 35063), (213, 35141),

Gene: SassyCat97\_35 Start: 34050, Stop: 34697, Start Num: 89

Candidate Starts for SassyCat97\_35:

(Start: 75 @34011 has 1 MA's), (Start: 87 @34047 has 531 MA's), (Start: 89 @34050 has 177 MA's), (Start: 113 @34131 has 1 MA's), (144, 34266), (163, 34353), (180, 34398), (194, 34476), (212, 34527), (217, 34554), (219, 34572), (230, 34650), (239, 34683), (243, 34689),

Gene: Schadenfreude\_36 Start: 34545, Stop: 35144, Start Num: 87

Candidate Starts for Schadenfreude\_36:

(27, 34341), (34, 34365), (42, 34407), (46, 34425), (50, 34440), (Start: 87 @34545 has 531 MA's), (99, 34575), (103, 34587), (115, 34626), (119, 34641), (130, 34695), (142, 34740), (144, 34746), (146, 34752), (148, 34758), (156, 34803), (157, 34806), (163, 34833), (186, 34893), (189, 34914), (213, 34992),

Gene: Schadenfreude\_35 Start: 33901, Stop: 34548, Start Num: 89

Candidate Starts for Schadenfreude\_35:

(40, 33751), (Start: 75 @33862 has 1 MA's), (Start: 87 @33898 has 531 MA's), (Start: 89 @33901 has 177 MA's), (Start: 113 @33982 has 1 MA's), (144, 34117), (163, 34204), (180, 34249), (194, 34327), (212, 34378), (217, 34405), (219, 34423), (230, 34501), (239, 34534), (243, 34540),

Gene: Schueller\_36 Start: 34710, Stop: 35309, Start Num: 87

Candidate Starts for Schueller\_36:

(26, 34503), (27, 34506), (34, 34530), (42, 34572), (46, 34590), (50, 34605), (Start: 87 @34710 has 531 MA's), (99, 34740), (103, 34752), (115, 34791), (119, 34806), (130, 34860), (142, 34905), (144, 34911), (146, 34917), (148, 34923), (156, 34968), (157, 34971), (163, 34998), (186, 35058), (189, 35079), (206, 35142), (213, 35157),

Gene: Schueller\_35 Start: 34066, Stop: 34713, Start Num: 89

Candidate Starts for Schueller\_35:

(Start: 75 @34027 has 1 MA's), (Start: 87 @34063 has 531 MA's), (Start: 89 @34066 has 177 MA's), (Start: 113 @34147 has 1 MA's), (144, 34282), (163, 34369), (180, 34414), (194, 34492), (212, 34543), (217, 34570), (219, 34588), (230, 34666), (239, 34699), (243, 34705),

Gene: Scoot17C\_37 Start: 34987, Stop: 35586, Start Num: 87

Candidate Starts for Scoot17C\_37:

(27, 34783), (34, 34807), (42, 34849), (46, 34867), (50, 34882), (Start: 87 @34987 has 531 MA's), (99, 35017), (103, 35029), (115, 35068), (119, 35083), (130, 35137), (142, 35182), (144, 35188), (146, 35194), (148, 35200), (156, 35245), (157, 35248), (163, 35275), (186, 35335), (189, 35356), (213, 35434),

Gene: Scoot17C\_36 Start: 34340, Stop: 34990, Start Num: 87

Candidate Starts for Scoot17C\_36:

(Start: 75 @34304 has 1 MA's), (Start: 87 @34340 has 531 MA's), (Start: 89 @34343 has 177 MA's), (Start: 113 @34424 has 1 MA's), (144, 34559), (163, 34646), (180, 34691), (194, 34769), (212, 34820), (217, 34847), (219, 34865), (230, 34943), (239, 34976), (243, 34982),

Gene: Scrick\_37 Start: 34712, Stop: 35311, Start Num: 87

Candidate Starts for Scrick\_37:

(27, 34508), (34, 34532), (42, 34574), (46, 34592), (50, 34607), (Start: 87 @34712 has 531 MA's), (99, 34742), (103, 34754), (115, 34793), (119, 34808), (130, 34862), (142, 34907), (144, 34913), (146, 34919), (148, 34925), (156, 34970), (157, 34973), (163, 35000), (186, 35060), (189, 35081), (213, 35159),

Gene: Scrick\_36 Start: 34068, Stop: 34715, Start Num: 89

Candidate Starts for Scrick\_36:

(Start: 75 @34029 has 1 MA's), (Start: 87 @34065 has 531 MA's), (Start: 89 @34068 has 177 MA's), (Start: 113 @34149 has 1 MA's), (144, 34284), (163, 34371), (180, 34416), (194, 34494), (212, 34545), (217, 34572), (219, 34590), (230, 34668), (239, 34701), (243, 34707),

Gene: Sejanus\_32 Start: 32369, Stop: 32968, Start Num: 87

Candidate Starts for Sejanus\_32:

(42, 32231), (46, 32249), (74, 32333), (Start: 87 @32369 has 531 MA's), (Start: 97 @32381 has 2 MA's), (99, 32399), (109, 32426), (127, 32513), (144, 32570), (146, 32576), (192, 32753), (206, 32801), (234, 32939), (237, 32954),

Gene: Sejanus\_31 Start: 31728, Stop: 32372, Start Num: 84

Candidate Starts for Sejanus\_31:

(22, 31488), (59, 31662), (Start: 84 @31728 has 45 MA's), (106, 31800), (116, 31833), (118, 31842), (123, 31875), (126, 31893), (131, 31908), (140, 31947), (148, 31971), (156, 32016), (176, 32064), (178, 32070), (193, 32142), (194, 32151), (197, 32160), (208, 32193), (219, 32247), (239, 32358), (241, 32361),

Gene: Selr12\_37 Start: 34715, Stop: 35314, Start Num: 87

Candidate Starts for Selr12\_37:

(27, 34511), (34, 34535), (42, 34577), (46, 34595), (50, 34610), (Start: 87 @34715 has 531 MA's), (99, 34745), (103, 34757), (115, 34796), (119, 34811), (130, 34865), (142, 34910), (144, 34916), (146, 34922), (148, 34928), (156, 34973), (157, 34976), (163, 35003), (186, 35063), (189, 35084), (213, 35162),

Gene: Selr12\_36 Start: 34071, Stop: 34718, Start Num: 89

Candidate Starts for Selr12\_36:

(Start: 75 @34032 has 1 MA's), (Start: 87 @34068 has 531 MA's), (Start: 89 @34071 has 177 MA's), (Start: 113 @34152 has 1 MA's), (144, 34287), (163, 34374), (180, 34419), (194, 34497), (212, 34548), (217, 34575), (219, 34593), (230, 34671), (239, 34704), (243, 34710),

Gene: Serendipitous\_35 Start: 35431, Stop: 36039, Start Num: 87

Candidate Starts for Serendipitous\_35:

(Start: 87 @35431 has 531 MA's), (99, 35461), (115, 35512), (127, 35575), (130, 35581), (144, 35632), (146, 35638), (148, 35644), (157, 35692), (204, 35857), (206, 35863), (209, 35869), (213, 35878), (224, 35965), (233, 36007), (237, 36025),

Gene: Serendipitous\_34 Start: 34805, Stop: 35434, Start Num: 87

Candidate Starts for Serendipitous\_34:

(Start: 87 @34805 has 531 MA's), (112, 34883), (116, 34895), (143, 35021), (146, 35030), (148, 35036), (176, 35129), (178, 35135), (219, 35309), (241, 35423),

Gene: Serendipity\_37 Start: 35012, Stop: 35611, Start Num: 87

Candidate Starts for Serendipity\_37:

(27, 34808), (34, 34832), (42, 34874), (46, 34892), (50, 34907), (Start: 87 @35012 has 531 MA's), (99, 35042), (103, 35054), (115, 35093), (119, 35108), (130, 35162), (142, 35207), (144, 35213), (146, 35219), (148, 35225), (156, 35270), (157, 35273), (163, 35300), (186, 35360), (189, 35381), (213, 35459),

Gene: Serendipity\_36 Start: 34365, Stop: 35015, Start Num: 87

Candidate Starts for Serendipity\_36:

(Start: 75 @34329 has 1 MA's), (Start: 87 @34365 has 531 MA's), (Start: 89 @34368 has 177 MA's), (Start: 113 @34449 has 1 MA's), (144, 34584), (163, 34671), (180, 34716), (194, 34794), (212, 34845), (217, 34872), (219, 34890), (230, 34968), (239, 35001), (243, 35007),

Gene: Serpentine\_0037 Start: 34993, Stop: 35592, Start Num: 87

Candidate Starts for Serpentine\_0037:

(26, 34786), (27, 34789), (34, 34813), (42, 34855), (46, 34873), (50, 34888), (Start: 87 @34993 has 531 MA's), (99, 35023), (103, 35035), (115, 35074), (119, 35089), (130, 35143), (142, 35188), (144, 35194), (146, 35200), (148, 35206), (156, 35251), (157, 35254), (163, 35281), (186, 35341), (189, 35362), (213, 35440),

Gene: Serpentine\_0036 Start: 34346, Stop: 34996, Start Num: 87

Candidate Starts for Serpentine\_0036:

(Start: 75 @34310 has 1 MA's), (Start: 87 @34346 has 531 MA's), (Start: 89 @34349 has 177 MA's), (Start: 113 @34430 has 1 MA's), (144, 34565), (163, 34652), (180, 34697), (194, 34775), (212, 34826), (217, 34853), (219, 34871), (230, 34949), (239, 34982), (243, 34988),

Gene: Shatter\_29 Start: 27488, Stop: 28102, Start Num: 93

Candidate Starts for Shatter\_29:

(41, 27338), (Start: 93 @27488 has 16 MA's), (98, 27503), (Start: 101 @27521 has 1 MA's), (112, 27557), (119, 27581), (125, 27620), (143, 27689), (144, 27692), (145, 27695), (176, 27797), (227, 28034), (230, 28055), (232, 28061), (241, 28091),

Gene: Shatter\_30 Start: 28099, Stop: 28731, Start Num: 87

Candidate Starts for Shatter\_30:

(34, 27922), (Start: 87 @28099 has 531 MA's), (99, 28132), (109, 28159), (130, 28252), (143, 28300), (146, 28309), (156, 28360), (177, 28423), (179, 28426), (193, 28489), (213, 28549), (215, 28558), (216, 28567), (235, 28705),

Gene: Sheila\_36 Start: 34386, Stop: 35033, Start Num: 89

Candidate Starts for Sheila\_36:

(40, 34236), (Start: 75 @34347 has 1 MA's), (Start: 87 @34383 has 531 MA's), (Start: 89 @34386 has 177 MA's), (Start: 113 @34467 has 1 MA's), (144, 34602), (163, 34689), (180, 34734), (194, 34812), (212, 34863), (217, 34890), (219, 34908), (230, 34986), (239, 35019), (243, 35025),

Gene: Sheila\_37 Start: 35030, Stop: 35629, Start Num: 87

Candidate Starts for Sheila\_37:

(27, 34826), (34, 34850), (42, 34892), (46, 34910), (50, 34925), (Start: 87 @35030 has 531 MA's), (99, 35060), (103, 35072), (115, 35111), (119, 35126), (120, 35129), (130, 35180), (142, 35225), (144, 35231), (146, 35237), (148, 35243), (156, 35288), (157, 35291), (163, 35318), (186, 35378), (189, 35399), (213, 35477),

Gene: Shenandoah\_37 Start: 34902, Stop: 35501, Start Num: 87

Candidate Starts for Shenandoah\_37:

(Start: 87 @34902 has 531 MA's), (99, 34932), (109, 34959), (127, 35046), (130, 35052), (148, 35115), (153, 35139), (156, 35160), (186, 35250), (206, 35334), (211, 35346), (221, 35406), (232, 35466), (237, 35487),

Gene: Shenandoah\_36 Start: 34252, Stop: 34905, Start Num: 83

Candidate Starts for Shenandoah\_36:

(Start: 83 @34252 has 45 MA's), (109, 34333), (115, 34357), (143, 34480), (178, 34606), (185, 34621), (197, 34696), (231, 34861), (232, 34864), (239, 34891),

Gene: Shenyu\_36 Start: 35657, Stop: 36268, Start Num: 87

Candidate Starts for Shenyu\_36:

(54, 35564), (57, 35570), (65, 35600), (69, 35609), (72, 35615), (Start: 87 @35657 has 531 MA's), (99, 35690), (115, 35741), (127, 35804), (130, 35810), (144, 35861), (146, 35867), (148, 35873), (157, 35921), (204, 36086), (206, 36092), (224, 36194), (233, 36236), (237, 36254),

Gene: Shenyu\_35 Start: 34921, Stop: 35550, Start Num: 87

Candidate Starts for Shenyu\_35:

(Start: 87 @34921 has 531 MA's), (112, 34999), (116, 35011), (143, 35137), (146, 35146), (148, 35152), (156, 35197), (176, 35245), (178, 35251), (219, 35425), (241, 35539),

Gene: ShiVal\_36 Start: 34339, Stop: 34989, Start Num: 87

Candidate Starts for ShiVal\_36:

(40, 34192), (Start: 75 @34303 has 1 MA's), (Start: 87 @34339 has 531 MA's), (Start: 89 @34342 has 177 MA's), (Start: 113 @34423 has 1 MA's), (144, 34558), (163, 34645), (180, 34690), (194, 34768), (212, 34819), (217, 34846), (219, 34864), (230, 34942), (239, 34975), (243, 34981),

Gene: ShiVal\_37 Start: 34986, Stop: 35585, Start Num: 87

Candidate Starts for ShiVal\_37:

(27, 34782), (34, 34806), (42, 34848), (46, 34866), (50, 34881), (Start: 87 @34986 has 531 MA's), (99, 35016), (103, 35028), (115, 35067), (119, 35082), (130, 35136), (142, 35181), (144, 35187), (146, 35193), (148, 35199), (156, 35244), (157, 35247), (163, 35274), (186, 35334), (189, 35355),

Gene: Sigman\_37 Start: 34978, Stop: 35577, Start Num: 87

Candidate Starts for Sigman\_37:

(27, 34774), (34, 34798), (42, 34840), (46, 34858), (50, 34873), (Start: 87 @34978 has 531 MA's), (99, 35008), (103, 35020), (115, 35059), (119, 35074), (130, 35128), (142, 35173), (144, 35179), (146, 35185), (148, 35191), (156, 35236), (157, 35239), (163, 35266), (186, 35326), (189, 35347), (213, 35425),

Gene: Sigman\_36 Start: 34334, Stop: 34981, Start Num: 89

Candidate Starts for Sigman\_36:

(Start: 75 @34295 has 1 MA's), (Start: 87 @34331 has 531 MA's), (Start: 89 @34334 has 177 MA's), (Start: 113 @34415 has 1 MA's), (144, 34550), (163, 34637), (180, 34682), (194, 34760), (212, 34811), (217, 34838), (219, 34856), (230, 34934), (239, 34967), (243, 34973),

Gene: SilverBell\_36 Start: 34364, Stop: 35011, Start Num: 89

Candidate Starts for SilverBell\_36:

(40, 34214), (Start: 75 @34325 has 1 MA's), (Start: 87 @34361 has 531 MA's), (Start: 89 @34364 has 177 MA's), (Start: 113 @34445 has 1 MA's), (144, 34580), (163, 34667), (180, 34712), (194, 34790), (212, 34841), (217, 34868), (219, 34886), (230, 34964), (239, 34997), (243, 35003),

Gene: SilverBell\_37 Start: 35008, Stop: 35607, Start Num: 87

Candidate Starts for SilverBell\_37:

(27, 34804), (34, 34828), (42, 34870), (46, 34888), (50, 34903), (Start: 87 @35008 has 531 MA's), (99, 35038), (103, 35050), (115, 35089), (119, 35104), (130, 35158), (142, 35203), (144, 35209), (146, 35215), (148, 35221), (156, 35266), (157, 35269), (163, 35296), (186, 35356), (189, 35377), (213, 35455),

Gene: Simielle\_36 Start: 34681, Stop: 35280, Start Num: 87

Candidate Starts for Simielle\_36:

(27, 34477), (34, 34501), (42, 34543), (46, 34561), (50, 34576), (Start: 87 @34681 has 531 MA's), (99, 34711), (103, 34723), (115, 34762), (119, 34777), (130, 34831), (142, 34876), (144, 34882), (146, 34888), (148, 34894), (156, 34939), (157, 34942), (163, 34969), (186, 35029), (189, 35050),

Gene: Simielle\_35 Start: 34037, Stop: 34684, Start Num: 89

Candidate Starts for Simielle\_35:

(Start: 75 @33998 has 1 MA's), (Start: 87 @34034 has 531 MA's), (Start: 89 @34037 has 177 MA's), (Start: 113 @34118 has 1 MA's), (144, 34253), (163, 34340), (180, 34385), (194, 34463), (212, 34514), (217, 34541), (219, 34559), (230, 34637), (239, 34670), (243, 34676),

Gene: SirBeauregard\_36 Start: 34041, Stop: 34688, Start Num: 89

Candidate Starts for SirBeauregard\_36:

(40, 33891), (Start: 75 @34002 has 1 MA's), (Start: 87 @34038 has 531 MA's), (Start: 89 @34041 has 177 MA's), (Start: 113 @34122 has 1 MA's), (144, 34257), (163, 34344), (180, 34389), (194, 34467), (212, 34518), (217, 34545), (219, 34563), (230, 34641), (239, 34674), (243, 34680),

Gene: SirBeauregard\_37 Start: 34685, Stop: 35284, Start Num: 87

Candidate Starts for SirBeauregard\_37:

(27, 34481), (34, 34505), (42, 34547), (46, 34565), (50, 34580), (Start: 87 @34685 has 531 MA's), (99, 34715), (103, 34727), (115, 34766), (119, 34781), (130, 34835), (142, 34880), (144, 34886), (146, 34892), (148, 34898), (156, 34943), (157, 34946), (163, 34973), (189, 35054), (206, 35117), (213, 35132),

Gene: SirJeffery\_36 Start: 35585, Stop: 36193, Start Num: 87

Candidate Starts for SirJeffery\_36:

(34, 35408), (46, 35465), (Start: 87 @35585 has 531 MA's), (99, 35615), (116, 35669), (124, 35714), (127, 35729), (130, 35735), (135, 35750), (144, 35786), (146, 35792), (148, 35798), (157, 35846), (166, 35879), (206, 36017), (209, 36023), (233, 36161), (237, 36179),

Gene: SirJeffery\_35 Start: 34959, Stop: 35588, Start Num: 87

Candidate Starts for SirJeffery\_35:

(Start: 87 @34959 has 531 MA's), (112, 35037), (116, 35049), (126, 35109), (143, 35175), (146, 35184), (148, 35190), (156, 35235), (176, 35283), (178, 35289), (219, 35463), (241, 35577),

Gene: Sisko\_30 Start: 28962, Stop: 29591, Start Num: 87

Candidate Starts for Sisko\_30:

(34, 28785), (Start: 87 @28962 has 531 MA's), (99, 28992), (109, 29019), (127, 29106), (130, 29112), (143, 29160), (146, 29169), (153, 29199), (156, 29220), (168, 29265), (177, 29283), (179, 29286), (213, 29409), (215, 29418), (216, 29427),

Gene: Sisko\_29 Start: 28351, Stop: 28965, Start Num: 93

Candidate Starts for Sisko\_29:

(Start: 93 @28351 has 16 MA's), (98, 28366), (112, 28420), (119, 28444), (125, 28483), (143, 28552), (144, 28555), (154, 28594), (158, 28618), (176, 28660), (182, 28672), (190, 28726), (227, 28897), (230, 28918), (232, 28924), (241, 28954),

Gene: Skippy\_36 Start: 34332, Stop: 34979, Start Num: 89

Candidate Starts for Skippy\_36:

(40, 34182), (Start: 75 @34293 has 1 MA's), (Start: 87 @34329 has 531 MA's), (Start: 89 @34332 has 177 MA's), (Start: 113 @34413 has 1 MA's), (144, 34548), (163, 34635), (180, 34680), (194, 34758), (212, 34809), (217, 34836), (219, 34854), (230, 34932), (239, 34965), (243, 34971),

Gene: Skippy\_37 Start: 34976, Stop: 35575, Start Num: 87

Candidate Starts for Skippy\_37:

(27, 34772), (34, 34796), (42, 34838), (46, 34856), (50, 34871), (Start: 87 @34976 has 531 MA's), (99, 35006), (103, 35018), (115, 35057), (119, 35072), (130, 35126), (142, 35171), (144, 35177), (146, 35183), (148, 35189), (156, 35234), (157, 35237), (163, 35264), (186, 35324), (189, 35345), (213,



35423),

Gene: Slatt\_37 Start: 35002, Stop: 35601, Start Num: 87

Candidate Starts for Slatt\_37:

(27, 34798), (34, 34822), (42, 34864), (46, 34882), (50, 34897), (Start: 87 @35002 has 531 MA's), (99, 35032), (103, 35044), (115, 35083), (119, 35098), (130, 35152), (142, 35197), (144, 35203), (146, 35209), (148, 35215), (156, 35260), (157, 35263), (163, 35290), (186, 35350), (189, 35371), (213, 35449),

Gene: Slatt\_36 Start: 34358, Stop: 35005, Start Num: 89

Candidate Starts for Slatt\_36:

(40, 34208), (Start: 75 @34319 has 1 MA's), (Start: 87 @34355 has 531 MA's), (Start: 89 @34358 has 177 MA's), (Start: 113 @34439 has 1 MA's), (144, 34574), (163, 34661), (180, 34706), (194, 34784), (212, 34835), (217, 34862), (219, 34880), (230, 34958), (239, 34991), (243, 34997),

Gene: SlippinJimmy\_37 Start: 35695, Stop: 36294, Start Num: 87

Candidate Starts for SlippinJimmy\_37:

(Start: 87 @35695 has 531 MA's), (99, 35725), (109, 35752), (127, 35839), (130, 35845), (148, 35908), (153, 35932), (156, 35953), (186, 36043), (206, 36127), (211, 36139), (221, 36199), (232, 36259), (237, 36280),

Gene: SlippinJimmy\_36 Start: 35045, Stop: 35698, Start Num: 83

Candidate Starts for SlippinJimmy\_36:

(Start: 83 @35045 has 45 MA's), (109, 35126), (115, 35150), (143, 35273), (178, 35399), (185, 35414), (197, 35489), (231, 35654), (239, 35684),

Gene: Soile\_37 Start: 34708, Stop: 35307, Start Num: 87

Candidate Starts for Soile\_37:

(26, 34501), (27, 34504), (34, 34528), (42, 34570), (46, 34588), (50, 34603), (Start: 87 @34708 has 531 MA's), (99, 34738), (103, 34750), (115, 34789), (119, 34804), (130, 34858), (142, 34903), (144, 34909), (146, 34915), (148, 34921), (156, 34966), (157, 34969), (163, 34996), (186, 35056), (189, 35077), (206, 35140), (213, 35155),

Gene: Soile\_36 Start: 34064, Stop: 34711, Start Num: 89

Candidate Starts for Soile\_36:

(Start: 75 @34025 has 1 MA's), (Start: 87 @34061 has 531 MA's), (Start: 89 @34064 has 177 MA's), (Start: 113 @34145 has 1 MA's), (144, 34280), (163, 34367), (180, 34412), (194, 34490), (212, 34541), (217, 34568), (219, 34586), (230, 34664), (239, 34697), (243, 34703),

Gene: Solosis\_36 Start: 34703, Stop: 35302, Start Num: 87

Candidate Starts for Solosis\_36:

(27, 34499), (34, 34523), (42, 34565), (46, 34583), (50, 34598), (Start: 87 @34703 has 531 MA's), (99, 34733), (103, 34745), (115, 34784), (119, 34799), (130, 34853), (142, 34898), (144, 34904), (146, 34910), (148, 34916), (156, 34961), (157, 34964), (163, 34991), (186, 35051), (189, 35072), (213, 35150),

Gene: Solosis\_35 Start: 34059, Stop: 34706, Start Num: 89

Candidate Starts for Solosis\_35:

(Start: 75 @34020 has 1 MA's), (Start: 87 @34056 has 531 MA's), (Start: 89 @34059 has 177 MA's), (Start: 113 @34140 has 1 MA's), (144, 34275), (163, 34362), (180, 34407), (194, 34485), (212, 34536), (217, 34563), (219, 34581), (230, 34659), (239, 34692), (243, 34698),

Gene: Sophia\_35 Start: 34056, Stop: 34706, Start Num: 87

Candidate Starts for Sophia\_35:

(Start: 75 @34020 has 1 MA's), (Start: 87 @34056 has 531 MA's), (Start: 89 @34059 has 177 MA's), (Start: 113 @34140 has 1 MA's), (144, 34275), (163, 34362), (180, 34407), (194, 34485), (212, 34536), (217, 34563), (219, 34581), (230, 34659), (239, 34692), (243, 34698),

Gene: Sophia\_36 Start: 34703, Stop: 35302, Start Num: 87

Candidate Starts for Sophia\_36:

(27, 34499), (34, 34523), (42, 34565), (46, 34583), (50, 34598), (Start: 87 @34703 has 531 MA's), (99, 34733), (103, 34745), (115, 34784), (119, 34799), (130, 34853), (142, 34898), (144, 34904), (146, 34910), (148, 34916), (156, 34961), (157, 34964), (163, 34991), (186, 35051), (189, 35072), (213, 35150),

Gene: Soto\_37 Start: 34996, Stop: 35595, Start Num: 87

Candidate Starts for Soto\_37:

(27, 34792), (34, 34816), (42, 34858), (46, 34876), (50, 34891), (Start: 87 @34996 has 531 MA's), (99, 35026), (103, 35038), (115, 35077), (119, 35092), (130, 35146), (142, 35191), (144, 35197), (146, 35203), (148, 35209), (156, 35254), (157, 35257), (163, 35284), (186, 35344), (189, 35365), (213, 35443),

Gene: Soto\_36 Start: 34352, Stop: 34999, Start Num: 89

Candidate Starts for Soto\_36:

(40, 34202), (Start: 75 @34313 has 1 MA's), (Start: 87 @34349 has 531 MA's), (Start: 89 @34352 has 177 MA's), (Start: 113 @34433 has 1 MA's), (144, 34568), (163, 34655), (180, 34700), (194, 34778), (212, 34829), (217, 34856), (219, 34874), (230, 34952), (239, 34985), (243, 34991),

Gene: Sour\_33 Start: 31671, Stop: 32285, Start Num: 93

Candidate Starts for Sour\_33:

(Start: 93 @31671 has 16 MA's), (98, 31686), (112, 31740), (118, 31761), (125, 31803), (131, 31824), (143, 31872), (144, 31875), (154, 31914), (176, 31980), (182, 31992), (190, 32046), (193, 32058), (212, 32118), (232, 32244), (239, 32271), (241, 32274),

Gene: Sour\_35 Start: 32784, Stop: 33413, Start Num: 87

Candidate Starts for Sour\_35:

(77, 32754), (Start: 87 @32784 has 531 MA's), (Start: 97 @32796 has 2 MA's), (99, 32814), (109, 32841), (127, 32928), (130, 32934), (143, 32982), (144, 32985), (146, 32991), (148, 32997), (152, 33018), (156, 33042), (177, 33105), (179, 33108), (195, 33183), (213, 33231), (215, 33240),

Gene: Spartan300\_36 Start: 34335, Stop: 34985, Start Num: 87

Candidate Starts for Spartan300\_36:

(40, 34188), (Start: 75 @34299 has 1 MA's), (Start: 87 @34335 has 531 MA's), (Start: 89 @34338 has 177 MA's), (Start: 113 @34419 has 1 MA's), (144, 34554), (163, 34641), (180, 34686), (194, 34764), (212, 34815), (217, 34842), (219, 34860), (230, 34938), (239, 34971), (243, 34977),

Gene: Spartan300\_37 Start: 34982, Stop: 35581, Start Num: 87

Candidate Starts for Spartan300\_37:

(27, 34778), (34, 34802), (42, 34844), (46, 34862), (50, 34877), (Start: 87 @34982 has 531 MA's), (99, 35012), (103, 35024), (115, 35063), (119, 35078), (130, 35132), (142, 35177), (144, 35183), (146, 35189), (148, 35195), (156, 35240), (157, 35243), (163, 35270), (186, 35330), (189, 35351),

Gene: Squid\_37 Start: 34694, Stop: 35293, Start Num: 87

Candidate Starts for Squid\_37:

(27, 34490), (34, 34514), (42, 34556), (46, 34574), (50, 34589), (Start: 87 @34694 has 531 MA's), (99, 34724), (103, 34736), (115, 34775), (119, 34790), (130, 34844), (142, 34889), (144, 34895), (146,

34901), (148, 34907), (156, 34952), (157, 34955), (163, 34982), (186, 35042), (189, 35063), (213, 35141),

Gene: Squid\_36 Start: 34047, Stop: 34697, Start Num: 87

Candidate Starts for Squid\_36:

(Start: 75 @34011 has 1 MA's), (Start: 87 @34047 has 531 MA's), (Start: 89 @34050 has 177 MA's), (Start: 113 @34131 has 1 MA's), (144, 34266), (163, 34353), (180, 34398), (194, 34476), (212, 34527), (217, 34554), (219, 34572), (230, 34650), (239, 34683), (243, 34689),

Gene: Squiggle\_37 Start: 34706, Stop: 35305, Start Num: 87

Candidate Starts for Squiggle\_37:

(27, 34502), (34, 34526), (42, 34568), (46, 34586), (50, 34601), (Start: 87 @34706 has 531 MA's), (99, 34736), (103, 34748), (115, 34787), (119, 34802), (130, 34856), (142, 34901), (144, 34907), (146, 34913), (148, 34919), (156, 34964), (157, 34967), (163, 34994), (186, 35054), (189, 35075), (213, 35153),

Gene: Squiggle\_36 Start: 34062, Stop: 34709, Start Num: 89

Candidate Starts for Squiggle\_36:

(Start: 75 @34023 has 1 MA's), (Start: 87 @34059 has 531 MA's), (Start: 89 @34062 has 177 MA's), (Start: 113 @34143 has 1 MA's), (144, 34278), (163, 34365), (180, 34410), (194, 34488), (212, 34539), (217, 34566), (219, 34584), (230, 34662), (239, 34695), (243, 34701),

Gene: StAugustine\_40 Start: 37862, Stop: 38488, Start Num: 85

Candidate Starts for StAugustine\_40:

(Start: 85 @37862 has 1 MA's), (109, 37925), (112, 37940), (114, 37946), (119, 37964), (120, 37967), (124, 37994), (131, 38024), (132, 38027), (135, 38039), (144, 38075), (208, 38309), (226, 38417), (230, 38441), (232, 38447), (241, 38477),

Gene: StAugustine\_41 Start: 38485, Stop: 39093, Start Num: 87

Candidate Starts for StAugustine\_41:

(63, 38431), (Start: 87 @38485 has 531 MA's), (99, 38515), (127, 38629), (135, 38650), (146, 38692), (156, 38743), (211, 38929), (213, 38932), (233, 39055), (235, 39061),

Gene: Stinger\_31 Start: 33110, Stop: 33757, Start Num: 67

Candidate Starts for Stinger\_31:

(Start: 67 @33110 has 25 MA's), (102, 33188), (104, 33200), (123, 33272), (132, 33296), (138, 33326), (139, 33329), (141, 33335), (142, 33338), (154, 33386), (172, 33458), (189, 33518), (193, 33530), (217, 33614), (219, 33632), (233, 33719), (241, 33746),

Gene: Stinger\_32 Start: 33754, Stop: 34359, Start Num: 87

Candidate Starts for Stinger\_32:

(Start: 87 @33754 has 531 MA's), (99, 33790), (103, 33802), (109, 33817), (115, 33841), (130, 33910), (142, 33955), (144, 33961), (146, 33967), (147, 33970), (153, 33997), (156, 34018), (163, 34048), (186, 34108), (187, 34114), (189, 34129), (219, 34249), (233, 34327), (237, 34345),

Gene: StinkyVeggy\_37 Start: 35147, Stop: 35740, Start Num: 100

Candidate Starts for StinkyVeggy\_37:

(Start: 87 @35111 has 531 MA's), (100, 35147), (112, 35189), (116, 35201), (143, 35327), (146, 35336), (148, 35342), (156, 35387), (176, 35435), (178, 35441), (219, 35615), (241, 35729),

Gene: StinkyVeggy\_38 Start: 35737, Stop: 36345, Start Num: 87

Candidate Starts for StinkyVeggy\_38:

(Start: 87 @35737 has 531 MA's), (99, 35767), (115, 35818), (127, 35881), (130, 35887), (144, 35938), (146, 35944), (148, 35950), (157, 35998), (204, 36163), (206, 36169), (224, 36271), (233, 36313), (237, 36331),

Gene: Struggle\_35 Start: 33900, Stop: 34547, Start Num: 89

Candidate Starts for Struggle\_35:

(Start: 75 @33861 has 1 MA's), (Start: 87 @33897 has 531 MA's), (Start: 89 @33900 has 177 MA's), (Start: 113 @33981 has 1 MA's), (144, 34116), (163, 34203), (180, 34248), (193, 34317), (194, 34326), (212, 34377), (219, 34422), (230, 34500), (239, 34533), (243, 34539),

Gene: Struggle\_36 Start: 34544, Stop: 35143, Start Num: 87

Candidate Starts for Struggle\_36:

(26, 34337), (27, 34340), (34, 34364), (42, 34406), (46, 34424), (50, 34439), (Start: 87 @34544 has 531 MA's), (99, 34574), (103, 34586), (115, 34625), (119, 34640), (130, 34694), (142, 34739), (144, 34745), (146, 34751), (148, 34757), (156, 34802), (157, 34805), (163, 34832), (186, 34892), (189, 34913), (206, 34976), (213, 34991),

Gene: Suffolk\_37 Start: 34993, Stop: 35592, Start Num: 87

Candidate Starts for Suffolk\_37:

(27, 34789), (34, 34813), (42, 34855), (46, 34873), (50, 34888), (Start: 87 @34993 has 531 MA's), (99, 35023), (103, 35035), (115, 35074), (119, 35089), (130, 35143), (142, 35188), (144, 35194), (146, 35200), (148, 35206), (156, 35251), (157, 35254), (163, 35281), (186, 35341), (189, 35362), (213, 35440),

Gene: Suffolk\_36 Start: 34349, Stop: 34996, Start Num: 89

Candidate Starts for Suffolk\_36:

(40, 34199), (Start: 75 @34310 has 1 MA's), (Start: 87 @34346 has 531 MA's), (Start: 89 @34349 has 177 MA's), (Start: 113 @34430 has 1 MA's), (144, 34565), (163, 34652), (180, 34697), (194, 34775), (212, 34826), (217, 34853), (219, 34871), (230, 34949), (239, 34982), (243, 34988),

Gene: Suigeneris\_35 Start: 34962, Stop: 35591, Start Num: 87

Candidate Starts for Suigeneris\_35:

(Start: 87 @34962 has 531 MA's), (112, 35040), (116, 35052), (126, 35112), (143, 35178), (146, 35187), (148, 35193), (156, 35238), (176, 35286), (178, 35292), (219, 35466), (241, 35580),

Gene: Suigeneris\_36 Start: 35588, Stop: 36196, Start Num: 87

Candidate Starts for Suigeneris\_36:

(34, 35411), (46, 35468), (Start: 87 @35588 has 531 MA's), (99, 35618), (116, 35672), (124, 35717), (127, 35732), (130, 35738), (135, 35753), (144, 35789), (146, 35795), (148, 35801), (157, 35849), (166, 35882), (206, 36020), (209, 36026), (233, 36164), (237, 36182),

Gene: Surely\_36 Start: 34349, Stop: 34999, Start Num: 87

Candidate Starts for Surely\_36:

(Start: 75 @34313 has 1 MA's), (Start: 87 @34349 has 531 MA's), (Start: 89 @34352 has 177 MA's), (Start: 113 @34433 has 1 MA's), (144, 34568), (163, 34655), (180, 34700), (194, 34778), (212, 34829), (217, 34856), (219, 34874), (230, 34952), (239, 34985), (243, 34991),

Gene: Surely\_37 Start: 34996, Stop: 35595, Start Num: 87

Candidate Starts for Surely\_37:

(27, 34792), (34, 34816), (42, 34858), (46, 34876), (50, 34891), (Start: 87 @34996 has 531 MA's), (99, 35026), (103, 35038), (115, 35077), (119, 35092), (130, 35146), (142, 35191), (144, 35197), (146, 35203), (148, 35209), (156, 35254), (157, 35257), (163, 35284), (186, 35344), (189, 35365), (213, 35443),

Gene: SwainyDoc\_37 Start: 34924, Stop: 35523, Start Num: 87

Candidate Starts for SwainyDoc\_37:

(Start: 87 @34924 has 531 MA's), (99, 34954), (109, 34981), (127, 35068), (130, 35074), (148, 35137), (153, 35161), (156, 35182), (186, 35272), (206, 35356), (211, 35368), (221, 35428), (237, 35509),

Gene: SwainyDoc\_36 Start: 34274, Stop: 34927, Start Num: 83

Candidate Starts for SwainyDoc\_36:

(Start: 83 @34274 has 45 MA's), (109, 34355), (115, 34379), (143, 34502), (178, 34628), (185, 34643), (197, 34718), (231, 34883), (232, 34886), (239, 34913),

Gene: Swiphy\_37 Start: 34347, Stop: 34994, Start Num: 89

Candidate Starts for Swiphy\_37:

(Start: 75 @34308 has 1 MA's), (Start: 87 @34344 has 531 MA's), (Start: 89 @34347 has 177 MA's), (Start: 113 @34428 has 1 MA's), (144, 34563), (163, 34650), (180, 34695), (193, 34764), (194, 34773), (212, 34824), (219, 34869), (230, 34947), (239, 34980), (243, 34986),

Gene: Swiphy\_38 Start: 34991, Stop: 35590, Start Num: 87

Candidate Starts for Swiphy\_38:

(26, 34784), (27, 34787), (34, 34811), (42, 34853), (46, 34871), (50, 34886), (Start: 87 @34991 has 531 MA's), (99, 35021), (103, 35033), (115, 35072), (119, 35087), (130, 35141), (142, 35186), (144, 35192), (146, 35198), (148, 35204), (156, 35249), (157, 35252), (163, 35279), (186, 35339), (189, 35360), (206, 35423), (213, 35438),

Gene: Swish\_36 Start: 34332, Stop: 34982, Start Num: 87

Candidate Starts for Swish\_36:

(Start: 75 @34296 has 1 MA's), (Start: 87 @34332 has 531 MA's), (Start: 89 @34335 has 177 MA's), (Start: 113 @34416 has 1 MA's), (144, 34551), (163, 34638), (180, 34683), (194, 34761), (212, 34812), (217, 34839), (219, 34857), (230, 34935), (239, 34968), (243, 34974),

Gene: Swish\_37 Start: 34979, Stop: 35578, Start Num: 87

Candidate Starts for Swish\_37:

(27, 34775), (34, 34799), (42, 34841), (46, 34859), (50, 34874), (Start: 87 @34979 has 531 MA's), (99, 35009), (103, 35021), (115, 35060), (119, 35075), (130, 35129), (142, 35174), (144, 35180), (146, 35186), (148, 35192), (156, 35237), (157, 35240), (163, 35267), (186, 35327), (189, 35348), (213, 35426),

Gene: SynergyX\_37 Start: 34930, Stop: 35529, Start Num: 87

Candidate Starts for SynergyX\_37:

(Start: 87 @34930 has 531 MA's), (99, 34960), (109, 34987), (127, 35074), (148, 35143), (153, 35167), (156, 35188), (186, 35278), (206, 35362), (211, 35374), (221, 35434), (232, 35494), (237, 35515),

Gene: SynergyX\_36 Start: 34280, Stop: 34933, Start Num: 83

Candidate Starts for SynergyX\_36:

(Start: 83 @34280 has 45 MA's), (109, 34361), (115, 34385), (143, 34508), (178, 34634), (185, 34649), (197, 34724), (231, 34889), (232, 34892), (239, 34919),

Gene: TA17A\_39 Start: 35461, Stop: 36060, Start Num: 87

Candidate Starts for TA17A\_39:

(80, 35440), (Start: 87 @35461 has 531 MA's), (99, 35491), (106, 35512), (115, 35542), (116, 35545), (130, 35611), (144, 35662), (145, 35665), (146, 35668), (153, 35698), (156, 35719), (179, 35785), (187, 35815), (211, 35905), (213, 35908), (216, 35926), (219, 35950), (230, 36019), (237, 36046),

Gene: TA17A\_37 Start: 34671, Stop: 35315, Start Num: 84

Candidate Starts for TA17A\_37:

(34, 34506), (59, 34617), (Start: 84 @34671 has 45 MA's), (Start: 86 @34680 has 1 MA's), (109, 34749), (116, 34776), (118, 34785), (140, 34890), (144, 34902), (148, 34914), (176, 35007), (190, 35073), (194, 35094), (199, 35109), (201, 35115), (208, 35136), (214, 35148), (241, 35304),

Gene: TPA2\_40 Start: 32816, Stop: 33403, Start Num: 87

Candidate Starts for TPA2\_40:

(25, 32609), (34, 32639), (44, 32690), (Start: 87 @32816 has 531 MA's), (99, 32843), (103, 32855), (115, 32894), (127, 32957), (130, 32963), (144, 33014), (146, 33020), (148, 33026), (157, 33074), (163, 33101), (189, 33182), (206, 33245), (213, 33260), (233, 33374),

Gene: TPA2\_39 Start: 32202, Stop: 32819, Start Num: 94

Candidate Starts for TPA2\_39:

(4, 31728), (66, 32139), (94, 32202), (96, 32208), (Start: 97 @32211 has 2 MA's), (116, 32286), (123, 32325), (135, 32373), (144, 32409), (146, 32415), (186, 32547), (199, 32616), (214, 32652), (216, 32670), (239, 32805), (241, 32808),

Gene: TallGrassMM\_36 Start: 33971, Stop: 34621, Start Num: 87

Candidate Starts for TallGrassMM\_36:

(Start: 75 @33935 has 1 MA's), (Start: 87 @33971 has 531 MA's), (Start: 89 @33974 has 177 MA's), (Start: 113 @34055 has 1 MA's), (144, 34190), (163, 34277), (180, 34322), (194, 34400), (212, 34451), (217, 34478), (219, 34496), (230, 34574), (239, 34607), (243, 34613),

Gene: TallGrassMM\_37 Start: 34618, Stop: 35217, Start Num: 87

Candidate Starts for TallGrassMM\_37:

(27, 34414), (34, 34438), (42, 34480), (46, 34498), (50, 34513), (Start: 87 @34618 has 531 MA's), (99, 34648), (103, 34660), (115, 34699), (119, 34714), (130, 34768), (142, 34813), (144, 34819), (146, 34825), (148, 34831), (156, 34876), (157, 34879), (163, 34906), (186, 34966), (189, 34987), (213, 35065),

Gene: Taptic\_30 Start: 32174, Stop: 32773, Start Num: 87

Candidate Starts for Taptic\_30:

(Start: 87 @32174 has 531 MA's), (99, 32204), (106, 32225), (109, 32231), (127, 32318), (130, 32324), (144, 32375), (148, 32387), (153, 32411), (156, 32432), (160, 32450), (166, 32468), (177, 32495), (217, 32645), (219, 32663), (232, 32738), (237, 32759),

Gene: Taptic\_28 Start: 31380, Stop: 32024, Start Num: 84

Candidate Starts for Taptic\_28:

(Start: 84 @31380 has 45 MA's), (91, 31398), (108, 31455), (118, 31494), (121, 31503), (131, 31560), (144, 31611), (146, 31617), (148, 31623), (163, 31698), (180, 31725), (190, 31782), (193, 31794), (201, 31824), (219, 31899), (229, 31971),

Gene: Telesworld\_36 Start: 34691, Stop: 35290, Start Num: 87

Candidate Starts for Telesworld\_36:

(27, 34487), (34, 34511), (42, 34553), (46, 34571), (50, 34586), (Start: 87 @34691 has 531 MA's), (99, 34721), (103, 34733), (115, 34772), (119, 34787), (130, 34841), (142, 34886), (144, 34892), (146, 34898), (148, 34904), (156, 34949), (157, 34952), (163, 34979), (186, 35039), (189, 35060), (213, 35138),

Gene: Telesworld\_35 Start: 34044, Stop: 34694, Start Num: 87

Candidate Starts for Telesworld\_35:

(40, 33897), (Start: 75 @34008 has 1 MA's), (Start: 87 @34044 has 531 MA's), (Start: 89 @34047 has 177 MA's), (Start: 113 @34128 has 1 MA's), (144, 34263), (163, 34350), (180, 34395), (194, 34473), (212, 34524), (217, 34551), (219, 34569), (230, 34647), (239, 34680), (243, 34686),

Gene: Thonko\_36 Start: 32845, Stop: 33450, Start Num: 87

Candidate Starts for Thonko\_36:

(11, 32461), (13, 32470), (27, 32644), (34, 32668), (50, 32740), (Start: 87 @32845 has 531 MA's), (130, 32995), (156, 33103), (160, 33121), (186, 33193), (192, 33229), (213, 33292), (219, 33334),

Gene: Thonko\_35 Start: 32189, Stop: 32848, Start Num: 75

Candidate Starts for Thonko\_35:

(38, 32072), (53, 32120), (55, 32135), (61, 32156), (62, 32159), (Start: 75 @32189 has 1 MA's), (Start: 85 @32222 has 1 MA's), (105, 32279), (112, 32303), (116, 32315), (156, 32495), (164, 32534), (176, 32543), (239, 32834),

Gene: Thora\_37 Start: 34995, Stop: 35594, Start Num: 87

Candidate Starts for Thora\_37:

(27, 34791), (34, 34815), (42, 34857), (46, 34875), (50, 34890), (Start: 87 @34995 has 531 MA's), (99, 35025), (103, 35037), (115, 35076), (119, 35091), (130, 35145), (142, 35190), (144, 35196), (146, 35202), (148, 35208), (156, 35253), (157, 35256), (163, 35283), (186, 35343), (189, 35364), (213, 35442),

Gene: Thora\_36 Start: 34351, Stop: 34998, Start Num: 89

Candidate Starts for Thora\_36:

(Start: 75 @34312 has 1 MA's), (Start: 87 @34348 has 531 MA's), (Start: 89 @34351 has 177 MA's), (Start: 113 @34432 has 1 MA's), (144, 34567), (163, 34654), (180, 34699), (194, 34777), (212, 34828), (217, 34855), (219, 34873), (230, 34951), (239, 34984), (243, 34990),

Gene: ThreeOh3D2\_36 Start: 34346, Stop: 34996, Start Num: 87

Candidate Starts for ThreeOh3D2\_36:

(Start: 75 @34310 has 1 MA's), (Start: 87 @34346 has 531 MA's), (Start: 89 @34349 has 177 MA's), (Start: 113 @34430 has 1 MA's), (144, 34565), (163, 34652), (180, 34697), (194, 34775), (212, 34826), (217, 34853), (219, 34871), (230, 34949), (239, 34982), (243, 34988),

Gene: ThreeOh3D2\_37 Start: 34993, Stop: 35592, Start Num: 87

Candidate Starts for ThreeOh3D2\_37:

(27, 34789), (34, 34813), (42, 34855), (46, 34873), (50, 34888), (Start: 87 @34993 has 531 MA's), (99, 35023), (103, 35035), (115, 35074), (119, 35089), (130, 35143), (142, 35188), (144, 35194), (146, 35200), (148, 35206), (156, 35251), (157, 35254), (163, 35281), (186, 35341), (189, 35362), (213, 35440),

Gene: Thunderbird\_36 Start: 34699, Stop: 35298, Start Num: 87

Candidate Starts for Thunderbird\_36:

(26, 34492), (27, 34495), (34, 34519), (42, 34561), (46, 34579), (50, 34594), (Start: 87 @34699 has 531 MA's), (99, 34729), (103, 34741), (115, 34780), (119, 34795), (130, 34849), (142, 34894), (144, 34900), (146, 34906), (148, 34912), (156, 34957), (157, 34960), (163, 34987), (186, 35047), (189, 35068), (206, 35131), (213, 35146),

Gene: Thunderbird\_35 Start: 34055, Stop: 34702, Start Num: 89

Candidate Starts for Thunderbird\_35:

(Start: 75 @34016 has 1 MA's), (Start: 87 @34052 has 531 MA's), (Start: 89 @34055 has 177 MA's), (Start: 113 @34136 has 1 MA's), (144, 34271), (163, 34358), (180, 34403), (193, 34472), (194, 34481), (212, 34532), (219, 34577), (230, 34655), (239, 34688), (243, 34694),

Gene: Timmi\_35 Start: 34060, Stop: 34707, Start Num: 89

Candidate Starts for Timmi\_35:

(Start: 75 @34021 has 1 MA's), (Start: 87 @34057 has 531 MA's), (Start: 89 @34060 has 177 MA's), (Start: 113 @34141 has 1 MA's), (144, 34276), (163, 34363), (180, 34408), (194, 34486), (212, 34537), (217, 34564), (219, 34582), (230, 34660), (239, 34693), (243, 34699),

Gene: Timmi\_36 Start: 34704, Stop: 35303, Start Num: 87

Candidate Starts for Timmi\_36:

(27, 34500), (34, 34524), (42, 34566), (46, 34584), (50, 34599), (Start: 87 @34704 has 531 MA's), (99, 34734), (103, 34746), (115, 34785), (119, 34800), (130, 34854), (142, 34899), (144, 34905), (146, 34911), (148, 34917), (156, 34962), (157, 34965), (163, 34992), (186, 35052), (189, 35073), (213, 35151),

Gene: Tinciduntolum\_39 Start: 35599, Stop: 36198, Start Num: 87

Candidate Starts for Tinciduntolum\_39:

(80, 35578), (Start: 87 @35599 has 531 MA's), (99, 35629), (106, 35650), (115, 35680), (116, 35683), (130, 35749), (144, 35800), (145, 35803), (146, 35806), (153, 35836), (156, 35857), (179, 35923), (187, 35953), (211, 36043), (213, 36046), (216, 36064), (219, 36088), (230, 36157), (237, 36184),

Gene: Tinciduntolum\_37 Start: 34809, Stop: 35453, Start Num: 84

Candidate Starts for Tinciduntolum\_37:

(34, 34644), (59, 34755), (Start: 84 @34809 has 45 MA's), (Start: 86 @34818 has 1 MA's), (109, 34887), (116, 34914), (118, 34923), (121, 34932), (144, 35040), (148, 35052), (176, 35145), (190, 35211), (194, 35232), (199, 35247), (201, 35253), (208, 35274), (214, 35286), (241, 35442),

Gene: TinyTerror\_36 Start: 34265, Stop: 34918, Start Num: 83

Candidate Starts for TinyTerror\_36:

(Start: 83 @34265 has 45 MA's), (109, 34346), (115, 34370), (143, 34493), (178, 34619), (185, 34634), (197, 34709), (231, 34874), (232, 34877), (239, 34904),

Gene: TinyTerror\_37 Start: 34915, Stop: 35514, Start Num: 87

Candidate Starts for TinyTerror\_37:

(Start: 87 @34915 has 531 MA's), (99, 34945), (109, 34972), (127, 35059), (130, 35065), (148, 35128), (153, 35152), (156, 35173), (186, 35263), (206, 35347), (211, 35359), (221, 35419), (232, 35479), (237, 35500),

Gene: TomBombadil\_37 Start: 34989, Stop: 35588, Start Num: 87

Candidate Starts for TomBombadil\_37:

(27, 34785), (34, 34809), (42, 34851), (46, 34869), (50, 34884), (Start: 87 @34989 has 531 MA's), (99, 35019), (103, 35031), (115, 35070), (119, 35085), (130, 35139), (142, 35184), (144, 35190), (146, 35196), (148, 35202), (156, 35247), (157, 35250), (163, 35277), (186, 35337), (189, 35358), (213, 35436),

Gene: TomBombadil\_36 Start: 34342, Stop: 34992, Start Num: 87

Candidate Starts for TomBombadil\_36:

(Start: 75 @34306 has 1 MA's), (Start: 87 @34342 has 531 MA's), (Start: 89 @34345 has 177 MA's), (Start: 113 @34426 has 1 MA's), (144, 34561), (163, 34648), (180, 34693), (194, 34771), (212, 34822), (217, 34849), (219, 34867), (230, 34945), (239, 34978), (243, 34984),

Gene: Tomlarah\_36 Start: 34336, Stop: 34983, Start Num: 89

Candidate Starts for Tomlarah\_36:



(40, 34186), (Start: 75 @34297 has 1 MA's), (Start: 87 @34333 has 531 MA's), (Start: 89 @34336 has 177 MA's), (Start: 113 @34417 has 1 MA's), (144, 34552), (163, 34639), (180, 34684), (194, 34762), (212, 34813), (217, 34840), (219, 34858), (230, 34936), (239, 34969), (243, 34975),

Gene: Tomlarah\_37 Start: 34980, Stop: 35579, Start Num: 87

Candidate Starts for Tomlarah\_37:

(27, 34776), (34, 34800), (42, 34842), (46, 34860), (50, 34875), (Start: 87 @34980 has 531 MA's), (99, 35010), (103, 35022), (115, 35061), (119, 35076), (130, 35130), (142, 35175), (144, 35181), (146, 35187), (148, 35193), (156, 35238), (157, 35241), (163, 35268), (186, 35328), (189, 35349),

Gene: Toni\_36 Start: 34696, Stop: 35295, Start Num: 87

Candidate Starts for Toni\_36:

(27, 34492), (34, 34516), (42, 34558), (46, 34576), (50, 34591), (Start: 87 @34696 has 531 MA's), (99, 34726), (103, 34738), (115, 34777), (119, 34792), (130, 34846), (142, 34891), (144, 34897), (146, 34903), (148, 34909), (156, 34954), (157, 34957), (163, 34984), (186, 35044), (189, 35065),

Gene: Toni\_35 Start: 34052, Stop: 34699, Start Num: 89

Candidate Starts for Toni\_35:

(Start: 75 @34013 has 1 MA's), (Start: 87 @34049 has 531 MA's), (Start: 89 @34052 has 177 MA's), (Start: 113 @34133 has 1 MA's), (144, 34268), (163, 34355), (180, 34400), (194, 34478), (212, 34529), (217, 34556), (219, 34574), (230, 34652), (239, 34685), (243, 34691),

Gene: TooFast2Furius\_38 Start: 35225, Stop: 35824, Start Num: 87

Candidate Starts for TooFast2Furius\_38:

(27, 35021), (34, 35045), (42, 35087), (46, 35105), (50, 35120), (Start: 87 @35225 has 531 MA's), (99, 35255), (103, 35267), (115, 35306), (119, 35321), (130, 35375), (142, 35420), (144, 35426), (146, 35432), (148, 35438), (156, 35483), (157, 35486), (163, 35513), (186, 35573), (189, 35594), (213, 35672),

Gene: TooFast2Furius\_37 Start: 34581, Stop: 35228, Start Num: 89

Candidate Starts for TooFast2Furius\_37:

(40, 34431), (Start: 75 @34542 has 1 MA's), (Start: 87 @34578 has 531 MA's), (Start: 89 @34581 has 177 MA's), (Start: 113 @34662 has 1 MA's), (144, 34797), (163, 34884), (180, 34929), (194, 35007), (212, 35058), (217, 35085), (219, 35103), (230, 35181), (239, 35214), (243, 35220),

Gene: Tooj\_36 Start: 34409, Stop: 35056, Start Num: 89

Candidate Starts for Tooj\_36:

(Start: 75 @34370 has 1 MA's), (Start: 87 @34406 has 531 MA's), (Start: 89 @34409 has 177 MA's), (Start: 113 @34490 has 1 MA's), (144, 34625), (163, 34712), (180, 34757), (194, 34835), (212, 34886), (217, 34913), (219, 34931), (230, 35009), (239, 35042), (243, 35048),

Gene: Tooj\_37 Start: 35053, Stop: 35652, Start Num: 87

Candidate Starts for Tooj\_37:

(27, 34849), (34, 34873), (42, 34915), (46, 34933), (50, 34948), (Start: 87 @35053 has 531 MA's), (99, 35083), (103, 35095), (115, 35134), (119, 35149), (130, 35203), (142, 35248), (144, 35254), (146, 35260), (148, 35266), (156, 35311), (157, 35314), (163, 35341), (186, 35401), (189, 35422), (213, 35500),

Gene: Tres\_36 Start: 34684, Stop: 35328, Start Num: 84

Candidate Starts for Tres\_36:

(34, 34519), (59, 34630), (Start: 84 @34684 has 45 MA's), (Start: 86 @34693 has 1 MA's), (109, 34762), (116, 34789), (118, 34798), (121, 34807), (144, 34915), (148, 34927), (176, 35020), (190, 35086), (194, 35107), (199, 35122), (201, 35128), (208, 35149), (214, 35161), (241, 35317),

Gene: Tres\_38 Start: 35474, Stop: 36073, Start Num: 87

Candidate Starts for Tres\_38:

(80, 35453), (Start: 87 @35474 has 531 MA's), (99, 35504), (106, 35525), (115, 35555), (116, 35558), (130, 35624), (144, 35675), (145, 35678), (146, 35681), (153, 35711), (156, 35732), (179, 35798), (187, 35828), (211, 35918), (213, 35921), (216, 35939), (219, 35963), (230, 36032), (237, 36059),

Gene: True\_36 Start: 34693, Stop: 35292, Start Num: 87

Candidate Starts for True\_36:

(27, 34489), (34, 34513), (42, 34555), (46, 34573), (50, 34588), (Start: 87 @34693 has 531 MA's), (99, 34723), (103, 34735), (115, 34774), (119, 34789), (130, 34843), (142, 34888), (144, 34894), (146, 34900), (148, 34906), (156, 34951), (157, 34954), (163, 34981), (186, 35041), (189, 35062), (213, 35140),

Gene: True\_35 Start: 34049, Stop: 34696, Start Num: 89

Candidate Starts for True\_35:

(Start: 75 @34010 has 1 MA's), (Start: 87 @34046 has 531 MA's), (Start: 89 @34049 has 177 MA's), (Start: 113 @34130 has 1 MA's), (144, 34265), (163, 34352), (180, 34397), (194, 34475), (212, 34526), (217, 34553), (219, 34571), (230, 34649), (239, 34682), (243, 34688),

Gene: Trypo\_37 Start: 34989, Stop: 35588, Start Num: 87

Candidate Starts for Trypo\_37:

(26, 34782), (27, 34785), (34, 34809), (42, 34851), (46, 34869), (50, 34884), (Start: 87 @34989 has 531 MA's), (99, 35019), (103, 35031), (115, 35070), (119, 35085), (130, 35139), (142, 35184), (144, 35190), (146, 35196), (148, 35202), (156, 35247), (157, 35250), (163, 35277), (186, 35337), (189, 35358), (206, 35421), (213, 35436),

Gene: Trypo\_36 Start: 34345, Stop: 34992, Start Num: 89

Candidate Starts for Trypo\_36:

(Start: 75 @34306 has 1 MA's), (Start: 87 @34342 has 531 MA's), (Start: 89 @34345 has 177 MA's), (Start: 113 @34426 has 1 MA's), (144, 34561), (163, 34648), (180, 34693), (193, 34762), (194, 34771), (212, 34822), (219, 34867), (230, 34945), (239, 34978), (243, 34984),

Gene: Tydolla\_36 Start: 35014, Stop: 35667, Start Num: 83

Candidate Starts for Tydolla\_36:

(Start: 83 @35014 has 45 MA's), (109, 35095), (115, 35119), (143, 35242), (178, 35368), (185, 35383), (197, 35458), (231, 35623), (232, 35626), (239, 35653),

Gene: Tydolla\_37 Start: 35664, Stop: 36263, Start Num: 87

Candidate Starts for Tydolla\_37:

(Start: 87 @35664 has 531 MA's), (99, 35694), (109, 35721), (127, 35808), (130, 35814), (148, 35877), (153, 35901), (156, 35922), (186, 36012), (206, 36096), (211, 36108), (221, 36168), (237, 36249),

Gene: TyrionL\_36 Start: 34552, Stop: 35151, Start Num: 87

Candidate Starts for TyrionL\_36:

(26, 34345), (27, 34348), (34, 34372), (42, 34414), (46, 34432), (50, 34447), (Start: 87 @34552 has 531 MA's), (99, 34582), (103, 34594), (115, 34633), (119, 34648), (130, 34702), (142, 34747), (144, 34753), (146, 34759), (148, 34765), (156, 34810), (157, 34813), (163, 34840), (186, 34900), (189, 34921), (206, 34984), (213, 34999),

Gene: TyrionL\_35 Start: 33905, Stop: 34555, Start Num: 87

Candidate Starts for TyrionL\_35:

(Start: 75 @33869 has 1 MA's), (Start: 87 @33905 has 531 MA's), (Start: 89 @33908 has 177 MA's), (Start: 113 @33989 has 1 MA's), (144, 34124), (163, 34211), (180, 34256), (193, 34325), (194, 34334), (212, 34385), (219, 34430), (230, 34508), (239, 34541), (243, 34547),

Gene: UACh1\_37 Start: 35002, Stop: 35601, Start Num: 87

Candidate Starts for UACh1\_37:

(27, 34798), (34, 34822), (42, 34864), (46, 34882), (50, 34897), (Start: 87 @35002 has 531 MA's), (99, 35032), (103, 35044), (115, 35083), (119, 35098), (130, 35152), (142, 35197), (144, 35203), (146, 35209), (148, 35215), (156, 35260), (157, 35263), (163, 35290), (186, 35350), (189, 35371), (213, 35449),

Gene: UACh1\_36 Start: 34355, Stop: 35005, Start Num: 87

Candidate Starts for UACh1\_36:

(Start: 75 @34319 has 1 MA's), (Start: 87 @34355 has 531 MA's), (Start: 89 @34358 has 177 MA's), (Start: 113 @34439 has 1 MA's), (144, 34574), (163, 34661), (180, 34706), (194, 34784), (212, 34835), (217, 34862), (219, 34880), (230, 34958), (239, 34991), (243, 34997),

Gene: UncleHowie\_36 Start: 34045, Stop: 34695, Start Num: 87

Candidate Starts for UncleHowie\_36:

(Start: 75 @34009 has 1 MA's), (Start: 87 @34045 has 531 MA's), (Start: 89 @34048 has 177 MA's), (Start: 113 @34129 has 1 MA's), (144, 34264), (163, 34351), (180, 34396), (194, 34474), (212, 34525), (217, 34552), (219, 34570), (230, 34648), (239, 34681), (243, 34687),

Gene: UncleHowie\_37 Start: 34692, Stop: 35291, Start Num: 87

Candidate Starts for UncleHowie\_37:

(27, 34488), (34, 34512), (42, 34554), (46, 34572), (50, 34587), (Start: 87 @34692 has 531 MA's), (99, 34722), (103, 34734), (115, 34773), (119, 34788), (130, 34842), (142, 34887), (144, 34893), (146, 34899), (148, 34905), (156, 34950), (157, 34953), (163, 34980), (186, 35040), (189, 35061), (213, 35139),

Gene: Usavi\_37 Start: 34993, Stop: 35592, Start Num: 87

Candidate Starts for Usavi\_37:

(27, 34789), (34, 34813), (42, 34855), (46, 34873), (50, 34888), (Start: 87 @34993 has 531 MA's), (99, 35023), (103, 35035), (115, 35074), (119, 35089), (130, 35143), (142, 35188), (144, 35194), (146, 35200), (148, 35206), (156, 35251), (157, 35254), (163, 35281), (186, 35341), (189, 35362), (213, 35440),

Gene: Usavi\_36 Start: 34349, Stop: 34996, Start Num: 89

Candidate Starts for Usavi\_36:

(Start: 75 @34310 has 1 MA's), (Start: 87 @34346 has 531 MA's), (Start: 89 @34349 has 177 MA's), (Start: 113 @34430 has 1 MA's), (144, 34565), (163, 34652), (180, 34697), (194, 34775), (212, 34826), (217, 34853), (219, 34871), (230, 34949), (239, 34982), (243, 34988),

Gene: Vaishali24\_36 Start: 34654, Stop: 35253, Start Num: 87

Candidate Starts for Vaishali24\_36:

(27, 34450), (34, 34474), (42, 34516), (46, 34534), (50, 34549), (Start: 87 @34654 has 531 MA's), (99, 34684), (103, 34696), (115, 34735), (119, 34750), (130, 34804), (142, 34849), (144, 34855), (146, 34861), (148, 34867), (156, 34912), (157, 34915), (163, 34942), (186, 35002), (189, 35023), (213, 35101),

Gene: Vaishali24\_35 Start: 34010, Stop: 34657, Start Num: 89

Candidate Starts for Vaishali24\_35:

(40, 33860), (Start: 75 @33971 has 1 MA's), (Start: 87 @34007 has 531 MA's), (Start: 89 @34010 has 177 MA's), (Start: 113 @34091 has 1 MA's), (144, 34226), (163, 34313), (180, 34358), (194, 34436), (212, 34487), (217, 34514), (219, 34532), (230, 34610), (239, 34643), (243, 34649),

Gene: Valjean\_36 Start: 34341, Stop: 34988, Start Num: 89

Candidate Starts for Valjean\_36:

(40, 34191), (Start: 75 @34302 has 1 MA's), (Start: 87 @34338 has 531 MA's), (Start: 89 @34341 has 177 MA's), (Start: 113 @34422 has 1 MA's), (144, 34557), (163, 34644), (180, 34689), (194, 34767), (212, 34818), (217, 34845), (219, 34863), (230, 34941), (239, 34974), (243, 34980),

Gene: Valjean\_37 Start: 34985, Stop: 35584, Start Num: 87

Candidate Starts for Valjean\_37:

(27, 34781), (34, 34805), (42, 34847), (46, 34865), (50, 34880), (Start: 87 @34985 has 531 MA's), (99, 35015), (103, 35027), (115, 35066), (119, 35081), (130, 35135), (142, 35180), (144, 35186), (146, 35192), (148, 35198), (156, 35243), (157, 35246), (163, 35273), (186, 35333), (189, 35354),

Gene: Vaticameos\_36 Start: 34036, Stop: 34686, Start Num: 87

Candidate Starts for Vaticameos\_36:

(Start: 75 @34000 has 1 MA's), (Start: 87 @34036 has 531 MA's), (Start: 89 @34039 has 177 MA's), (Start: 113 @34120 has 1 MA's), (144, 34255), (163, 34342), (180, 34387), (194, 34465), (212, 34516), (217, 34543), (219, 34561), (230, 34639), (239, 34672), (243, 34678),

Gene: Veritas\_36 Start: 34555, Stop: 35154, Start Num: 87

Candidate Starts for Veritas\_36:

(26, 34348), (27, 34351), (34, 34375), (42, 34417), (46, 34435), (50, 34450), (Start: 87 @34555 has 531 MA's), (99, 34585), (103, 34597), (115, 34636), (119, 34651), (130, 34705), (142, 34750), (144, 34756), (146, 34762), (148, 34768), (156, 34813), (157, 34816), (163, 34843), (186, 34903), (189, 34924), (206, 34987), (213, 35002),

Gene: Veritas\_35 Start: 33911, Stop: 34558, Start Num: 89

Candidate Starts for Veritas\_35:

(Start: 75 @33872 has 1 MA's), (Start: 87 @33908 has 531 MA's), (Start: 89 @33911 has 177 MA's), (Start: 113 @33992 has 1 MA's), (144, 34127), (163, 34214), (180, 34259), (193, 34328), (194, 34337), (212, 34388), (219, 34433), (230, 34511), (239, 34544), (243, 34550),

Gene: Vic9\_00037 Start: 35977, Stop: 36576, Start Num: 87

Candidate Starts for Vic9\_00037:

(80, 35956), (Start: 87 @35977 has 531 MA's), (99, 36007), (106, 36028), (115, 36058), (116, 36061), (130, 36127), (144, 36178), (145, 36181), (146, 36184), (153, 36214), (156, 36235), (179, 36301), (187, 36331), (195, 36376), (211, 36421), (213, 36424), (216, 36442), (219, 36466), (230, 36535), (237, 36562),

Gene: Vic9\_00036 Start: 35196, Stop: 35831, Start Num: 86

Candidate Starts for Vic9\_00036:

(23, 34986), (Start: 84 @35187 has 45 MA's), (Start: 86 @35196 has 1 MA's), (109, 35265), (116, 35292), (118, 35301), (121, 35310), (140, 35406), (144, 35418), (148, 35430), (176, 35523), (190, 35589), (194, 35610), (199, 35625), (201, 35631), (208, 35652), (214, 35664), (241, 35820),

Gene: Vincenzo\_34 Start: 35254, Stop: 35907, Start Num: 67

Candidate Starts for Vincenzo\_34:

(Start: 67 @35254 has 25 MA's), (107, 35347), (125, 35428), (130, 35443), (137, 35467), (138, 35476), (139, 35479), (142, 35488), (154, 35536), (165, 35590), (167, 35593), (169, 35602), (172, 35608), (174, 35611), (189, 35668), (193, 35680), (213, 35740), (217, 35764), (241, 35896),

Gene: Vincenzo\_35 Start: 35904, Stop: 36506, Start Num: 87

Candidate Starts for Vincenzo\_35:

(Start: 87 @35904 has 531 MA's), (99, 35937), (103, 35949), (127, 36051), (130, 36057), (135, 36072), (142, 36102), (144, 36108), (146, 36114), (153, 36144), (156, 36165), (179, 36231), (186, 36255), (187, 36261), (189, 36276), (191, 36288), (211, 36351), (213, 36354), (232, 36471), (233, 36474), (237, 36492),

Gene: VioletZ\_33 Start: 34605, Stop: 35252, Start Num: 67

Candidate Starts for VioletZ\_33:

(Start: 67 @34605 has 25 MA's), (102, 34683), (104, 34695), (123, 34767), (138, 34821), (139, 34824), (142, 34833), (154, 34881), (165, 34935), (172, 34953), (189, 35013), (193, 35025), (217, 35109), (219, 35127), (233, 35214), (234, 35217), (241, 35241),

Gene: VioletZ\_34 Start: 35249, Stop: 35854, Start Num: 87

Candidate Starts for VioletZ\_34:

(Start: 87 @35249 has 531 MA's), (99, 35285), (109, 35312), (115, 35336), (116, 35339), (127, 35399), (130, 35405), (142, 35450), (145, 35459), (146, 35462), (147, 35465), (153, 35492), (156, 35513), (163, 35543), (187, 35609), (189, 35624), (206, 35687), (219, 35744), (233, 35822), (237, 35840),

Gene: Virapocalypse\_37 Start: 34980, Stop: 35579, Start Num: 87

Candidate Starts for Virapocalypse\_37:

(27, 34776), (34, 34800), (42, 34842), (46, 34860), (50, 34875), (Start: 87 @34980 has 531 MA's), (99, 35010), (103, 35022), (115, 35061), (119, 35076), (130, 35130), (142, 35175), (144, 35181), (146, 35187), (148, 35193), (156, 35238), (157, 35241), (163, 35268), (186, 35328), (189, 35349), (213, 35427),

Gene: Virapocalypse\_36 Start: 34336, Stop: 34983, Start Num: 89

Candidate Starts for Virapocalypse\_36:

(40, 34186), (Start: 75 @34297 has 1 MA's), (Start: 87 @34333 has 531 MA's), (Start: 89 @34336 has 177 MA's), (Start: 113 @34417 has 1 MA's), (144, 34552), (163, 34639), (180, 34684), (194, 34762), (212, 34813), (217, 34840), (219, 34858), (230, 34936), (239, 34969), (243, 34975),

Gene: Virgeve\_36 Start: 34760, Stop: 35359, Start Num: 87

Candidate Starts for Virgeve\_36:

(27, 34556), (34, 34580), (42, 34622), (46, 34640), (50, 34655), (Start: 87 @34760 has 531 MA's), (99, 34790), (103, 34802), (115, 34841), (119, 34856), (130, 34910), (142, 34955), (144, 34961), (146, 34967), (148, 34973), (156, 35018), (157, 35021), (163, 35048), (189, 35129), (206, 35192), (213, 35207),

Gene: Virgeve\_35 Start: 34116, Stop: 34763, Start Num: 89

Candidate Starts for Virgeve\_35:

(40, 33966), (Start: 75 @34077 has 1 MA's), (Start: 87 @34113 has 531 MA's), (Start: 89 @34116 has 177 MA's), (Start: 113 @34197 has 1 MA's), (144, 34332), (163, 34419), (180, 34464), (194, 34542), (212, 34593), (217, 34620), (219, 34638), (230, 34716), (239, 34749), (243, 34755),

Gene: Vista\_36 Start: 34346, Stop: 34996, Start Num: 87

Candidate Starts for Vista\_36:

(Start: 75 @34310 has 1 MA's), (Start: 87 @34346 has 531 MA's), (Start: 89 @34349 has 177 MA's), (Start: 113 @34430 has 1 MA's), (144, 34565), (163, 34652), (180, 34697), (194, 34775), (212, 34826), (217, 34853), (219, 34871), (230, 34949), (239, 34982), (243, 34988),

Gene: Vista\_37 Start: 34993, Stop: 35592, Start Num: 87

Candidate Starts for Vista\_37:

(27, 34789), (34, 34813), (42, 34855), (46, 34873), (50, 34888), (Start: 87 @34993 has 531 MA's), (99, 35023), (103, 35035), (115, 35074), (119, 35089), (130, 35143), (142, 35188), (144, 35194), (146, 35200), (148, 35206), (156, 35251), (157, 35254), (163, 35281), (186, 35341), (189, 35362), (213, 35440),

Gene: Vivaldi\_36 Start: 34375, Stop: 35025, Start Num: 87

Candidate Starts for Vivaldi\_36:

(40, 34228), (Start: 75 @34339 has 1 MA's), (Start: 87 @34375 has 531 MA's), (Start: 89 @34378 has 177 MA's), (Start: 113 @34459 has 1 MA's), (144, 34594), (163, 34681), (180, 34726), (194, 34804), (212, 34855), (217, 34882), (219, 34900), (230, 34978), (239, 35011), (243, 35017),

Gene: Vivaldi\_37 Start: 35022, Stop: 35621, Start Num: 87

Candidate Starts for Vivaldi\_37:

(27, 34818), (34, 34842), (42, 34884), (46, 34902), (50, 34917), (Start: 87 @35022 has 531 MA's), (99, 35052), (103, 35064), (115, 35103), (119, 35118), (130, 35172), (142, 35217), (144, 35223), (146, 35229), (148, 35235), (156, 35280), (157, 35283), (163, 35310), (186, 35370), (189, 35391), (213, 35469),

Gene: Vortex\_36 Start: 34052, Stop: 34702, Start Num: 87

Candidate Starts for Vortex\_36:

(Start: 75 @34016 has 1 MA's), (Start: 87 @34052 has 531 MA's), (Start: 89 @34055 has 177 MA's), (Start: 113 @34136 has 1 MA's), (144, 34271), (163, 34358), (180, 34403), (194, 34481), (212, 34532), (217, 34559), (219, 34577), (230, 34655), (239, 34688), (243, 34694),

Gene: Vortex\_37 Start: 34699, Stop: 35298, Start Num: 87

Candidate Starts for Vortex\_37:

(27, 34495), (34, 34519), (42, 34561), (46, 34579), (50, 34594), (Start: 87 @34699 has 531 MA's), (99, 34729), (103, 34741), (115, 34780), (119, 34795), (130, 34849), (142, 34894), (144, 34900), (146, 34906), (148, 34912), (156, 34957), (157, 34960), (163, 34987), (186, 35047), (189, 35068), (213, 35146),

Gene: Waleliano\_34 Start: 35176, Stop: 35781, Start Num: 87

Candidate Starts for Waleliano\_34:

(1, 34603), (5, 34720), (8, 34774), (10, 34783), (20, 34906), (29, 34975), (36, 34999), (47, 35056), (Start: 87 @35176 has 531 MA's), (99, 35212), (109, 35239), (115, 35263), (116, 35266), (130, 35332), (142, 35377), (145, 35386), (146, 35389), (147, 35392), (153, 35419), (156, 35440), (157, 35443), (163, 35470), (187, 35536), (189, 35551), (206, 35614), (219, 35671), (233, 35749), (237, 35767),

Gene: Waleliano\_33 Start: 34532, Stop: 35179, Start Num: 67

Candidate Starts for Waleliano\_33:

(Start: 67 @34532 has 25 MA's), (102, 34610), (104, 34622), (123, 34694), (132, 34718), (137, 34739), (138, 34748), (139, 34751), (142, 34760), (154, 34808), (172, 34880), (189, 34940), (193, 34952), (213, 35012), (217, 35036), (219, 35054), (233, 35141), (234, 35144), (241, 35168),

Gene: Wallhey\_35 Start: 33909, Stop: 34559, Start Num: 87

Candidate Starts for Wallhey\_35:

(Start: 75 @33873 has 1 MA's), (Start: 87 @33909 has 531 MA's), (Start: 89 @33912 has 177 MA's), (Start: 113 @33993 has 1 MA's), (144, 34128), (163, 34215), (180, 34260), (193, 34329), (194, 34338), (212, 34389), (219, 34434), (230, 34512), (239, 34545), (243, 34551),

Gene: Wallhey\_36 Start: 34556, Stop: 35155, Start Num: 87

Candidate Starts for Wallhey\_36:

(26, 34349), (27, 34352), (34, 34376), (42, 34418), (46, 34436), (50, 34451), (Start: 87 @34556 has 531 MA's), (99, 34586), (103, 34598), (115, 34637), (119, 34652), (130, 34706), (142, 34751), (144, 34757), (146, 34763), (148, 34769), (156, 34814), (157, 34817), (163, 34844), (186, 34904), (189, 34925), (206, 34988), (213, 35003),

Gene: Waterdiva\_37 Start: 34985, Stop: 35584, Start Num: 87

Candidate Starts for Waterdiva\_37:

(27, 34781), (34, 34805), (42, 34847), (46, 34865), (50, 34880), (Start: 87 @34985 has 531 MA's), (99, 35015), (103, 35027), (115, 35066), (119, 35081), (130, 35135), (142, 35180), (144, 35186), (146, 35192), (148, 35198), (156, 35243), (157, 35246), (163, 35273), (186, 35333), (189, 35354), (213, 35432),

Gene: Waterdiva\_36 Start: 34338, Stop: 34988, Start Num: 87

Candidate Starts for Waterdiva\_36:

(Start: 75 @34302 has 1 MA's), (Start: 87 @34338 has 531 MA's), (Start: 89 @34341 has 177 MA's), (Start: 113 @34422 has 1 MA's), (144, 34557), (163, 34644), (180, 34689), (194, 34767), (212, 34818), (217, 34845), (219, 34863), (230, 34941), (239, 34974), (243, 34980),

Gene: Weher20\_36 Start: 34340, Stop: 34987, Start Num: 89

Candidate Starts for Weher20\_36:

(Start: 75 @34301 has 1 MA's), (Start: 87 @34337 has 531 MA's), (Start: 89 @34340 has 177 MA's), (Start: 113 @34421 has 1 MA's), (144, 34556), (163, 34643), (180, 34688), (193, 34757), (194, 34766), (212, 34817), (219, 34862), (230, 34940), (239, 34973), (243, 34979),

Gene: Weher20\_37 Start: 34984, Stop: 35583, Start Num: 87

Candidate Starts for Weher20\_37:

(26, 34777), (27, 34780), (34, 34804), (42, 34846), (46, 34864), (50, 34879), (Start: 87 @34984 has 531 MA's), (99, 35014), (103, 35026), (115, 35065), (119, 35080), (130, 35134), (142, 35179), (144, 35185), (146, 35191), (148, 35197), (156, 35242), (157, 35245), (163, 35272), (189, 35353), (206, 35416), (213, 35431),

Gene: West99\_36 Start: 34804, Stop: 35448, Start Num: 84

Candidate Starts for West99\_36:

(34, 34639), (59, 34750), (Start: 84 @34804 has 45 MA's), (Start: 86 @34813 has 1 MA's), (109, 34882), (116, 34909), (118, 34918), (121, 34927), (144, 35035), (148, 35047), (176, 35140), (190, 35206), (194, 35227), (199, 35242), (201, 35248), (208, 35269), (214, 35281), (241, 35437),

Gene: West99\_38 Start: 35594, Stop: 36193, Start Num: 87

Candidate Starts for West99\_38:

(80, 35573), (Start: 87 @35594 has 531 MA's), (99, 35624), (106, 35645), (115, 35675), (116, 35678), (130, 35744), (144, 35795), (145, 35798), (146, 35801), (153, 35831), (156, 35852), (179, 35918), (187, 35948), (211, 36038), (213, 36041), (216, 36059), (219, 36083), (230, 36152), (237, 36179),

Gene: Windsor\_35 Start: 34045, Stop: 34692, Start Num: 89

Candidate Starts for Windsor\_35:

(40, 33895), (Start: 75 @34006 has 1 MA's), (Start: 87 @34042 has 531 MA's), (Start: 89 @34045 has 177 MA's), (Start: 113 @34126 has 1 MA's), (144, 34261), (163, 34348), (180, 34393), (194, 34471), (212, 34522), (217, 34549), (219, 34567), (230, 34645), (239, 34678), (243, 34684),

Gene: Windsor\_36 Start: 34689, Stop: 35288, Start Num: 87

Candidate Starts for Windsor\_36:

(27, 34485), (34, 34509), (42, 34551), (46, 34569), (50, 34584), (Start: 87 @34689 has 531 MA's), (99, 34719), (103, 34731), (115, 34770), (119, 34785), (130, 34839), (142, 34884), (144, 34890), (146,

34896), (148, 34902), (156, 34947), (157, 34950), (163, 34977), (189, 35058), (206, 35121), (213, 35136),

Gene: Wooper\_32 Start: 30073, Stop: 30669, Start Num: 87

Candidate Starts for Wooper\_32:

(34, 29896), (42, 29935), (43, 29944), (46, 29953), (60, 30007), (64, 30019), (Start: 87 @30073 has 531 MA's), (99, 30103), (127, 30217), (130, 30223), (144, 30274), (146, 30280), (156, 30331), (179, 30397), (185, 30409), (195, 30472), (205, 30502), (213, 30520), (215, 30529), (237, 30655),

Gene: Wooper\_31 Start: 29462, Stop: 30076, Start Num: 93

Candidate Starts for Wooper\_31:

(33, 29270), (Start: 93 @29462 has 16 MA's), (Start: 95 @29465 has 3 MA's), (112, 29531), (117, 29546), (119, 29555), (125, 29594), (131, 29615), (135, 29630), (143, 29663), (153, 29702), (154, 29705), (156, 29723), (158, 29729), (178, 29777), (219, 29951), (232, 30035), (241, 30065),

Gene: Xavier\_35 Start: 34059, Stop: 34709, Start Num: 87

Candidate Starts for Xavier\_35:

(Start: 75 @34023 has 1 MA's), (Start: 87 @34059 has 531 MA's), (Start: 89 @34062 has 177 MA's), (Start: 113 @34143 has 1 MA's), (144, 34278), (163, 34365), (180, 34410), (194, 34488), (212, 34539), (217, 34566), (219, 34584), (230, 34662), (239, 34695), (243, 34701),

Gene: Xavier\_36 Start: 34706, Stop: 35305, Start Num: 87

Candidate Starts for Xavier\_36:

(27, 34502), (34, 34526), (42, 34568), (46, 34586), (50, 34601), (Start: 87 @34706 has 531 MA's), (99, 34736), (103, 34748), (115, 34787), (119, 34802), (130, 34856), (142, 34901), (144, 34907), (146, 34913), (148, 34919), (156, 34964), (157, 34967), (163, 34994), (186, 35054), (189, 35075), (213, 35153),

Gene: Xincheng\_32 Start: 33987, Stop: 34634, Start Num: 67

Candidate Starts for Xincheng\_32:

(Start: 67 @33987 has 25 MA's), (102, 34065), (104, 34077), (123, 34149), (132, 34173), (137, 34194), (138, 34203), (139, 34206), (142, 34215), (154, 34263), (165, 34317), (172, 34335), (189, 34395), (193, 34407), (213, 34467), (217, 34491), (219, 34509), (233, 34596), (241, 34623),

Gene: Xincheng\_33 Start: 34631, Stop: 35236, Start Num: 87

Candidate Starts for Xincheng\_33:

(Start: 87 @34631 has 531 MA's), (99, 34667), (103, 34679), (109, 34694), (115, 34718), (116, 34721), (130, 34787), (142, 34832), (145, 34841), (146, 34844), (147, 34847), (148, 34850), (153, 34874), (156, 34895), (163, 34925), (186, 34985), (189, 35006), (206, 35069), (211, 35081), (219, 35126), (233, 35204), (237, 35222),

Gene: Yago84\_29 Start: 28425, Stop: 29039, Start Num: 93

Candidate Starts for Yago84\_29:

(Start: 93 @28425 has 16 MA's), (98, 28440), (112, 28494), (119, 28518), (125, 28557), (143, 28626), (144, 28629), (154, 28668), (158, 28692), (176, 28734), (182, 28746), (190, 28800), (227, 28971), (230, 28992), (232, 28998), (241, 29028),

Gene: Yago84\_30 Start: 29036, Stop: 29665, Start Num: 87

Candidate Starts for Yago84\_30:

(34, 28859), (Start: 87 @29036 has 531 MA's), (99, 29066), (109, 29093), (127, 29180), (130, 29186), (143, 29234), (146, 29243), (153, 29273), (156, 29294), (168, 29339), (177, 29357), (179, 29360), (213, 29483), (215, 29492), (216, 29501),



Gene: Yahalom\_37 Start: 34940, Stop: 35539, Start Num: 87

Candidate Starts for Yahalom\_37:

(Start: 87 @34940 has 531 MA's), (99, 34970), (109, 34997), (127, 35084), (130, 35090), (148, 35153), (153, 35177), (156, 35198), (186, 35288), (206, 35372), (211, 35384), (221, 35444), (232, 35504), (237, 35525),

Gene: Yahalom\_36 Start: 34290, Stop: 34943, Start Num: 83

Candidate Starts for Yahalom\_36:

(Start: 83 @34290 has 45 MA's), (109, 34371), (115, 34395), (143, 34518), (178, 34644), (185, 34659), (197, 34734), (231, 34899), (239, 34929),

Gene: Yeshua\_31 Start: 29439, Stop: 30053, Start Num: 93

Candidate Starts for Yeshua\_31:

(33, 29247), (Start: 93 @29439 has 16 MA's), (Start: 95 @29442 has 3 MA's), (112, 29508), (117, 29523), (119, 29532), (125, 29571), (131, 29592), (135, 29607), (143, 29640), (153, 29679), (154, 29682), (156, 29700), (158, 29706), (178, 29754), (219, 29928), (232, 30012), (241, 30042),

Gene: Yeshua\_32 Start: 30050, Stop: 30646, Start Num: 87

Candidate Starts for Yeshua\_32:

(34, 29873), (42, 29912), (43, 29921), (46, 29930), (60, 29984), (64, 29996), (Start: 87 @30050 has 531 MA's), (99, 30080), (127, 30194), (130, 30200), (144, 30251), (146, 30257), (156, 30308), (179, 30374), (185, 30386), (195, 30449), (205, 30479), (213, 30497), (215, 30506), (237, 30632),

Gene: Yinz\_37 Start: 34966, Stop: 35565, Start Num: 87

Candidate Starts for Yinz\_37:

(26, 34762), (Start: 87 @34966 has 531 MA's), (99, 34996), (109, 35023), (127, 35110), (130, 35116), (148, 35179), (153, 35203), (186, 35314), (206, 35398), (211, 35410), (221, 35470), (237, 35551),

Gene: Yinz\_36 Start: 34316, Stop: 34969, Start Num: 83

Candidate Starts for Yinz\_36:

(Start: 83 @34316 has 45 MA's), (109, 34397), (143, 34544), (178, 34670), (185, 34685), (197, 34760), (231, 34925), (239, 34955),

Gene: Yoshand\_37 Start: 34992, Stop: 35591, Start Num: 87

Candidate Starts for Yoshand\_37:

(27, 34788), (34, 34812), (42, 34854), (46, 34872), (50, 34887), (Start: 87 @34992 has 531 MA's), (99, 35022), (103, 35034), (115, 35073), (119, 35088), (130, 35142), (142, 35187), (144, 35193), (146, 35199), (148, 35205), (156, 35250), (157, 35253), (163, 35280), (186, 35340), (189, 35361), (213, 35439),

Gene: Yoshand\_36 Start: 34345, Stop: 34995, Start Num: 87

Candidate Starts for Yoshand\_36:

(Start: 75 @34309 has 1 MA's), (Start: 87 @34345 has 531 MA's), (Start: 89 @34348 has 177 MA's), (Start: 113 @34429 has 1 MA's), (144, 34564), (163, 34651), (180, 34696), (194, 34774), (212, 34825), (217, 34852), (219, 34870), (230, 34948), (239, 34981), (243, 34987),

Gene: YouGoGlencoco\_36 Start: 34340, Stop: 34990, Start Num: 87

Candidate Starts for YouGoGlencoco\_36:

(Start: 75 @34304 has 1 MA's), (Start: 87 @34340 has 531 MA's), (Start: 89 @34343 has 177 MA's), (Start: 113 @34424 has 1 MA's), (144, 34559), (163, 34646), (180, 34691), (194, 34769), (212, 34820), (217, 34847), (219, 34865), (230, 34943), (239, 34976), (243, 34982),

Gene: YouGoGlencoco\_37 Start: 34987, Stop: 35586, Start Num: 87

Candidate Starts for YouGoGlencoco\_37:

(27, 34783), (34, 34807), (42, 34849), (46, 34867), (50, 34882), (Start: 87 @34987 has 531 MA's), (99, 35017), (103, 35029), (115, 35068), (119, 35083), (130, 35137), (142, 35182), (144, 35188), (146, 35194), (148, 35200), (156, 35245), (157, 35248), (163, 35275), (186, 35335), (189, 35356), (213, 35434),

Gene: Zaider\_37 Start: 34573, Stop: 35220, Start Num: 89

Candidate Starts for Zaider\_37:

(40, 34423), (Start: 75 @34534 has 1 MA's), (Start: 87 @34570 has 531 MA's), (Start: 89 @34573 has 177 MA's), (Start: 113 @34654 has 1 MA's), (144, 34789), (163, 34876), (180, 34921), (194, 34999), (212, 35050), (217, 35077), (219, 35095), (230, 35173), (239, 35206), (243, 35212),

Gene: Zaider\_38 Start: 35217, Stop: 35816, Start Num: 87

Candidate Starts for Zaider\_38:

(27, 35013), (34, 35037), (42, 35079), (46, 35097), (50, 35112), (Start: 87 @35217 has 531 MA's), (99, 35247), (103, 35259), (115, 35298), (119, 35313), (130, 35367), (142, 35412), (144, 35418), (146, 35424), (148, 35430), (156, 35475), (157, 35478), (163, 35505), (186, 35565), (189, 35586), (213, 35664),

Gene: Zelda\_37 Start: 35034, Stop: 35633, Start Num: 87

Candidate Starts for Zelda\_37:

(27, 34830), (34, 34854), (42, 34896), (46, 34914), (50, 34929), (Start: 87 @35034 has 531 MA's), (99, 35064), (103, 35076), (115, 35115), (119, 35130), (130, 35184), (142, 35229), (144, 35235), (146, 35241), (148, 35247), (156, 35292), (157, 35295), (163, 35322), (186, 35382), (189, 35403), (213, 35481),

Gene: Zelda\_36 Start: 34390, Stop: 35037, Start Num: 89

Candidate Starts for Zelda\_36:

(40, 34240), (Start: 75 @34351 has 1 MA's), (Start: 87 @34387 has 531 MA's), (Start: 89 @34390 has 177 MA's), (Start: 113 @34471 has 1 MA's), (144, 34606), (163, 34693), (180, 34738), (194, 34816), (212, 34867), (217, 34894), (219, 34912), (230, 34990), (239, 35023), (243, 35029),

Gene: Zemanar\_34 Start: 34535, Stop: 35182, Start Num: 67

Candidate Starts for Zemanar\_34:

(Start: 67 @34535 has 25 MA's), (102, 34613), (104, 34625), (123, 34697), (132, 34721), (138, 34751), (139, 34754), (142, 34763), (154, 34811), (165, 34865), (172, 34883), (189, 34943), (193, 34955), (217, 35039), (219, 35057), (233, 35144), (234, 35147), (241, 35171),

Gene: Zemanar\_35 Start: 35179, Stop: 35784, Start Num: 87

Candidate Starts for Zemanar\_35:

(Start: 87 @35179 has 531 MA's), (99, 35215), (109, 35242), (115, 35266), (116, 35269), (127, 35329), (130, 35335), (142, 35380), (145, 35389), (146, 35392), (147, 35395), (153, 35422), (156, 35443), (163, 35473), (187, 35539), (189, 35554), (206, 35617), (219, 35674), (233, 35752), (237, 35770),

Gene: Zenteno07\_41 Start: 34598, Stop: 35206, Start Num: 87

Candidate Starts for Zenteno07\_41:

(63, 34544), (Start: 87 @34598 has 531 MA's), (Start: 95 @34604 has 3 MA's), (99, 34628), (127, 34742), (130, 34748), (146, 34805), (213, 35045), (215, 35054), (224, 35132), (233, 35174),

Gene: Zenteno07\_40 Start: 33957, Stop: 34601, Start Num: 87

Candidate Starts for Zenteno07\_40:

(55, 33867), (62, 33891), (68, 33909), (71, 33915), (Start: 87 @33957 has 531 MA's), (117, 34050), (120, 34062), (153, 34209), (156, 34230), (170, 34284), (190, 34362), (234, 34566), (241, 34590),

Gene: Zonia\_36 Start: 34362, Stop: 35009, Start Num: 89

Candidate Starts for Zonia\_36:

(Start: 75 @34323 has 1 MA's), (Start: 87 @34359 has 531 MA's), (Start: 89 @34362 has 177 MA's),  
(Start: 113 @34443 has 1 MA's), (144, 34578), (163, 34665), (180, 34710), (193, 34779), (194, 34788),  
(212, 34839), (219, 34884), (230, 34962), (239, 34995), (243, 35001),

Gene: Zonia\_37 Start: 35006, Stop: 35605, Start Num: 87

Candidate Starts for Zonia\_37:

(26, 34799), (27, 34802), (34, 34826), (42, 34868), (46, 34886), (50, 34901), (Start: 87 @35006 has  
531 MA's), (99, 35036), (103, 35048), (115, 35087), (119, 35102), (130, 35156), (142, 35201), (144,  
35207), (146, 35213), (148, 35219), (156, 35264), (157, 35267), (163, 35294), (186, 35354), (189,  
35375), (206, 35438), (213, 35453),