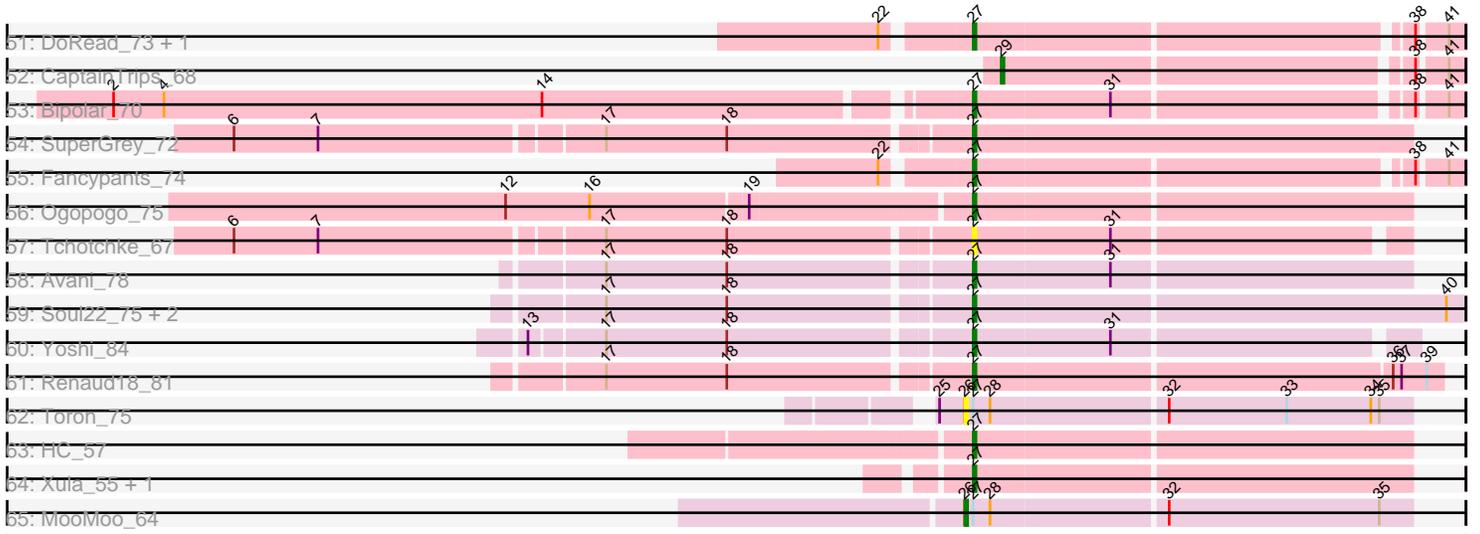# Pham 281967

Pham 281967

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 281967 Report

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

Pham number 281967 has 229 members, 19 are drafts.

Phages represented in each track:
• Track 1 : Phasih_66, Starcevich_70, Moonbeam_70
• Track 2 : Coco12_69, Ruby_65, Cerasum_66, Marker_71, MisterCuddles_67, Girr_67, Brookers_67, BlueCrab_72, Krakatau_65, Spartacus_73, BigPhil_66, Grimmer_79, Mahavrat_66, Demsculpinboyz_81, Sabbb_71
• Track 3 : OwlsT2W_72, DosHalletts_72, Zerg_70, Royals2015_76, Hades_70
• Track 4 : Strokeseat_62, Juice456_68, Donkeykong_69, Hlubikazi_62, KristaRAM_70, Mandlovu_62
• Track 5 : FreddyB_78, Kenuha5_70, Ramsey_73, DillTech15_71, Madiba_75
• Track 6 : Melissauren88_64, QuickMath_70, Scottish_65, KingMidas_66, Empress_65, Clank_72, DotProduct_61, Jabbawokkie_81, Nimbo_60, Ms6_63, Seagreen_65, MulchExplorer_74, Girafales_74, Kimberlium_71, Blarby_79, Deb65_61, Shauna1_64, Firehouse51_69, Quico_74, TChen_68, OldBen_64, Phanphagia_62
• Track 7 : Whatsapiecost_66, BodEinwohner17_67, Ovechkin_66, Geralt_61, MilanaBonita_56, LunaStella_66
• Track 8 : DaddyRickover_68, Sassafras_67, Inventum_64, RedBird_67, Polka14_70, Dorothy_67
• Track 9 : Enby_70, UncleRicky_68, Leozinho_69, Llij_65, DirtMcgirt_68, Phatniss_67, Lorde_69, Drago_66
• Track 10 : Wee_72, TDanisky_74, Sparkdehlily_74, Taj_72
• Track 11 : Rialto_77, Slim_74, Emmaloid_74
• Track 12 : Mutaforma13_75, Beakin_70, LunaBlu_72, Galactic_69
• Track 13 : Polo2Bam_76, Aubs_71, Enzomatic_77, NewHope4_70, ShroomBoi_72
• Track 14 : KingJulian_69, StAnnes_66
• Track 15 : DeadP_73, Florinda_77, Akhila_57, IbOuu_69, LittleShirley_67, Zapner_80
• Track 16 : Kersh_71, Ibhubesi_69, Burwell21_68, Byougenkin_70, Plumbus_71, LilMoolah_68, Che8_74, Pacc40_63, Nivrat_66
• Track 17 : DRBy19_75, Philus_74, Topiatin_75
• Track 18 : Crumble_65
• Track 19 : PopTart_61, Filuzino_65, DLane_62, Medindi_63, SassyB_61
• Track 20 : JalFarm20_80, PhesterPhotato_70
• Track 21 : ShowerHandel_75, ByChance_65
• Track 22 : RockyHorror_70, Gorge_73, Violac_70, Totinger_69, Brocalys_64, DotProduct_70, BobaPhett_74, Pippy_69, Saal_71, Lizziana_75, Clifton_64, Eish_72, Karhdo_68, LastJedi_63, NormanBulbieJr_69, Koella_64, Priscilla_70, Doug_71, SwagPigglett_75, Mattes_73, SimranZ1_70, Mwanjiwa_75, Spoonbill_70,

Cabrinians_71, OlympiaSaint_71, DaWorst_70, James_73
• Track 23 : Juniper1_70, Blexus_69, Maravista_72
• Track 24 : Zizzle_74, Jennelsea_67
• Track 25 : Yorick_70, Rita_77, GigiOuiOui_67, Jarcob_71
• Track 26 : EleanorGeorge_73
• Track 27 : Stap_66
• Track 28 : Latretium_69
• Track 29 : JoeyJr_67, PHappiness_67, Leperchaun_64, Daenerys_66, RitaG_67
• Track 30 : BodEinwohner17_74, Radiance_68, Tootsieroll_71
• Track 31 : Jant_70, PMC_63, Rockne_67, MilleniumForce_69, ThetaBob_74
• Track 32 : Llama_76, AlpineSix_76, Bubbles123_67, Che9d_81, Seabastian_77, Nitzel_66, OfUltron_77
• Track 33 : Whouxphf_68
• Track 34 : MadMen_69
• Track 35 : SG4_65
• Track 36 : Phalconet_65
• Track 37 : Hegedechwinu_68, Gandalph_71, Doomslug_78
• Track 38 : Beanstalk_71
• Track 39 : Doomphist_69, Poenanya_69
• Track 40 : ShiLan_71, ArcusAngelus_75, Chevrolet_77
• Track 41 : IrishSherpFalk_72, WillSterrel_72
• Track 42 : Pollywog_70
• Track 43 : Mantra_67, Cheesepuff_78, Sarma624_68, Emma_72, Velveteen_65
• Track 44 : VRedHorse_69, Cornucopia_71
• Track 45 : BuzzLyseyear_76
• Track 46 : Flathead_68
• Track 47 : Lucia_69
• Track 48 : Martik_72
• Track 49 : Wachhund_70
• Track 50 : Fruitloop_63
• Track 51 : DoRead_73, Estave1_76
• Track 52 : CaptainTrips_68
• Track 53 : Bipolar_70
• Track 54 : SuperGrey_72
• Track 55 : Fancypants_74
• Track 56 : Ogopogo_75
• Track 57 : Tchotchke_67
• Track 58 : Avani_78
• Track 59 : Soul22_75, Mozy_78, Cornie_67
• Track 60 : Yoshi_84
• Track 61 : Renaud18_81
• Track 62 : Toron_75
• Track 63 : HC_57
• Track 64 : Xula_55, QueenHazel_56
• Track 65 : MooMoo_64

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

The start number called the most often in the published annotations is 27, it was called in 178 of the 210 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Akhila_57, AlpineSix_76, ArcusAngelus_75, Aubs_71, Avani_78, Beakin_70, Beanstalk_71, BigPhil_66, Bipolar_70, Blexus_69, BlueCrab_72, BobaPhett_74, BodEinwohner17_74, Brocalys_64, Brookers_67, Bubbles123_67, Burwell21_68, BuzzLyseyear_76, ByChance_65, Byougenkin_70, Cabrinians_71, Cerasum_66, Che8_74, Che9d_81, Cheesepuff_78, Chevrolet_77, Clifton_64, Coco12_69, Cornie_67, Cornucopia_71, Crumble_65, DLane_62, DRBy19_75, DaWorst_70, DaddyRickover_68, Daenerys_66, DeadP_73, Demsculpinboyz_81, DillTech15_71, DirtMcgirt_68, DoRead_73, Doomphist_69, Doomslug_78, Dorothy_67, DosHalletts_72, DotProduct_70, Doug_71, Drago_66, Eish_72, EleanorGeorge_73, Emma_72, Emmaloid_74, Enby_70, Enzomatic_77, Estave1_76, Fancypants_74, Filuzino_65, Flathead_68, Florinda_77, FreddyB_78, Fruitloop_63, Galactic_69, Gandalph_71, GigiOuiOui_67, Girr_67, Gorge_73, Grimmer_79, HC_57, Hades_70, Hegedechwinu_68, IbOuu_69, Ibhubesi_69, Inventum_64, IrishSherpFalk_72, JalFarm20_80, James_73, Jant_70, Jarcob_71, Jennelsea_67, JoeyJr_67, Juniper1_70, Karhdo_68, Kenuha5_70, Kersh_71, KingJulian_69, Koella_64, Krakatau_65, LastJedi_63, Latretium_69, Leozinho_69, Leperchaun_64, LilMoolah_68, LittleShirley_67, Lizziana_75, Llama_76, Llij_65, Lorde_69, Lucia_69, LunaBlu_72, MadMen_69, Madiba_75, Mahavrat_66, Mantra_67, Maravista_72, Marker_71, Martik_72, Mattes_73, Medindi_63, MilleniumForce_69, MisterCuddles_67, Moonbeam_70, Mozy_78, Mutaforma13_75, Mwanjiwa_75, NewHope4_70, Nitzel_66, Nivrat_66, NormanBulbieJr_69, OfUltron_77, Ogopogo_75, OlympiaSaint_71, OwlsT2W_72, PHappiness_67, PMC_63, Pacc40_63, Phalconet_65, Phasih_66, Phatniss_67, PhesterPhotato_70, Philus_74, Pippy_69, Plumbus_71, Poenanya_69, Polka14_70, Pollywog_70, Polo2Bam_76, PopTart_61, Priscilla_70, QueenHazel_56, Radiance_68, Ramsey_73, RedBird_67, Renaud18_81, Rialto_77, RitaG_67, Rita_77, Rockne_67, RockyHorror_70, Royals2015_76, Ruby_65, SG4_65, Saal_71, Sabbb_71, Sarma624_68, Sassafras_67, SassyB_61, Seabastian_77, ShiLan_71, ShowerHandel_75, ShroomBoi_72, SimranZ1_70, Slim_74, Soul22_75, Sparkdehlily_74, Spartacus_73, Spoonbill_70, StAnnes_66, Stap_66, Starcevich_70, SuperGrey_72, SwagPigglett_75, TDanisky_74, Taj_72, Tchotchke_67, ThetaBob_74, Tootsieroll_71, Topiatin_75, Totinger_69, UncleRicky_68, VRedHorse_69, Velveteen_65, Violac_70, Wachhund_70, Wee_72, Whouxphf_68, WillSterrel_72, Xula_55, Yorick_70, Yoshi_84, Zapner_80, Zerg_70, Zizzle_74,

Genes that have the "Most Annotated" start but do not call it:
• Blarby_79, BodEinwohner17_67, Clank_72, Deb65_61, Donkeykong_69, DotProduct_61, Empress_65, Firehouse51_69, Geralt_61, Girafales_74, Hlubikazi_62, Jabbawokkie_81, Juice456_68, Kimberlium_71, KingMidas_66, KristaRAM_70, LunaStella_66, Mandlovu_62, Melissauren88_64, MilanaBonita_56, MooMoo_64, Ms6_63, MulchExplorer_74, Nimbo_60, OldBen_64, Ovechkin_66, Phanphagia_62, QuickMath_70, Quico_74, Scottish_65, Seagreen_65, Shauna1_64, Strokeseat_62, TChen_68, Toron_75, Whatsapiecost_66,

Genes that do not have the "Most Annotated" start:
• CaptainTrips_68,

Summary by start number:

Start 23:
• Found in 42 of 229 (18.3%) of genes in pham

• Manual Annotations of this start: 24 of 210
• Called 66.7% of time when present
• Phage (with cluster) where this start called: Blarby_79 (F), Clank_72 (F), Deb65_61 (F1), Donkeykong_69 (F1), DotProduct_61 (F1), Empress_65 (F1), Firehouse51_69 (F1), Girafales_74 (F1), Hlubikazi_62 (F1), Jabbawokkie_81 (F2), Juice456_68 (F1), Kimberlium_71 (F1), KingMidas_66 (F1), KristaRAM_70 (F1), Mandlovu_62 (F1), Melissauren88_64 (F1), Ms6_63 (F1), MulchExplorer_74 (F1), Nimbo_60 (F1), OldBen_64 (F1), Phanphagia_62 (F1), QuickMath_70 (F1), Quico_74 (F1), Scottish_65 (F1), Seagreen_65 (F1), Shauna1_64 (F1), Strokeseat_62 (F1), TChen_68 (F4),

Start 25:
• Found in 43 of 229 (18.8%) of genes in pham
• Manual Annotations of this start: 6 of 210
• Called 14.0% of time when present
• Phage (with cluster) where this start called: BodEinwohner17_67 (F1), Geralt_61 (F1), LunaStella_66 (F4), MilanaBonita_56 (F1), Ovechkin_66 (F1), Whatsapiecost_66 (F1),

Start 26:
• Found in 2 of 229 (0.9%) of genes in pham
• Manual Annotations of this start: 1 of 210
• Called 100.0% of time when present
• Phage (with cluster) where this start called: MooMoo_64 (singleton), Toron_75 (F6),

Start 27:
• Found in 228 of 229 (99.6%) of genes in pham
• Manual Annotations of this start: 178 of 210
• Called 84.2% of time when present
• Phage (with cluster) where this start called: Akhila_57 (F1), AlpineSix_76 (F1), ArcusAngelus_75 (F1), Aubs_71 (F1), Avani_78 (F2), Beakin_70 (F1), Beanstalk_71 (F1), BigPhil_66 (F1), Bipolar_70 (F1), Blexus_69 (F1), BlueCrab_72 (F1), BobaPhett_74 (F1), BodEinwohner17_74 (F1), Brocalys_64 (F1), Brookers_67 (F1), Bubbles123_67 (F1), Burwell21_68 (F1), BuzzLyseyear_76 (F1), ByChance_65 (F1), Byougenkin_70 (F1), Cabrinians_71 (F1), Cerasum_66 (F1), Che8_74 (F1), Che9d_81 (F2), Cheesepuff_78 (F1), Chevrolet_77 (F1), Clifton_64 (F1), Coco12_69 (F1), Cornie_67 (F5), Cornucopia_71 (F1), Crumble_65 (F1), DLane_62 (F1), DRBy19_75 (F1), DaWorst_70 (F1), DaddyRickover_68 (F1), Daenerys_66 (F1), DeadP_73 (F1), Demsculpinboyz_81 (F2), DillTech15_71 (F1), DirtMcgirt_68 (F1), DoRead_73 (F1), Doomphist_69 (F1), Doomslug_78 (F), Dorothy_67 (F1), DosHalletts_72 (F1), DotProduct_70 (F1), Doug_71 (F1), Drago_66 (F1), Eish_72 (F1), EleanorGeorge_73 (F1), Emma_72 (F1), Emmaloid_74 (F1), Enby_70 (F1), Enzomatic_77 (F1), Estave1_76 (F1), Fancypants_74 (F1), Filuzino_65 (F1), Flathead_68 (F1), Florinda_77 (F1), FreddyB_78 (F1), Fruitloop_63 (F1), Galactic_69 (F1), Gandalph_71 (F1), GigiOuiOui_67 (F1), Girr_67 (F1), Gorge_73 (F1), Grimmer_79 (F1), HC_57 (I1), Hades_70 (F1), Hegedechwinu_68 (F1), IbOuu_69 (F1), Ibhubesi_69 (F1), Inventum_64 (F1), IrishSherpFalk_72 (F1), JalFarm20_80 (F1), James_73 (F1), Jant_70 (F1), Jarcob_71 (F1), Jennelsea_67 (F1), JoeyJr_67 (F1), Juniper1_70 (F1), Karhdo_68 (F1), Kenuha5_70 (F1), Kersh_71 (F1), KingJulian_69 (F1), Koella_64 (F1), Krakatau_65 (F1), LastJedi_63 (F1), Latretium_69 (F1), Leozinho_69 (F1), Leperchaun_64 (F1), LilMoolah_68 (F1), LittleShirley_67 (F1), Lizziana_75 (F1), Llama_76 (F1), Llij_65 (F1), Lorde_69 (F1), Lucia_69 (F1), LunaBlu_72 (F1), MadMen_69 (F1), Madiba_75 (F1), Mahavrat_66

(F1), Mantra_67 (F1), Maravista_72 (F1), Marker_71 (F1), Martik_72 (F1), Mattes_73 (F1), Medindi_63 (F1), MilleniumForce_69 (F1), MisterCuddles_67 (F1), Moonbeam_70 (F1), Mozy_78 (F1), Mutaforma13_75 (F1), Mwanjiwa_75 (F1), NewHope4_70 (F1), Nitzel_66 (F1), Nivrat_66 (F1), NormanBulbieJr_69 (F1), OfUltron_77 (F1), Ogopogo_75 (F1), OlympiaSaint_71 (F1), OwlsT2W_72 (F1), PHappiness_67 (F1), PMC_63 (F1), Pacc40_63 (F1), Phalconet_65 (F1), Phasih_66 (F1), Phatniss_67 (F1), PhesterPhotato_70 (F1), Philus_74 (F1), Pippy_69 (F1), Plumbus_71 (F1), Poenanya_69 (F1), Polka14_70 (F1), Pollywog_70 (F1), Polo2Bam_76 (F1), PopTart_61 (F1), Priscilla_70 (F1), QueenHazel_56 (I1), Radiance_68 (F1), Ramsey_73 (F1), RedBird_67 (F1), Renaud18_81 (F4), Rialto_77 (F1), RitaG_67 (F1), Rita_77 (F1), Rockne_67 (F1), RockyHorror_70 (F1), Royals2015_76 (F1), Ruby_65 (F1), SG4_65 (F1), Saal_71 (F1), Sabbb_71 (F1), Sarma624_68 (F1), Sassafras_67 (F1), SassyB_61 (F1), Seabastian_77 (F1), ShiLan_71 (F1), ShowerHandel_75 (F1), ShroomBoi_72 (F1), SimranZ1_70 (F1), Slim_74 (F1), Soul22_75 (F2), Sparkdehlily_74 (F1), Spartacus_73 (F1), Spoonbill_70 (F1), StAnnes_66 (F1), Stap_66 (F1), Starcevich_70 (F1), SuperGrey_72 (F1), SwagPigglett_75 (F1), TDanisky_74 (F1), Taj_72 (F1), Tchotchke_67 (F1), ThetaBob_74 (F4), Tootsieroll_71 (F1), Topiatin_75 (F1), Totinger_69 (F1), UncleRicky_68 (F1), VRedHorse_69 (F1), Velveteen_65 (F1), Violac_70 (F1), Wachhund_70 (F1), Wee_72 (F1), Whouxphf_68 (F1), WillSterrel_72 (F1), Xula_55 (I1), Yorick_70 (F1), Yoshi_84 (F2), Zapner_80 (F2), Zerg_70 (F1), Zizzle_74 (F1),

Start 29:
• Found in 1 of 229 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 210
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CaptainTrips_68 (F1),

Summary by clusters:

There are 8 clusters represented in this pham: F1, F2, F4, F5, F6, F, I1, singleton,

Info for manual annotations of cluster F1:
•Start number 23 was manually annotated 22 times for cluster F1.
•Start number 25 was manually annotated 5 times for cluster F1.
•Start number 27 was manually annotated 166 times for cluster F1.
•Start number 29 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F2:
•Start number 23 was manually annotated 1 time for cluster F2.
•Start number 27 was manually annotated 6 times for cluster F2.

Info for manual annotations of cluster F4:
•Start number 23 was manually annotated 1 time for cluster F4.
•Start number 25 was manually annotated 1 time for cluster F4.
•Start number 27 was manually annotated 2 times for cluster F4.

Info for manual annotations of cluster F5:
•Start number 27 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster I1:
•Start number 27 was manually annotated 3 times for cluster I1.

Gene Information:

Gene: Akhila_57 Start: 38323, Stop: 38493, Start Num: 27
Candidate Starts for Akhila_57:
(Start: 23 @38308 has 24 MA's), (Start: 25 @38311 has 6 MA's), (Start: 27 @38323 has 178 MA's), (41, 38488),

Gene: AlpineSix_76 Start: 47013, Stop: 47174, Start Num: 27
Candidate Starts for AlpineSix_76:
(Start: 27 @47013 has 178 MA's), (38, 47160), (41, 47169),

Gene: ArcusAngelus_75 Start: 45852, Stop: 46001, Start Num: 27
Candidate Starts for ArcusAngelus_75:
(22, 45825), (Start: 27 @45852 has 178 MA's),

Gene: Aubs_71 Start: 46411, Stop: 46581, Start Num: 27
Candidate Starts for Aubs_71:
(Start: 27 @46411 has 178 MA's), (31, 46459), (41, 46576),

Gene: Avani_78 Start: 43995, Stop: 44147, Start Num: 27
Candidate Starts for Avani_78:
(17, 43872), (18, 43914), (Start: 27 @43995 has 178 MA's), (31, 44043),

Gene: Beakin_70 Start: 42032, Stop: 42193, Start Num: 27
Candidate Starts for Beakin_70:
(22, 42005), (Start: 27 @42032 has 178 MA's), (31, 42080), (38, 42179), (41, 42188),

Gene: Beanstalk_71 Start: 45110, Stop: 45271, Start Num: 27
Candidate Starts for Beanstalk_71:
(22, 45083), (Start: 27 @45110 has 178 MA's), (31, 45158), (38, 45257), (41, 45266),

Gene: BigPhil_66 Start: 42387, Stop: 42536, Start Num: 27
Candidate Starts for BigPhil_66:
(17, 42264), (18, 42306), (Start: 27 @42387 has 178 MA's),

Gene: Bipolar_70 Start: 44365, Stop: 44526, Start Num: 27
Candidate Starts for Bipolar_70:
(2, 44071), (4, 44089), (14, 44224), (Start: 27 @44365 has 178 MA's), (31, 44413), (38, 44512), (41, 44521),

Gene: Blarby_79 Start: 44522, Stop: 44707, Start Num: 23
Candidate Starts for Blarby_79:
(Start: 23 @44522 has 24 MA's), (Start: 25 @44525 has 6 MA's), (Start: 27 @44537 has 178 MA's), (41, 44702),

Gene: Blexus_69 Start: 45969, Stop: 46121, Start Num: 27
Candidate Starts for Blexus_69:
(5, 45717), (9, 45789), (17, 45846), (18, 45888), (Start: 27 @45969 has 178 MA's), (31, 46017),

Gene: BlueCrab_72 Start: 46833, Stop: 46979, Start Num: 27
Candidate Starts for BlueCrab_72:
(17, 46710), (18, 46752), (Start: 27 @46833 has 178 MA's),

Gene: BobaPhett_74 Start: 48087, Stop: 48239, Start Num: 27
Candidate Starts for BobaPhett_74:
(17, 47964), (18, 48006), (Start: 27 @48087 has 178 MA's), (31, 48135),

Gene: BodEinwohner17_67 Start: 42886, Stop: 43068, Start Num: 25
Candidate Starts for BodEinwohner17_67:
(Start: 23 @42883 has 24 MA's), (Start: 25 @42886 has 6 MA's), (Start: 27 @42898 has 178 MA's),
(41, 43063),

Gene: BodEinwohner17_74 Start: 46498, Stop: 46647, Start Num: 27
Candidate Starts for BodEinwohner17_74:
(5, 46246), (9, 46318), (17, 46375), (18, 46417), (Start: 27 @46498 has 178 MA's), (30, 46510), (31,
46546),

Gene: Brocalys_64 Start: 43567, Stop: 43719, Start Num: 27
Candidate Starts for Brocalys_64:
(17, 43444), (18, 43486), (Start: 27 @43567 has 178 MA's), (31, 43615),

Gene: Brookers_67 Start: 45338, Stop: 45487, Start Num: 27
Candidate Starts for Brookers_67:
(17, 45215), (18, 45257), (Start: 27 @45338 has 178 MA's),

Gene: Bubbles123_67 Start: 45600, Stop: 45761, Start Num: 27
Candidate Starts for Bubbles123_67:
(Start: 27 @45600 has 178 MA's), (38, 45747), (41, 45756),

Gene: Burwell21_68 Start: 45409, Stop: 45570, Start Num: 27
Candidate Starts for Burwell21_68:
(17, 45286), (18, 45328), (Start: 27 @45409 has 178 MA's), (37, 45556), (39, 45565),

Gene: BuzzLyseyear_76 Start: 47968, Stop: 48129, Start Num: 27
Candidate Starts for BuzzLyseyear_76:
(6, 47716), (10, 47788), (17, 47845), (18, 47887), (Start: 27 @47968 has 178 MA's), (31, 48016), (37,
48115), (39, 48124),

Gene: ByChance_65 Start: 42509, Stop: 42670, Start Num: 27
Candidate Starts for ByChance_65:
(3, 42218), (15, 42365), (22, 42482), (Start: 27 @42509 has 178 MA's), (38, 42656), (41, 42665),

Gene: Byougenkin_70 Start: 43469, Stop: 43630, Start Num: 27
Candidate Starts for Byougenkin_70:
(17, 43346), (18, 43388), (Start: 27 @43469 has 178 MA's), (37, 43616), (39, 43625),

Gene: Cabrinians_71 Start: 45488, Stop: 45640, Start Num: 27
Candidate Starts for Cabrinians_71:
(17, 45365), (18, 45407), (Start: 27 @45488 has 178 MA's), (31, 45536),

Gene: CaptainTrips_68 Start: 45233, Stop: 45385, Start Num: 29

Candidate Starts for CaptainTrips_68:
(Start: 29 @45233 has 1 MA's), (38, 45371), (41, 45380),

Gene: Cerasum_66 Start: 42405, Stop: 42554, Start Num: 27
Candidate Starts for Cerasum_66:
(17, 42282), (18, 42324), (Start: 27 @42405 has 178 MA's),

Gene: Che8_74 Start: 46033, Stop: 46194, Start Num: 27
Candidate Starts for Che8_74:
(17, 45910), (18, 45952), (Start: 27 @46033 has 178 MA's), (37, 46180), (39, 46189),

Gene: Che9d_81 Start: 45757, Stop: 45918, Start Num: 27
Candidate Starts for Che9d_81:
(Start: 27 @45757 has 178 MA's), (38, 45904), (41, 45913),

Gene: Cheesepuff_78 Start: 45418, Stop: 45579, Start Num: 27
Candidate Starts for Cheesepuff_78:
(17, 45295), (18, 45337), (Start: 27 @45418 has 178 MA's), (31, 45466), (37, 45565), (39, 45574),

Gene: Chevrolet_77 Start: 45853, Stop: 46002, Start Num: 27
Candidate Starts for Chevrolet_77:
(22, 45826), (Start: 27 @45853 has 178 MA's),

Gene: Clank_72 Start: 43853, Stop: 44038, Start Num: 23
Candidate Starts for Clank_72:
(Start: 23 @43853 has 24 MA's), (Start: 25 @43856 has 6 MA's), (Start: 27 @43868 has 178 MA's),
(41, 44033),

Gene: Clifton_64 Start: 43918, Stop: 44070, Start Num: 27
Candidate Starts for Clifton_64:
(17, 43795), (18, 43837), (Start: 27 @43918 has 178 MA's), (31, 43966),

Gene: Coco12_69 Start: 46462, Stop: 46611, Start Num: 27
Candidate Starts for Coco12_69:
(17, 46339), (18, 46381), (Start: 27 @46462 has 178 MA's),

Gene: Cornie_67 Start: 44180, Stop: 44350, Start Num: 27
Candidate Starts for Cornie_67:
(17, 44057), (18, 44099), (Start: 27 @44180 has 178 MA's), (40, 44345),

Gene: Cornucopia_71 Start: 44648, Stop: 44809, Start Num: 27
Candidate Starts for Cornucopia_71:
(22, 44621), (Start: 27 @44648 has 178 MA's), (30, 44660), (38, 44795), (41, 44804),

Gene: Crumble_65 Start: 41387, Stop: 41539, Start Num: 27
Candidate Starts for Crumble_65:
(17, 41264), (18, 41306), (Start: 27 @41387 has 178 MA's),

Gene: DLane_62 Start: 41867, Stop: 42037, Start Num: 27
Candidate Starts for DLane_62:
(Start: 27 @41867 has 178 MA's), (41, 42032),

Gene: DRBy19_75 Start: 47647, Stop: 47799, Start Num: 27

Candidate Starts for DRBy19_75:
(17, 47524), (18, 47566), (Start: 27 @47647 has 178 MA's), (31, 47695),

Gene: DaWorst_70 Start: 44987, Stop: 45139, Start Num: 27
Candidate Starts for DaWorst_70:
(17, 44864), (18, 44906), (Start: 27 @44987 has 178 MA's), (31, 45035),

Gene: DaddyRickover_68 Start: 43834, Stop: 44004, Start Num: 27
Candidate Starts for DaddyRickover_68:
(5, 43582), (9, 43654), (17, 43711), (18, 43753), (Start: 27 @43834 has 178 MA's), (30, 43846), (31, 43882), (40, 43999),

Gene: Daenerys_66 Start: 43953, Stop: 44123, Start Num: 27
Candidate Starts for Daenerys_66:
(17, 43830), (18, 43872), (Start: 27 @43953 has 178 MA's), (30, 43965), (31, 44001), (40, 44118),

Gene: DeadP_73 Start: 45281, Stop: 45451, Start Num: 27
Candidate Starts for DeadP_73:
(Start: 23 @45266 has 24 MA's), (Start: 25 @45269 has 6 MA's), (Start: 27 @45281 has 178 MA's), (41, 45446),

Gene: Deb65_61 Start: 41658, Stop: 41843, Start Num: 23
Candidate Starts for Deb65_61:
(Start: 23 @41658 has 24 MA's), (Start: 25 @41661 has 6 MA's), (Start: 27 @41673 has 178 MA's), (41, 41838),

Gene: Demsculpinboyz_81 Start: 43217, Stop: 43369, Start Num: 27
Candidate Starts for Demsculpinboyz_81:
(17, 43094), (18, 43136), (Start: 27 @43217 has 178 MA's),

Gene: DillTech15_71 Start: 43892, Stop: 44038, Start Num: 27
Candidate Starts for DillTech15_71:
(22, 43865), (Start: 27 @43892 has 178 MA's), (31, 43940),

Gene: DirtMcgirt_68 Start: 41996, Stop: 42148, Start Num: 27
Candidate Starts for DirtMcgirt_68:
(18, 41915), (Start: 27 @41996 has 178 MA's), (31, 42044),

Gene: DoRead_73 Start: 44176, Stop: 44337, Start Num: 27
Candidate Starts for DoRead_73:
(22, 44149), (Start: 27 @44176 has 178 MA's), (38, 44323), (41, 44332),

Gene: Donkeykong_69 Start: 44827, Stop: 44994, Start Num: 23
Candidate Starts for Donkeykong_69:
(Start: 23 @44827 has 24 MA's), (Start: 25 @44830 has 6 MA's), (Start: 27 @44842 has 178 MA's),

Gene: Doomphist_69 Start: 44382, Stop: 44552, Start Num: 27
Candidate Starts for Doomphist_69:
(5, 44130), (9, 44202), (17, 44259), (18, 44301), (Start: 27 @44382 has 178 MA's), (30, 44394), (31, 44430), (40, 44547),

Gene: Doomslug_78 Start: 43763, Stop: 43933, Start Num: 27
Candidate Starts for Doomslug_78:

(17, 43640), (18, 43682), (Start: 27 @43763 has 178 MA's), (40, 43928),

Gene: Dorothy_67 Start: 43008, Stop: 43178, Start Num: 27
Candidate Starts for Dorothy_67:
(5, 42756), (9, 42828), (17, 42885), (18, 42927), (Start: 27 @43008 has 178 MA's), (30, 43020), (31, 43056), (40, 43173),

Gene: DosHalletts_72 Start: 47252, Stop: 47413, Start Num: 27
Candidate Starts for DosHalletts_72:
(2, 46958), (4, 46976), (14, 47111), (Start: 27 @47252 has 178 MA's), (38, 47399), (41, 47408),

Gene: DotProduct_61 Start: 41161, Stop: 41346, Start Num: 23
Candidate Starts for DotProduct_61:
(Start: 23 @41161 has 24 MA's), (Start: 25 @41164 has 6 MA's), (Start: 27 @41176 has 178 MA's), (41, 41341),

Gene: DotProduct_70 Start: 45051, Stop: 45197, Start Num: 27
Candidate Starts for DotProduct_70:
(17, 44928), (18, 44970), (Start: 27 @45051 has 178 MA's), (31, 45099),

Gene: Doug_71 Start: 46867, Stop: 47019, Start Num: 27
Candidate Starts for Doug_71:
(17, 46744), (18, 46786), (Start: 27 @46867 has 178 MA's), (31, 46915),

Gene: Drago_66 Start: 41999, Stop: 42151, Start Num: 27
Candidate Starts for Drago_66:
(18, 41918), (Start: 27 @41999 has 178 MA's), (31, 42047),

Gene: Eish_72 Start: 45775, Stop: 45927, Start Num: 27
Candidate Starts for Eish_72:
(17, 45652), (18, 45694), (Start: 27 @45775 has 178 MA's), (31, 45823),

Gene: EleanorGeorge_73 Start: 45986, Stop: 46135, Start Num: 27
Candidate Starts for EleanorGeorge_73:
(21, 45929), (22, 45953), (Start: 27 @45986 has 178 MA's), (30, 45998), (31, 46034),

Gene: Emma_72 Start: 45010, Stop: 45171, Start Num: 27
Candidate Starts for Emma_72:
(17, 44887), (18, 44929), (Start: 27 @45010 has 178 MA's), (31, 45058), (37, 45157), (39, 45166),

Gene: Emmaloid_74 Start: 45747, Stop: 45893, Start Num: 27
Candidate Starts for Emmaloid_74:
(2, 45453), (4, 45471), (14, 45606), (Start: 27 @45747 has 178 MA's),

Gene: Empress_65 Start: 43102, Stop: 43287, Start Num: 23
Candidate Starts for Empress_65:
(Start: 23 @43102 has 24 MA's), (Start: 25 @43105 has 6 MA's), (Start: 27 @43117 has 178 MA's), (41, 43282),

Gene: Enby_70 Start: 42275, Stop: 42427, Start Num: 27
Candidate Starts for Enby_70:
(18, 42194), (Start: 27 @42275 has 178 MA's), (31, 42323),

Gene: Enzomatic_77 Start: 43682, Stop: 43852, Start Num: 27
Candidate Starts for Enzomatic_77:
(Start: 27 @43682 has 178 MA's), (31, 43730), (41, 43847),

Gene: Estave1_76 Start: 48947, Stop: 49108, Start Num: 27
Candidate Starts for Estave1_76:
(22, 48920), (Start: 27 @48947 has 178 MA's), (38, 49094), (41, 49103),

Gene: Fancypants_74 Start: 47245, Stop: 47406, Start Num: 27
Candidate Starts for Fancypants_74:
(22, 47218), (Start: 27 @47245 has 178 MA's), (38, 47392), (41, 47401),

Gene: Filuzino_65 Start: 42202, Stop: 42372, Start Num: 27
Candidate Starts for Filuzino_65:
(Start: 27 @42202 has 178 MA's), (41, 42367),

Gene: Firehouse51_69 Start: 46723, Stop: 46908, Start Num: 23
Candidate Starts for Firehouse51_69:
(Start: 23 @46723 has 24 MA's), (Start: 25 @46726 has 6 MA's), (Start: 27 @46738 has 178 MA's),
(41, 46903),

Gene: Flathead_68 Start: 43116, Stop: 43265, Start Num: 27
Candidate Starts for Flathead_68:
(Start: 27 @43116 has 178 MA's), (30, 43128), (31, 43164),

Gene: Florinda_77 Start: 44348, Stop: 44518, Start Num: 27
Candidate Starts for Florinda_77:
(Start: 23 @44333 has 24 MA's), (Start: 25 @44336 has 6 MA's), (Start: 27 @44348 has 178 MA's),
(41, 44513),

Gene: FreddyB_78 Start: 46992, Stop: 47138, Start Num: 27
Candidate Starts for FreddyB_78:
(22, 46965), (Start: 27 @46992 has 178 MA's), (31, 47040),

Gene: Fruitloop_63 Start: 43508, Stop: 43678, Start Num: 27
Candidate Starts for Fruitloop_63:
(20, 43448), (24, 43496), (Start: 27 @43508 has 178 MA's), (41, 43673),

Gene: Galactic_69 Start: 45269, Stop: 45430, Start Num: 27
Candidate Starts for Galactic_69:
(22, 45242), (Start: 27 @45269 has 178 MA's), (31, 45317), (38, 45416), (41, 45425),

Gene: Gandalph_71 Start: 43491, Stop: 43661, Start Num: 27
Candidate Starts for Gandalph_71:
(17, 43368), (18, 43410), (Start: 27 @43491 has 178 MA's), (40, 43656),

Gene: Geralt_61 Start: 41660, Stop: 41842, Start Num: 25
Candidate Starts for Geralt_61:
(Start: 23 @41657 has 24 MA's), (Start: 25 @41660 has 6 MA's), (Start: 27 @41672 has 178 MA's),
(41, 41837),

Gene: GigiOuiOui_67 Start: 45142, Stop: 45288, Start Num: 27
Candidate Starts for GigiOuiOui_67:

(22, 45115), (Start: 27 @45142 has 178 MA's), (31, 45190),

Gene: Girafales_74 Start: 44124, Stop: 44309, Start Num: 23
Candidate Starts for Girafales_74:
(Start: 23 @44124 has 24 MA's), (Start: 25 @44127 has 6 MA's), (Start: 27 @44139 has 178 MA's),
(41, 44304),

Gene: Girr_67 Start: 44930, Stop: 45082, Start Num: 27
Candidate Starts for Girr_67:
(17, 44807), (18, 44849), (Start: 27 @44930 has 178 MA's),

Gene: Gorge_73 Start: 46857, Stop: 47009, Start Num: 27
Candidate Starts for Gorge_73:
(17, 46734), (18, 46776), (Start: 27 @46857 has 178 MA's), (31, 46905),

Gene: Grimmer_79 Start: 45813, Stop: 45965, Start Num: 27
Candidate Starts for Grimmer_79:
(17, 45690), (18, 45732), (Start: 27 @45813 has 178 MA's),

Gene: HC_57 Start: 37781, Stop: 37933, Start Num: 27
Candidate Starts for HC_57:
(Start: 27 @37781 has 178 MA's),

Gene: Hades_70 Start: 44008, Stop: 44169, Start Num: 27
Candidate Starts for Hades_70:
(2, 43714), (4, 43732), (14, 43867), (Start: 27 @44008 has 178 MA's), (38, 44155), (41, 44164),

Gene: Hegedechwinu_68 Start: 42281, Stop: 42451, Start Num: 27
Candidate Starts for Hegedechwinu_68:
(17, 42158), (18, 42200), (Start: 27 @42281 has 178 MA's), (40, 42446),

Gene: Hlubikazi_62 Start: 40271, Stop: 40438, Start Num: 23
Candidate Starts for Hlubikazi_62:
(Start: 23 @40271 has 24 MA's), (Start: 25 @40274 has 6 MA's), (Start: 27 @40286 has 178 MA's),

Gene: IbOuu_69 Start: 43722, Stop: 43892, Start Num: 27
Candidate Starts for IbOuu_69:
(Start: 23 @43707 has 24 MA's), (Start: 25 @43710 has 6 MA's), (Start: 27 @43722 has 178 MA's),
(41, 43887),

Gene: Ibhubesi_69 Start: 43257, Stop: 43418, Start Num: 27
Candidate Starts for Ibhubesi_69:
(17, 43134), (18, 43176), (Start: 27 @43257 has 178 MA's), (37, 43404), (39, 43413),

Gene: Inventum_64 Start: 43206, Stop: 43376, Start Num: 27
Candidate Starts for Inventum_64:
(5, 42954), (9, 43026), (17, 43083), (18, 43125), (Start: 27 @43206 has 178 MA's), (30, 43218), (31,
43254), (40, 43371),

Gene: IrishSherpFalk_72 Start: 46319, Stop: 46471, Start Num: 27
Candidate Starts for IrishSherpFalk_72:
(22, 46292), (Start: 27 @46319 has 178 MA's), (30, 46331), (31, 46367),

Gene: Jabbawokkie_81 Start: 44442, Stop: 44627, Start Num: 23
Candidate Starts for Jabbawokkie_81:
(Start: 23 @44442 has 24 MA's), (Start: 25 @44445 has 6 MA's), (Start: 27 @44457 has 178 MA's),
(41, 44622),

Gene: JalFarm20_80 Start: 47075, Stop: 47227, Start Num: 27
Candidate Starts for JalFarm20_80:
(Start: 23 @47060 has 24 MA's), (Start: 25 @47063 has 6 MA's), (Start: 27 @47075 has 178 MA's),

Gene: James_73 Start: 46982, Stop: 47134, Start Num: 27
Candidate Starts for James_73:
(17, 46859), (18, 46901), (Start: 27 @46982 has 178 MA's), (31, 47030),

Gene: Jant_70 Start: 44001, Stop: 44153, Start Num: 27
Candidate Starts for Jant_70:
(11, 43833), (21, 43947), (Start: 27 @44001 has 178 MA's),

Gene: Jarcob_71 Start: 46579, Stop: 46731, Start Num: 27
Candidate Starts for Jarcob_71:
(22, 46552), (Start: 27 @46579 has 178 MA's), (31, 46627),

Gene: Jennelsea_67 Start: 44140, Stop: 44292, Start Num: 27
Candidate Starts for Jennelsea_67:
(17, 44017), (18, 44059), (Start: 27 @44140 has 178 MA's), (31, 44188),

Gene: JoeyJr_67 Start: 44121, Stop: 44291, Start Num: 27
Candidate Starts for JoeyJr_67:
(17, 43998), (18, 44040), (Start: 27 @44121 has 178 MA's), (30, 44133), (31, 44169), (40, 44286),

Gene: Juice456_68 Start: 45016, Stop: 45183, Start Num: 23
Candidate Starts for Juice456_68:
(Start: 23 @45016 has 24 MA's), (Start: 25 @45019 has 6 MA's), (Start: 27 @45031 has 178 MA's),

Gene: Juniper1_70 Start: 45173, Stop: 45325, Start Num: 27
Candidate Starts for Juniper1_70:
(5, 44921), (9, 44993), (17, 45050), (18, 45092), (Start: 27 @45173 has 178 MA's), (31, 45221),

Gene: Karhdo_68 Start: 44270, Stop: 44422, Start Num: 27
Candidate Starts for Karhdo_68:
(17, 44147), (18, 44189), (Start: 27 @44270 has 178 MA's), (31, 44318),

Gene: Kenuha5_70 Start: 46860, Stop: 47006, Start Num: 27
Candidate Starts for Kenuha5_70:
(22, 46833), (Start: 27 @46860 has 178 MA's), (31, 46908),

Gene: Kersh_71 Start: 47433, Stop: 47594, Start Num: 27
Candidate Starts for Kersh_71:
(17, 47310), (18, 47352), (Start: 27 @47433 has 178 MA's), (37, 47580), (39, 47589),

Gene: Kimberlium_71 Start: 44613, Stop: 44798, Start Num: 23
Candidate Starts for Kimberlium_71:
(Start: 23 @44613 has 24 MA's), (Start: 25 @44616 has 6 MA's), (Start: 27 @44628 has 178 MA's),
(41, 44793),

Gene: KingJulian_69 Start: 43868, Stop: 44038, Start Num: 27
Candidate Starts for KingJulian_69:
(Start: 27 @43868 has 178 MA's), (41, 44033),

Gene: KingMidas_66 Start: 43518, Stop: 43703, Start Num: 23
Candidate Starts for KingMidas_66:
(Start: 23 @43518 has 24 MA's), (Start: 25 @43521 has 6 MA's), (Start: 27 @43533 has 178 MA's),
(41, 43698),

Gene: Koella_64 Start: 41386, Stop: 41538, Start Num: 27
Candidate Starts for Koella_64:
(17, 41263), (18, 41305), (Start: 27 @41386 has 178 MA's), (31, 41434),

Gene: Krakatau_65 Start: 41751, Stop: 41903, Start Num: 27
Candidate Starts for Krakatau_65:
(17, 41628), (18, 41670), (Start: 27 @41751 has 178 MA's),

Gene: KristaRAM_70 Start: 45385, Stop: 45552, Start Num: 23
Candidate Starts for KristaRAM_70:
(Start: 23 @45385 has 24 MA's), (Start: 25 @45388 has 6 MA's), (Start: 27 @45400 has 178 MA's),

Gene: LastJedi_63 Start: 43961, Stop: 44113, Start Num: 27
Candidate Starts for LastJedi_63:
(17, 43838), (18, 43880), (Start: 27 @43961 has 178 MA's), (31, 44009),

Gene: Latretium_69 Start: 43401, Stop: 43562, Start Num: 27
Candidate Starts for Latretium_69:
(Start: 27 @43401 has 178 MA's), (38, 43548), (41, 43557),

Gene: Leozinho_69 Start: 42793, Stop: 42945, Start Num: 27
Candidate Starts for Leozinho_69:
(18, 42712), (Start: 27 @42793 has 178 MA's), (31, 42841),

Gene: Leperchaun_64 Start: 43351, Stop: 43521, Start Num: 27
Candidate Starts for Leperchaun_64:
(17, 43228), (18, 43270), (Start: 27 @43351 has 178 MA's), (30, 43363), (31, 43399), (40, 43516),

Gene: LilMoolah_68 Start: 45587, Stop: 45748, Start Num: 27
Candidate Starts for LilMoolah_68:
(17, 45464), (18, 45506), (Start: 27 @45587 has 178 MA's), (37, 45734), (39, 45743),

Gene: LittleShirley_67 Start: 43861, Stop: 44031, Start Num: 27
Candidate Starts for LittleShirley_67:
(Start: 23 @43846 has 24 MA's), (Start: 25 @43849 has 6 MA's), (Start: 27 @43861 has 178 MA's),
(41, 44026),

Gene: Lizziana_75 Start: 46463, Stop: 46615, Start Num: 27
Candidate Starts for Lizziana_75:
(17, 46340), (18, 46382), (Start: 27 @46463 has 178 MA's), (31, 46511),

Gene: Llama_76 Start: 46867, Stop: 47028, Start Num: 27
Candidate Starts for Llama_76:

(Start: 27 @46867 has 178 MA's), (38, 47014), (41, 47023),

Gene: Llij_65 Start: 42153, Stop: 42305, Start Num: 27
Candidate Starts for Llij_65:
(18, 42072), (Start: 27 @42153 has 178 MA's), (31, 42201),

Gene: Lorde_69 Start: 41440, Stop: 41592, Start Num: 27
Candidate Starts for Lorde_69:
(18, 41359), (Start: 27 @41440 has 178 MA's), (31, 41488),

Gene: Lucia_69 Start: 42288, Stop: 42440, Start Num: 27
Candidate Starts for Lucia_69:
(2, 41994), (4, 42012), (14, 42147), (Start: 27 @42288 has 178 MA's), (31, 42336),

Gene: LunaBlu_72 Start: 45927, Stop: 46088, Start Num: 27
Candidate Starts for LunaBlu_72:
(22, 45900), (Start: 27 @45927 has 178 MA's), (31, 45975), (38, 46074), (41, 46083),

Gene: LunaStella_66 Start: 42930, Stop: 43112, Start Num: 25
Candidate Starts for LunaStella_66:
(Start: 23 @42927 has 24 MA's), (Start: 25 @42930 has 6 MA's), (Start: 27 @42942 has 178 MA's),
(41, 43107),

Gene: MadMen_69 Start: 44609, Stop: 44770, Start Num: 27
Candidate Starts for MadMen_69:
(18, 44528), (Start: 27 @44609 has 178 MA's), (37, 44756), (39, 44765),

Gene: Madiba_75 Start: 47424, Stop: 47570, Start Num: 27
Candidate Starts for Madiba_75:
(22, 47397), (Start: 27 @47424 has 178 MA's), (31, 47472),

Gene: Mahavrat_66 Start: 43382, Stop: 43534, Start Num: 27
Candidate Starts for Mahavrat_66:
(17, 43259), (18, 43301), (Start: 27 @43382 has 178 MA's),

Gene: Mandlovu_62 Start: 40213, Stop: 40380, Start Num: 23
Candidate Starts for Mandlovu_62:
(Start: 23 @40213 has 24 MA's), (Start: 25 @40216 has 6 MA's), (Start: 27 @40228 has 178 MA's),

Gene: Mantra_67 Start: 45221, Stop: 45382, Start Num: 27
Candidate Starts for Mantra_67:
(17, 45098), (18, 45140), (Start: 27 @45221 has 178 MA's), (31, 45269), (37, 45368), (39, 45377),

Gene: Maravista_72 Start: 47473, Stop: 47625, Start Num: 27
Candidate Starts for Maravista_72:
(5, 47221), (9, 47293), (17, 47350), (18, 47392), (Start: 27 @47473 has 178 MA's), (31, 47521),

Gene: Marker_71 Start: 43830, Stop: 43979, Start Num: 27
Candidate Starts for Marker_71:
(17, 43707), (18, 43749), (Start: 27 @43830 has 178 MA's),

Gene: Martik_72 Start: 46954, Stop: 47106, Start Num: 27
Candidate Starts for Martik_72:

(22, 46927), (Start: 27 @46954 has 178 MA's),

Gene: Mattes_73 Start: 46982, Stop: 47134, Start Num: 27
Candidate Starts for Mattes_73:
(17, 46859), (18, 46901), (Start: 27 @46982 has 178 MA's), (31, 47030),

Gene: Medindi_63 Start: 40857, Stop: 41027, Start Num: 27
Candidate Starts for Medindi_63:
(Start: 27 @40857 has 178 MA's), (41, 41022),

Gene: Melissauren88_64 Start: 41731, Stop: 41916, Start Num: 23
Candidate Starts for Melissauren88_64:
(Start: 23 @41731 has 24 MA's), (Start: 25 @41734 has 6 MA's), (Start: 27 @41746 has 178 MA's),
(41, 41911),

Gene: MilanaBonita_56 Start: 38311, Stop: 38493, Start Num: 25
Candidate Starts for MilanaBonita_56:
(Start: 23 @38308 has 24 MA's), (Start: 25 @38311 has 6 MA's), (Start: 27 @38323 has 178 MA's),
(41, 38488),

Gene: MilleniumForce_69 Start: 44467, Stop: 44616, Start Num: 27
Candidate Starts for MilleniumForce_69:
(11, 44299), (21, 44413), (Start: 27 @44467 has 178 MA's),

Gene: MisterCuddles_67 Start: 44930, Stop: 45082, Start Num: 27
Candidate Starts for MisterCuddles_67:
(17, 44807), (18, 44849), (Start: 27 @44930 has 178 MA's),

Gene: MooMoo_64 Start: 41812, Stop: 41967, Start Num: 26
Candidate Starts for MooMoo_64:
(Start: 26 @41812 has 1 MA's), (Start: 27 @41815 has 178 MA's), (28, 41821), (32, 41881), (35,
41956),

Gene: Moonbeam_70 Start: 46039, Stop: 46200, Start Num: 27
Candidate Starts for Moonbeam_70:
(22, 46012), (Start: 27 @46039 has 178 MA's), (38, 46186), (41, 46195),

Gene: Mozy_78 Start: 45447, Stop: 45617, Start Num: 27
Candidate Starts for Mozy_78:
(17, 45324), (18, 45366), (Start: 27 @45447 has 178 MA's), (40, 45612),

Gene: Ms6_63 Start: 38096, Stop: 38281, Start Num: 23
Candidate Starts for Ms6_63:
(Start: 23 @38096 has 24 MA's), (Start: 25 @38099 has 6 MA's), (Start: 27 @38111 has 178 MA's),
(41, 38276),

Gene: MulchExplorer_74 Start: 44612, Stop: 44797, Start Num: 23
Candidate Starts for MulchExplorer_74:
(Start: 23 @44612 has 24 MA's), (Start: 25 @44615 has 6 MA's), (Start: 27 @44627 has 178 MA's),
(41, 44792),

Gene: Mutaforma13_75 Start: 46641, Stop: 46802, Start Num: 27
Candidate Starts for Mutaforma13_75:

(22, 46614), (Start: 27 @46641 has 178 MA's), (31, 46689), (38, 46788), (41, 46797),

Gene: Mwanjiwa_75 Start: 46779, Stop: 46931, Start Num: 27
Candidate Starts for Mwanjiwa_75:
(17, 46656), (18, 46698), (Start: 27 @46779 has 178 MA's), (31, 46827),

Gene: NewHope4_70 Start: 43828, Stop: 43998, Start Num: 27
Candidate Starts for NewHope4_70:
(Start: 27 @43828 has 178 MA's), (31, 43876), (41, 43993),

Gene: Nimbo_60 Start: 41660, Stop: 41845, Start Num: 23
Candidate Starts for Nimbo_60:
(Start: 23 @41660 has 24 MA's), (Start: 25 @41663 has 6 MA's), (Start: 27 @41675 has 178 MA's),
(41, 41840),

Gene: Nitzel_66 Start: 42992, Stop: 43153, Start Num: 27
Candidate Starts for Nitzel_66:
(Start: 27 @42992 has 178 MA's), (38, 43139), (41, 43148),

Gene: Nivrat_66 Start: 45460, Stop: 45621, Start Num: 27
Candidate Starts for Nivrat_66:
(17, 45337), (18, 45379), (Start: 27 @45460 has 178 MA's), (37, 45607), (39, 45616),

Gene: NormanBulbieJr_69 Start: 45400, Stop: 45552, Start Num: 27
Candidate Starts for NormanBulbieJr_69:
(17, 45277), (18, 45319), (Start: 27 @45400 has 178 MA's), (31, 45448),

Gene: OfUltron_77 Start: 47012, Stop: 47173, Start Num: 27
Candidate Starts for OfUltron_77:
(Start: 27 @47012 has 178 MA's), (38, 47159), (41, 47168),

Gene: Ogopogo_75 Start: 44807, Stop: 44959, Start Num: 27
Candidate Starts for Ogopogo_75:
(12, 44648), (16, 44678), (19, 44732), (Start: 27 @44807 has 178 MA's),

Gene: OldBen_64 Start: 43053, Stop: 43238, Start Num: 23
Candidate Starts for OldBen_64:
(Start: 23 @43053 has 24 MA's), (Start: 25 @43056 has 6 MA's), (Start: 27 @43068 has 178 MA's),
(41, 43233),

Gene: OlympiaSaint_71 Start: 45924, Stop: 46076, Start Num: 27
Candidate Starts for OlympiaSaint_71:
(17, 45801), (18, 45843), (Start: 27 @45924 has 178 MA's), (31, 45972),

Gene: Ovechkin_66 Start: 43050, Stop: 43232, Start Num: 25
Candidate Starts for Ovechkin_66:
(Start: 23 @43047 has 24 MA's), (Start: 25 @43050 has 6 MA's), (Start: 27 @43062 has 178 MA's),
(41, 43227),

Gene: OwlsT2W_72 Start: 45753, Stop: 45914, Start Num: 27
Candidate Starts for OwlsT2W_72:
(2, 45459), (4, 45477), (14, 45612), (Start: 27 @45753 has 178 MA's), (38, 45900), (41, 45909),

Gene: PHappiness_67 Start: 43897, Stop: 44067, Start Num: 27
Candidate Starts for PHappiness_67:
(17, 43774), (18, 43816), (Start: 27 @43897 has 178 MA's), (30, 43909), (31, 43945), (40, 44062),

Gene: PMC_63 Start: 42817, Stop: 42966, Start Num: 27
Candidate Starts for PMC_63:
(11, 42649), (21, 42763), (Start: 27 @42817 has 178 MA's),

Gene: Pacc40_63 Start: 45487, Stop: 45648, Start Num: 27
Candidate Starts for Pacc40_63:
(17, 45364), (18, 45406), (Start: 27 @45487 has 178 MA's), (37, 45634), (39, 45643),

Gene: Phalconet_65 Start: 42051, Stop: 42203, Start Num: 27
Candidate Starts for Phalconet_65:
(Start: 27 @42051 has 178 MA's),

Gene: Phanphagia_62 Start: 42593, Stop: 42778, Start Num: 23
Candidate Starts for Phanphagia_62:
(Start: 23 @42593 has 24 MA's), (Start: 25 @42596 has 6 MA's), (Start: 27 @42608 has 178 MA's),
(41, 42773),

Gene: Phasih_66 Start: 44131, Stop: 44292, Start Num: 27
Candidate Starts for Phasih_66:
(22, 44104), (Start: 27 @44131 has 178 MA's), (38, 44278), (41, 44287),

Gene: Phatniss_67 Start: 43248, Stop: 43400, Start Num: 27
Candidate Starts for Phatniss_67:
(18, 43167), (Start: 27 @43248 has 178 MA's), (31, 43296),

Gene: PhesterPhotato_70 Start: 43772, Stop: 43924, Start Num: 27
Candidate Starts for PhesterPhotato_70:
(Start: 23 @43757 has 24 MA's), (Start: 25 @43760 has 6 MA's), (Start: 27 @43772 has 178 MA's),

Gene: Philus_74 Start: 47623, Stop: 47775, Start Num: 27
Candidate Starts for Philus_74:
(17, 47500), (18, 47542), (Start: 27 @47623 has 178 MA's), (31, 47671),

Gene: Pippy_69 Start: 44697, Stop: 44849, Start Num: 27
Candidate Starts for Pippy_69:
(17, 44574), (18, 44616), (Start: 27 @44697 has 178 MA's), (31, 44745),

Gene: Plumbus_71 Start: 43179, Stop: 43340, Start Num: 27
Candidate Starts for Plumbus_71:
(17, 43056), (18, 43098), (Start: 27 @43179 has 178 MA's), (37, 43326), (39, 43335),

Gene: Poenanya_69 Start: 44382, Stop: 44552, Start Num: 27
Candidate Starts for Poenanya_69:
(5, 44130), (9, 44202), (17, 44259), (18, 44301), (Start: 27 @44382 has 178 MA's), (30, 44394), (31, 44430), (40, 44547),

Gene: Polka14_70 Start: 45098, Stop: 45268, Start Num: 27
Candidate Starts for Polka14_70:

(5, 44846), (9, 44918), (17, 44975), (18, 45017), (Start: 27 @45098 has 178 MA's), (30, 45110), (31, 45146), (40, 45263),

Gene: Pollywog_70 Start: 45650, Stop: 45802, Start Num: 27
Candidate Starts for Pollywog_70:
(8, 45440), (17, 45527), (18, 45569), (Start: 27 @45650 has 178 MA's), (31, 45698),

Gene: Polo2Bam_76 Start: 43682, Stop: 43852, Start Num: 27
Candidate Starts for Polo2Bam_76:
(Start: 27 @43682 has 178 MA's), (31, 43730), (41, 43847),

Gene: PopTart_61 Start: 41512, Stop: 41682, Start Num: 27
Candidate Starts for PopTart_61:
(Start: 27 @41512 has 178 MA's), (41, 41677),

Gene: Priscilla_70 Start: 45498, Stop: 45650, Start Num: 27
Candidate Starts for Priscilla_70:
(17, 45375), (18, 45417), (Start: 27 @45498 has 178 MA's), (31, 45546),

Gene: QueenHazel_56 Start: 39398, Stop: 39550, Start Num: 27
Candidate Starts for QueenHazel_56:
(Start: 27 @39398 has 178 MA's),

Gene: QuickMath_70 Start: 44836, Stop: 45021, Start Num: 23
Candidate Starts for QuickMath_70:
(Start: 23 @44836 has 24 MA's), (Start: 25 @44839 has 6 MA's), (Start: 27 @44851 has 178 MA's), (41, 45016),

Gene: Quico_74 Start: 44153, Stop: 44338, Start Num: 23
Candidate Starts for Quico_74:
(Start: 23 @44153 has 24 MA's), (Start: 25 @44156 has 6 MA's), (Start: 27 @44168 has 178 MA's), (41, 44333),

Gene: Radiance_68 Start: 46270, Stop: 46422, Start Num: 27
Candidate Starts for Radiance_68:
(5, 46018), (9, 46090), (17, 46147), (18, 46189), (Start: 27 @46270 has 178 MA's), (30, 46282), (31, 46318),

Gene: Ramsey_73 Start: 47728, Stop: 47874, Start Num: 27
Candidate Starts for Ramsey_73:
(22, 47701), (Start: 27 @47728 has 178 MA's), (31, 47776),

Gene: RedBird_67 Start: 42887, Stop: 43057, Start Num: 27
Candidate Starts for RedBird_67:
(5, 42635), (9, 42707), (17, 42764), (18, 42806), (Start: 27 @42887 has 178 MA's), (30, 42899), (31, 42935), (40, 43052),

Gene: Renaud18_81 Start: 46849, Stop: 47010, Start Num: 27
Candidate Starts for Renaud18_81:
(17, 46726), (18, 46768), (Start: 27 @46849 has 178 MA's), (36, 46993), (37, 46996), (39, 47005),

Gene: Rialto_77 Start: 47120, Stop: 47266, Start Num: 27
Candidate Starts for Rialto_77:

(2, 46826), (4, 46844), (14, 46979), (Start: 27 @47120 has 178 MA's),

Gene: Rita_77 Start: 47516, Stop: 47668, Start Num: 27
Candidate Starts for Rita_77:
(22, 47489), (Start: 27 @47516 has 178 MA's), (31, 47564),

Gene: RitaG_67 Start: 44242, Stop: 44412, Start Num: 27
Candidate Starts for RitaG_67:
(17, 44119), (18, 44161), (Start: 27 @44242 has 178 MA's), (30, 44254), (31, 44290), (40, 44407),

Gene: Rockne_67 Start: 42829, Stop: 42978, Start Num: 27
Candidate Starts for Rockne_67:
(11, 42661), (21, 42775), (Start: 27 @42829 has 178 MA's),

Gene: RockyHorror_70 Start: 44803, Stop: 44955, Start Num: 27
Candidate Starts for RockyHorror_70:
(17, 44680), (18, 44722), (Start: 27 @44803 has 178 MA's), (31, 44851),

Gene: Royals2015_76 Start: 45773, Stop: 45934, Start Num: 27
Candidate Starts for Royals2015_76:
(2, 45479), (4, 45497), (14, 45632), (Start: 27 @45773 has 178 MA's), (38, 45920), (41, 45929),

Gene: Ruby_65 Start: 44931, Stop: 45083, Start Num: 27
Candidate Starts for Ruby_65:
(17, 44808), (18, 44850), (Start: 27 @44931 has 178 MA's),

Gene: SG4_65 Start: 42663, Stop: 42824, Start Num: 27
Candidate Starts for SG4_65:
(Start: 27 @42663 has 178 MA's), (31, 42711), (38, 42810), (41, 42819),

Gene: Saal_71 Start: 46676, Stop: 46828, Start Num: 27
Candidate Starts for Saal_71:
(17, 46553), (18, 46595), (Start: 27 @46676 has 178 MA's), (31, 46724),

Gene: Sabbb_71 Start: 43440, Stop: 43586, Start Num: 27
Candidate Starts for Sabbb_71:
(17, 43317), (18, 43359), (Start: 27 @43440 has 178 MA's),

Gene: Sarma624_68 Start: 42387, Stop: 42548, Start Num: 27
Candidate Starts for Sarma624_68:
(17, 42264), (18, 42306), (Start: 27 @42387 has 178 MA's), (31, 42435), (37, 42534), (39, 42543),

Gene: Sassafras_67 Start: 43205, Stop: 43375, Start Num: 27
Candidate Starts for Sassafras_67:
(5, 42953), (9, 43025), (17, 43082), (18, 43124), (Start: 27 @43205 has 178 MA's), (30, 43217), (31, 43253), (40, 43370),

Gene: SassyB_61 Start: 41512, Stop: 41682, Start Num: 27
Candidate Starts for SassyB_61:
(Start: 27 @41512 has 178 MA's), (41, 41677),

Gene: Scottish_65 Start: 42773, Stop: 42958, Start Num: 23
Candidate Starts for Scottish_65:

(Start: 23 @42773 has 24 MA's), (Start: 25 @42776 has 6 MA's), (Start: 27 @42788 has 178 MA's), (41, 42953),

Gene: Seabastian_77 Start: 47013, Stop: 47174, Start Num: 27
Candidate Starts for Seabastian_77:
(Start: 27 @47013 has 178 MA's), (38, 47160), (41, 47169),

Gene: Seagreen_65 Start: 41962, Stop: 42147, Start Num: 23
Candidate Starts for Seagreen_65:
(Start: 23 @41962 has 24 MA's), (Start: 25 @41965 has 6 MA's), (Start: 27 @41977 has 178 MA's), (41, 42142),

Gene: Shauna1_64 Start: 42502, Stop: 42687, Start Num: 23
Candidate Starts for Shauna1_64:
(Start: 23 @42502 has 24 MA's), (Start: 25 @42505 has 6 MA's), (Start: 27 @42517 has 178 MA's), (41, 42682),

Gene: ShiLan_71 Start: 47509, Stop: 47661, Start Num: 27
Candidate Starts for ShiLan_71:
(22, 47482), (Start: 27 @47509 has 178 MA's),

Gene: ShowerHandel_75 Start: 46449, Stop: 46610, Start Num: 27
Candidate Starts for ShowerHandel_75:
(3, 46158), (15, 46305), (22, 46422), (Start: 27 @46449 has 178 MA's), (38, 46596), (41, 46605),

Gene: ShroomBoi_72 Start: 46172, Stop: 46342, Start Num: 27
Candidate Starts for ShroomBoi_72:
(Start: 27 @46172 has 178 MA's), (31, 46220), (41, 46337),

Gene: SimranZ1_70 Start: 44869, Stop: 45021, Start Num: 27
Candidate Starts for SimranZ1_70:
(17, 44746), (18, 44788), (Start: 27 @44869 has 178 MA's), (31, 44917),

Gene: Slim_74 Start: 45738, Stop: 45884, Start Num: 27
Candidate Starts for Slim_74:
(2, 45444), (4, 45462), (14, 45597), (Start: 27 @45738 has 178 MA's),

Gene: Soul22_75 Start: 44409, Stop: 44579, Start Num: 27
Candidate Starts for Soul22_75:
(17, 44286), (18, 44328), (Start: 27 @44409 has 178 MA's), (40, 44574),

Gene: Sparkdehlily_74 Start: 44296, Stop: 44466, Start Num: 27
Candidate Starts for Sparkdehlily_74:
(Start: 27 @44296 has 178 MA's), (41, 44461),

Gene: Spartacus_73 Start: 46515, Stop: 46664, Start Num: 27
Candidate Starts for Spartacus_73:
(17, 46392), (18, 46434), (Start: 27 @46515 has 178 MA's),

Gene: Spoonbill_70 Start: 43968, Stop: 44120, Start Num: 27
Candidate Starts for Spoonbill_70:
(17, 43845), (18, 43887), (Start: 27 @43968 has 178 MA's), (31, 44016),

Gene: StAnnes_66 Start: 43731, Stop: 43901, Start Num: 27
Candidate Starts for StAnnes_66:
(Start: 27 @43731 has 178 MA's), (41, 43896),

Gene: Stap_66 Start: 43094, Stop: 43255, Start Num: 27
Candidate Starts for Stap_66:
(6, 42842), (10, 42914), (17, 42971), (18, 43013), (Start: 27 @43094 has 178 MA's), (37, 43241), (39, 43250),

Gene: Starcevich_70 Start: 46804, Stop: 46965, Start Num: 27
Candidate Starts for Starcevich_70:
(22, 46777), (Start: 27 @46804 has 178 MA's), (38, 46951), (41, 46960),

Gene: Strokeseat_62 Start: 40270, Stop: 40437, Start Num: 23
Candidate Starts for Strokeseat_62:
(Start: 23 @40270 has 24 MA's), (Start: 25 @40273 has 6 MA's), (Start: 27 @40285 has 178 MA's),

Gene: SuperGrey_72 Start: 47487, Stop: 47642, Start Num: 27
Candidate Starts for SuperGrey_72:
(6, 47238), (7, 47268), (17, 47364), (18, 47406), (Start: 27 @47487 has 178 MA's),

Gene: SwagPigglett_75 Start: 47717, Stop: 47869, Start Num: 27
Candidate Starts for SwagPigglett_75:
(17, 47594), (18, 47636), (Start: 27 @47717 has 178 MA's), (31, 47765),

Gene: TChen_68 Start: 44878, Stop: 45063, Start Num: 23
Candidate Starts for TChen_68:
(Start: 23 @44878 has 24 MA's), (Start: 25 @44881 has 6 MA's), (Start: 27 @44893 has 178 MA's), (41, 45058),

Gene: TDanisky_74 Start: 44296, Stop: 44466, Start Num: 27
Candidate Starts for TDanisky_74:
(Start: 27 @44296 has 178 MA's), (41, 44461),

Gene: Taj_72 Start: 45051, Stop: 45221, Start Num: 27
Candidate Starts for Taj_72:
(Start: 27 @45051 has 178 MA's), (41, 45216),

Gene: Tchotchke_67 Start: 44949, Stop: 45095, Start Num: 27
Candidate Starts for Tchotchke_67:
(6, 44700), (7, 44730), (17, 44826), (18, 44868), (Start: 27 @44949 has 178 MA's), (31, 44997),

Gene: ThetaBob_74 Start: 44655, Stop: 44804, Start Num: 27
Candidate Starts for ThetaBob_74:
(11, 44487), (21, 44601), (Start: 27 @44655 has 178 MA's),

Gene: Tootsieroll_71 Start: 46906, Stop: 47058, Start Num: 27
Candidate Starts for Tootsieroll_71:
(5, 46654), (9, 46726), (17, 46783), (18, 46825), (Start: 27 @46906 has 178 MA's), (30, 46918), (31, 46954),

Gene: Topiatin_75 Start: 45723, Stop: 45875, Start Num: 27
Candidate Starts for Topiatin_75:

(17, 45600), (18, 45642), (Start: 27 @45723 has 178 MA's), (31, 45771),

Gene: Toron_75 Start: 46645, Stop: 46800, Start Num: 26
Candidate Starts for Toron_75:
(Start: 25 @46636 has 6 MA's), (Start: 26 @46645 has 1 MA's), (Start: 27 @46648 has 178 MA's), (28, 46654), (32, 46714), (33, 46756), (34, 46786), (35, 46789),

Gene: Totinger_69 Start: 44557, Stop: 44703, Start Num: 27
Candidate Starts for Totinger_69:
(17, 44434), (18, 44476), (Start: 27 @44557 has 178 MA's), (31, 44605),

Gene: UncleRicky_68 Start: 43496, Stop: 43648, Start Num: 27
Candidate Starts for UncleRicky_68:
(18, 43415), (Start: 27 @43496 has 178 MA's), (31, 43544),

Gene: VRedHorse_69 Start: 43466, Stop: 43627, Start Num: 27
Candidate Starts for VRedHorse_69:
(22, 43439), (Start: 27 @43466 has 178 MA's), (30, 43478), (38, 43613), (41, 43622),

Gene: Velveteen_65 Start: 42387, Stop: 42548, Start Num: 27
Candidate Starts for Velveteen_65:
(17, 42264), (18, 42306), (Start: 27 @42387 has 178 MA's), (31, 42435), (37, 42534), (39, 42543),

Gene: Violac_70 Start: 46166, Stop: 46318, Start Num: 27
Candidate Starts for Violac_70:
(17, 46043), (18, 46085), (Start: 27 @46166 has 178 MA's), (31, 46214),

Gene: Wachhund_70 Start: 44052, Stop: 44204, Start Num: 27
Candidate Starts for Wachhund_70:
(22, 44025), (Start: 27 @44052 has 178 MA's), (31, 44100),

Gene: Wee_72 Start: 45127, Stop: 45297, Start Num: 27
Candidate Starts for Wee_72:
(Start: 27 @45127 has 178 MA's), (41, 45292),

Gene: Whatsapiecost_66 Start: 41686, Stop: 41868, Start Num: 25
Candidate Starts for Whatsapiecost_66:
(Start: 23 @41683 has 24 MA's), (Start: 25 @41686 has 6 MA's), (Start: 27 @41698 has 178 MA's), (41, 41863),

Gene: Whouxphf_68 Start: 45485, Stop: 45646, Start Num: 27
Candidate Starts for Whouxphf_68:
(1, 45176), (21, 45428), (22, 45452), (Start: 27 @45485 has 178 MA's), (31, 45533), (37, 45632), (39, 45641),

Gene: WillSterrel_72 Start: 46352, Stop: 46504, Start Num: 27
Candidate Starts for WillSterrel_72:
(22, 46325), (Start: 27 @46352 has 178 MA's), (30, 46364), (31, 46400),

Gene: Xula_55 Start: 39019, Stop: 39171, Start Num: 27
Candidate Starts for Xula_55:
(Start: 27 @39019 has 178 MA's),

Gene: Yorick_70 Start: 46877, Stop: 47029, Start Num: 27
Candidate Starts for Yorick_70:
(22, 46850), (Start: 27 @46877 has 178 MA's), (31, 46925),

Gene: Yoshi_84 Start: 45121, Stop: 45270, Start Num: 27
Candidate Starts for Yoshi_84:
(13, 44974), (17, 44998), (18, 45040), (Start: 27 @45121 has 178 MA's), (31, 45169),

Gene: Zapner_80 Start: 44551, Stop: 44721, Start Num: 27
Candidate Starts for Zapner_80:
(Start: 23 @44536 has 24 MA's), (Start: 25 @44539 has 6 MA's), (Start: 27 @44551 has 178 MA's), (41, 44716),

Gene: Zerg_70 Start: 45624, Stop: 45785, Start Num: 27
Candidate Starts for Zerg_70:
(2, 45330), (4, 45348), (14, 45483), (Start: 27 @45624 has 178 MA's), (38, 45771), (41, 45780),

Gene: Zizzle_74 Start: 47005, Stop: 47157, Start Num: 27
Candidate Starts for Zizzle_74:
(17, 46882), (18, 46924), (Start: 27 @47005 has 178 MA's), (31, 47053),